Economic Development and Labour Bureau
2/F., Central Government Offices
Main & East Wings
Lower Albert Road
Central
Hong Kong

Dear Sirs,

Consultation Paper on Future Development of the Electricity Market in Hong Kong
Stage 1 Consultation

Reference the content of the consultation paper in the web, we would like to make the following comments :

1. Whether the market should be open

   We have had a safe and reliable electricity network in Hong Kong in the past and such kind of reliability should be withheld at a price. The frequent underground cable explosion in New York City and the large scale black-outs in the US and Europe in the recent years are warnings to us. In Hong Kong safety and reliability are far too important and could not be sacrificed. There is a grave concern that when the market is open (especially on the network part) the same level of safety and reliability will not be maintained as then it could be purely a price competition game.

   The government should be prudent in deciding which direction to take.

2. Do we have capacity to take up more than one electricity network in the narrow roads of Hong Kong ?

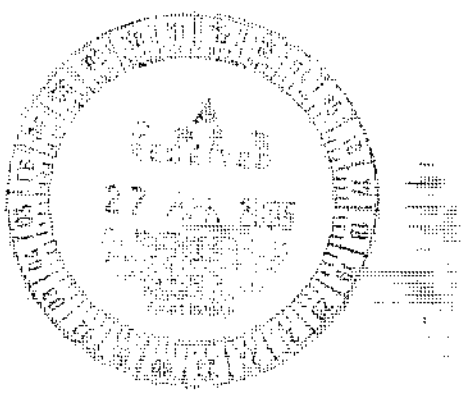
   Power cables buried in the ground are dangerous to road workers. There have been fatal and serious injurious cases due to cable damage in the past. When power cables are damaged there will also be a black-out. The road pavements in Hong Kong are already extremely congested underground. The liberation of the telecom market in the mid 90's, which allowed an unlimited number of telecom operators to dig up the roads, merely screwed it up further. Land is precious thus it is ridiculous that duplicated services are laid in the ground. They will also cause

profound nuisances and risks to the public. So no matter how the direction of market openness is determined, opening of the mid-stream (the network) should be avoided.

3. An incentive for the existing and future operators to uphold safety and reliability

   The existing SOC only links the allowable profit to capital investment. The future scheme, no matter what form it is and who the players are, should have a large incentive element in safety and reliability to encourage the players to enhance its performance in this respects. You can manipulate the dollar figures but safety and reliability are something you cannot hide !

A Group of Practitioners in the Construction Trade
25/4/05





"alice choi"

20/04/05 03:15 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on electricity
☐ Urgent ☐ Return Receipt

I am satisfied with the services currently provided by both CLP Power and Hongkong Electric. Electricity supply is reliable and the price is more reasonable as compared to other utility companies. I am afraid that the introduction of new suppliers may eventually increase the electricity price since their capital investment is enormous.
Therefore, I think it is the best to maintain the existing form of regulation for electricity market in Hong Kong.

Regards.
A HK citizen

"acowboy"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電-市場未-的發展
☐ Urgent ☐ Return Receipt

2005/04/30 04:30 PM

After finished reading your Stage I Consultation Paper, I would like to send in my views and comments as follows:

Among the many issues raised in the Stage I Consultation Paper, the one worried me most is the option of a post-2008 regulatory framework backed by legislation. I cannot help but associate it with the Link saga. I do not want the electricity market to fall prey to the opportunistic politicians who might make use of the proposed legislation to serve their own interests. I think we should keep our regulation as simple and non-intrusive as possible. The SCA in form of bilateral agreement should be extended after 2008. In addition, to keep the regulatory costs at a low level, no independent regulator should be established.

I always find that the discussions in LegCo too political and sometimes to the extent irrational. I do not want the basic necessities of our life, like electricity, become tools of politicians. I do not support a regulatory framework backed by legislation.

Also, setting up an independent authority means that we have to pay for the additional government officials, especially those high-ranking ones. As a taxpayer, I think it is a waste of public money. I do not support the option of setting up an independent authority within the Government to regulate the power companies.

Keep the SCA! Open market is not a game for us to play!



30/04/2005 01:56

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: alan

subject: a ~2% cost for electricity is worthwhile

Enquiry: totady TV broadcast the daily life of a HK student in China. There will be \'light out\' and forced outage of customers will be normal to cater for the balance of electricity usage.

We are lucky to live in HK with reliable and little interruption electricity

"AlanCheung"

17/04/05 08:34 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: feedback for SOC consultation paper
☐ Urgent ☐ Return Receipt

Dear sir

This is our feedback for SOC consultation paper
Please read them

Regards
Alan Cheung

電費釐定1.doc Interconnection.doc Renewable Energy.doc return based on asset.doc

Supply from South China.doc Tariff .doc 開放電力市場 - 輸電網絡.doc

CONSULTATION PAPER ON FUTURE DEVELOPMENT
THE ELECTRICITY MARKET IN HONG KONG
STAGE I CONSULTATION

Dear Sirs,

According your consultation paper, I would like to give an opinion about interconnection between two local companies or CLP Power and mainland power plants.

I disagree the interconnection between the two local power companies because it pose a pressure on tariffs due to billion dollars of investment required to connect their grids. Furthermore, to enhance the interconnection, more lands use requirement and environment pollution will occur. This is serious problem in Hong Kong

Although mainland power plants can meet Hong Kong electrical power requirement and reduce environment pollution problem , but we also consider the reliable and stable of electrical supply in mainland China. Now a day, mainland China has a limitation of those two factors.

As a conclusion, I disagree the interconnection between the local power companies or CLP Power and mainland power plants.

Yours Faithfully,
Alan Cheung

CONSULTATION PAPER ON FUTURE DEVELOPMENT
THE ELECTRICITY MARKET IN HONG KONG
STAGE I CONSULTATION

Dear Sirs,

According your consultation paper, I would like to give an opinion about return base on asset.

In consultation paper, the return base on equity is instead of return on asset. In my opinion, an equity rate base gives little consideration to have an efficient financing structure. But an asset rate would provide incentives to ensure continued and adequate investment. Therefore, it can maintain stable and reliable electricity supply to Hong Kong.

As a conclusion, I agree return base on asset and permitted rate of return

Yours Faithfully

Alan Cheung

電費釐定

Dear Sirs

電費是每個家庭及商界必須的開支之一。作為電力用戶之一，我完全理解廣大市民期望電費愈低愈好，但市民關注的，不應該只是電費的水平，還有電力供應是否足夠和可靠，因為停電會帶來很多不便和經濟損失。電力是現代生活不可或缺的一部分。從整體消費者利益來說，可靠電力供應和合理的電費，兩者兼顧才是符合市民的最佳利益。

為確保本港社會能以合理價格獲得足夠和可靠的電力供應，政府和兩間電力公司簽署了《管制計劃協議》。當年在這《管制計劃協議》簽署時，政府有兩個目的，第一，大家都希望有合理的價格，但同時亦獲得可靠及有效的電力供應。但為了得到可靠及有效的電力供應，這個協議便要有一個誘因，要使電力公司的股東，在作出龐大而長遠的投資時，要能夠了解到他們也有「准許利潤」這個條款。這就是「准許利潤」條款產生的目的及背景。

准許利潤為下列兩數的總和：

一. 各公司的固定資產平均淨值總額的13.5%；

二. 一九七八年九月三十日以後為購置固定資產的股東投資的1.5%。

在協議中除了有「准許利潤」這個條款外，其實亦有其他的條款，這些條款是由政府批准或者作定期的監管。兩家電力公司的財務計劃，包括業務發展與投資，需獲批准；而每年收費的調整，須預先提交政府。而且兩家電力公司在每年年底對未來一年的用電需求及營業情況作出預測。經濟局根據兩間電力公司的預測及政府經濟顧問以同樣的模式綜合作出一個數據的預測。

有人提議改變電費釐定的過程：1）每年與政府進行檢討並公開相關資料；2）組成公衆聽證會進行年度電費檢討；或 3）採用較頻密的電費檢討過程。

第一個方案，香港的兩家電力公司都是上市公司，為投資者所有，在向公衆提供某些商業敏感資料方面會有相當的困難。另外由於在釐定最終電費時需允許一個相當的咨詢期，讓公衆有足夠時間表達意見以至公衆意見反映在電費上。這樣的檢討過程極爲複雜而費時，可行性不大。第二個方案需要由電力公司、政府及公衆代表組成一個檢討小組就電力公司提供的成本數據與資料進行討論。並且需要制定一個決議程序限制電費釐定期。這樣的檢討過程同樣極爲複雜而費時，可行性不大。如果採用第三個方案“較頻密的電費檢討過程”，必將大大增加電力公司與政府的行政負擔，而增加之行政費用最終將轉嫁在市民身上，實非廣大市民之福。

其實現行的電費檢討，過程簡單，易管理，行政成本低，同時又有政府合理、全面、有效率的有力監管，實在無需為改變而改變。

有些人以為反對電力公司增加投資，就是為市民謀福祉。事實上，如果電力需求因人口增加或新項目發展而增長，而在電力設施上不增加投資以配合，亦非市民之福，因為如果發電設施不足夠滿足高峰期的需求，或輸電配電的電纜不更新、加強或擴展，電力可靠性會下降，停電風險亦相對增加，新發展亦得不到供電。三藩市和矽谷的停電和需要輪流供電就是因為加州電力系統不能配合需求。

香港供電量的穩定性可以說是全球最高的，有百分之九十九點九九的穩定性。這個得之不易的成果是政府的有效監管及兩家電力公司龐大的戰略性投資的共同結晶。以香港一個這麼高密度的社區，工商業這麼繁忙，穩定的供電量是一定不可以降低的，相信整個社會都不會接受持續或間歇性的停電。

Anthony Tsui

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sirs,

CONSULTATION PAPER ON FUTURE DEVELOPMENT
THE ELECTRICITY MARKET IN HONG KONG
STAGE I CONSULTATION

I am responding to the "Consultation Paper on Future Development the Electricity Market in Hong Kong – Stage I Consultation" published by your Department in January 2005.

As recognized in your consultation paper, the application of renewable energy is becoming an important topic for the purpose of sustainable development.

I agree that renewable energy is the only long-term solution to avert climate change. Hong Kong has the social responsibility to introduce renewable energy. China's ratification of the 1997 Kyoto Protocol serves as a reminder of Hong Kong's global responsibility.

Among all other renewable energy resources, wind power is a much more mature technology that is ready for application in Hong Kong. In fact, the growth of wind power is much faster than any other forms of renewable energy. Wind power should therefore be given higher priority since other renewable energy resources/ technologies in Hong Kong are either limited (e.g. small hydro, geothermal) or too expensive (e.g. solar).

If HKSAR Government is to require the two local power companies to provide fixed percentage of renewable energy in their energy supply, the two power companies will have strong incentives to look for investment opportunities in Guangdong wind projects as wind energy has strong potential to be a mainstream energy source in both technological and financial aspects.

To date, the Guangdong Province has launched a series of financial incentives to promote wide-scale development of wind energy:

- **Guaranteed purchase**: the Guangdong grid company has to purchase all wind energy generated.
- **Land cost:** only the area actually occupied by the turbine foundation and other infrastructure facilities will be counted.
- **Tax concession**: there are TWO tax concessions for wind projects in Guangdong:
  1) **Value-added tax** has been reduced from 17% to 8.5% for wind projects.
  2) **Profit tax** has been reduced: the 33% profit tax is 100% waived in the first two years; reduced to 7.5% from the 3rd to 5th years, reduced to 15% for the 6th year and onwards.

It is preferable for Hong Kong to develop on its own local application of renewable energy instead of introducing from the Mainland. The well known reliability problem of electricity supply in the Mainland makes the option of import of renewable energy electricity from Mainland worrisome.

HKSAR Government should bear the responsibility to establish the necessary market condition for the development of renewable energy in Hong Kong.

On the other hand, deregulation of the power market for open competition can destroy the goals of renewable energy and rational energy use (e.g., California). New profit incentives for the power companies to develop clean power sources will benefit Hong Kong far more than a simple competition policy. I also whish to emphasize that renewable energy policy must be carefully developed so as not to compromise the supply reliability.

Yours Faithfully,
Ken Hui

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sirs,

CONSULTATION PAPER ON FUTURE DEVELOPMENT
THE ELECTRICITY MARKET IN HONG KONG
STAGE I CONSULTATION

I am responding to the "Consultation Paper on Future Development the Electricity Market in Hong Kong – Stage I Consultation" published by your Department in January 2005.

As recognized in your consultation paper, availability of import supply from Mainland China may be a possible option

I would like to point out that an adequate, secure and reliable supply of electricity is critical to Hong Kong's economy and society.

The recent blackouts in North America and Italy were a dramatic and expensive demonstration of ineffective co-ordination between different jurisdictions. Italy and parts of the US such as Manhattan and Ohio rely heavily on imported electricity from areas outside their jurisdiction and, in some cases, outside of their own country. This meant that their operators were unaware of problems in other systems and powerless to prevent catastrophic loss of imported power, leading to blackouts in their area. It has been difficult to identify the underlying causes of these blackouts and how to stop similar problems from happening again. One point can be sure is economic loss can be very huge.

According to recent media estimates, power shortages will cost China around RMB200 billion in GDP of 2004. The frequent power outages have seriously affected the 60,000 businesspeople from Hong Kong who make their living from their offices and factories in Guangdong.

Recent rapid electricity demand growth in Guangdong, driven by the robust economy, has led to difficulties in balancing supply and demand. These supply shortages are expected to persist for several more years. Even if current difficulties are resolved, it does not mean that a sustainable mechanism to balance supply and demand for the future has been achieved.

One of the mainland government's strategies to alleviate power shortages in Guangdong has been to build more generation in the Southwest of the country, and to transmit this extra capacity to Guangdong – the "West-East" project. Guangdong is expected to import around 10,000 MW of power by 2005, up from around 5,000 MW in 2003. This raises issues of reliability of supply, especially given that the power will be transmitted over thousands of miles of high-voltage transmission lines, which are more vulnerable to factors such as weather.

With the rapid development of Guangdong, the power generation in Guangdong will be more difficult to meet its ever growing power demand. If there is energy source developed in the Mainland, naturally it would be used first to meet the growing demand of Guangdong. Given this and the potential problem in maintaining grid operation to the same standard. Hong Kong should not rely on the import supply from Mainland.

Yours Faithfully,
Ken Hui

Dear Sir/Madam,

Subject: Electric Tariff in Ahead Future

Under the current control agreement, profits of both power companies, CLP Holdings, and Hong Kong Electric Holdings, should be capped at maximum of 13.5 per cent of their capital expenditure. The current control agreement, Scheme of Control (SoC), with the government will expire in 2008. The new control regime should consider the electric tariff system.

Currently, the tariff system of these companies encourage residence customer to save energy by charge more on high consumption. Also, demand charge is proposed to high consumption (indusial) consumers. Beside, the control regime should enforce the companies to provide more tariff plans for customers to select. The tariff plans should similar to mobile phone tariff.

In the new regime, customer can select some fix payment plans so they can enjoy a fixed unit of electricity. Once the consume more electric than their plans, the power companies can charge each extra unit of electric as penalty.

On the other hand, customer can pay less tariff when they consume electric in low demand period, for instance, 12:00am to 06:00am. The companies should encourage commercial or indusial buildings with central Air-conditioning systems to install ice-storage A/C to share and distribute the power consumption between midnight and early morning.

Lastly, the power companies should not cap any tariff for their capital expenditure because the transmission and distribution network, and generation capacity is well developed. In order words, no Scheme of Control should be set up for the companies to cover their capital expenditure. The electric tariff should be determined by the market.

Yours faithfully,

Tsui Ka Ki Anthony

"Feasibility of Hong Kong Power Sector is Opened Up"

Dear Sirs,

In regards with the "Feasibility of Hong Kong Power Sector is opened up", there are two scenarios such as "Non-regulatory regime on the opening of Hong Kong Power Sector" and "Regulatory regime on the opening of Hong Kong Power Sector" need to be considered. This essay states all the possible pros and cons on the non-regulatory regime in Part A and on the regulatory regime in Part B before reaching a conclusion of the topic.

Part A: "Non-regulatory regime on the opening of Hong Kong Power Sector"

Pros:-

1. Once the contract terms of the hire of the transmission network between the new entrants and the existing power company have been mutually settled, the scheme of the "Non-regulatory regime on the opening of Hong Kong Power Sector" might be set up shortly in the coming future.

2. The existing power companies shall continuously keep commitment to their customers in supply of the most reliable electricity system, and they could set-up contract terms to the new entrants in the hire of their transmission network.

Cons:-

1. As the contract terms of the hire of the transmission network is not a governmental document, both of the Government and customers cannot control or take part into contract terms respectively when it is to be revised in future.

2. Lack of clearness of accountability and responsibility to the public.

3. Commitment to the public shall be in the companies' profit basis.

Part B: "Regulatory regime on the opening of Hong Kong Power Sector"

Pros:-

1. With the regulatory regime on the power sector, the new entrants are encouraged to participate in power sector market.

2. With the assistance from the Government, the electrical power energy revolution can be developed.

3. The power sector market can be developed by the competition amongst the power companies and the new entrants.

4. More choice of electricity suppliers to the customers.

5. The electricity networks can be consolidated amongst the power companies and the new entrants.

Cons:-

1. To implement the regulatory regime successfully, it is necessary to establish a comprehensively control schemes for the new entrants. As it is a long-term issue, the outcomes of the control schemes would not be seen in the early stage of the regulatory regime.

2. Crisis might be caused by the lack of communication amongst the power companies and the new entrants during the early stage of the regulatory regime.

Conclusion:

All in all, it is concluded that the Hong Kong Power Sector might not be opened up due to the huge level of investment required. For instance:

a) network investment – the cost (including material and labour) of laying power cables is about HK$40,000 per metre for a 400kV electricity transmission cable, Apart from that, the costs (including material and labour) of laying power cables (including 11kV and low voltage), switchgears and transformers, as well as the other associated equipment are very huge.
b) Generation – Electricity requires generation investment. The cost of the generation investment is very huge. New entrants to the electricity industry must face to the highly security of power supply to their customers. This commitment requires either investing substantial amounts in building new generation capacity or buying electricity from existing generators. The former requires long-term fuel contract, the latter requires electricity purchase from the existing electricity company. Both of them in turn need to be backed up by a secure revenue stream and these costs are finally being add-on on the electricity tariffs.

Nevertheless, meaningful competition in the power sector market would be possible in fulfilling the 6 objectives as states below:-

a) An adequate and reliable supply
b) Environmental responsibility
c) Reasonable and affordable tariffs
d) Private funding of investment
e) Cost effectiveness
f) Clear accountability and responsibility.

Yours faithfully

Sunny

28 April, 2005

Dear Government Officials of EDLB (Fax no. : 2868-4679)

Re : Consultation Paper on the Future Development of the Electricity Market

After hearing so many hot debates regarding the captioned consultation, I would like to express my concern as well. My view is that, from a practical point of view, some form of control is better than none at all.

Objectives of control

One of the main objectives of any scheme of control on the utility sector, in my personal view, is to ensure that stable and reliable utility service is to be provided to all consumers. This is of utmost importance, for the benefit of the consumers, in providing them with a steady and continuous electricity supply for maintaining an effective business environment, an expedient working environment and a comfortable living environment, without which, the society would surely run into a mess, like the blackouts in the US and Canada. Not only do local consumers rely on a steady source of electricity supply, but foreign investors would also rank this as one of the top priorities in their list of infrastructures inside the region which they are going to invest. As such, a reliable electricity supply will certainly help to attract potential investors.

In the past, the electric companies have been playing a very important role to provide a stable and reliable electricity supply. There are proven track records for what they have done. Yet, apart from the principal task of providing electricity, they also take up social responsibilities such as promotion of energy efficiency and conservation, volunteer services, etc.

Privately Owned Business Enterprise

The electric companies in Hong Kong are privately owned enterprises like most of the business enterprises. There is no government subsidy of any form in order to run the business in an effective way. It has been a current practice and a global trend to go for privatization of utility companies. This has proved to bring in more benefits to the consumers. I believe the situation in Hong Kong is on the right track. However, privatization is not without cost. Investor would only be willing to invest if there is a reasonable expected return on their investment. In particular, the investment outlay in electricity business is of a huge magnitude and the time involved is very long. If there is not an attractive rate of return, investors may not be willing to bear the long-term risk. Hence, a permitted return needs to come into play. In return, the investment from the investors, when invested in the relevant plant and equipments, will ultimately benefit the customers at large.

Viewed from a different angle, competition is often regarded as preferable, as opposed to other forms of business enterprise such as monopoly and oligopoly, as it is always perceived that the latter will assert significant influence on the price of the product. However, this is not always the case. Different consideration should be given under different circumstances. As electricity is a long-term capital intensive business, it is not cost effective if there is too many investors. It would create a waste of investment. The opportunity cost is very high. In particular, Hong Kong is only a small market for electricity supply, in terms of the number of customers. That means, when the number of investors grow to a certain level, the profit share may not be so attractive as to keep them in the market. At that time, a reliable electricity supply may not be achievable. Definitely, no one wants to run this risk. Therefore a long-term prudent approach is essential to avoid future risk.

Payback of investment outlay

As mentioned above, the capital investment in the electricity business is a long-term one. Expectedly, the payback period for such investment is also lengthy. In line with this, we also find the life of the major plant and equipments. All these factors necessitate long-term planning and operation.

Conclusion

In view of the main objectives of electricity supply, the form of the enterprise, the heavy capital investment, the long payback period, coupled with the immense benefits to the customers and the utmost importance to securing a stable and flourishing society, a scheme of control is not unnecessary. The existing scheme of control is not unsuccessful so far. Changes are good but only that they can bring forth more economic benefits and are not at the 'expense' of customers, ending up with less reliable electricity supply and diminishing service quality.

Albert Wong



26/04/05 10:14 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on the Scheme of Control
☐ Urgent ☐ Return Receipt

Please find my comments on the existing arrangement as follows:

Under the current arrangement, both Hongkong Electric and CLP Power have managed to supply electricity that is more reliable, safer and more efficient relative to other utilities around the world. They have acted responsiblibly and continues to strive for excellence in all areas. I used to live in Canada and by comparison, the quality of service provided by these utlities are definitely better.

These utilities have also actvely reduced the environmental impact of power generation. In an open market, environmental responsibilities will become a lower priority and HK will suffer. Our pollution is already out of control.

I was in Ontario when the big blackout happened in North America a few years ago. That was not pleasant. Luckily, it was not winter. The electrical system becomes much more complicated when there is increase inter-connection. Isn't it easier to manage a group of 1 than a group of many?

Also, hasn't everyone had enough of road construction? Why are the roads ALWAYS under construction? If other utilities start laying their own supply network, HK people and the environment will again suffer.

Some issues to think about,

Alex Lee

"Alfred Lam"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Re: My Comments on the Future Development of Hong Kong's Electricity Market
☐ Urgent ☐ Return Receipt

2005/04/29 12:34 AM

Dear Sirs,

Electricity Tariff

In view of the past 1-year energy bills including gas & electricity, you will reveal that the TG tariff have increased more than 10% due to 400% increase in fuel adjustment cost in the past year. TG had not announced to the public and government for the increase. No one know the case and it is due to lack of suitable control and regulation on TG.

For electricity, once HEC announced to increase 2.5% of the fuel adjustment cost previously and they had to face the public pressure immediately. The high transparence to public is due to power companies being regulated by Government.

Electricity Black Out

Further to the experiences of electricity black-out in Europe and North America in 2003, many reports had revealed that deregulation is one of major reasons causing the accident spreading to miles area.
Can you image what will happen if the black out occurred in Central? Hong Kong cannot bear for the case.

Conclusion

For the above, I would like to conclude that the future development of Hong Kong's electricity market should include the following essential elements:-

1. High Transparence and Controllable Mechanism of Electricity Tariff;
2. High Reliability of Power Supply.

The present practice of implementing Scheme of Control can fulfil the above elements and works well.
I don't see any reasons to change it.

Thank you for your attention.
Alfred Lam
28/4/2005

28th April,2005
Economic Development and Labour Bureau
2/F., Central Government Offices,Main & east Wings
Lower Albert Road, Central,
Hong Kong.

Dear Sirs,
Re :consultation paper on the HK's electricity market after 2008

I write in connection with the above.

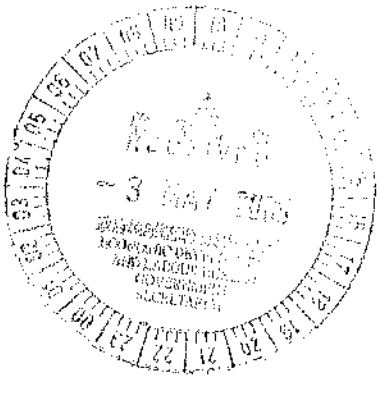
In my view, the electricity market should remain as it is after 2008 for the following reasons:

1. Reliability and security of supply should rate high on our requirements. Both electricity suppliers have delivered world class performance on these areas. Hong Kong cannot afford to trade reliability for an uncertain open market.
2. The price of electricity is very low compared to other major cities in the world. There is a price to pay for quality. What we are enjoying is quality service which we should not compromise just for the sake of change.
3. The suppliers have done a good deal in environmental protection measures. An open market environment will not encourage them to continue such good practices nor will they be concerned with sustainable development.
4. We certainly do not wish to have the Californian experience where suppliers under invest with the result that facilities are aged and do not cope adequately with the demands and needs of the consumers. As consumers, we want these suppliers to go on investing in their equipment and facilities.
5. We are getting quality services from the current suppliers. Why do we want to change this?

I strongly support the present regime to continue after 2008 and no change is needed.

Regards,

Alice Lam Yin Mi



BY HAND

Allen & Overy
安理國際律師事務所

Economic Development and Labour Bureau
2/F Central Government Offices, Main & East Wings
Lower Albert Road
Central
Hong Kong

Our ref BH/CJF/10023-16963 HK:1401446.1

29 April 2005

Dear Sirs

Consultation on the Future Development of the Electricity Market in Hong Kong

We welcome the opportunity to comment on the Stage 1 consultation paper on future development of the electricity market in Hong Kong. Through its international network, Allen & Overy and its affiliated offices have significant experience of deregulation in the electricity sector in many markets worldwide. Drawing on that experience, we make the following observations in relation to the process which the Government is conducting.

Many countries have gone down the deregulation route with varying degrees of success. If there is to be deregulation, it needs to address certain specifics which the current system either does not address or deliver. It is therefore necessary, as the Government acknowledges in the consultation paper, to assess the strengths and weaknesses of the current system.

Under the current Scheme of Control Hong Kong enjoys certainty of supply and stability of price. We understand that there has been above average reinvestment in the industry to secure supply and distribution in the future (although one of the criticisms of the current system is that the rate of return encourages over-investment). Electricity prices, whilst not the lowest in the world, are reasonable in comparison with other major cities and have remained stable for the last four years. These are all important factors which support the maintenance of the status quo.

In most jurisdictions in which we have been involved in deregulation in the electricity industry, the primary driver has been one of the following:

(1) to introduce competition to bring prices down;

Head of Asian Practice
Brian W. Harrison[1]

Partners
Simon Berry
Thomas Brown
Kenneth D C Chan
Mannie M.L. Chan
Stanley Chow
William K.K. Ho
Catherine Husted
Andrew Jeffries
Hyo Young Kang
David Kloss
Chin-Chong Liew
Michael S.L. Liu
Vicki Liu
Jane M.S. Ng
Simon Reid-Kay
Christopher L. Swift
Joseph L.S. Tse

Registered Foreign Lawyers
Andrew Harrow[2]
David Johnson[2]
Ian Johnson[2]
Thomas A. Jones[3]
Angus Ross[2]
Michiel A. Stik[3]

[1] Registered Foreign Lawyer, admitted to practise in England and Wales
[2] Admitted to practise in England and Wales
[3] Admitted to practise in New York

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Allen & Overy LLP or an affiliated undertaking has an office in each of: Amsterdam, Antwerp, Bangkok, Beijing, Bratislava, Brussels, Budapest, Dubai, Frankfurt, Hamburg, Hong Kong, London, Luxembourg, Madrid, Milan, Moscow, New York, Paris, Prague, Rome, Shanghai, Singapore, Tokyo, Turin and Warsaw.

(i) to introduce competition to bring prices down;

(ii) to introduce more generation capacity where the current system is incapable of producing sufficient capacity to satisfy future demand; or

(iii) to bring efficiency to the market.

One or a combination of these factors has to a be a problem of sufficient magnitude to justify jeopardising the investment, stable pricing and security of supply which the current system has produced.

We would therefore counsel against change if the primary driver is for the sake of change itself in this sector. A detailed analysis of the current system is required to demonstrate that deregulation is truly necessary and that the advantages of such deregulation will outweigh the disadvantages in a material respect.

If there is to be deregulation, the deregulation needs to be complete. Our experience elsewhere has been that if there is deregulation in one part of the sector and not others, there may well be under-investment in the deregulated part which stores up problems for the future.

Yours faithfully

Allen & Overy

Allen & Overy

April 25, 2005

Mr. Stephen Ip
The Secretary for Economic Development & Labour
Economic Development & Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Mr. Ip,

Referring to the Consultation Paper On Future Development Of The Paper On Future Development Of The Electricity Market In Hong Kong, I have the following comments and opinions:

I believe that it is not the right time to consider any change for it at the moment or in the coming years because

1) The existing arrangement with 2 companies to provide the electricity to the residential, commercial and factory areas in Hong Kong Island, Kowloon , New Territories and Outlying Islands is quite stable. Any change might affect the reliability of electricity supply. I think none of us want to have the harrowing experience like New York, Toronto and London during the major power failures.

2) To open up the electricity market might result in
   - Keen competition, just like the phone market: in order to get more market shares and customers, the electricity companies might use more resources to do the advertising or promotions instead of using the full resources to develop the electricity. This would surely affect the quality of the service.

   - In order to attract more customers, different electricity companies have to dig the road very frequent in different areas to install their own cables. It not only affects the environment of city, but also affects the daily transport and pedestrians. It would arouse the grievances from different sectors. It would be a question of who should be the responsible body to deal with the issues. Unlike the existing arrangement, it is very clear cut: the complaints in Hong Kong Island & Lamma Islands would be handled by HEC. while those in Kowloon and New Territories would be handled by CLP.

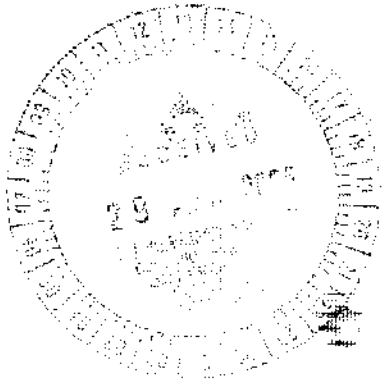
- Hong Kong is a small island. The lands could be provided are very limit. The present of around 7,000,000 peoples and existing 2 electricity companies have already occupied lots of them. If the market is opened up, the Government has to set aside more areas for the new electricity companies and the existing 2 for installing the generation plants and Substations. Could Hong Kong Government still be able to cater for such requirement ?

- Although competition could lead to price reducing, it could not ensure us with the good quality of the services, good environment protection and good quality of life. In order to reduce the price, the electricity companies would use the cheaper materials to generate or transmission of the electricity. It would result in serious pollution issues. I am sure that this would greatly affect our quality of life as well as the development of tourism industry. No one would like to visit the polluted city. As all of us would know, the tourism industry would directly or indirectly affect the performance of the following sectors: Hotel, Travel Agents, retails..... so the individual. Could you afford such subsequent poor effects?

Hence, I would like to ask you to consider carefully before you adopt the new policy of opening the electricity market.

Yours Sincerely,

Andrew Lam





2005/04/30 08:17 PM

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
Urgent Return Receipt

realname: Andrew Yan

subject: Personal Veiw on Open Market of Electricity

Enquiry: Dear sir,

I am writing to express my opinion about the open market of electricity supply of Hong Kong. Does \"Open market\" really mean the low tariff? It is believed that the answer should be negative.

First of all, is it feasible for the new supplier to build a new transmission and distribution network? There are already over 10 utilities laying their own cable, pipings and ducts in the ground. As a road user, you can easily find the notice board posted with the reason "Pending Diversion of Other Utility" for extending the working period of those road excavation work sites and you could understand how the congested condition of our underground is. Also, laying more and more cable to the ground will eventually increasing the risk of the workers who carry out excavation.

Secondly, building the network required a huge amount of investment. If the new suppliers are introduced to the market, they will only pay their attention to those bulk demand users. For those users with lesser demand and in remote area, they could not enjoy this benefit. You may refer to the telecommunication market, after ten years of open market, all the new players of the market pay thier attention mainly on those business districts and the coverage of some services providers' networks are still under 70% of population. At the same time, those remote customers with lower demand may face the risk of increasing tariff. It is because even if the new supplier is willing to provide supply to them, the customer may need to pay a huge amount of installation and maintenance charge and at that time, I believed that those remote customers in outlaying islands may come back to the date of 1950's and rely on the candles for lighting.

Thirdly, some investors have shown their interest about the electricity market of Hong Kong because of the price gap between Hong Kong and China. As the economic and demand growth of China, this gap will eventually disappear and at that time, these investors will move their interest back to the China market as the transmission cost is much cheaper and the reliability requirement is much lower. Hong Kong will then face the problem of electricity shortage as the problem Guangdong facing today and the tariff may go even higher than the current value.

Fourthly, there is no free lunch in the world. Everyone knows that electricity generation cause pollution. The regulation for controlling the flue gas discharge in Hong Kong is stricter than that in Mainland China. In fact, certain portion of electricity generated in Guangdong is still from those old style and low efficiency generators, which cause serious pollution problem. These generators were, in fact, requested to be taken out from production as instructed by the Central Government. Recent year, the air pollution in Guangdong becomes very serious and the pollutants generated in Guangdong have caused the air pollution problem in Hong Kong even worse. We can purchase electricity from Guangdong with lower price but we need to pay the price gap with our health and environment.

In conclusion, open market will not only lower the reliability of electricity supply but also cannot

help to lower the tariff. However, it will introduce a lot of problems like the pollution, inconvenience to the citizens and people losing their job. As a wealth place like Hong Kong, is it moral to make the problem of electricity shortage and air pollution in Guangdong more serious and using the health of the Guangdong Citizen to lower our affordable tariff???

Reqards,

Andrew Yan



Andy Wong

24/04/05 07:50 AM
Please respond to Andy Wong

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

I have read the Consultation Paper Stage 1 and would like to express my view as below.

Quality, quality, quality. Everyone demands for better quality for the service or product they purchased. Electricity is one of the products we are using everyday. From my view point, it has a very good quality, i.e. high reliability. It's important to our daily life. Just imagine if Hong Kong has blackouts like US. Even if there is only a second of power surge in Hong Kong, our daily life is affected to a certain degree due to many tall buildings and air-conditioners being used especially in Summer time.

At present, the electricity supply has a very high reliability served by the power companies and the price is affordable. I suggest to maintain the present system and 'Do Minimum'.

Andy

etwbenq@etwb.gov.hk
23/03/2005 16:27

To: edb@edlb.gov.hk
cc:
Subject: Scheme of Control
[ ] Urgent [x] Return Receipt

Dear Sir,

Enclosed please find attached the email for whatever action you deem appropriate and should be grateful for your direct reply to the enquirer.

For record purpose, we will appreciate it if a copy of your reply is also forwarded to us. Thank you for your attention.

Regards
KC Au
for Secretary for the Environment, Transport and Works

----- Forwarded by etwbenq/ETWB/HKSARG on 23/03/2005 03:20 pm -----

"Gidumal, Anita C \(Corporate\)"
22/03/2005 12:58 pm

To: <etwbenq@etwb.gov.hk>
cc:
Subject: Scheme of Control
[ ] Urgent
[ ] Return Receipt

I understand there is a consultation process under way on the scheme of control that governs the returns to the power companies. Could you please let me know where I can obtain a copy of this paper?

Thanks and Regards

Anita Gidumal
Director, Taxes
GE Capital Asia Pacific

www.ge.com

Suite 1604-1606 Three Exchange Square
Central, Hong Kong
GE Capital Asia Pacific

電費釐定

Dear Sirs

電費是每個家庭及商界必須的開支之一。作為電力用戶之一，我完全理解廣大市民期望電費愈低愈好，但市民關注的，不應該只是電費的水平，還有電力供應是否足夠和可靠，因為停電會帶來很多不便和經濟損失。電力是現代生活不可或缺的一部分。從整體消費者利益來說，可靠電力供應和合理的電費，兩者兼顧才是符合市民的最佳利益。

為確保本港社會能以合理價格獲得足夠和可靠的電力供應，政府和兩間電力公司簽署了《管制計劃協議》。當年在這《管制計劃協議》簽署時，政府有兩個目的，第一，大家都希望有合理的價格，但同時亦獲得可靠及有效的電力供應。但為了得到可靠及有效的電力供應，這個協議便要有一個誘因，要使電力公司的股東，在作出龐大而長遠的投資時，要能夠了解到他們也有「准許利潤」這個條款。這就是「准許利潤」條款產生的目的及背景。

准許利潤為下列兩數的總和：

一. 各公司的固定資產平均淨值總額的13.5%；

二. 一九七八年九月三十日以後為購置固定資產的股東投資的1.5%。

在協議中除了有「准許利潤」這個條款外，其實亦有其他的條款，這些條款是由政府批准或者作定期的監管。兩家電力公司的財務計劃，包括業務發展與投資，需獲批准；而每年收費的調整，須預先提交政府。而且兩家電力公司在每年年底對未來一年的用電需求及營業情況作出預測。經濟局根據兩間電力公司的預測及政府經濟顧問以同樣的模式綜合作出一個數據的預測。

有人提議改變電費釐定的過程：1）每年與政府進行檢討並公開相關資料；2）組成公衆聽證會進行年度電費檢討；或 3）採用較頻密的電費檢討過程。

第一個方案，香港的兩家電力公司都是上市公司，為投資者所有，在向公衆提供某些商業敏感資料方面會有相當的困難。另外由於在釐定最終電費時需允許一個相當的咨詢期，讓公衆有足夠時間表達意見以至公衆意見反映在電費上。這樣的檢討過程極爲複雜而費時，可行性不大。第二個方案需要由電力公司、政府及公衆代表組成一個檢討小組就電力公司提供的成本數據與資料進行討論。並且需要制定一個決議程序限制電費釐定期。這樣的檢討過程同樣極爲複雜而費時，可行性不大。如果採用第三個方案“較頻密的電費檢討過程”，必將大大增加電力公司與政府的行政負擔，而增加之行政費用最終將轉嫁在市民身上，實非廣大市民之福。

其實現行的電費檢討，過程簡單，易管理，行政成本低，同時又有政府合理、全面、有效率的有力監管，實在無需為改變而改變。

有些人以為反對電力公司增加投資，就是為市民謀福祉。事實上，如果電力需求因人口增加或新項目發展而增長，而在電力設施上不增加投資以配合，亦非市民之福，因為如果發電設施不足夠滿足高峰期的需求，或輸電配電的電纜不更新、加強或擴展，電力可靠性會下降，停電風險亦相對增加，新發展亦得不到供電。三藩市和矽谷的停電和需要輪流供電就是因為加州電力系統不能配合需求。

香港供電量的穩定性可以說是全球最高的，有百分之九十九點九九的穩定性。這個得之不易的成果是政府的有效監管及兩家電力公司龐大的戰略性投資的共同結晶。以香港一個這麼高密度的社區，工商業這麼繁忙，穩定的供電量是一定不可以降低的，相信整個社會都不會接受持續或間歇性的停電。

Anthony Tsui

葉局長：

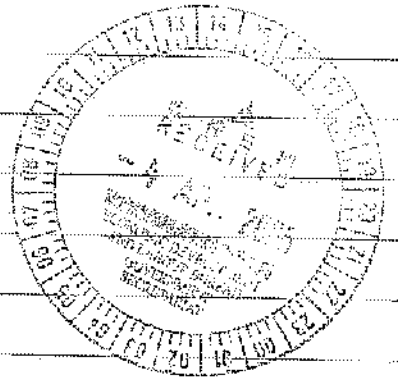
如要開放市場，請問政府可否

1. 確保市民能享有現時的供电水準和穩定性；

2. 不會出現大停电；

3. 电費不高於現有的費用；

4. 確保像現有的一個負責任和注重安全、環保的电力公司。



AU CHI TAI

敖志輝

BARCLAYS

25th April 2005

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sir,

View on Stage 1 Consultation of Electricity Market in Hong Kong

I, as a Hong Kong citizen, would like to express my views on the captioned subject as follows:

The Scheme of Control Agreements (SCA) which the Government separately signed with the two local power companies will be expired in 2008. Controversial issue regarding the tariff prices is being brought into attention by the political groups stating that whether the existing regulatory system (SCA) is effective and adequate and whether the tariff rates are reasonable.

The questions covered areas including:

1. whether the present tariff rates are reasonable or not;
2. whether the present regulatory system is effective and adequate and whether the rate of return earned by the 2 electricity companies are excessive or not;
3. whether open competition and interconnection will lead to lower tariff rates or not.

- Tariff Rates

People argue that Hong Kong tariff rates are relatively high when compared with other neighboring areas especially the Guangdong Province of Mainland China.

Actually, the tariff rates should not be compared with the nominal prices and should be compared with the real prices, i.e. the affordable level. In other words, comparison of the tariff rates against the GDP level of the respective regions would be more appropriate.

According to the consultation paper, the electricity bill covers less than 2% of the household income and less than 10% of the monthly operating costs of the business organization.

Besides, for normal household, the electricity expenses would only cover a non-significant part of the household expenses when compared with the gas charges (having no regulatory regime) and the transportation expenses, etc. Just imagine the transportation expenses of a 4-member family of

which 2 of the members have to go to work and 2 of them have to go to school.

As a result, the proportion of the electricity charges over the household income is relatively small.

- The Present Regulatory System (Scheme of Control Agreement)

The present scheme of control agreement was first introduced in 1963 and has been operating for some 40 years. Is it the best regulatory system having no weak points to be criticized?

My answer is that although it may not be the best regulatory system, it at least, for the past 40 years, proved to be effective. It can be shown and proved by that we are now enjoying safe and reliable electricity at a reasonable price.

However, the major points that are under criticism are the rate of return i.e. the return on assets and the return on equity. This point is subjective and should be negotiated and discussed with the 2 electricity companies to reach at rates that are acceptable to the electricity companies, the government, the Hong Kong people and the investors.

Please be reminded that the 2 electricity companies are actually private enterprises whose major objective is profit maximization. The Management has to be responsible to the investors. The profit elements would represent the incentive of continuing investment so as to provide a proven and reliable supply of electricity.

Moreover, the introduction of new regulatory system or bodies may involve significant operating expenses and costs which should also have to be take into account.

- Open Competition and Interconnection

Does open competition really lead to lower prices or not? Some business enterprises state recently that they would import the electricity from Mainland China to some large consumers in Hong Kong at a lower price. These actions, as mentioned, would explicitly benefit large customers. How about the domestic household consumers? The answer to whether the import of electricity from Mainland China would lower the tariff rates is simple and negative.

The 2 electricity companies in Hong Kong, with the loss of some major customers, would likely recover the revenues from the other customers that cannot enjoy the imported electricity resulting in a much higher tariff rates.

Moreover, whether Mainland China really has surplus electricity offering to Hong Kong customers is a question to be explored? Besides, factors of reliability and environmental pollution should also be taken into consideration.

The electricity supply market would be different from the telecommunication market whereby the cost of investment of electricity industry would be enormous with long pay-back period. The reliability factor is far more important than that of telecommunication market. Just imagine the economic loss when there is an electricity back-out in such a well-developed city like Hong Kong.

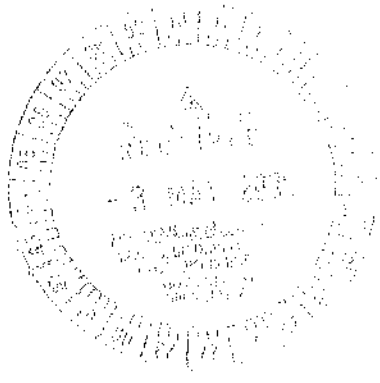
For interconnection, the construction cost is significant. Such costs would be borne by the customers of both HEC and CLP. The some 500,000 customers of HEC on Hong Kong Island would likely to bear cost of 4 times when compared with the 2,000,000 customers of CLP on Kowloon side assuming the construction cost spread evenly over HEC and CLP.

To my opinion, the recent tariff levels are relatively not high and are reasonable as we can enjoy a safe and reliable electricity supply. The import of electricity from Mainland China would inevitably arise environmental pollution issues and the introduction of new entrants would mean waste of resources and the results would be far-reaching and remote.

The present regulatory system, the Scheme of Control Agreement, though not perfect but proved to be effective in its past history of 40 years. The regulatory system is simple and cost effective, being handled by the existing Government departments. As a result, the future regulatory practices would preferably be modified from the existing one having the terms being adjusted or modified so as to reach a consensus between the government, the 2 electricity companies and the customers.

As a Hong Kong citizen, I would prefer to pay a little more so as to enjoy a safer, more reliable and guaranteed service.

B. Chan
A Hong Kong Citizen



chan maggie

24/04/05 11:25 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultation Paper on Future Development of the Electricity Market in Hong Kong - Stage I Consultation
☐ Urgent ☐ Return Receipt

My name is Chan Shun Wing Maggie and I am a citizen of Hong Kong. I would like to provide my comments on future development of the electricity market in Hong Kong as below:

1. On average, each family has to pay only 1.7% of the family income for electricity. The electricity price here is very reasonable and affordable. In addition, the supply reliability provided by the two power companies is extremely high (>99.99%). The current Scheme of Control (SoC) is run effectively and efficiently. It is particularly suitable for a small city like Hong Kong. Therefore, I support to maintain the current SoC and the 15% Permitted Return.

2. Electricity tariff should not be linked to inflation rate or deflation rate to avoid the unnecessary short-term fluctuation.

3. Since the supply reliability in China is much lower than in Hong Kong, I do not support to import electricity from China as it will downgrade our reliability. A self-sufficient and reliable power supply is more important than a low tariff.

Best Regards,
Beauty Maggie

29 April, 2005

Dear Officers of EDLB (Fax no. : 2868-4679)

Re : **Consultation Paper on the Future Development of the Electricity Market**

I would like to express my view on the captioned matter. In summary, my view is that, from a practical point of view, some form of control is better than none at all.

Objectives of control

One of the main objectives of any control mechanism on utility sector, in my view, is to ensure that stable and reliable utility service is to be provided to all consumers. This is of utmost importance, for the benefit of the consumers, in providing them with a steady and continuous electricity supply for maintaining an appropriate environment, whether it be effective business environment, an expedient working environment or a comfortable living environment, without which, the society would surely run into a mess, like the blackouts in the US and Canada. Not only do local consumers rely on a steady source of electricity supply, foreign investors would also rank this as one of the top priorities in their list of infrastructures inside the region which they are going to invest. As such, a reliable electricity supply will certainly help to attract potential investors.

In the past, the electric companies have been playing a very important role to provide a stable and reliable electricity supply. There are proven track records for what they have done. Yet, apart from the principal task of providing electricity, they also take up social and environmental responsibilities.

Privately Owned Business Enterprise

The electric companies in Hong Kong are privately owned enterprises like most of the business enterprises. There is no government subsidy of any form in order to run the business. It has been a industry trend globally to go for privatization of utility companies. This has proved to bring in more benefits to the consumers. I believe the situation in Hong Kong has already been on the right track. However, privatization is not without cost. Investor would only be willing to invest if there is a reasonable expected return on their investment. In particular, the investment outlay in electricity business is of a huge magnitude and the time involved is very long. If there is not an attractive rate of return, investors may not be willing to bear the long-term risk. Hence, an achievable and sustainable return, with some certainty, needs to come into play. In return, the investment from the investors, when invested in the relevant plant and equipments, will ultimately benefit the customers at large.

Viewed from a different angle, competition is often regarded as preferable, as opposed to other forms of business enterprise such as monopoly and oligopoly, as it is always perceived that the latter will assert significant influence on the price of the product. However, this might be the case for some business, but not always applicable to other cases. Different consideration should be given under different circumstances. As electricity is a long-term capital intensive business, it is not cost effective if there is too many investors. It would create a waste of investment. The opportunity cost is very high. In particular, Hong Kong is only a small market for electricity supply, in terms of the number of customers and consumption demand. That means, when the number of investors grow to a certain level, the profit share may not be so attractive to keep them in the market. At that time, a reliable electricity supply may not be achievable. Definitely, no one wants to run this risk. Therefore a long-term prudent approach is essential to avoid future risk.

Investment Payback

As mentioned, the capital investment in the electricity business is a long-term one. Expectedly, the payback period for such investment is also lengthy. On top of this, one can also expect large maintenance costs associated with the long life of the major plant and equipments. All these factors necessitate long-term planning and operation.

Conclusion

In view of the main objectives of electricity supply, the form of the enterprise, the heavy capital investment, the long payback period, coupled with the immense benefits to the customers and the utmost importance to securing a stable and flourishing society, a control of some form is not unnecessary. The existing scheme of control is not unsuccessful so far. Changes are good but only that they can bring forth more economic benefits and are not at the 'expense' of customers, ending up with less reliable electricity supply and diminishing service quality.

Becky Tang

T278L P.01



Benson Wong

29/03/2005 22:44

To: edb@edlb.gov.hk
cc:
Subject: The Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

My view on the future development of the electricity market in Hong Kong is shown in the attached file.

regards



Future Dev of the Electricity Market in HK BHNW.doc

Future Development of the Electricity Market in Hong Kong

Synopsis

Dissatisfied customers will reduce electricity consumption and switch to other fuels whenever opportunities arise. If the return on investment is not attractive, no investor will border to invest. At the end the SAR Government will be forced to establish a new department to operate the electricity supply industry.

The new framework under which the electricity market will operate after 2008 shall inherit the same principle of the Scheme of Control, namely to maintain a balance of interest between the investors and customers. This paper will examine the critical drivers to achieve the objective.

Background

The history of the electricity supply industry is more than one hundred years. Electricity was first used in major industries and public lighting purposes. Few domestic consumers could afford to use electricity, as the price was extremely high.

The generation, transmission and distribution assets were first funded by the Government or Quasi-government bodies in many overseas countries. On the contrary, it was funded by private investors in Hong Kong. The rate of investment growth was rapid but there was no pressure to increase the tariff due to the phenomenal expansion of the business before 1960' s.

In the early 1960' s, the economy of Hong Kong took off and a super huge growth in electricity demand was anticipated. With the extraordinary large investment in

generation, transmission and distribution assets to cope with the demand, the shareholders of the electricity utilities asked for a big increase in the tariff to compensate the risk of their investments. All the major consumers objected the big increase in the tariff.

The Scheme of Control was the instrument to resolve the conflict between the investors and customers[1]. It has successfully maintained a good balance between the interests of the two parties for over 40 years.

Scenarios under the New Framework

The new framework can be any one of following options:

Option 1: Remain status quo with possible variations to permitted rate of return, both in term of percentage and the rate base.

Option 2: The SAR Government will not impose any regulation after 2008 and the two electricity utilities will be operating in the same manner as private enterprises such as Towngas and property development companies.

Option 3: Merge the two electricity utilities together without any regulation imposed by the Government.

Option 4: The SAR Government inject some of the Government' s business with a similar nature such as water supply together with the electricity business to form a new entity

Option 5: The SAR Government take over the

[1] Customers are preferred over consumers to recognise the importance of customer choice and service.

ownership of the two electricity utilities directly and form a new department to operate the electricity supply business.

Option 6: The SAR Government will pave the way to ring in competition to the electricity supply industry in Hong Kong.

The new framework under which the electricity market will operate after 2008 shall inherit the same principle of the Scheme of Control, i.e. to maintain a balance of interest between the investors and customers.

Critical Factors

Before examining the merits and disadvantages of various options as outlined above, the following critical factors must be considered:

- Stakeholders' interests
- Market efficiency
- Economy of Scale
- Synergy of Bundled utilities
- Pre-requisites for deregulation

Stakeholders' Interests

Hong Kong is a densely populated city. Reliable and safe electricity supply is essential for not only residents in high-rise buildings but also financial and business operations including large scale transport systems such as electric trains from KCRC and MTRC.

The customers also demand affordable and predictable prices. A professor claimed the high electricity tariff was the main factor that has driven the industries north. Yet

high property prices and rent will be more likely to be the reason for moving industries north. The current Scheme of Control is a proven instrument to provide reliable electricity supply at affordable tariff. Therefore Option 1 should be the preferred choice from the customers' perspective.

Commitment to environmental protection will bring benefits to our next generations but only at a price.

Investors are willing to invest when the returns can commensurate the corresponding risks and the intensive capital investment over a relatively long period. If the rate of return is set artificially low, no investor will be interested. As electricity is essential for living, the ownership of the electricity supply industry will be forced to be ended up with the SAR Government under Option 5 if there is no investor.

To attract good investors, the rate of return should be comparable to those of the major businesses in Hong Kong over the longer term. The rate of return is attractive only if the financial performance is better than, or at least in line with, the Hang Sang Index over the review period. Should the review period be short, fluctuation in electricity tariff will be inevitable in order to maintain the reasonable return to the shareholders.

Market Efficiency

The trend to corporatise and privitise non-core government departments to enhance efficiency continues in many overseas countries. Banking and airline activities followed by utility business once operated by the government are gradually turned into state-owned enterprises or privatisation. The SAR Government appears to follow the same direction. KCRC has been corporatised for a long time. MTRC has been floated with

the SAR Government being the major shareholder. A merger between KCRC and MTRC is currently being explored. If the belief in the invisible hand of the market force is strong, taking over the ownership of electricity supply industry by the SAR Government under Option 5 should not be considered.

If the SAR Government is keen to privatise the water supply business, bundling both electricity and water supply will have the synergy that can provide good customer services but at a lower cost. Given the long lead time required to study the feasibility and conduct the detailed plan for the merger, the current Scheme of Control under Option 1 should be extended for at least 5 years without any change.

The role of the SAR Government is to scrutinise the investment plan and the financial positions of the two electricity utilities on behalf of the customers under the current Scheme of Control. Any direct intervention by the government will lower the market efficiency. That is why banking, property development and other businesses cherish in Hong Kong because they do not have any direct intervention from the Government. Should the SAR Government discontinue the role of the regulator under Option 2 after 2008 for electricity supply in Hong Kong? The answer is a clear yes given the successful operation of Towngas.

Some may argue that government involvement is still required even after the electricity supply industry has been deregulated. The reasons are mainly due to the transition from government ownership to private ownership and the deregulation itself is some sort of experiment in which the government wants to have better response if something goes wrong.

Economy of Scale

Hong Kong is a small city. Why should the customers of HEC pay a high tariff? What is more, the gap between the tariff of HEC and that of CLP Power is getting bigger and bigger.

Increasing the interconnectors between the two electricity utilities cannot solve the problem of the increasing tariff gap. Definitely the merger of HEC and CLP Power under Option 3 can lead to a better efficiency and to solve the disparity in tariff.

Synergy of Bundled Utilities

Synergy will be resulted if utilities such as water, telecom, gas and electricity can be bundled together and operated on a geographical zone. Successful examples in overseas markets are abundant.

Demand must be matched with the exact supply in water, gas and electricity industries. On the other hand, the telecom users can enjoy the service as long as the capacity of the telecom network has not been exceeded. Furthermore, telecom technology makes more rapid advance over shorter cycle times. Therefore the synergy of bundling telecom with other utilities is less.

It will be beneficial to the customers if at least water (from the SAR Government) and electricity (from the two electricity utilities) can be bundled together under Option 4. If Towngas can join hand, the synergy can be greater.

Pre-requisites for Deregulation

To bring in competition successfully and introduce minimum intervention from the government, the following 3 conditions must be fulfilled:

- Contestability

  Electricity generation and energy trading are contestable. The important point is to source the lowest generation costs to meet the customer's needs.

  On the other hand, electrical transmission and distribution networks are monopolistic in nature. Huge social costs and capital expenditures will be involved if the electrical networks are duplicated for the sake of competition.

  Likewise the transmission and distribution networks of water and gas supply are monopolistic in nature. The best the competition can go is only in sourcing and trading.

- Potential competitors

  Two questions must be answered first. How many potential competitors are available and how many of them are willing to take part after the market is opened up?

  Hong Kong is a small city and embedded generation is difficult to be adopted. The competition for sourcing must come from Southern China. There is no potential competitor in the near future as China is facing the acute problem of power shortage. Even if the power shortage can be resolved in the future, it will take time before the transmission network in China can be brought up to a stage with similar reliability standard as adopted in Hong Kong. Given all the technical issues have been addressed, whether the electricity supply industry looks attractive or not will be another matter to consider.

- Transaction Costs

  The transaction costs are the lowest under the vertical integration of electricity generation, transmission and distribution.

  Should electricity generation be separated from transmission and distribution, huge transaction costs are involved in tracking electricity consumptions up to intervals of 15 minutes[2], energy trading and settlement of system losses. Independent system operators to maintain system security and insurance covers add further operating costs.

  Large customers have better bargaining power and they can negotiate for better terms in the energy trading. As a result, the small customers such as domestic customers will end up with higher tariff. This sort of cross-subsidy is inevitable.

  For countries with large geographical areas, the benefits may out-weigh the additional transaction costs. It is definitely not the case for Hong Kong. Option 6 is the least preferred option.

Conclusion

It is possible to extend the Scheme of Control without any change for another 15 years after 2008 under Option 1. Why should changes be introduced if the Scheme has been implemented successfully for over 40 years? If the rate of return and/or rate base are changed, will it cause a flight of investors leading to the need to establish a new government department to take over the electricity supply industry?

---

[2] The industry can adopt tracking of electricity consumption on half-hourly basis.

If the SAR Government is a firm believer of the invisible hand of market force, the two electricity utilities should be left to operate just like Towngas without any intervention from the Government under Option 2 after 2008. The SAR Government can consider taking a light-hand regulation by stepping in whenever there is a big increase in tariff leading to social tension.

It is desirable to merge HEC and CLP Power together in the long term to bring in more synergy to the customers and resolve the tariff disparity under Option 3. The SAR Government should facilitate the merger.

Bundling water supply and electricity supply will bring more benefits to Hong Kong. Option 4 is better than Option 3. In order to give more time for the study and plan prudently, it is recommended to extend the Scheme of Control for at least 5 years without any change after 2008 under Option 1.

Option 5 and 6 are the least preferred option. Private enterprises are more responsive with greater efficiency. If the SAR Government takes taking over the ownership of electricity supply industry after 2008 under Option 5, it will be a backward move. The absence of potential competitors and the increase in transaction costs do not warrant open competition under Option 6 in a small city like Hong Kong.



Shu Kei Dai
30/04/2005 01:07

To: edb@edlb.gov.hk
cc:
Subject: Future Development of the Electricity Market in HK
__ Urgent Return Receipt

To whom it may concern,

I would like to express my view that supply stability should be the most concerned factor in our electricity market. As a very important metropolitan, Hong Kong cannot suffer from electricity supply instability. Many kinds of business (commercial, servicing, industrial, etc) are running & running round the clock with a condition that electricity is being fed to them restlessly. Electricity blackout and instability will cause huge loss in economy and adverse effect in reputation. As a citizen, we will no doubt feel it annoying and unacceptable to suffer electricity breakdown. Many sick people require life-supporting equipment and they are staying at home where standby electricity supply is not available. How can they stand for supply instability? In a minor view, I know that many people, including me, have a wine cabinet at home to preserve their wines (red, white or other kinds). There is only one fate with the wine after electricity breakdown : wiitten-off. With these points of view, I think that Hong Kong as a whole can't cope with instability of electricity supply.
Providing that the tariff will still be reasonble, I would like the Government to stay out of any steps that can endanger the supply stability we have been enjoying throughout these years.

Yours faithfully,
Bigtree

"Bill T.S. Chan"

To: electricitycomments@edlb.gov.hk
cc:
Subject: Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

2005/04/29 08:14 PM

Keep the present scheme of control but add more requirement for improvement, say, increasing the percentage of using renewable energy every year. Purely open markets, private companies w/o bound of legal agreement, won't do this.

Bill

Boorin Yeung

To: electricitycomments@edlb.gov.hk
cc:
Subject: 香港電力市場未來的發展第一階段諮詢
☐ Urgent ☐ Return Receipt

2005/04/29 10:07 AM

開放輸電網絡 –

香港現時由香港電燈有限公司 (HEC)及中華電力有限公司(CLP)分別擁有香港島及九龍新界的輸電網絡。而鑑於2008年香港兩間電力公司的專營權屆滿，故政府有意開放2008年後香港兩間電力公司的輸電網絡給第3者使用。而政府提出「非強制性方式開放輸電網」及「強制性方式開放輸電網」兩個方案。究竟「非強制性方式開放輸電網」及「強制性方式開放輸電網」及現時使用的「專營權式輸電網」有麼分別呢?

現時的「專營權式輸電網」正如前述一樣，由兩間電力公司各自擁有及經營其供電範圍內的輸電網絡。第三者不能使用供電範圍內的輸電網絡及擅自供電予供電範圍內的用戶。「非強制性方式開放輸電網」是香港的輸電網絡仍然由兩間電力公司負責擁有及經營，但輸電網絡須給予其他供電者使用並供電予用戶使用；而「強制性方式開放輸電網」則輸電網絡完全開放予其他供電者營運及建造，而電力公司間於輸電網絡上訂立協議以避免於輸電網絡工作時影響輸電網絡的穩定性。

現在我們有任何有關電力固障也可以找中電或港燈，即使是自己的電力裝置有問題，他們也會幫我們弄清楚，開放市場後，又可以找誰 ?

嶽立有限公司
BUILD MOUNT LTD.
1/F,REGENCY COURT,125 HUNG LENG,FANLING,N.T.
電話:26749978　傳真:26595127

香港中環下亞厘畢道
中區政府合署中及東座弍樓
經濟發展及勞工局

敬啓者:

香港電力市場未來的發展

本人/會企人 嶽立有限公司 作爲香港的市民及中電的電力用戶對於香港電力市場未來的發展欲提供以下意見:

1. 充足及可靠的電力系統
   我們期望電力供應能隨時滿足我們的需求，而且要源源不絕，避免中斷。香港享有世界級供電服務，將來亦應如此。

2. 合理和可負責的電價
   中電電價自 1998 年起維持不變，期間更爲客戶提供了 6 次重費回扣。以中等水平的電價享用可靠程序甚高的電力供應，電價較紐約、倫敦、巴黎和東京等大城市便宜。

3. 私人投資
   電力行業涉及長遠和資金龐大的投資，要引導投資，必須提供足夠吸引力的回報。回報必須反映電力投資長遠及資金龐大的特質，不應與短期經濟波動掛鉤。總言之要設立合理的回報機制確保私人資金持續不斷。

以上數點乃本人對香港電力市場未來的發展因而提供的意見，祈望政府有關機構慎請考慮。

謝謝！

For and on behalf of
嶽 立 有 限 公 司
BUILD MOUNT LIMITED

.....
Authorized Signature(s)

2005 年 4 月 9 日

Chun Feng Liang

To: electricitycomments@edlb.gov.hk
cc:
Subject: 2008年電力市場發展之我見
☐ Urgent ☐ Return Receipt

2005/04/27 02:32 PM

電力穩定，用家受惠，電力清潔，環保得益

兩電不斷投資於電力設備，除了燃煤機組外，兩電亦投資於天然氣機組。燃煤機組有除硫裝置，天然氣則有低氮化物及沒有二氧化硫的好處，07年開始港燈有15%電力由天然氣發電。兩電亦遵守香港環保要求，未聞兩電因過量排放汙染物而被政府有關部門檢控。爲積極回應推行使用再生能源，港燈現於南丫島興建風力發電機組，將於06年中投產。穩定和環保的電力實有賴管制計劃協議令兩電有足夠運作空間，得以配合用電需求來投資，令香港的電力市場穩定發展。

有關08年後的電力市場，我認爲政府要檢討現行的管制計劃協議，以固定投資淨值爲基準的13.5%以上的利潤，實在已不合時宜。剛過去一年中電有純利7%，相反港燈則倒退7%，自03年至今因社會形勢的轉變，港燈的利潤均未達准許利潤水平，所以准許利潤不是保證利潤。基於以上所述，我認爲應繼續推行管制計劃協議，但新的協議應以通脹加若干個百份點，這若干個百份點是與兩電供電的表現掛鉤，從而推動兩電繼續爲香港社會提供穩定可靠而又環保的電力。

CF Liang
2005年4月27日

關於香港電力市場未來發展，本人有以下的意見和建議：

意見：

1.本人看不出新公司有發展電力市場的長遠計劃和經驗。

2.可靠的電力供應和穩定性，是我們住家考慮的重要一點。

3.開放市場後，電費會否大幅下降。

本港現時兩間電力公司有數十年經驗，現時它們可以提供可靠和穩定的電力供應、好的服務和合理收費。

建議：

1.管理是最好的

2.以不變應萬變

3.應保持管制協議

C.F.Tam
29-04-2005

25 February 2008

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road
Central
Hong Kong

Dear Sirs

Consultation – Hong Kong's Electricity Market after 2008

For the HK's electricity market after 2008, I would like to express my view as below:

1. The existing electricity market is working efficiently with extremely high reliability, I can't see any reason to change. Any change in the regulatory system will stir up the existing market order and create problems for HK, especially the Government.

2. Comparing the living standards of different cities around the World and the tariff of different utilities companies in HK, I quite satisfy with the current tariff of the two existing power companies in HK. Good value for money.

3. The two existing power companies are taking up their social responsibility in HK development for years. Once the regulatory system change and the Government have to take up this responsibility. However, the Government is not in the market and would not be so sensitive for any upsurge in market demand or changes.

4. Once the market is open, the attraction of new investors to this kind of long-term investment projects in such a small market is a doubt. Eventually, only small players come up with more regulatory effort loaded to the Government.

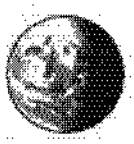
Bad examples from overseas can be good lessons for people in HK.

Yours faithfully

CH Cheung

生活在高速發展的城市，若可以沒有穩定的电力供應，試想星期一、三、五停电，二、四、六則規定某區減少电力消耗，另外環保亦好重要，香港电力公司对保護環境和發展再生能源都積極投入大量資源以減少排放令全球暖化和暗化的廢氣，令香港的生活質素得以持續改善。回想國泰訊市場在開放專營權後，引来劇烈競爭下，电訊公司裁員不斷，令社會人心不安，又怎能繁榮穩定。基於以上原因，政府應繼續批出專營權給南电力公司，持續四十年不變。

C. H. Yip



but ming chu

20/04/05 08:43 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage I Consultation
☐ Urgent ☐ Return Receipt

Dear Sir,

After reading the Future Development of Electricity Market in Hong Kong (Stage I Consultation), I want to express my views as follows:

1. The electricity tariff in Hong Kong is only in the mid range among the big cities in the world. Comparing the services and the very reliable electricity provided by the two power companies, the present tariff price in Hong Kong is reasonable.

2. As far as I know, the SCA has been established for many years and based on the SCA, we are enjoying very good services and excellent reliable electricity supply from the two power companies.

3. Reliable electricity is so important to our city. We cannot afford any blackout or unreliable electricity supply in Hong Kong.

The SCA has been running successfully in Hong Kong for a long time. It enables power companies to have better long term planning and it gives incentives to power companies to invest on equipments for improving their system. I am very satisfied with the present performance of the two power companies. From my point of view, we should keep the SCA in its current form to the greatest extent.

CK But

20-April-2005

"CK Choi"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場未來的發展
☐ Urgent ☐ Return Receipt

2005/04/26 09:33 PM

香港要繁榮，可靠和穩定的電力供應是必需的。香港在近數十年間，沒有像世界其它大城市發生過大停電事故和像鄰近發展中城市出現缺電情況。從過往的紀錄，香港的電力供應穩定性和可靠性可算是世界頂級。

在電費方面的支出，一般住宅用戶電費只佔每月總開支的２％，而交通費的支出則佔９％，相比下，香港電費支出可算是合理和可接受。

從以上兩點，足以證明現有的管制協議是有效的，一個用了四十多年的有效協議，爲本港消費者提供了可靠及穩定的電力供應，而電費支出亦相對其它的家庭開支爲少。

吸取房屋和教育改革的失敗經驗，我認爲保持現有的管制協議，對香港未來發展有一定的幫助。

"celine Ho"

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultancy Paper on Future Development of the Electricity Market in HK-Stage 1
☐ Urgent ☐ Return Receipt

2005/04/29 09:42 AM

Dear Sir,

In regard to the Consultation Paper on Future Development of the Electricity
Market in Hong Kong - Stage 1 Consultation, please note my views as below :

(1) I consider the existing electricity market reliable and effective.
After the telecommunications market is deregulated, we hear from time-to-time the many complaints of sales/marketing tactics by different service providers. As a consumer, if the words from service providers cannot be trusted, this must be a bad experience.

(2) The present electricity tariff is reasonable in terms of reliability in
service. As an international metropolitan city, I can't imagine the scale of damage done if there is a black out of even a single minute in the stock market. For emergency electricity supply, it's a matter of life and death. I don't think it's reasonable to pay a cheap price and yet request for a first-class service. Thus there is no sound justification to make any changes to the existing operation mode which has proved to be simple and effective. Moreover, there is no guarantee that the price will be reduced for a different mode of operation.

(3) At present, the regulatory work of the electricity market is undertaken
by EDLB and ETWB. I do not support the establishment of a separate regulatory authority as the decision-making processing will even be longer. With the bureaucratic government culture, I don't anticipate any advantage of adding a new regulatory body.

As a conclusion, I prefer the existing operation mode of the electricity market to remain unchanged, i.e. SCA to continue. The length of SCA should be sufficiently long enough to enable reasonable returns of massive investment.

Thank you,

Name : C. K. Ho



"Fung Ping & Chak Lam"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Consultation paper to electricity market in HK after 2008
☐ Urgent ☐ Return Receipt

2005/04/30 11:59 PM

Stable electricity supply in Hong Kong is the most important. Actually, I don't think the current electricity tariff is expensive. It is totally reasonable and affordable. Obviously, investment in electricity supply needs great capital cost, the return of the electricity company should be protected and maintained. In other term, the scheme of control of the electricity company should be maintain in the future in order to secure the electricity supply reliablilty and stability. I don't think the scheme of control to the electricity need to be change in the future. We don't want lack of electricity in the future. Open market may not bring stable and cheap electricity tariff.

Regards,

CL Lau

2005/04/30 04:07 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

I support to continue the existing policy imposed on the electricity supply industry, at least for a few more years.

As a citizen of Hong Kong, I hope the price for each kWh can be as low as possible; but as a post-graduate student having a relatively in-depth knowledge in the process of electricity generation and transmission, I have to be neutral in commenting the issue.

In view of the tariff system, I don't think the existing proportion of about 2% of the family income is too expensive taking into consideration the quality of service provided by the two power companies. The absolute figure of about HK$1 per kWh is also not unacceptable comparing to our GDP.

I also have reservation for establishing a strong interconnection between CLP and HEC, which may be particularly disadvantangeous to those living in Hong Kong Island should a system disturbance occur because of the relatively weak and small network of the HEC. A strong interconnection between the two power companies implies that HEC is connecting to the network of the Southern China more solidly. Although it may be benefited from such interconnection if there is a fault in the CLP or HEC system, a disastrous consequence may result if a serious fault occurs in the Southern China, unless we can chop off the interconnection or damp down such disturbance before it affects us. However, this is an extremely complex operation and more importantly, it needs some precise and up-to-date information of the system to do such design (for example, system parameters for designing the power system stabilizers). I don't think the authority of China can provide such accurate information to us on time and even it can, the designed parameters may require to be changed quite frequently because of the fast development in the Mainland.

Opening the transmission and distribution network to the third party is also quite impossible from the point of views of the two power companies. However, if it really comes true, we also have to consider the source of the supply, i.e. the generation system. Who will be responsible for such electricity generation and where is the generation plant? In considering the issue of pollution, which is a (pearl-delta) regional problem, I prefer the generation plant to be built in Hong Kong and bounded by the laws of Hong Kong rather than building it in the Mainland. The reason is that I believe the pollutants/MAW emitted in the power stations of Hong Kong are much less than those in China!

Based on my own opinions above, I hope the existing policy on our electricity industry can be continued but with regular reviews.

C.L.Lee

"chimingchau"

2005/04/28 12:58 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on the stage I Consulation on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

To: The Economic Development and Labour Bureau
Hong Kong SAR Government

Comments on Stage I Consultation on Future Development of the Electricity Market in Hong Kong

I would like to express that the existing performance and services provided by the Power Company are excellent. I am able to enjoy a very reliable and secure electricity supply at a reasonable price. I seldom suffer from loss of electricity supply and I don't have to worry about the adequacy of electricity supply. I am very satisfied with the current electricity supply situation. Being an international finance centre, I believe that highly reliable electricity supply is also very important to Hong Kong. I believe that the current highly reliable electricity supply is contributed by the operation of the current Scheme of Control Agreements. As the current Scheme of Control Agreements is a proven framework, which has contributed to providing a reliable, safe and efficient electricity supply, I couldn't see why we need to change the current form of SCAs and bear the risk to introduce uncertainties which might have adverse impact on supply reliability, safety and environment.

I opine that the current SCAs is a proven framework which has contributed to providing a reliable electricity supply and should be maintained.

C M Chau



26/04/2005 01:38

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
└ Urgent ┘ Return Receipt

realname: CS Cheung

subject: Views on Post 2008 Electricity Market

Enquiry: Views on the Post 2008 Electricity Market

Reliability of electricity supply is of utmost importance to all sectors in Hong Kong, just like other world-class cities in the world. Hong Kong has changed to a service economy in the recent decade. The commercial and financial sectors rely on a continuous, stable and reliable supply for business operation. Most of the residents in Hong Kong are living in high rise buildings. Continuous electricity supply with minimum and short interruptions, especially emergent power interruption, for the running of service lifts, water pumps and other services is essential for the general household. In addition, reliable electricity supply is also very important to public safety and convenience, like maintaining the proper operations of public road lighting and traffic lights.

Use of electricity is just part of our daily lives. The mechanism to keep the lights on round the clock may be easily taken for granted. The blackouts involved various big cities in the world in recent years remind us again that stable and reliable electricity supply would cause enormous financial losses in economies, and disruption to every aspect of our daily life. Most importantly, it is apparent that a proven regulatory regime would ensure the availability of stable and reliable supply.

Both of the two power companies are investor owned and have been operating for more than 100 years. The current regulatory regime (scheme of control arrangement) has demonstrated its success in terms of stable, reliable and sufficient electricity supply. The key factors that underpin such success, just mention a few are good corporate governance, highly motivated workforce, affordable tariff, reasonable returns to investors and simple regulatory regime.

The proposed regulatory regime should balance the interest of stakeholders, viz. the general public, the employees of the electricity power industry and the shareholders.

Hong Kong is a small place. There is no room laying lots of additional cables and building lots of additional generation, transmission and distribution plants. Introducing of additional operators would not lower the tariff. The costs of investment for new market entrants will eventually be bear by the general public. Hence the interests of customers are undermined due to probable higher tariff level.

Introducing new market entrants cannot improve stability and reliability of electricity supply. Problems in one system will affect the stability of other interconnected systems.

It should be noted that the existing regulatory mechanism is simple and involves few government resource. Establishment of complicated regulatory mechanism would involve substantial costs and in the end the tax-payers have to bear the costs.

Investment on electricity power industry is a long term investment with long payback period. The useful life of electrical power plant and equipment for electricity generation and delivery like generators, cables, transformers and switchgear are normally taken as 30 to 35 years. Besides,

such investments involve enormous capital investment and therefore involve substantial risks, viz. business risks, interest rates risks, currency risks, and political risks etc. These investments should not be confused with speculations and gambling. Reasonable returns on investments to commensurate with the risks taken by the shareholders are essential to encourage continuous investments to meet new demands and rejuvenate existing plants and equipment to enhance operations and performance.

A stable and reliable electricity supply is also stemmed from well trained, motivated and highly disciplined workforce in the industry. Radical changes on the electricity market would disturb the existing stable working environment and eventually degrade the reliability electricity of supply.

Import of electricity generated from power plants with high pollution level outside the territory is unwise and unfair to the local power utilities that have invested substantial capital on environmental protection measures.

To conclude, the existing regulatory regime under the Scheme of Control Arrangement has been operating successfully and in a cost effective manner in the past decades. Such arrangement has balanced the interests of the consumers and shareholders of the power utilities. Besides, the simple regulatory mechanism requires less public resources for surveillance and control by government officials. For the interest of the public, such regulatory regime is highly recommended for the post 2008 electricity market.

CS Cheung

Chaktong Lui

2005/04/30 04:55 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage I Consultation Paper on fure development of the electricity market
☐ Urgent ☐ Return Receipt

Attached is the file of my comments.

Thank you.

C.T.Lui

comments.doc

Dear Sir,

The HKSAR Government's policy on the development of the electricity market has a profound impact to Hong Kong Citizen. As an employee in the engineering field, I have the following comments:

Reliable electricity supply is of the utmost importance to the economic development in Hong Kong. As seen from recent TV documentary from RTHK, the CEOs of well-known companies chose Hong Kong as their Asian Centre because of high standard of electricity power supply. As we know, our competitor, Singapore has also a very high reliability of power supply, we must maintain our high standard and do our best to improve it.

A reasonable return can provide the executive of power companies to invest more in the power industry. Ensuring a reasonable return, they not only afford to introduce and investigate advance technology to be used in the existing system, but also train their staff to keep up with the high standard of requirements. Power business is a long term investment. If we introduce a new power company to the existing market, the power companies will more concerned about the competitive tariff rate rather than the existing reliability standard. Though the tariff rate may reduce a little bit, the reputation of high reliability of supply may loss.

Interconnections among power companies have benefit to power companies? The lessons we learnt from those developed countries, such as USA, United Kingdom, Italy, etc., more interconnectors do not mean a better supply network. As those developed companies have a large number of interconnectors among power companies, they are more liable to blackout. Once one of the power companies failure to provide enough supply to their consumers and the system cannot isolate the failure portion immediately, a chain reaction will occur and lead to a large area blackout.

Based on the above few comments, I support to keep the current "Scheme of Control Agreement" which is simple, straightforward and with less government involvement. In Hong Kong, the most expensive cost for most citizen is rent, not electricity bill.

Regards
C.T. Lui (Chak-tong Lui)

2005/05/01 12:01 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sirs,
Please find enclosed comments.
Many thanks.
Regards
CT Mak



Electricty-Stage1.doc

Response to consultation Paper on Future Development of The Electricity Market in Hong Kong
Stage 1 Consultation

The consultation paper is a very useful tool for us as a citizen to providing more points of view to the government in the hope that we can build a better system in Hong Kong. We shall all benefit subsequently.

Energy just like the cross harbour tunnels are tying up with our daily lives. They form part of the very basic stability of our daily life. we cannot afford to have too much fluctuations and high costs.

Electricity is a highly capital base industry in this sense long term planning is of vital importance. By these electricity is not a free market. It is not advisable to open this market to every body. That it means we need a control system. Taking a bitter experience of opening up the communication market it is a nightmare for the network providers but we have a lump of spoiled consumers. There are also plenty of complaints on the services too. Can we avoid this happen after the year 2008 ?

My opinions are as follows:

1 Policy Objective

I agree to the objective being provision of reliable, safe and efficient supply.
In addition the government having a fair policy and control on the electricity industry will demonstrate government's will to enforce a equal and fair business environment to the public.
On the other hand while a supply company runs a business in a stable environment it also provides a stable and secure jobs for its staff and also its contractors. We can say that a stable electricity market contributes to a certain extent of stability to the society.

2 The Scheme of Control

Considerations should be taken if supply companies refused to co-operate with the public or government. What steps should betaken by the government to secure supply at a reasonable cost to the public. What steps to be taken to terminate a supply company's right to trade power.

Since the investment on plants are heavy there will not be sufficient companies to enter into the electricity market. Open market policy will not work and therefore scheme of control on the power companies should be continue.
The present of scheme of control should be improved to discourage abuses of shortcomings in the present scheme of control. It is unavoidable government interference into the management of the power companies will increase.

3 Determination of Rate of Return.

The electricity market in Hong Kong though is small in a world scale, it still support technology advances in the power industry worldwide. It also supports a considerable number of professionals in Hong Kong. Continuous development and investment ensure provision of stable lives in Hong Kong. In this aspect asset base for calculating rate of return is most suitable. However more constraints should be imposed to discourage repeated and over investment. The amount of rate of return to be negotiated. It is a good idea to insert a certain performance based rate of return.

3 Fuel cost

Present fuel cost is a good system. It shares the risks among the consumers and the power which should be tolerable. It is not true that power companies are less incentive to use efficient plants, since power equipment manufacturers are always pursuing more efficient designs. Actually a system of assessing suitable equipment can be written down in the agreement between the government and power companies.

4 Interconnectors

Interconnectors benefits a smaller spinning reserve but a large number of interconnectors with a smaller spinning reserve will suffer complication in system control reactions if one of the supply company failed to meet demand. Large number of interconnectors provide more paths for power flow thus increase the reliabilities of the interconnections but it does not necessarily help to meet increased demand.
No additional companies should justify to run interconnectors. They only add cost.

5 Regulatory Body

The government should set up a dedicated department to look into the energy industries to overlook all the aspects such as pollution, efficiency, new sources, environmental effects, etc.

25th April, 2005

Economic Development and Labour Bureau,
2/F, Central Government Offices,
Main & East Wings,
Lower Albert Road, Central,
Hong Kong.

Dear Sir,

Re: Consultation Paper –
Future Development of HK Electricity Market

After reading your Consultation Paper, please note that my view and comments are follows:-

Reading from the newspaper, many highly developed countries like United States, Canada & Australia had been suffering from blackouts and outages of electricity supply mainly due to lack of sufficient investment in power industry resulting to the deterioration of supply reliability. Hong Kong is an international and financial center, and therefore reliable electricity supply is very important to Hong Kong. In Hong Kong, we have never experienced any blackouts because the existing regime has been successfully in inducing continuous investment in power infrastructure to maintain supply reliability.

As mentioned in your Consultation Paper, surplus electricity from Mainland China especially from Guangdong Province will not be available in short to mid term. Besides, there is a long distance between Hong Kong and Guangdong, if we consider to import electricity from Guangdong in future, the transmission network has to be upgraded which requires a large investment and the cost will be borne by Hong Kong consumers. The electricity tariff may be even higher than the existing electricity rate. Hence, it is not practical and economical to import electricity from the Mainland China in future.

After considering the above points and we do not like to take a risk to have the electricity reliability to be downgraded in future, I would suggest the current Scheme of Control Agreement with two electric companies should be maintained after 2008 and the Government should negotiate with these two companies to reduce the electricity rate a little bit.

Yours faithfully,

(C. W. Chan)

"Chiu C.W."

28/04/05 04:47 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Future Development of the Electricity Market in Hong Kong Stage I Consultation
☐ Urgent ☐ Return Receipt

Dear Sirs,

With reference to your Stage I Consultation Paper, I would like to present my views and comments as follows:

1. The current SCA has already met the objectives listed in the Government's consultation paper. We are enjoying environmental-friendly electricity and high supply reliability at affordable prices. I wonder if it is really necessary to change the system that works well.

2. Judging from the blackout incidents in foreign countries, drastic changes in the regulatory framework may lead to reduction of investment and/or changes of operation modes and in turn deterioration of supply reliability. I cannot see any feasible alternatives without downside risks. On the other hand, it is very difficult to correct a deregulated market that has gone wrong.

In conclusion, the current SCA gives power companies incentives to improve the supply reliability and the environment. I would like to keep the SCA in its current form and minimise any risky changes to it.

Regards,

C.W. CHIU

Economic Development Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

28th April 2005

BY ~~FAX~~ POST
FAX NO. 2868 4679

Dear Sir,

Views and Comments on
Consultation Paper on Future Development of The Electricity Market in Hong Kong
Stage I Consultation

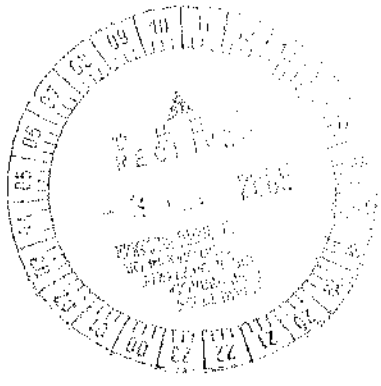
My views are as follows :-

SOC is an incentive for the two power companies to make commitments to continuously invest to maintain and refine a reliable supply that is being emphasized as a distinctive feature of the Hong Kong business environment. The business environment and daily life nowadays have changed so much that even a slight voltage dip with duration of much less than one second will induce public outcry. This just indicates that customers are calling for a more and more reliable supply.

It cannot and must not be argued that the exiting cost of electricity can be reduced by cutting down the investment for long term reliability. In the short run, cutting down investment to maintain reliability may be able to reduce electricity price by a very small percentage. Nevertheless, the effect of eroding reliability as a result of deferring improvement and reinforcement schemes is a slow burn process. The profound impact of sacrificing long term reliability will not turn up immediately. By the time when the consequential shortcomings are surfaced, it will be too late to restore the radical situation. Hence a bilateral agreement such as the SOC is essential for the continuous up keeping of supply reliability.

Regards,

C.W. Fung



敬啓者:

本人對於香港開放電力市場,極爲反對,因爲本港只有七百萬人口,是否有空間再容納多一間電力公司呢?需要引入競爭,可能會使電費價格下降,但服務及品質是否有保障?現在不少市民可能覺得現在電費貴,但是格價只是其中一個問題,而電力的穩定性及持久,是最爲重要的,市民利益先可受保障,亦免受停電之苦。香港作爲國際金融中心,試想想若電力供應不穩定的話,使外國商家香港投資卻步,怎樣提高香港國際金融中心地位呢?亦會對香港「東方之珠」暗然失色。
另外兩間電力公司在香港聘請不少員工,爲本港製造不少就業機會。其實政府只要對兩間電力公司進行監管就可以。

C W Lee

25/04/05

"Pak, Chi Wa"

2005/04/29 11:59 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場未來的發展第一階段諮詢
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

Attached please find my personal opinion for the captioned subject

Regards!

CWPak



電費釐定.pdf

電費釐定

Dear Sirs

電費是每個家庭及商界必須的開支之一。作為電力用戶之一，我完全理解廣大市民期望電費愈低愈好，但市民關注的，不應該只是電費的水平，還有電力供應是否足夠和可靠，因為停電會帶來很多不便和經濟損失。電力是現代生活不可或缺的一部分。從整體消費者利益來說，可靠電力供應和合理的電費，兩者兼顧才是符合市民的最佳利益。

為確保本港社會能以合理價格獲得足夠和可靠的電力供應，政府和兩間電力公司簽署了《管制計劃協議》。當年在這《管制計劃協議》簽署時，政府有兩個目的，第一，大家都希望有合理的價格，但同時亦獲得可靠及有效的電力供應。但為了得到可靠及有效的電力供應，這個協議便要有一個誘因，要使電力公司的股東，在作出龐大而長遠的投資時，要能夠了解到他們也有「准許利潤」這個條款。這就是「准許利潤」條款產生的目的及背景。

准許利潤為下列兩數的總和：

一. 各公司的固定資產平均淨值總額的13.5%；

二. 一九七八年九月三十日以後為購置固定資產的股東投資的1.5%。

在協議中除了有「准許利潤」這個條款外，其實亦有其他的條款，這些條款是由政府批准或者作定期的監管。兩家電力公司的財務計劃，包括業務發展與投資，需獲批准；而每年收費的調整，須預先提交政府。而且兩間電力公司在每年年底對未來一年的用電需求及營業情況作出預測。經濟局根據兩間電力公司的預測及政府經濟顧問以同樣的模式綜合作出一個數據的預測。

有人提議改變電費釐定的過程：1）每年與政府進行檢討並公開相關資料；2）組成公衆聽證會進行年度電費檢討；或 3）採用較頻密的電費檢討過程。

第一個方案，香港的兩家電力公司都是上市公司，為投資者所有，在向公衆提供某些商業敏感資料方面會有相當的困難。另外由於在釐定最終電費時需允許一個相當的咨詢期，讓公衆有足夠時間表達意見以至公衆意見反映在電費上。這樣的檢討過程極爲複雜而費時，可行性不大。第二個方案需要由電力公司、政府及公衆代表組成一個檢討小組就電力公司提供的成本數據與資料進行討論。並且需要制定一個決議程序限制電費釐定期。這樣的檢討過程同樣極爲複雜而費時，可行性不大。如果採用第三個方案“較頻密的電費檢討過程”，必將大大增加電力公司與政府的行政負擔，而增加之行政費用最終將轉嫁在市民身上，實非廣大市民之福。

其實現行的電費檢討，過程簡單，易管理，行政成本低，同時又有政府合理、全面、有效率的有力監管，實在無需為改變而改變。

有些人以為反對電力公司增加投資，就是為市民謀福祉。事實上，如果電力需求因人口增加或新項目發展而增長，而在電力設施上不增加投資以配合，亦非市民之福，因為如果發電設施不足夠滿足高峰期的需求，或輸電配電的電纜不更新、加強或擴展，電力可靠性會下降，停電風險亦相對增加，新發展亦得不到供電。三藩市和矽谷的停電和需要輪流供電就是因為加州電力系統不能配合需求。

香港供電量的穩定性可以說是全球最高的，有百分之九十九點九九的穩定性。這個得之不易的成果是政府的有效監管及兩家電力公司龐大的戰略性投資的共同結晶。以香港一個這麼高密度的社區，工商業這麼繁忙，穩定的供電量是一定不可以降低的，相信整個社會都不會接受持續或間歇性的停電。



Candy Au

26/04/2005 21:22

To: edb@edlb.gov.hk
cc:
Subject: 開放電力市場意見
☐ Urgent ☐ Return Receipt

我是香港電燈用戶，都好滿意它們的服務，亦不覺得電費很貴，就算政府開放電力市場，我都不相信電費有下調的空間，亦都不信新公司能夠提供穩定的電力，所以我贊成維持現狀。

21 April 2005

Economic Development and Labour Bureau
2nd floor
Central Government Offices
Main & East Wings
Lower Albert Road
Central
Hong Kong

Dear Sirs

Comments on the Consultation Paper on Future Development of the Electricity Market in Hong Kong

I have read with interest the Consultation Paper published in January 2005 and have carefully considered the key issues, criticisms of the current arrangement and options stated in this document.

I fully support the current Scheme of Control which has worked well for Hong Kong for the last 4 decades, with low governance cost. Under it, we have enjoyed reliable, safe and efficient electricity supply at affordable tariff rates (less than 2% of general household monthly expenditure is very reasonable given the high level of supply reliability), with the Government safeguarding the consumers' interest through careful scrutiny of the power companies' capital investments, tariff adjustments and performance. This arrangement has created a win-win situation for all parties – the power companies, the consumers, the investors and the community.

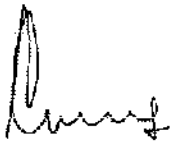
My comments on the criticisms are:

- The permitted rate of return is too high in present day economic climate – we are dealing here with an industry involving large capital investments with long payback period. Fifteen percent sounds like alot, but is it? It's not excessive. This return should be looked at with other elements, such as high reliability and enhanced customer services.
- Review period is too long – if the power companies have an ongoing obligation to provide sufficient facilities to meet present and future electricity demand, then it is only fair that they be given a reasonably long review period so that they can enter into long term commitments (eg for the procurement of gas or LNG).

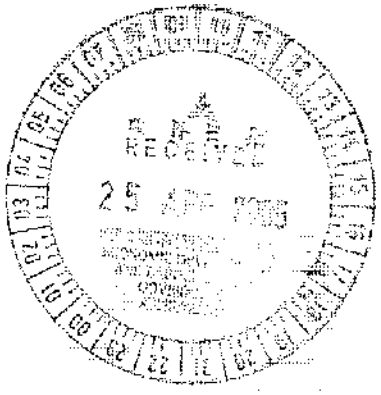
- The permitted return, based on fixed assets, is perceived to have encouraged over-investments – all the assets serve the consumers, with the shareholders bearing all the financial risks. The Government scrutinizes the major capital investments of the power companies through financial reviews and auditing reviews.
- Lack of competition – China can only be a longer term option. We have to be vigilant with "fly by night" companies which promise reliable supply. We don't need blackouts that occurred in New York, or other European countries.

The development of the electricity market is not a political issue and the Government should stand firm on what they think is best for a world class city like Hong Kong – highly reliable electricity supply at affordable rates. The current Scheme of Control arrangement has proved to be effective, and should stay.

Yours truly,



Catherine Yeung



"ccw"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: comments
☐ Urgent ☐ Return Receipt

2005/04/30 06:58 AM

開放電力市場,本人有以下意見:
1) 市場可以分兩部分,即是發電和配電.
2)發電設備主要有發電廠;配電設備主要有電-網絡
3)以上設備建設費用高昂,建設需時,
4)方案一,新投資者採用自己的設備-------費用高昂,尤其是掘路放-工程,機會極微
5)方案二,租用現有設備----------受到兩電反抗,引發大量訴訟拖延,效果成疑
6)方案三,局部開放----------密集的耗電地區開放市場,引發偏遠及耗電低地區沒有電力供應或需付出更高昂電費
7)爲了引入新競爭者,政府必需提供利潤保証,新電力公司可能爲第二間東隧或西隧,無論售電是否埋想,都有加價的借口,
例如售電少,加價增利潤,售電多,加價減負荷等
8)對市民影響最小的方案是和兩電談判,爭取較低廉的電費.

kwong chuen cham

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on the development of the future elctricity market
☐ Urgent ☐ Return Receipt

2005/04/30 12:00 AM

Development of the future electricity market
Issue regarding the opening of the electricity market

In my opinion, opening the electricity Market has the following disadvantages:

From the technical point of view, the reliability and quality of the services provided by outside electricity suppliers are uncertain. HEC and CLP have provided us with stable electricity supply for many years and their service quality is recognized by HK people. Whether the outside counterparts that are interested in investing in the electricity market in Hong Kong could perform as well is in doubt.

Form the social point of view, opening of the electricity market will increase the competition among the electricity suppliers. The result of the keen competition is that the suppliers will try to cut costs. The most efficient way to reduce cost is to lay off employees. Obviously, this will lead to increase in unemployment rate and reduction of quality and hence unsatisfactory of the public.

Moreover, HEC and CLP work for HK for many years and hence they know very well about the needs of the HK citizens and also the electricity network in HK. They make improvements throughout these years in order to adapt to the changing needs and environment in HK, so, they can be more flexible to fit the HK Government's new policies and regulations. On the other hand, this is sure that the outside suppliers must not be as familiar as the two current suppliers about the circumstance and requirements of the HK electricity supply. A long time is required for an outside supplier to fully cope with the HK environment, which may lead to discontent among the citizens or more seriously, social unrest.

One point I want to emphasize is about the share of electricity market by a mainland supplier. Although it is an obvious fact that the electricity fee will be lowered and the consumers will benefit. However, one must also concern about the quality of the mainland electricity supply. China is well known to be an "energy-deficient" country. In many cities in the mainland, electricity supply is not stable and reliable. Based on the conditions of electricity provision we observe in the mainland, we could hardly have confidence in the mainland suppliers as much as what we have in the two which have provided us with quality services during the last decades.

In conclusion, from the above analysis, I agree HEC and CLP to be the only two electricity suppliers of HK after 2008. Electricity is an essential part of the life for every HK citizen. It plays a vital role in business world and the daily life of HK people. An accidental cut of electricity supply for one day can lead to tremendous financial loss and adverse effects to HK. If the HK government considers outside electricity supplies to provide services in HK, I suggest that the HK government performs deep investigation in the above stated problems of sharing the electricity market.

Cham Kwong Chuen

爲民先生：

本人對政府檢討二零零八年後電力市場有以下的意見，請參考：

(1)：因爲引入新電力公司後，將來的長遠電力規劃由那些公司負責，他們可能代顧自己公司的投資利益，

(2)：電費可能平了，但對專性的能源依賴大大停電，後人埋單，對住在高樓樓宇的居民可能帶來痛苦

CHAN CHI LEUNG

陳志良

"alexhychan"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Consultation on Future Development of Electricity Market of HK
☐ Urgent ☐ Return Receipt

2005/04/29 08:20 PM

Dear sir,

I would like to have my comments on the captioned as below.

I think that the importation of electricity from new supply sources is not feasible. The problem of power shortage in Guangdong is obvious. I won't believe that they have surplus electricity to supply to Hong Kong. Most of the power plants in Mainland China were inefficient and much more polluting than the power plants in HK. Importing electricity from Mainland China might cause serious air pollution problems. Moreover, the reliability of power supply from Mainland China is questionable and might cause serious problems if their electricity systems are integrated with the power grid of HK.

Based on the above, I would like to keep the SCA in its current status after 2008.

Regards,

CHAN HON YEUNG

From: "Karlok Chan"
Date: Wed, 18 May 2005 12:12:01 +0800
To:
Subject: Fw: electricity

Could you pass the attache opinion to the related party.I am sorry for make you some trouble.
Chan Kar lok


Electricity[2].doc

To consider whether to abolish Scheme of Control (SoC) or not. let 's us first review some pros and cons about that arrangement:

Pros	*Cons*
Stable supply of electricity	15% permitted investment return may trigger utility companies to invest in equipment excessive
Sufficient investment in equipment	No mechanism to decide the appropirate level of return in the absense of market force (i.e. Is 15% return too high / low?)

After consider the overall circumstances, i support the abolishment of SoC. **My major arguments are:**

1. Time has change
   -in 1980s, HK was a fast growing economy and the need to attract long term capital to invest in electricity market is imminent. Hence, a higher rate to return is needed at that time
   - currently, the growth rate of the electricity market of HK is only at low single digit compared to double digit growth in the 1980s.

2. No mechanism to decide the appropirate level of return under current contractual arragement – let the market do its job
   - If inflation is taken into consideration, the current real rate of return of power plants is much higher than that in 1980s given the high rate of inflation
   - by introducing more competition in the power plant market, it is reasonable to expect that the level of tariff would drop

A proposal for reform

Separation of the ownership of power grid and power plants
it can be achieved by acquiring the power grid assets by the HKSAR
Afterwards, power plants can differentiate themselves by their product quality and hence charging different prices to customers (just like mobile phone operator)
The board of directors of the power grid company should be composed of representatives of power plants companies. The number of representatives is proportional to their respective market shares in HK. The fee charged to power plant companies is
= market share of power plants company x total expenditure of power grid company
Under such an arragement, there is an incentive for the power grid company to control cost.

Misc notes:

1. Setup of a franchise system (just like a telecom operator). HKSAR may then issue license to operators provided that they fulfill some necessary requirements.
2. HKSAR may require power plant companies to have 10% of excess capacity to ensure stable supply of electricity in HK

"M F Chan"

2005/04/27 11:40 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: SCA
☐ Urgent ☐ Return Receipt

After a thorough study of your Stage 1 Consultation Paper, I am of the opinion that the current SCA should be continued after 2008.

The reason is simple – there must be adequate incentives for the electricity suppliers to invest for expanding the generation plant and transmission and distribution networks to meet the requirements of new developments and existing customers as well as for proper maintenance of the system / networks. Without such investments, a very reliable electricity supply demanded by the public cannot be achieved.

Chan Ming Fung

pak to vincent chan

2005/04/29 11:55 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: comments on the Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

I have read the Stage I Consultation Paper issued by the HKSAR Government and would like to submit my views and comments below:

In Hongkong, we are so lucky to enjoy the world's best supply reliability in electricity at affordable prices. This is extremely importantly for Hongkong as an international financial centre. The electricity companies in HK must have done a very good job to make this happen. As everybody can see from time to time that even many developed countries like US, Australia are suffering from blackouts and serious outages due to bad government policies and poor planning, not to mention those developing countries like China & India. Of course, the HK government's Scheme of Control agreements with the power companies must have been working very well in contributing to HK's present success regarding electricity supply. The power companies are willing to do sufficient long term investments but not over invested. They make reasonable returns to enable them to continue improving customer service, focus more on environmental matters and care more for the society as a whole. I can see no reason for making an change to the SCA which has well proven to be so effective and successful.

To conclude, I strongly urge the HK Government to keep the SCA in its existing form. Extreme care must be exercised even with minor changes.

Chan Pak To, Vincent

26th April 2006

Economic Development and Labour Bureau
2/F., Central Government Offices
Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sirs,

Stage 1 Consultation Paper on Future Development of The Electricity Market in Hong Kong

With reference to the Stage 1 consultation paper, I would like to present my comments and views as follows for your consideration.

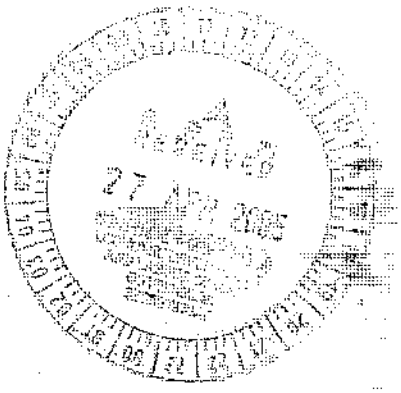
1. The current Scheme of Control Agreements should continue beyond 2008 in view of the excellent electricity supply reliability provided by the two power companies and the reasonable electricity bill (i.e. < 2% of the household monthly expenditure which I consider affordable for general residential customers). Noting so many blackout incidents encountered in recent years by those well-developed foreign countries which have deregulated the electricity market, I am afraid that any changes may do more harm than good.

2. The Government should remain the regulator since it has done a good job in monitoring the two power companies in the past. I think a regulatory framework backed by legislation will lead to unnecessary lawsuit and incur additional regulatory cost.

3. Importing electricity from the mainland China will degrade our supply reliability. Also, it will adversely affect the environment of the Pearl River Delta region as a whole since the environmental performance of the power plants in the mainland China is in general not on a par with Hong Kong.

Yours faithfully,

CHAN Ping Kee



Economic Development and Labour Bureau
2/F, Central Government Offices,
Main & East Wings,
Lower Albert Road,
Central,
Hong Kong.

26th April 2005

Dear Sirs,

Stage I Consultation on Future Development of The Electricity Market In Hong Kong

After I have studied the above consultation paper, I would like to express by views as follows:

You may appreciate that the electricity supply in Hong Kong is very reliable and we have not suffered any blackout or shortage of electricity supply in the past decades. Reliable electricity supply is a crucial factor for the economic development in Hong Kong.

Under the current Scheme of Control Agreement between the Government and the power companies in Hong Kong, I would say the power companies have operated effectively, efficiently and safely and they have contributed a lot in maintaining a reliable supply for their customers.

Hong Kong, as an international city, cannot afford any blackout or shortage of electricity supply which may occur as in some countries after the electricity market reform.

In view of the above, I would say existing Scheme of Control Agreement is a cost effective mechanism to facilitate the power companies to maintain a reliable supply and good services to their customers. As a conclusion, I support to extend the Scheme of Control Agreement, in its entirety, after 2008.

Yours faithfully,

Chan Shun Tung Longmas

經濟發展及勞工局長：

本人居於新界鄉郊，每當電力有問題時，定必致電中華電力公司24小時維修服務，他們定必在服務承諾的時間內給予維修和供應電力，但政府如果在將來開放市場後引入多家公司，請問他們如何分配供電範圍，那家公司會負責給我們提供維修服務，會不會互相推卸？現在的電力供應已算運作良好，如果改變了能維持現在的服務水平嗎？

請業局長三思和考慮。

Chan Siu Ming

CHAN Siu Ming

Ah Wai Chan

To: electricitycomments@edlb.gov.hk
cc:
Subject: The present electricity market is good
☐ Urgent ☐ Return Receipt

2005/04/29 12:33 AM

I think that the present scheme of control for the electricity market is good. It can provide a stable and reliable electricity supply at a reasonable price. Stability has utmost importance to Hong Kong. We should not change for the sake of change. To maintain HK as Asia's World City, a reliable and stable electricity supply is essential. As a result, the current regulatory regime should not be changed and the present Scheme of Control with the electric company should be maintained at its present form.

Chan

"cynlo"

27/04/05 11:57 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Keeping the SCA
☐ Urgent ☐ Return Receipt

I have read many view points in the Forum on the SCA in the Public Consultation on future development of the Electricity Market in Hong Kong (Stage 1 Consultation). One disturbing fact occurred to me is that many people focused on the earning of the power companies while choosing to neglect the contribution of the power companies.

Hong Kong is an important international financial centre and reliable electricity supply is one of the key factors to ensure Hong Kong keeps its position. Both the Hongkong Electic Co. Ltd and CLP Power had ensured this by providing a reliable electricity supply, which is supported by an infrastructure with sufficient capacity.

Further, we never need to worry about any problem with electricity supply in daily life and business operation, a fact that we just take it for granted. But in reality, all this required huge investment in power infrastructure and quality service. The SCA has successfully encouraged the power companies to do just this.

In consideration of the importance of electricity to Hong Kong, I am in full support of the current SCA regulation. While there may be some improvements in the existing regulatory structure, the SCA is definitely to stay.

Regards



Charles Lo Keeping the SCA.pdf

I have read many view points in the Forum on the SCA in the Public Consultation on future development of the Electricity Market in Hong Kong (Stage 1 Consultation). One disturbing fact occurred to me is that many people focused on the earning of the power companies while neglecting the contribution of the power companies.

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In consideration of the importance of electricity to Hong Kong, I am in full support of the current SCA regulation. While there may be some improvements in the existing regulatory structure, the SCA is definitely to stay.

Economic Development and Labour Bureau
2nd floor, Central Government Offices,
Main & East Wings,
Lower Albert Road, Central,
Hong Kong.

Dear Sir/Madam :

Government's Consultation on Post-2008 Electricity Market in Hong Kong

I wish to respond to the Consultation Paper on this subject.

Hong Kong is a world class financial and business center. Electricity reliability is therefore our NUMBER ONE priority, albeit at a small premium. We cannot afford to have blackouts or brownouts, like what had happened in New York and other European cities. The Scheme of Control has been successful in ensuring such reliability.

Hong Kong is too small a place for any meaningful competition – if there is any competition at all, there should be an integrated market with South China, and that is not going to happen for at least a decade. Other small companies might try to boost their share prices by promising to sell us electricity from across the border at lower prices. We have to be careful not to be "conned". Moreover, by buying electricity from these companies, we are effectively damaging our own environment - power stations across the border are known to burn cheap and dirty coal for power generation, and we will be on the receiving end of more pollution.

The Scheme of Control has proved to be effective in ensuring reliable supply and electricity prices at affordable price, whilst at the same time giving CLP/HEC's investors a reasonable return. This framework is working perfectly well and should stay.

Yours sincerely,

Charles Yuk-Kin Chan

敬啟者:

我們作為香港的市民及中華電力的電力客戶,對於香港未來電力市場的發展欲提供以下意見:

1. 電力行業涉及長遠和龐大資金的投資,要引導投資,必須提供足夠吸引力的回報,而回報亦必須反映電力投資長遠及資金龐大的特質,不應與短期經濟的波動掛,總而言之,設立了合理的回報機制才能確保私人資金的持續不斷;

2. 香港的經濟及社會發展有賴安全及可靠的電力供應,故此必須清楚界定系統的權責及有關機構負責投資,若一旦電力系統出現問題時,誰要向政府及公眾負責;

3. 行之已久的制度使香港擁有國際水平的電力供應,無須刻意為改變而改變;

4. 從客戶利益出發,電價當然愈低愈好,但如果低價是犧牲市民的服務來換取,相信香港市民與本人一樣寧願維持現狀。

以上數點乃我們對香港電力市場未來的發展而提供的意見,祈望政府有關機構慎重考慮。謝謝!

此致

經濟發展及勞工局

中華電力公司客戶

For and on behalf of

CHEER STAR HOLDINGS LIMITED

[illegible]

----------上

Authorized Signature(s)

Francis Cheng

24/04/05 01:22 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultation Paper on Future Development of the Electricity Market in Hong Kong - Stage I consultation
☐ Urgent ☐ Return Receipt

Dear Sir,

Below is my view concerning the questions raised in the above consultation paper.

1. The present form of the Scheme of Control for the two electricity companies encourages investment in the Hong Kong's electricity infrastructure. This is the main reason the reliability of the electricity supply has been so high. The Scheme of Control should continue after 2008.

2. The services provided by the two companies have been excellent. They will definitely deteriorate if the market is deregulated and competition is encouraged. Examples of poor service are abundant in the deregulated telecom market.

3. From the experience of deregulated overseas electricity markets, reliability of electricity supply decreases, number of blackout increases and domestic electricity tariff increases with deregulation and increased interconnection. As a Hong Kong citizen, I do not want to see these happen locally.

4. The present electricity tariff of the two power companies are reasonable and affordable. Even though the tariff for consumers on the Hong Kong side is a bit high, it is acceptable in view of the topographical constraint and the high standard of the service offered.

5. I do not support the idea of importing electricity from the Mainland. In the past 10 - 20 years, Hong Kong has lost too many jobs in the expense of development of the Pearl River Delta and GuangDong. Hong Kong's industrialists and entrepreneurs enjoy the cheap labour and overhead in the Mainland and then export air pollutants back to Hong Kong. With the importation of dirty electricity from the Mainland, Hong Kong's air quality will definitely get worse. Even if some Mainland's power stations can produce cleaner electricity, they should be used to phase out those power stations which belch out excessive air pollutants. Not until all the power stations in the Pearl River Delta, GuangDong and Hong Kong achieved the same environmental performance, should we consider the likelihood of importation of electricity from the Mainland. Otherwise, the EPD of Hong Kong will fight a losing battle in dealing with the local air pollution problem.

6. The existing regulatory structure is already bureaucratic. Creating a separate regulatory authority will just mean creating another big bus stop since there is no way the new authority will be able to replace the work being undertaken by the EDLB and ETWB completely. I certainly do not want to see the already inflated Government's structure further expands. Efficiency of the Government will deteriorate, not improve, with the addition of the new regulatory authority.

7. The atmosphere of the Hong Kong's Legislative Council is extremely political. The normal function of a legislature is seriously impaired by Councillors constantly

performing political shows. Too many Government's resources had already been wasted in dealing with the Councillors. Efficiency of control of the power companies will decrease drastically if the Scheme of Control Agreement is changed from a bilateral agreement to a legislative framework.

In conclusion, below are my opinion regarding the views sought under the consultation paper.

a. The present form of the Scheme of Control with the two power companies should continue. The period of the agreement should not be shortened for the power companies to properly plan their development.

b. Mainland's power stations should not supply electricity to Hong Kong until such time the environmental performance of power stations in the whole Pearl River Delta and GuangDong reached the same standard.

c. The setting up of a new Regulatory Authority is not supported.

Name: Cheng Cho Ying
Address:



"Mike Cheng"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Disagree opening electricity market
☐ Urgent ☐ Return Receipt

2005/04/26 08:32 PM

I don't agree opening Hong Kong electricity market, especially importing electricity from Mainland.
1. More electricity from Mainland implies more pollutant to Hong Kong. Their power stations are in general poor operated comparing with Hong Kong power stations ,their electricity is so "dirty".
2. Connecting with Mainland electricity grid probably results in lowering reliability of Hong Kong electricity supply. Secure and never-stop electricity supply is indispensible to Hong Kong economy.
3. Open market is a waste of time and money. Mainland is in short of electricty, too.

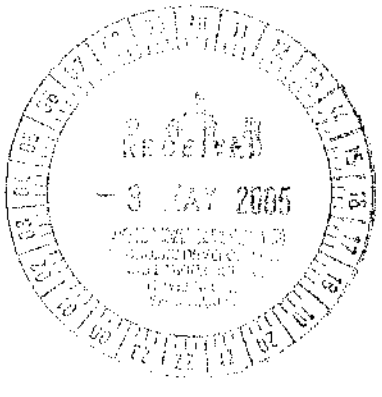
Cheng Ka Yin - an Engineer

本人已閱讀香港電力市場未來的發展第一階段諮詢文件。

本人認為不應開放電力市場給其它公司。雖然會訂低電費但供電不穩。如突然電力中斷會給我們帶來不便。而且本港兩間電力公司供電穩定。

本人希望兩間電力公司繼續為香港服務。

Cheng Wing Yin



Cherry Tan

To: electricitycomments@edlb.gov.hk
cc:
Subject: my opinion of electricity supply
☐ Urgent ☐ Return Receipt

2005/04/29 11:50 PM

The current electricity services provided by Hongkong Electric and China Light are in outstanding performance respectively. I am satisifed with the steady supply of electricity. The attitude and politeness of their technician are highly recommended. Both of them can enhance my quality of life.

Cherry Tan

8/2/65

Dear Sir

Comment for electricity increase

As a citizen, I would like to offer my view to maintain the status quo. The reason is that our electricity price is low. Even a ten percent reduction is of the order of magnitude of 10¢ per person per day. This is too insignificant if we consider reliability as Hong Kong has many lifts, mass transit and water pumps relying on electricity.

Yours sincerely,

Chung Ee Ling

"Cheung CK"

25/04/05 08:56 PM
Please respond to
"Cheung CK"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Consultation Paper on Future Development of The Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

To: Secretary for Economic Development and Labour,

I am a residential customer of the electricity supply in Hong Kong. Having read the above Consultation Paper, I would like to express my views as follows.

Although I will be very glad to see a price cut in the electricity tariff, I agree it is of utmost importance that we must have reliable supply in Hong Kong.

To ensure a continuous reliable and efficient electricity supply, I opine that the SCAs is such an incentive for the electricity supply industries that require intensive capital investment with long payback periods.

In view of the relative small size of HK's electircity market and limitaiton for infrastructure development, I think we are unlikely to benifit from new electricity supplier(s) in HK's market in the short run.

I therefore would recommend the SCAs with the existing electricity suppliers be maintained but a more flexible regulatory regime should be adopted in order that we can continue receiving a reliable and efficient electricity supply but at a reasonable and competitive price.

Thank you for your attention.

With regards.
Cheung CK

keishun cheung

2005/04/26 11:27 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Keep the SCA in its current form
☐ Urgent ☐ Return Receipt



Keep the SCA in its current form.doc

Dear sir / madam, 26th April, 2005

After careful considering your stage I Consultation Paper, I prefer to express my opinions and comments as follows:

Opinions:

Refer to dependable electricity supply, some well developed countries like US, Canada and Australia and developing countries such as China and India are suffering from blackouts because of market reform or worse planning. Fortunately, I haven't any blackouts experience in Hong Kong. The stable electricity supply which is based on an infrastructure with sufficient capacity is definitely important. Adequate investment in power infrastructure and quality service has been successfully encouraged of the SCA. With reference to the daily life and business operation, I have no doubt about any problem of electricity supply.

Comments:

In consequence of the importance of electricity supply to Hong Kong, I absolutely agree to reserve the current SCA regulation after 2008.

Yours sincerely,
Cheung Kei Shun Kenneth

致經濟發展及勞工局局長：

本人作為香港電力客戶，对於政府引入開放电力市場，本人有一些意見表達。

如果推行開放电網有以下缺点：

會涉及複雜的技術，成本，法律責任和銜接等問題，需要龐大的前期成本投資，這將反映在用户的电費上而所預期的效益，可能需要数年才能實現，可能會引致一些不明朗因素，因而增加可靠供电水平風險。

若容許向其他供應商購電，現有的電力公司可能不再負起滿足其區內所有客户電力需求的責任。

基於上述原因，我們希望維持現狀，確保維持現有的高度可靠供电水平。

RECEIVED

Cheung Kin Chu

23-4-05

Example 2

To EDLB

I found satisfactory on the performance of the power company which supplies us a reliable electricity power. I am in doubt of the power supply reliability when the grid in HK links up with that in Mainland China. The power always runs out in summer in China!! How can I sleep without air conditioning in a summer night? So, keep the existing electricity market arrangement and NO blackout please.

(Name) CHEUNG YUK HA

電力條例計劃擬議諮詢文件

致經濟發展及勞工局

有關上述一項諮詢，本人認為可靠和穩定的供電是最重要的。

停電或不穩定的供電，使我們在營運上受到極大的影响和損失。如果引入新的電力市場，最後使停電機會增加，政府還要補貼批發市場下所出現的昂貴電費。

CHOI WAI LUN

Hong Kong Citizen

2005/04/29 10:33 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject:
☐ Urgent ☐ Return Receipt

本人對香港電力市場未來的發展第一階段諮詢文件有下列意見:-

電力供應首要重安全及穩定，其次就是有效的監管。香港的電力供應能達致世界先進水平，就是有賴這三方面都能做得到。如果罔然改變現有狀;，隨時會重蹈美國當年大停電的惡果，引致供電混亂，現在的電訊網絡也是一個很好的例子。將來的電力供應也都是要維護安全、保持穩定、加強監管，並不是要加入競爭，這只會製造混亂。香港這麼小的地方並不適合容立太多電力供應商。長遠來說，政府可成立能源管理局以監管電力公司。

總結而言,現時我對這家電力供應商的服務和穩定性都非常滿意，不想有任何改變・

市民: Chong Yuk Kuen

"chchow"

2005/04/29 09:06 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Stage I Consultation--Comments on Future Development of The electricity Market in HK
☐ Urgent ☐ Return Receipt

As a resident in Hong Kong Island for more than 48 years, I would conclude that the electricity supply and services have been performing very well. Compared with other electricity supply utilities worldwide including our Mainland, I could hardly recall any major problems such as black-out or interruption of supply. Having gone through the consultation paper, I would rather say that from the security and economical viewpoint, the current reliable supply of electricity in HK should be maintained. I myself have reservation to the changes of current status of electricity market after 2008 when the Scheme of Control Agreements expires.

Chow Chun Hung



"Charles"

2005/04/30 07:48 PM

To: <edb@edlb.gov.hk>
cc:
Subject: 開放香港電力市場的意見
☐ Urgent ☐ Return Receipt

本人想就政府最近有關上述題目的公開諮詢, 發表一些意見:

香港作爲一個發達的城市, 一個亞洲甚至世界的金融中心, 其中背後最大的因素, 我想, 可靠的電力供應是不可缺少的! 試想想, 當在交易日的時間, 如在中環的交易所或寫字樓突然停電, 會有什麼後果？
作爲一個香港的市民, 如要在電力的價錢和可靠性兩方面作出取捨的話, "可靠的電力"必然是我的首選！而對於政府和兩間電力公司長久以來所遵守的"利潤管制"的制度, 我本人覺得是有效的, 而且亦是維持優質的電力供應的一個重要因素！
對於本港電力市場的開放與否, 本人並沒有必然的反對或讚成, 本人建議不可大改現行持之有效的制度, 只可輕微的更改, 例如重訂與電力公司簽定的準許利潤的百分比, ? 然現有的管制計劃可能被更改, 但新的計劃必定必須要能保證香港能有可靠的電力供應.

CHOW FO SHING



"A.Z. Chow"
2005/04/30 05:49 PM

To: edb@edlb.gov.hk
cc:
Subject: electricity comments
Urgent Return Receipt

Dear Sir/ Madam,

I have experienced blackouts overseas and I am fully satisfied the reliable Hong Kong Electric supply nowadays.

The SCA is the best!

Regards,

Chow Shiu Tong

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

29 April 2005

Dear Sirs

<u>The future development of Hongkong Electric market Stage 1 consultation paper.</u>

Upon reading the Stage 1 consultation paper I would like to express my view and comments as follows.

1. In the past ten years, I never contact the electric company for report or complaint about defects or breakdown of electricity supply and I hope that in the next ten year are the same.

2. The stability electricity supply is the basic need for me to live in Hongkong because such living environment able to let me to develop my career and my next generation confidently.

3. I don't want to take risks in unreliable of electricity supply which make by the new organizations and no body can tell me and I can't see that the electricity rate will be lower than existing and maintain current excellent service after the market open.

4. The existing electric companies in Hongkong are able to provide me a returnable and stable investment opportunities through own their share.

Base on the said view my comments of stage 1 consultation paper as list on below.

1. I prefer the electric market remain unchanged.

2. The service providers in electricity supply should have excellent reputation, strong financial background, expertise in electrical field and "root in Hongkong" instead just doing "buy and sell".

3. Finally, I believed that the electric rate should have small room to lower adjust.

Chow

LY Choy

2005/04/30 11:30 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Future Development of the Electricity Market in Hong Kong Stage I Consultation
☐ Urgent ☐ Return Receipt

To: Economic Development Branch

Refer to Stage I Consultation, I would like to express my view to this Consultation Paper.
I consider the present SCA shall be maintained according to the following view points.

a. Open market
HK is too small to provide area for other power company. It is not suitable to have additional power company to built their network and plant.

b. Environment Protection
It will be unavoidable to create additional pollution and wastage to our environment.

c. Supply Reliability
It is observed from the history of other countries that there will be risk of backout if more networks connecting together. HK does not able to suffer for the consequence.

The detail condition of the SCA could be changed to suit the current market environment. But the power quality shall be promoted to suit our living standard.

CHOY LUNG YAU
30 April 2005

To: Economic Development and Labour Bureau
(Stage I Consultation for Future Development of the Electricity Market in Hong Kong)
Fax: 2523 1973
From: Choy Yat Wah (a citizen of Hong Kong)

Date: 30 April 2005

Opinion for Stage I Consultation for Future Development of the Electricity Market in Hong Kong

I support not to open the electricity grid, and I support not to cancel the Scheme of Control Agreements after 2008 because of the following reasons:

1. The electricity market of Hong Kong is comparatively small and there is shortage of land and fuel source. It would not be possible to introduce an effective open electricity market but opening of electricity market would cause the confusion of responsibility and right, and affect the degree of the reliability of electricity system in Hong Kong. There is no sufficient land to provide new supplier to lay new cables, install electricity stations and plants of power generation in Hong Kong. If the new supplier is from Mainland China, it is not a wise choice. We ought to not see it is a base because we cannot see Mainland China can provide sufficient electricity for the demand of herself in short term or long term of time in future. Also, as the electricity grid is large and cover big area in Mainland China, a small incident fault from remote can cause great unstable affect to the reliability of electricity supply in Hong Kong. As Hong Kong is a city with high density of population living in high riser buildings and people living rely on the important commercial activities, we really need reliable electricity. So far, we have sufficient, reliable electricity providing by existing power companies in Hong Kong.

2. The Scheme of Control Agreements is running a long time in Hong Kong and we can see it is effective. Citizen in Hong Kong can enjoy the low tariff of electricity with respective to the degree of living standard as compare with the world, for example, the tariff in Hong Kong is lower than in city of well developed country in Asia or Europe such as Tokyo, Frankfurt, Birmingham, Taipei, Rome, Berlin. The tariff in Hong Kong is also lower than the tariff in Macau, Guangzhou, Shenzhen, Seoul, Kuala Lumpur, Bangkok, and Manila. In fact, the Scheme of Control Agreements can effectively monitor the existing power companies to get the balance between the tariff and the reliability, and maintain with the cheapest price.

3. I do not hear from people, especially the business man in Hong Kong complain that they do not have sufficient of their demand of electricity because the existing power companies in Hong Kong fulfill the obligation of supply under the term of Scheme of Control Agreements.

4. We do not be foolish to hope to get free lunch in the matter of opening of the electricity market. Existing way of The Scheme of Control Agreements can attract and encourage investors to place their money on the Hong Kong electricity industry and investors can have reasonable return. At the same time, the continuous investment can provide new equipment and improve the existing installation to meet the necessary demand of electricity for exiting usage and future development in Hong Kong.

5. About minimizing environmental impact, one of the existing power supply company in Hong Kong introduced more efficient and environmentally friendly technologies, apply flue-gas desulphurization (FGD) plants, low-NO_x burners and electrostatic precipitators, it reduce >99.9% particulates, >90% SO_2 & 2/3 NO_x. It met the international standard about the emission of waste in the process of production of electricity. We have to go to the direction to maintain and control existing environmental protection procedure, follow the important and applicable way of environmental protection in future.

   It is important to be aware that the bad air condition we see everyday is mainly due to the use of poor quality plant, lower technology, being loss of control in the way of production of electricity in Mainland China. From now to long term in future, in Hong Kong, all citizen and especially the foreigners related to business, professional work, specialist, etc., would like to have comfortable fresh air environment. All of them would consider if they would select Hong Kong as their living or working place in long period of time as Hong Kong's air pollution is serious. Application of Scheme of Control Agreements can be effective to monitor and control the electricity supplier to provide and improve green electricity to people of Hong Kong.

At last, I also do not agree to install additional new inter-connection supply network in Hong Kong because the new installation would require much money and more land but it do not provide big advantage. In opposite, larger inter-connection system would lower the stability and reliability of electricity system in Hong Kong.

In conclusion, it is not valuable to proceed the change just based on we want to change.

Choy Yat Wah

敬啓者:

我們是中華電力的用戶,對於香港電力市場未來的發展欲提供以下意見:

1. 現行的電力供應制度行之已久且有效,符合香港市民的需求,我們覺得無需刻意爲改變而改變,若然要改變現行的制度,必須維持現有的供電質素及清楚界定不同參與者的責任及釐定他們的問責角色;

2. 部份客戶從個人利益出發,要求電價愈低愈好,不過,不同的客戶有不同的觀點,但如果不能維持充足、可靠的電力系統及現有的服務水準及承諾,相信更低的價格也不能取代主流市民的意願;

3. 香港的經濟及社會發展有賴安全及可靠的電力供應,我們期望的電力供應不僅要源源不絕,避免中斷,還要隨時能滿足我們的需求,香港一直享有世界級的供電服務,將來亦應如此;

4. 環保是香港電力供應商要承擔的重要責任之一,以環保的原則營運,採取開放的態度,履行對社會的承諾,以客戶爲先,並將相關資料公開。

5. 電力行業涉及長遠及龐大的資金投資,只有提供了足夠吸引力的回報,才能反映電力投資的特質,這樣才能確保私人資金持續不斷的投入;

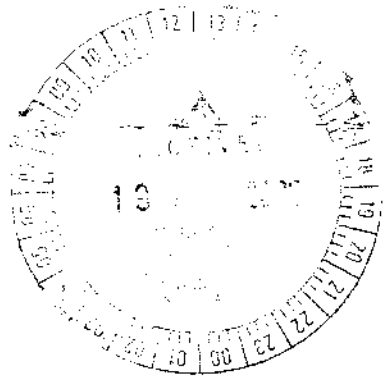
6. 中電的電價自1998年以來已維持不變，期間更爲客戶提供了6次的電費回扣，香港市民以合理及可負擔的電價享用可靠程度甚高的電力供應，價格較世界上一些大城市更便宜；

7. 一間營運效率高而且將資金運用得宜的電力公司，是香港市民所願意接受的，而中華電力所提供的，正是此種通過提升生產力及節約成本，保証客戶享有最符合成本效益的供電服務。

以上數點乃本人對香港電力市場未來的發展而提供的意見，祈望政府有關機構慎重考慮。謝謝！

此致

經濟發展及勞工局



for and on behalf of
CITY ELECTRICITY LIMITED
中華電力有限公司

中華電力公司客戶

Authorised Signature

思匯
CIVIC EXCHANGE

Mr Stephen Ip
Secretary for Economic Development and Labour
Economic Development and Labour Bureau
8/F., Central Government Offices, West Wing
Lower Albert Road
Hong Kong

30 April 2005

Dear Mr Ip,

Re: Response to the Consultation Paper on Future Development of the Electricity Market in Hong Kong

Enclosed is the joint response from Civic Exchange (Hong Kong) and Rocky Mountain Institute (USA).

If the EDLB finds it useful, Civic Exchange and Rocky Mountain Institute shall be glad to help the EDLB find independent advisors to work with the utilities and other stakeholders to formulate, test, and execute the ideas in this Response. We recognise that the Repsonse contains many issues that do not appear to be within the current consideration of EDLB.

At this early stage, we strongly recommend that EDLB seeks the advice of the Regulatory Assistance Project, www.raponline.org, an independent and world-class non-profit group of senior retired utility regulators who have implemented schemes such as mentioned in our Response in the U.S. and elsewhere under a wide range of conditions. This group exists specifically to help governments and regulators work through the kinds of issues raised in the Consultation Paper.

We would be pleased to answer any questions EDLB may have of our Response.

Yours sincerely,



Christine Loh
Chief Executive Officer
Civic Exchange
For herself and on behalf of Amory Lovins

Copy to:
Marco Wu, Director of Buildings
K K Choy, Head of Building Innovation Unit
Bosco Fung, Director of Planning
Roger Lai, Director of Electrical & Mechanical Department
Sarah Liao, Secretary for Environment, Transport and Works

RESPONSE

Consultation Paper on Future Development of the Electricity Market in Hong Kong

Stage I Consultation

30 April 2005

Presented by

Christine Loh and Amory Lovins

of

Civic Exchange and Rocky Mountain Institute

思匯 CIVIC EXCHANGE

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RESPONSE

CONSULTATION PAPER ON FUTURE DEVELOPMENTOF THE ELECTRICITY MARKET IN HONG KONG

Table of Contents

	Summary of Response	1
1	Introduction	1
2	Policy Making Needs to Take a Wider Approach	2
3	How Problems are Framed Affects Solutions	2
	A. EDLB's Summary of Major Issues	2
	B. Our Summary of the SCAs Deficiencies	3
4	Redefining the Framework for the Review	4
5	Focus on Energy Services	4
6	Government Policy to Steer in Right Direction	5
7	Energy Efficiency	6
8	The Way Forward: Recommendations	9
	A. Reward Utilities for Cutting Customers' Bills Rather than for Selling More Electricity	9
	I. Rewarding Conservation: An Example	10
	B. New Supply Opportunities	11
	I. Exploring Distributed Generation	12
	II. Retail Choice Considerations	12
	III. Diversification	13
	IV. Renewable Power Generation	14
	C. Using Policy to Facilitate Adequate, Efficient and Clean Energy	15
	D. Policy Measures EDLB can Actively Explore	16
	E. Incentifying Energy Efficient Buildings Can Serve Several Policy Objectives	17
	F. Regulatory Environment and Public Participation	17
	I. Regulatory Environment	17
	II. Public Participation	18
	G. Energy Supply from Mainland China	18
	H. Further Observations	19
	I. Additional Recommendations	20
Appendix A:	Authors' Qualifications	21

Consultation Response prepared by
Civic Exchange and Rocky Mountain Institute

This Response is jointly presented by Civic Exchange, a non-profit public policy think tank in Hong Kong, and Rocky Mountain Institute, a non-profit organization based in Colorado, USA, which has world-leading expertise in energy policies' formulation and analysis as well as energy efficient designs.

We attach two reference reports: *Competition in the Power Sector – Restructuring the Power Sector: Options for Reform* published by Civic Exchange (2003); and *Small is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size*, published by Rocky Mountain Institute (2002). These publications provide detailed information that Economic Development and Labour Bureau may wish to study at greater length.

SUMMARY OF RESPONSE

The Economic Development and Labour Bureau's (EDLB) Stage I Consultation Paper is too narrowly framed. It does not sufficiently address many important issues about potential reform in the Electricity Market, such as: Hong Kong's future energy supply; diversifying energy sources; mitigation of possible fuel pricing spikes; championing energy efficiency and conservation; promoting energy efficiency as a way to spur Hong Kong's overall economic development and worker productivity; or protecting the environment and at the same time safeguard public health. The danger of taking a narrow approach is that yet again Hong Kong will miss the opportunity to fully appreciate the importance of energy in setting the right policies. Indeed, by tinkering with the existing electricity regulatory regime rather than addressing the real challenges and opportunities of energy supply Hong Kong, Hong Kong will have an inadequate energy policy to face the future.

1. INTRODUCTION

The Consultation Paper's starting points are the existing Scheme of Control Agreements (SCAs), and the consultation's stated objectives are to address "major criticism and perceived shortcomings" of the current regulatory regime while ensuring supply reliability, reasonable prices, and environmental protection. As stated in the Consultation Paper (4.11), the expiry of the SCAs provides a valuable and timely opportunity to re-examine the current electricity regulatory regime and to improve its structure and operations in order to "ensure that consumers continue to enjoy reliable and safe electricity supply at reasonable prices" while supporting "the power companies' business efficiency and investment confidence" (4.12).

Our view is that the EDLB's current approach will not result in a much needed energy policy for Hong Kong. The Consultation Paper puts forward a traditional view of the Hong Kong electricity issue. Historically, this view has served Hong Kong well, creating an enviable record of investment and performance (2.5). Its basic structure and philosophy were appropriate when the prime need was to ensure ample, reliable electrical supply for a rapidly growing economy. The electricity companies responded with impressive achievements. However, times have changed.

Indeed, the entire focus of the Consultation Paper omits whether the EDLB is willing to look beyond the SCAs that regulate the two electric utilities. The EDLB appears unwilling to consider restructuring the energy sector as a whole. This is worrying as it is unclear whether the EDLB is willing to acknowledge that there are economic, environmental, social and political issues to be considered. It may be the EDLB does not wish to take a broad approach precisely because it will then have to deal with a high degree of complexity. If this is the case, this would be regrettable.

2. POLICY MAKING NEEDS TO TAKE A WIDER APPROACH

By focusing on "major criticism and perceived shortcomings" of the SCA regime, the EDLB has presumably paid the most attention to the issues that are frequently brought up in the media and in political debates in the Legislative Council. These criticisms are mainly confined to economic arguments. There is a danger in focusing on the economic arguments because it will mask the real challenges facing the energy sector and preclude the setting of appropriate policies to address these hallenges.

Unless the EDLB is willing to take a wider approach in the way it is reviewing the SCAs, it will not help Hong Kong to meet its future energy needs in the best way. Indeed, the concern is that Hong Kong will continue to waste scarce energy resources and not be assisted by the right policies to use energy much more efficiently as well as to ensure that in the design and use of energy systems that they help to achieve other policy goals, including spurring economic development, protecting the environment, increasing human resource productivity, and promoting public health.

3. HOW PROBLEMS ARE FRAMED AFFECTS SOLUTIONS

Accurately defining problems from the outset is vital in identifying possible solutions.

A. EDLB's summary of major issues:

- The permitted rate of return (PRR) of 13.5% on fixed assets and the additional 1.5% on assets financed by shareholders' funds are too high.
- The PRR, based on fixed assets, is seen to encourage over-investment in fixed assets.
- The PRR fixed over a 15-year period is inflexible, as amendments to the SCAs cannot be made without the consent of the utilities.
- The annual tariff and auditing reviews lack transparency.

B. Our summary of the SCAs' deficiencies:

- ***They work against consumer interests.***

PRR is tied to capital investment. This encourages the utilities to build as much capacity as possible (whether needed or not) and to retire assets early. Both practices can result in higher tariffs.

- ***They discourage efficient use of capacity.***

There is no requirement for the utilities to use all available capacity before building new infrastructure (such as approval of Hong Kong Electric's Lamma Island Station expansion).

- ***They discourage energy efficiency and penalize innovation.***

The SCAs allow the utilities to refuse to provide electricity to customers who have an alternative source of power. This has been the reason for the utilities to refuse supply to customers who want to install photovoltaic panels. If this aspect of the SCAs is not changed, it will remain a barrier to environmentally friendly methods of decentralized power generation, including landfill gas conversion, fuel cells and on-site co-generation.

Furthermore, the utilities have no real incentive to increase energy efficiency as they lose money when customers are more energy efficient. Attempts have been made to rectify this by the government concluding Demand Side Management agreements (DSM) with the utilities but they have only resulted in minimal energy savings because they have not been structured to provide sufficient incentives for DSM to truly work.

- ***They do not include the entire energy sector in Hong Kong.***

Hong Kong & China Gas is not part of the SCAs.

- ***Shareholders of the utilities receive excessively high returns on capital investment.***

The PRR does not differentiate between cost of equity and cost of debt. The utilities leverage the certainty of the SCAs into low cost debt financing which has enabled them to generate equity returns of over 20%. This high return is indirectly financed via higher tariffs.

- ***Consumers bear all the investment and business risk.***

Consumers bear all the risks for the government's and utilities' decisions. If power usage projections are much higher than actual usage, consumers are left paying for the mistake of over-building through higher rates, while the utilities profits remain high.

- *The regulatory process lacks transparency and accountability.*

The SCAs force the government to choose between running the risk of insufficient capacity and high tariffs. The constant reference to "reliability" masks the underlying feeling of risk-adverse bureaucrats to electricity shortage. To address this problem, the EDLB needs to address the issue of energy more broadly. Moreover, the SCAs require only minimal government oversight between the specified 5-year reviews. While the utilities must present EDLB with reasons to justify new capital expenditure and tariff increases, the exchanges between the government and utilities are not public released.

4. REDEFINING THE FRAMEWORK FOR THE REVIEW

In today's more mature Hong Kong economy, new factors have radically changed the assumptions and opportunities underlying the SCAs. These new conditions include competitive global markets (requiring all firms to sweat the costs), climate concerns (3.7), security jitters, the accelerating revolution in demand-side and supply-side technologies and analysis, and the evolution of energy and energy-service markets themselves.

These changes now make it necessary to rethink policy beyond the choices contemplated in the Consultation Paper. Doing so can achieve all of the stated policy goals *simultaneously and without compromise* - rather than, as the Consultation Paper suggests, treating these goals as conflicting and hence requiring tradeoffs - whilst also supporting other important goals left un-stated by the EDLB, such as encouraging innovation, competition, adaptability, rapid learning, and resilience.

Contrary to claims in the Consultation Paper that "financial and supply reliability, safety and efficiency considerations [that] are appropriately balanced against environmental considerations" (4.7) have been achieved, this goal has not, and cannot be achieved by the current system. In order to understand this we need to look at the *larger and changed context* stated above.

We believe the way the Consultation Paper has framed the issue makes it difficult to achieve the *underlying purpose* of the policy objective set forth in 1.1 - "that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact caused by the generation and use of electricity." That objective is itself mistakenly framed to a seemingly small but actually very important degree. This is so because supplying more electricity is no longer the only way to provide the services needed.

5. FOCUS ON ENERGY SERVICES

Indeed, people do not want electricity for its own sake. Electricity is not a "final demand" in the economic sense but rather an intermediate good. It is a means of accomplishing something else. In other words, if you go to the shop to buy a drill, probably what you want is not a drill but a hole. Similarly, people who buy and use electricity are really seeking such "energy services" as comfort, illumination, mobility, torque, cooked food, and information transfer. These end-uses, not mere electrons, are the ultimate goods being sought and provided. Providing the desired **energy services** in all the ways described in EDLB's policy objective - reliable, safe,

environmentally benign, and least-cost - should therefore be the central objective. Electricity is only one way to meet those goals.

6. GOVERNMENT POLICY TO STEER IN RIGHT DIRECTION

In sum, governments should steer not row. That is indeed the philosophy of the current SCAs and of the HKSAR Government as a whole - set the rules, then let the private sector do the job. The key question is in which direction to steer. We think the Consultation Paper does not yet steer by the right star.

The SCAs reward power companies for spending money, not for achieving the stated policy goals. Investment in generating and delivering kilowatt-hours is considered a *surrogate* for the desired performance metrics. But it is not a good surrogate at all. Most of the electricity now used in Hong Kong is in fact being wasted: that is, the same services (air conditioning, running lifts, pumping water, lighting spaces, etc) can be provided through a better optimised combination of electrons (or sometimes of other energy sources as mentioned above) and of their more productive use.

This optimal mix of investments on the demand-side and on the supply-side cannot be achieved and is not being rewarded by present arrangements. Yet it could be achieved, for example, by a policy to encourage full and fair competition between all ways of producing or saving electricity (to deliver whatever end-use service is desired) regardless of which type of investment is chosen, what technology it uses, how big it is, or who owns it, and subject to regulation or full economic costing for any other attributes sought, such as reliability and environmental impacts.

A sound and balanced policy will provide the desired energy services reliably, safely, benignly, and at least cost. This could also be phrased more simply and broadly as "...services at least cost and risk to society," depending on how thoroughly one values and internalises all the relevant categories of social cost.

Whether one achieves that solid energy policy through administrative and regulatory means or through market competition is a matter of philosophical choice. Our view is that:

- Markets make splendid servants, bad masters, and worse religions, so they should be used to do what they do best but not to try to do other tasks for which they are unsuited;

- Markets offer ample scope, mainly untapped in Hong Kong today, for better meeting the electrical services policy goals just stated; and

- Markets only work efficiently and effectively and achieve the desired overarching goals if government sets the right rules. Markets always have rules, explicit or implicit; the question is whether the rules we have fit the criteria and produce the outcomes we want.

To illustrate the difference between a policy framework aimed at producing reliable and affordable electricity and one aimed at producing reliable energy services at least cost, we sketch the most important means of providing those services that is currently very under-bought in the Hong Kong energy system. These are techniques

for using electricity efficiently so as to wring more and better work from each kilowatt-hour through smarter technology.

7. ENERGY EFFICIENCY

Another important way to obtain energy services is to **use electricity more efficiently**. Efficiency examples include various modern techniques, which can often be refitted e.g.: daylight buildings, bouncing natural light all the way across the floor-plate of big high-rise buildings without glare rather than using electric light; water can be heated with gas with waste heat from on-site power generation or even with solar panels rather than with electricity. Other examples of end-use efficiency can be incorporated into the building planning stages, as outlined below.

Superwindows

A key to efficient buildings is modern "superwindows," whose spectrally selective multiple coatings and heavy-gas (typically krypton) filling can achieve 4–7+ times the insulating value of double glazing, and be essentially perfect in letting in light without heat, whilst making the whole building cheaper to construct and far more comfortable to occupy. The EDLB may wish to study why such advanced glazings are rarely if ever used in Hong Kong. It may be partly because they are not encouraged and may be discouraged by the obsolete Overall Thermal Transfer Value (OTTV) standard. In Singapore, where OTTV originated, there was not, and still is not, any clear evidence that OTTV saves energy. Its use persists in Hong Kong a quarter-century after the market emergence of the "superwindows" that made it obsolete. As a result, the big glass wall in Hong Kong's new airport was specified in a way that required a vastly larger and costlier (to build and to operate) air conditioning system than had optimal glass been chosen at the time of construction.

Curtainwalls

Similarly impressive efficiency opportunities are available both in new construction and in retrofit for the types of big and tall buildings that predominate in Hong Kong. For example, near Chicago, which is very hot and humid in summer and very cold in winter, a retrofit design for a 19,000-m^2 curtainwall office building was able to save three-fourths of the electricity, improve comfort, and cost virtually the same as the normal 20-year renovation that saves nothing.[1] Even larger savings are available at zero or negative marginal construction cost in new buildings, including the biggest.

Air conditioning systems

The energy expert Lee Eng Lock routinely achieves in Singapore and similar Hong Kong-like climates a roughly trebled efficiency for large air conditioning systems (0.5 kW/ton or COP 7 for the entire system from the supply fan through the cooling towers, of which the chiller alone is ~0.42 kW/ton) with better comfort and typically lower construction cost. Combine that with "superwindows" tuned to each elevation (side) of the building, deep daylighting, super-efficient lights (3 W/m^2 net of control savings) and plug loads (2 W/m^2), and one can have much more efficient high-rise office

[1] Details about the Chicago office retrofit design are summarized in Lovins' ASHRAE Centenary Speech, "The Superefficient Passive Building Frontier", condensed in *ASHRAE Journal* at www.rmi.org/images/other/Energy/E96-28_SuperEffBldgFrontier.pdf.

buildings than Hong Kong has now, and they work better and cost less. That is, all the same comfort and amenity can be provided in a top-class Hong Kong office tower using 80%–90% less electricity than normal, with several percent lower capex for the developer (and a big capex saving for the utility, benefiting all customers). Such a design also typically increases space efficiency by several percent, though current Hong Kong regulations do not make this important benefit convertible by the developer into increased net rentable space.

Single household savings

Efficiency examples can be both small and large. As a small illustration of what is now possible, Amory Lovins' household electricity bill for 372 m^2 would be just US$60 per year, one-tenth the U.S. norm, if no solar electricity was generated.[2] This tenfold efficiency improvement paid for itself in ten months in 1983. If today's best technologies were installed, the electricity use would drop from an average of ~120 watts to about 50 watts, and the associated marginal capital cost would be even lower and probably negative. Included in that 10-month payback is non-electric efficiency, too, that makes the house use only 1% the normal amount of energy for space-heating and water-heating. Indeed, the house has no conventional heating system, despite being at 2,200 m elevation in the Rocky Mountains.[3] Conversely, in Bangkok, architecture professor Suntoorn Boonyatikarn built a 350-m^2 house that used design integration modelled on the Lovins house, but technologically adapted to the opposite climate. It achieves excellent comfort with one-tenth the normal amount of air conditioning capacity (3 refrigerative tons instead of the normal 30), at zero extra construction cost.[4]

Potential energy performance in Hong Kong

Saved electricity potentials - "negawatts" - are illustrated in Table 1 below by the following generic benchmarks of illustrative energy performance for a new high-class office tower on the order of 10,000 m^2 or more in Hong Kong or similar climate. From discussions with local design professionals, we understand that the "standard US" column is quite close to contemporary Hong Kong norms. This implies that Hong Kong developers are making less profit, Hong Kong land is being used less effectively, and Hong Kong office tenants are paying considerably higher rents and electricity costs than they would if the buildings were optimally designed. There is also much evidence that doing so would raise labour productivity by approximately 6%–16% - economic gain an order of magnitude more important than the electricity bills, due to improved thermal, visual, and acoustic comfort and indoor air quality.[5]

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[2] Actually, Lovins makes 5–6 times that much electricity with solar cells, and sells it back at the same price, as more than 30 states in the US now permit. Solar power has proven far more reliable than the mains supply with zero emissions.

[3] The climate there has a 44°C extreme temperature, 4,900 C°-days of annual heating load, frost possible on any day of the year, and up to 39 days' continuous midwinter cloud. In the middle of the house, with no furnace, it is possible to harvest 28 passive-solar banana crops.

[4] Test houses built by Pacific Gas and Electric Company in the 1990s, in a project co-led by Lovins, similarly found at up to 46°C (albeit not in as humid a climate as Bangkok) that excellent thermal comfort could be achieved at zero or negative marginal construction cost using no heating or cooling equipment.

[5] Many examples of modern electricity-saving opportunities, see various authors, E SOURCE (Boulder, CO), *Technology Atlas* series, www.esource.com (encyclopaedic reference service) and references listed below:

Table 1 Illustrative energy performance potential for a new high-class office tower on the order of 10,000 m2 or more in Hong Kong or a similar climate

	STANDARD US	BETTER	BEST
site MJ/m^2-y	1,100	450–680	100–230
el. kWh/m^2-y	270	160	20–40
lighting W/m^2	16–24	10	1–3
Plug W/m^2	50–90	10–20	2
glazing W/m^2K	2.9	1.4	<0.5
glazing T_{vis}/SC	1.0	1.2	>2.0
perimeter heating	extensive	medium	None
roof α, ε	0.8, 0.2	0.4, 0.4	0.08, 0.97
m^2/kW_{th} cooling	7–9	13–16	26–32+
cooling *system* COP	1.85	2.3	6–25+
relative whole-building capex	1.0	1.03	0.95–0.97
relative space efficiency	1.0	1.01	1.05–1.06

Sharing the benefits of efficiency gains

A key disincentive to energy efficiency is the difference in return on investment between the utilities and consumers. The utilities must build plants to operate for several decades. They therefore have a long investment outlook, whereas consumers expect a return within a few years at most. In devising a negawatts programme, the utilities' and consumers' interests need to be aligned so that the energy savings achieved can be shared by them. In a demand side bidding (DSB) programme, the utilities will pay their large users to use less electricity. The

C.W. Gellings, A.P. Fickett, & A.B. Lovins, "Efficient use of electricity," *Sci. Am.* 263(3):64–74 (1990).

P.G. Hawken, A.B. Lovins, & L.H. Lovins, *Natural Capitalism*, Little Brown (Boston), 1999, free download from www.natcap.org

T.B. Johansson, B. Bodlund, & R.H. Williams, eds., *Electricity: Efficient End Use and New Generation Technologies and Their Planning Implications* (Lund U. Press, Lund, Sweden, 1989) (see particularly the chapter "The Challenge of Choices").

A.B. Lovins, "Negawatts: Twelve Transitions, Eight Improvements, and One Distraction," *En. Pol.* Vol. 24, No. 4, pp. 331-343 (1996), free at www.rmi.org/images/other/Energy/U96-11_Negawatts12-8-1.pdf (continued on next page).

A.B. Lovins, "Energy efficiency, taxonomic overview," *Encyc. of Energy* 2:382–401 (2004), Elsevier, free download at www.rmi.org/images/other/Energy/E04-02_EnergyEffTax.pdf

A.B. Lovins, E.K. Datta, T. Feiler, K.R. Rábago, J.N. Swisher, A. Lehmann, & K. Wicker, *Small Is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size*, 2002, Rocky Mountain Institute, www.smallisprofitable.org.

A.B. Lovins & L.H. Lovins, "Climate: Making Sense *and* Making Money," Rocky Mountain Institute (Snowmass, CO), 1997, free download at www.rmi.org/images/other/Climate/C97-13_ClimateMSMM.pdf (pp. 11–20 describe obstacles to buying energy efficiency and how to turn each into a business opportunity).

regulatory body runs a reverse auction where electricity consumers place increasingly lower bids. The winning user receives that sum of money in exchange for the required reduction in electricity consumption during peak hours. The HKSAR Government can start a performance bidding programme by linking how much they pay consultants, including the Electrical & Mechanical Services Department where relevant, to save energy in the government's day-to-day operation.

Correcting the investment mix

To summarize, most probably the great majority of the electricity now used in Hong Kong could by saved by efficiency techniques that provide the same or better services yet cost less than just the short-run marginal (operating) cost of existing thermal stations, let alone the cost of building more generating stations and their associated grids. It logically follows that most of the capital that the SCAs have rewarded Hong Kong Electric and CLP Power for investing in such supply-side assets has been misallocated because investing far fewer dollars in an optimal mix of electric supply and electric productivity could have delivered the same services at lower total cost, whether measured in dollars, emissions, or risks, and often with even higher quality.

8. THE WAY FORWARD: RECOMMENDATIONS

A. Reward utilities for cutting customers' bills rather than for selling more electricity

To achieve that optimal balance between investments on both sides of the customer's meter, it is vital to reward Hong Kong's utilities for cutting customers' bills rather than for selling more electricity.

In other words, the investments that are least-cost for customers should be the most profitable for utilities, and the investments that are most-cost for customers should be least profitable for utilities, so that regulation emulates efficient market behaviour. The latter formulation was unanimously adopted by NARUC in November 1989, and was subsequently implemented by several of the states.[6]

This regulatory practise of rewarding what we want requires two straightforward, proven (applicable-to-Hong-Kong) and highly effective changes in the structure of the SCAs:

- ***Decouple the amount of electricity sold from the distributor's profits, so that the distributor is indifferent to sales volume.***

  This could be readily done by making the Development Fund mechanism (3.21) not discretionary but automatic and mandatory. This will also remove a political "hot potato" from EDLB's plate. If, in a given year, a utility sells more electricity than had been projected when the schedule of tariffs was adopted, the resulting marginal profits should be put into the Development Fund. If, in a

[6] National Association of Regulatory Utility Commissioners (NARUC) is the body of all U.S. states' utility regulators. Eight to nine states have implemented the formulation. Oregon subsequently forgot amidst the distractions of restructuring, but California has now restored the reform and others are expected to follow suit shortly.

given year, a utility sells less electricity than had been projected, those escrowed funds should be used to allow the utility achieve its projected profits. Thus, the utility is no longer rewarded for selling more energy nor penalised for selling less; its profits no longer depend on factors it cannot control, such as weather and business conditions; and it no longer has an incentive to predict the forecast so as to over-fulfil the norm. This improves the transparency and efficiency of regulation, reduces investors' risks, and removes the existing perverse incentive to favour more supply over more efficient end-use. Instead, it will remove the distortion to the investment choice between them.

- ***Set the right rewards for the utilities***

  When a utility cuts customers' bills (which equal the tariff times consumption) with no reduction of service quality, the utility should be rewarded with a modest but attention-getting fraction of the savings, aligning its own financial interests with those of its customers. This will naturally result in the utility's making more profit with less risk.

  In the debate on price vs. revenue caps (3.19), we advocate revenue-caps. What customers pay is bills, not tariffs. Bills are far more important than tariffs. Both internal and public education should drive home this point. In general, reducing consumption by improving end-use efficiency is about an order of magnitude cheaper than increasing supply to yield the same service result.[7]

In our recent discussions with the two utilities and Towngas they confirmed their interest in such arrangements but did not appear to think there was room to do so from a policy perspective, and one utility expressed the concern of whether it may be possible to be able to express rewarding efficiency in a revised SCA that would remain simple and succinct in the way the current SCAs are today. We believe these issues can be solved once the will is there to find the way.

I. Rewarding Conservation: An Example

In 1992, the then-largest U.S. investor-owned utility, Pacific Gas and Electric Company (serving most of Northern California), invested more than US$172 million to help customers save electricity at a lower cost than producing the equivalent electricity, even in existing thermal stations. This demand-side investment yielded long-term benefits approaching US$400 million - several times the cost (as is normal for well-run programmes). Of that benefit, customers got 89% as lower bills, whilst utility shareholders got the other 11% as increased dividends. The demand-side

[7] This need not, in general, raise tariffs at all, but if it did it would not matter so long as consumption dropped by more, and all customers and customer groups had a fair opportunity to choose the best buys first. It is a grave error to sacrifice major system-wide benefits in pursuit of small distributional benefits, as is sometimes done by applying the fallacious Rate Impact Measure (RIM) test for efficiency investments. There are many other fallacious notions that have been debated and debunked in other jurisdictions. The Regulatory Assistance Project is a sound guide to avoiding these problems in Hong Kong, benefiting from other people's experience with large and well-run demand-side management programmes. We would also recommend that Hong Kong not confine its implementation to traditional methods such as information and rebates, but also consider all ways to make markets *in* saved electricity, gas, and water, so as to maximise competition in who saves and how, thus driving savings and quality up and costs down.

investments were amortised to all customers over a period of years, just as a supply-side investment would be, but cost less (which is why they were chosen instead of a supply-side investment). The utility thus recovered those demand-side-management investments at no cost or risk to itself. It also earned more than US$40 million of extra profit in 1992, its second biggest source of profit, from its 11% share of the measured savings achieved.[8]

If a utility runs an efficiency department that achieves such a financial result, the cleverest people in the company will all want to work in that division to advance their careers and such a department will receive strong management support. Thus, aligning the utilities' and customers' interests will transform the entire culture, and with it, the utilities' public perception, the public's engagement, and third-party entrepreneurs' vigour, speed, and innovation. Naturally, this approach also removes political heat from regulators, because *all* parties are getting what they want, and controversial supply-side projects tend to become unnecessary. Such "win-wins" are popular all round: they make political as well as economic sense.

B. New supply opportunities

Just as the current SCAs cannot enable utilities to optimise the balance between produced and saved electricity, neither can they, given existing regulatory and market conditions, optimize the balance between electricity production and delivery. The statement in 2.4 that the utilities are not monopolists, and the implication that they are also not monopsonists, may be true, but those providing alternative supplies, such as co-generation and tri-generation in buildings, would surely concur that the "latent constraints" mentioned are prohibitively strong. Under present conditions, it is not feasible for independent generators to add their diversity-enhancing options to Hong Kong's electricity system as a normal and attractive business proposition, not because of any lack of merit in their offerings but because of artificial structural and procedural obstacles blocking their way.

We recommend a **thorough and transparent multi-stakeholder review** to identify and remove all such obstacles to competition on the supply-side. A worthy policy goal should be that subject to the minimal regulation required for public health and safety and environmental quality, all comers should be welcomed, with a generously high (perhaps of order 5–20 MWe) *de minimis* threshold. Below that threshold, approved inverters should function on demand without notice or permission, so customers can add "negative loads" just as customers now add positive loads without consultation or permission. If an inverter meets such standards as IEEE 1547, Underwriters' Laboratory, and local building standards (after those are purged of hidden obstacles), then nothing more should be required.[9] Thus, the proper approach is modern technical and continuously improved standards for interconnection and for health, safety, and environment, plus a maximum of latitude for complying systems to enter the market and to compete fairly at honest prices.[10]

It is hard to imagine how a multi-stakeholder review that sets and updates these standards could be considered "undue intrusion into the management of private

[8] There is a very sophisticated, but low-transaction-cost, body of practise for measuring and evaluating such programmes outcomes.
[9] This is now the policy of the State of Texas, and will soon be the norm in the State of New York, and is rapidly emerging elsewhere.

business operations" (3.64) unless one believes that electricity is an ordinary and rather unimportant business that is not uniquely intertwined with the public interest.

I. Exploring Distributed Generation

Integral to the "barrier-busting" supply-side review should be a transparent multi-stakeholder exploration of the new economic and engineering context of distributed generation. There are literally hundreds of examples of how this could be done, producing compelling benefits, chiefly from innovative financing and electrical engineering that typically increase the economic efficiency of decentralized generating by about tenfold. That is a factor of efficiency that would generally swing most investment decisions. Many of these new economic benefits would be further enhanced, as would Hong Kong's economic competitiveness, by real-time (or at least time-of-use) tariffs that signal the price, hence the supply/demand balance, of electricity and that permit smart meters, ultimately at all scales down to single flats, to inform and facilitate demand response.

It is both feasible and important to use enquiries into these matters to shape the new rules for Hong Kong's electricity market. It should be designed to accommodate and encourage innovation, as rightly noted in 4.3, but taking into account what is known and successfully practised in other jurisdictions.

II. Retail Choice Considerations

We agree with the general thrust of 3.33 that whilst some increased interconnection is desirable, it should be so structured that customers do not have an artificial incentive to switch suppliers. There is almost no limit to how much transmission capacity can be demanded by power traders if it is treated as a free good with socialised costs. Moreover, a major *cause* of the recent Northeast North American blackout is excessive bulk power flows through long and overly concentrated (and poorly controlled and managed) transmission lines. Hong Kong should not take its transmission regulatory model from the U.S., where transmission is centrally planned (usually at utility or regional scale) under perverse incentives that do not allow demand-side or distributed-generation alternatives to compete, thus guaranteeing major misallocations of capital.

The key issue about interconnection is the business model for the power enterprise. Competition in power generation does not require competition at the retail (distribution) level. Competitive generation's cost saving can only be achieved once.[11] Moreover, achieving competitive generation's cost saving by retail choice will usually sacrifice the many-fold larger benefits of optimal end-use efficiency and an optimal mix of generating scales. Such sacrifice and tradeoff are unnecessary: one should capture all three of these major benefits, not just one. This is a fundamental flaw in the whole concept of retail choice.[12]

[11] This could even be achieved sooner in the Mainland, whose progress towards wholesale-level market reform is rightly noted in 3.48, than in Hong Kong; although it is unclear why this is stated in the context of the tight supply/demand balance, as if wholesale competition were a cause rather than a cure.

[12] This is described further in the 1996 *Energy Policy* article, which took a then-unfashionable but presciently jaundiced view of how retail choice would play out. See. www.rmi.org/images/other/Energy/U96-11_Negawatts12-8-1.pdf

It is important to understand the causes of California's 2000–2001 power crises. They did not include a failure to build generating capacity, a major acceleration in demand growth (forecast or not, due to information technologies or otherwise), or the other myths propagated by various interest groups.[13]

III. Diversification

An economically optimal portfolio of generating resources should include around 20%-40% of renewable resources even if they cost more - for the same reason and with the same mathematics that an optimal investment portfolio should include a significant fraction of financially risk-less sovereign debt instruments even if they yield less. Such diversification improves the portfolios' overall risk/reward performance. This is but one of scores of ways in which conventional engineering economics is *not* the appropriate methodology for comparing electrical resources. By not risk-adjusting for price volatility (which fuels have but renewables lack), for the smaller risk of small/fast/granular than big/slow/lumpy resources, for re-locatability, and for many other attributes of well-designed decentralised resources, engineering economics flies in the face of conventional finance and seriously misallocates capital. Hong Kong cannot afford for this misallocation to continue. The unhappy Guangdong experience with low quality fuels powering private generators is not indicative of what modern, clean, and extremely reliable distributed resources can do. Indeed, properly done and integrated, distributed resources can markedly *improve* service reliability to ultimate customers, because far smaller increments of capacity can fail at any one time.[14]

This is especially true, and the economics of distributed and renewable resources improve markedly, when these supply options are well integrated with end-use efficiency and load management/demand response.[15] This principle of efficiency/ load-management/ renewables integration is widely applicable, including in Hong Kong conditions.

Combined with demand-side resources in an optimal mix, distributed resources can also cut the utilities' required capital investments by about tenfold whilst meeting all other planning and operating criteria.[16] Again, a competitive Hong Kong economy will need to avail itself of these striking opportunities for better electrical services at lower cost, yet with greater and less risky rewards, to utility shareholders. When the utilities' analysts and engineers are given the right incentives, we expect they may well join enthusiastically in diversifying the scales and types of generation and the parties providing it, because they are likely to view this not as hostile competition but

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[13] See http://www.rmi.org/images/other/Energy/U01-02_CalifElectricity.pdf for an analysis.

[14] Much more details are provided in *Small is Profitable*, including the mathematics of redundancy enhance reliability. See www.smallisprofitable.org.

[15] For example, a California prison, the Santa Rita Jail in Alameda County, recently installed 1.18 MW_p of photovoltaics on its roof, but first made the roof white (to reject solar heat) and retrofitted the air conditioning and lighting systems. As a result, on the hot afternoons when the solar cells are producing the most power, the prison uses far less power than previously, so the most surplus power can be sold back to the grid for the best price. This integration yielded an IRR well over the local government's 10% hurdle rate, and achieved present-valued benefits 3.8 times costs with or 1.7 without California subsidies. That latter figure, showing a strong net benefit at photovoltaic prices above today's, without subsicy, is impressive for a supposedly uneconomic source of electricity.

[16] A good example is Ontario Hyrdo. The benefit in Hong Kong would probably be even larger because of avoided or deferred distribution investments.

as a strong economic and reliability benefit to the whole system and which will improve their own financial performance.

Fundamental to this shift, of course, is rewarding the utilities for better service at lower cost, not simply for investing more money into supply, let alone on the traditional scale. To be sure, energy sources and scales will continue to be diversified using normal system planning criteria (informed by many rapid advances in technology and analysis); but as a general matter, probably *all* the traditional central generating sources the utilities are now inclined to consider on the margin are uneconomic against the range of competitors in today's market. It is economically inefficient to continue to encourage the utilities to invest more in the costliest ways of ensuring the reliable, safe, and benign provision of electrical services. But that's exactly what the well-intentioned SCAs now do, even though there have been profound changes in technologies and other basic conditions since they were set in place.

IV. Renewable power generation

Several passages in the Consultation Paper (e.g. 3.58) imply that the intermittence of solar, wind, and similar sources is considered a handicap, or that because these sources are not dispatchable in isolation, they should be given little or no capacity credit. Such views are simply incorrect. Intermittence is not a practical issue for system operators even at penetration levels up to at least the 20%–30% already proven in parts of Europe, especially in a diverse and well-integrated grid, and will probably not be an issue at much higher levels.[17]

Renewable power is a benefit of a diverse and well-integrated grid, and should be counted when considering increased interconnections. There is also evidence that even abrupt changes in, say, solar power output when a cloud crosses the sun, are not a problem even at the local feeder level: on the contrary, both wind and solar resources, because of their technical characteristics, can *improve* grid stability. There is no technical basis for expecting Hong Kong's power engineers to experience any difficulty that they cannot resolve with intermittence or stability at the very low levels contemplated in 3.55.[18] We appreciate that Hong Kong has only recently been exploring renewable power and that more time is needed for its development. We wish to emphasize that in reviewing the SCAs the EDLB should take a more long-term view regarding renewable power and leave room for its development.

[17] It is not troublesome even in the areas of Denmark, Spain, and Germany that get all or more than all of their power from wind on some days. Recent experience shows that intermittence is being effectively handled.

[18] The main solutions that have prevented intermittence from becoming problematic abroad include: diversifying locations (the wind always blows somewhere, so a few hundred km difference greatly increases reliability), diversifying technologies (conditions bad for wind are usually good for solar and vice versa), integrating with existing hydropower, and predicting wind patterns, much as utilities already predict fluctuations in electricity demand and rainfall. Intermittent resources do not need major backup or storage; they are simply unreliable to a different degree and for different reasons than coal or nuclear power plants (no source is perfectly reliable), but in a more tractable way. They are also far more resilient against accidents and terrorists. We can be far more confident that the sun will rise and the wind will blow tomorrow than that someone will not blow up the Saudi oil terminals, a tanker in the Straits of Malacca, a nuclear plant, or a critical coal railway line.

The global market's growing acceptance of renewable power is confirmed by the US$8–9-billion per year wind power market, which has lately been adding 7–8 billion watts per year worldwide against an average of 3.2 billion watts per year added annually during the 1990s by the global nuclear industry despite its head-start of a half-century and a trillion US$ in U.S. subsidies alone. In good sites, wind power is already the cheapest bulk supply option in the U.S.[19]

The world market in renewable power, now over US$20 billion a year and growing very rapidly (~16% per year for wind power, over twice that for photovoltaics), will certainly prove to offer important opportunities in Hong Kong, especially when photovoltaics are integrated into the walls, windows, and roofs of buildings. This is now becoming common in Europe and Japan, whose solar climates are broadly comparable to or worse than Hong Kong's. Of course, site-specific studies[20] will be needed to define the potential more fully, and we believe that the expectations in 3.55 are too low and would mark Hong Kong as a technological laggard, passing up important economic and engineering benefits from modern renewables.

C. Using policy to facilitate adequate, efficient and clean energy

The Consultation Paper does not indicate clearly that policy-makers are looking at using policy instruments to facilitate adequate, efficient and clean energy.

Energy experts believe that the energy infrastructure of the future will be highly competitive and decentralized, with energy conversion occurring as close to the consumer as possible. Electricity will be generated on-site by micro-turbines, fuel cells, solar panels, and other technologies. Distributed power generation has the advantages (over centralized systems) of increased efficiency, reduced transmission costs, better alignment of costs and benefits, increased grid stability, and greater opportunity for competition which will encourage innovation and drive down prices.[21]

These issues have not been adequately discussed in the Consultation Paper. To the extent that they were raised at all, they were done in a cursory manner through viewing them within the context of the SCAs regarding the possibility of increasing interconnection between the two existing utilities, sharing the grid with other producers, and receiving power from China.

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[19] In 2003 in the US, "nonfirm" wind energy contracted for as little as US$0.045/kWh unsubsidized, or US$0.029/kWh net of the US$0.018/kWh Production Tax Credit (which is smaller than existing subsidies to non-renewable competitors). The Bonneville Power Administration also offers a routine $0.005/kWh "firming" contract to meld wind with hydropower to make the wind power dispatchable. A contract synthesizing wind power with dispatchable load management should be explored in Hong Kong. And even absent such "firming" arrangements or any geographic or technological diversity of supply, intermittent renewables merit very substantial capacity credit on the same statistical basis as thermal power stations. All these issues are described more fully in *Small Is Profitable*; see www.smallisprofitable.org.

[20] For example, at 100m rather than 50m hub height for wind, and based on the actual wind regime not average wind speed.

[21] S. Bronstein, *Competition in the Power Sector: Restructuring the Power Sector: Options for Reform* Civic Exchange (May 2003) pp.17-18. Available online: www.civic-exchange.org/publications/2003/Power%20Sector.pdf.

We are concerned that the EDLB is not considering how Hong Kong may benefit from distributed power generation and to ensure that government policy is ready to facilitate its development.

Paragraph 3.34 of the Consultation Report states that:

> Customer choice is a means rather than an end in itself, and having a choice of suppliers is not necessarily the only means to achieving the objective of providing a reliable electricity supply at reasonable prices. Lessons from other economies have indicated that introducing more players ...is not without risks, and lower supply reliability and price fluctuations could be the outcome.

Viewed through the lens of the existing grid and the possibility of making the two current utilities interconnect, plus taking into account electricity reforms in various countries, the above statement is understandable. However, it does not take into account other power supply frameworks, such as with distributed generation. To the extent that possible alternative supply sources were consider in paragraphs 3.55 to 3.58, they were in essence a summary of a number of small local schemes to promote renewable energy supply and not a policy discussion of securing Hong Kong's energy future. Indeed, it seems difficult for EDLB to see Hong Kong's energy future very differently from what we have today. The development of alternative sources of power is raised in terms of the "implications on the Government's established policy of no government subsidy or cross-subsidisation of business endeavours" (3.58).

D. Policy measures EDLB can actively explore

The Consultation Paper makes no reference to market volatility and possible fuel price hikes. Influencing consumer demand is critical to achieving various policy objectives. Hong Kong has to encourage consumers to use less energy while maintaining a high level of comfort and operational efficiency.

We maintain that EDLB should consider how it can encourage investments in energy efficiency through a **negawatts** (saved electricity) programme, **demand side bidding**, and/or **performance bidding**. We would have thought that for the HKSAR Government, which claims that it favours setting the right economic conditions for business to respond, that these strategies would be of interest since they do not involve subsidies.

During the meeting at the EDLB's office on 18 March 2005, we pointed out how substantial energy savings could be made in meeting Hong Kong's lighting, heating and cooling needs by using EDLB's conference room as illustration. We have discussed these measures in detail in *Competition in the Power Sector*[22] and will not repeat ourselves here.

However, we wish to re-emphasize that it will be in EDLB's willingness to consider such measures and explore how they can be applied in Hong Kong that Hong Kong can be a leader in the energy field. By addressing the provision of lighting, heating

[22] *Competition in the Power Sector*, See pages 19-21.

and cooling in our commercial buildings in a much more efficient manner, problems of poor in-door air quality, good air ventilation, temperature comfort and good lighting can be addressed at the same time so that worker productivity can increase and public health can be improved because buildings can become much healthier. The same improvements can be applied to our homes. Overall, a push in this direction will have positive impact on Hong Kong's design, construction and property sectors.

E. Incentifying energy efficient buildings can serve several policy objectives

We note that various government departments are working on programmes related to Hong Kong's buildings. For example, the Buildings Department is conducting a consultancy study on an environmental performance assessment scheme (CEPAS), and the Planning Department is looking at the feasibility of establishing an air ventilation assessment system. These can only be done properly if the energy component is looked at.

Work being done by the Buildings Department can be used to set a date for setting mandatory energy rating and labelling of new and existing buildings and all major electrical appliances and equipment and at the same time the HKSAR Government should commit to adopting much tighter mandatory energy performance standards for all buildings. In the case of CEPAS, it is encouraging that it will include looking at building life-cycles and the indoor environmental quality as part of devising a building quality assessment scheme. However, this is not the same as exploring policy instruments to drive energy efficiency innovation with the intention of creating superior building quality.

Indeed, to achieve the EDLB's stated objectives of reliable supply, reasonable prices and a clean environment, it has to adopt various DSM measures to ensure strong energy performance standards for all new buildings, renovations of existing buildings, and substantially improve all existing government-owned, government-tenanted buildings, and public buildings. Expenditures in these areas for government and public premises are legitimate areas of spending and not subsidies. They will go a long way towards stimulating the economy, stimulating job growth as well as driving innovation and investments by the private sector. There is no technical or financial barrier to move to a much more efficient and cleaner energy future for Hong Kong. The real barriers are institutional, organizational and political. As this is a policy matter, we believe the EDLB is the right policy bureau to drive such initiatives.

F. Regulatory Environment and Public Participation

I. Regulatory Environment

As for the legal structure of the next arrangements for Hong Kong's electricity, we recommend an independent regulator, well staffed, with strong expertise and openness to innovation, operating transparently and with substantive public participation, and established under a simple legislative framework.

Key elements of the proposed legislative framework include:

- a primary goal of least-cost energy *services* (not electricity) subject to the other requirements of public policy (reliability, environment, health and safety, innovation, competition, etc);

- technology, scale, ownership, and production versus efficiency neutral approach; and
- a system which rewards what Hong Kong wants (i.e. better service at lower cost), not the opposite and not tangential surrogates (*e.g.*, energy sales or capital investment).

The "Cons" lists, such as in 4.6 and 4.10, include objections that are disingenuous.

Making good laws always takes time. The SCAs and other existing regulations are a greater intrusion into the utilities' affairs today than what is being proposed here: good regulation, getting the rules right so the private sector can profitably pursue the public interest is more cost-effective than bad regulation. EDLB would be relinquishing its "responsibilities to ensure reliable, safe, and reasonably priced electricity supply" but only by broadening that overly narrow scope in order to discharge its actual responsibility, which is to ensure reliable, safe, and least-cost provision of electricity *services*. However, rewriting the rules need not harm, and would indeed advance the interests of all parties. A transparent multi-stakeholder process in which all parties understand this point should yield a strong alignment of diverse interests round this common goal.

The chances of optimal regulation are greatest if the regulation is conceived, structured, and operated on sound premises. Understanding that the objective is about *end-use services*, not electricity per se, is the strongest foundation on which to build a responsive and responsible regulatory scheme. Along with the maturation of Hong Kong's economy and institutions has come maturation in the utilities' capabilities and cultures. Given the right regulatory framework, the utilities have strong incentive and ample talent to rise to the occasion and deliver world-class performance in the wider arena of energy services, not just electricity. Of course, they need not and probably should not do all the delivery themselves for diversified offerings like demand-side management. They can use a combination of in-house programmes, purchases from third-party providers, and collaborations with elements of civil society. The rules government sets must ensure that in providing (for example) demand-side services, the utilities do not unfairly benefit from customer information or other unique assets unavailable to rivals. But setting up clear, fair, simple, and efficient rules under which all parties, including new market entrants, are eager to operate can be done if due attention is paid to experience elsewhere.

II. Public Participation

The point of "increased transparency" (3.24) is not only for the public to be able to see and understand what government has done, but also to inform government's decisions through substantive public participation. In the U.S., Canada, and many other countries, public decisions have been very markedly improved by this means, and public participation is often publicly funded, precisely to encourage knowledgeable individuals and organisations to contribute to this valuable outcome.

G. Energy supply from Mainland China

All countries, including China, are concerned about future energy supplies. Regions also wish to ensure that they will have adequate power for development, including South China, to which Hong Kong's economy is intimately linked. Currently, there is a

shortage of energy in Guangdong Province. The problem is that while more power plants are needed, there is a lack of investment to build them because the power sector on the Mainland has not yet been restructured to attract capital investments from outside the country as there are still too many regulatory and legal uncertainties.

Despite a number of recent news report saying that various parties want to sell power to Hong Kong, it is unclear if integrating the Hong Kong and Guangdong power systems will create more risks than benefits. With Guangdong itself nowhere near ready to implement its own power pool, we have doubts that it can truly integrate with Hong Kong by 2008. Besides, it cannot be assumed that some of these parties are merely using the SCAs review to generate media attention for themselves in the hope that it will help their business or share price. There are also occasions market rumours that Guangdong may wish to supply power to Hong Kong for "political" reasons. The best approach for Hong Kong is to hold clear what policy objectives we need to meet our own goals. Therefore, Hong Kong should focus on getting its own energy policy right.

There is also the issue of how clean the power is from the Mainland. Some of the power plants are not yet operating to the high environmental standards that Hong Kong consumers would wish to see. Even if supplies were available, as some parties have claimed to the media in recent weeks, it would be more sensible for that power to be sold within Guangdong itself. The lack of power in Guangdong resulted in many factories constructing their own power generation units. The lack of supply of high quality fuels to feed these generators means that the factories have to turn to using low quality fuels, which compounds the already serious air pollution across the region, including Hong Kong. For Hong Kong to buy whatever electricity supply is available presumably because it will be cheaper than what is produced in Hong Kong by the utilities may turn out to be false economy as the external costs of Guangdong-based industries continuing to burn low quality fuels for longer will also be born by Hong Kong residents.

H. Further Observations

Carbon emission allocations

Initial carbon emission allocations (3.6) should not be administratively allocated to any emitter in any sector, but rather should be transparently allocated by full and open auction. Otherwise Hong Kong's abatements will cost far more than necessary. Failure to auction carbon (or other) emissions permits will cause serious misallocation of capital away from energy efficiency (especially electric efficiency), hobbling Hong Kong's economy and imposing much higher emissions as well as higher consumer and producer costs.

Utilising local and international knowledge

The research underlying the Consultation Paper omits virtually all the key issues raised in this response. Most of the modern innovations debated in the electricity systems abroad are scarcely mentioned in or are altogether absent from the Consultation Paper. This impoverishes the Hong Kong discussion. Hong Kong has ample reservoirs of insight and talent in its utilities, official bodies, and civil societies to inform a far wider and more vibrant discussion than has yet occurred about how to provide the best electrical services at the least cost.

International expertise is also available. The Regulatory Assistance Project (www.raponline.org) is an independent and world-class non-profit group of senior retired US utility regulators who have implemented regulatory schemes both in the US and elsewhere under a wide range of conditions. This group exists specifically to help governments and regulators work through the kinds of issues raised in the Consultation Paper.

We hope the Stage II document emerging from this process will examine the many kinds of innovations that could give Hong Kong the world's most economically efficient, not just one of the more effective, ways of providing electricity services.

I. Additional Recommendations

1. Rename the consultation exercise *Towards Hong Kong's Clean Energy Future*, and restate the objectives to include securing energy supply, promoting energy efficiency, spurring economic development, increasing worker productivity and ensuring public health.

2. Address each of the SEVEN "problems" highlighted in Part 3B above at Stage II of the consultation.

3. Commission studies to quantify worker productivity gains in healthier buildings.

4. In order for EDLB to be kept fully abreast of energy development across the border so that it can devise the right policy in the future, a first step will be to bring all the relevant bureaux and departments within the HKSAR Government together for a more collective and comprehensive approach to setting an appropriate energy policy.

Appendix A: Authors' Qualifications

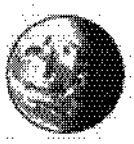
Christine Loh

Christine Loh is the CEO of Civic Exchange. She had spent her early career years as a physical commodities trader, including trading various types of oil products for Phibro Energy (1990-1991). She was a member of the Legislative Council from 1992-1997 and 1998-2000. She was the first legislator to take an intense interest in the SCAs in 1992. She lodged a complaint to the Executive Council challenging the then policy branch on whether it had played its regulatory role properly. The Executive Council sent a three-person team to meet Loh to discuss the issue. That was believed to have been the first time Executive Councillors looked in some depth at the SCAs from a policy perspective. From 1998, Loh continued to raise the issue of the SCAs in the legislature. She stepped down from political life in 2000 to start Civic Exchange, a non-profit, independent, public policy think tank. She is well known for her work on environmental protection, and one of her key current focus is on energy policy, climate change and air quality management. Loh has served as a Board Member of the Rocky Mountain Institute.

Amory Lovins

Amory Lovins' comments are based on three decades' experience in the technology, economics, strategy, and regulation of electric utilities in several dozen countries, including many discussions and observations in Hong Kong since before the previous round of discussions on the Scheme of Control. He has been an advisor and consultant to all the types of stakeholders—governments, regulators, private and public utilities' senior management and technical staff, customers, civil-society groups, and the financial sector—in approximately 100 diverse contexts worldwide. However, unlike most of these parties and most of their consultants, he is independent of all sides' interests, and is well known in the industry for expressing that independence and for formulating win-win public policies and business strategies.

From 1986 to the mid-1990s, Lovins led the most detailed technical exploration in the world of how to use electricity efficiently. He devised most of the methods now used or contemplated for making markets in saved electricity; published books and professional papers on electricity issues; appeared as an expert witness in utility proceedings in many countries and jurisdictions; undertook extensive research and consulting on decentralized or "distributed" electricity systems; published a 2002 *Economist* Book of the Year on such systems' economic value (www.smallisprofitable.org); and advised and taught for, among other groups, the [U.S.] National Association of Regulatory Utility Commissioners (NARUC).



"Ho Clara"

23/04/05 02:53 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity Market Reform for Hong Kong after 2008
☐ Urgent ☐ Return Receipt

Dear Sirs,

After reading a lot of newspaper articles on the Electricity Market Reform for HK after 2008, I would like to share my personal experience with you in Canada on 14th August, 2003. I arrived in Toronto on 13th August from HK to start my holidays in North America. On the following day when my friends and I were in one of the shopping malls, the lights suddenly went off. Initially I thought it was one of those 'fuse blown' cases and that it could be fixed in no time because I was in America. After half an hour, I noticed all the shops were closing their doors and the security guards asked us to leave, saying that there was a major blackout in Ontario. My friends could not believe it but we had to go. It was a nightmare driving back home as theree were no traffic lights. My friends then told me about what happened in Toronto and US where due to political pressure the electricity market was open up for competition. They went on to say that the electricity charge in Toronto went up sharply due to that change and all citizens were complaining on the high traiff. The power resumed after 28 hours.

I live in the 13th floor and I do not want to walk up the steps after a day's work because the power is cut. I think the power companies in HK have done a very good job in always keeping the lights on. The tariff is also affordable. I cannot see the reason why there is a need to change. The Legco members want to take this opportunity to embarrass the Government again as they did in the past seven years. I think the present forms of arrangements with the power companies are perfect and it should not be changed for the sake of change. Do not let the politicians fool the people of HK. Keep the current form of control with the utilities intact.

yours sincerely

Clara Ho

"Annelise Connell"
<cleartheairhk@aol.com>

30/04/05 12:26 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Phase I Public Consultation
☐ Urgent ☐ Return Receipt

Dear EDLB,

Attached is the response to the consultation document on energy policy reform.

Regards,

Annelise Connell



Clear the Air EnergyPolicyConsultationClearTheAir.doc

April 30, 2005

Subject: *Hong Kong Government consultation of Regulation of the Energy Industry* (http://www.edlb.gov.hk/edb/eng/papers/electricity/)

Summary:

1. The need to prevent the sickness and premature death of the people of Hong Kong from air pollution is not mentioned in this document. "The environment" is not just good visibility to satisfy an emotional need. It is clean, healthy air for the people to breathe. There is a recent study from UST putting a price on the sickness and premature death from air pollution and these costs must be included in this document.

2. Preventing pollution by reducing energy use as a concept is not included in this document. It is the responsibility of the Government to provide the leadership and framework with regard to industry profits on this key element of saving energy in reducing the ill health and premature death caused by air pollution.

3. The security of the Hong Kong SAR is at risk if we do not have a fully integrated power grid both locally and with the mainland in order to protect us from unexpected disasters. Nor is the ability to maximize the cleanest technology by using the most efficient assets (gas turbines) by allowing a customer to choose not based only on price by on the method of energy creation. This is yet another value of integrating the grid. This has not been addressed.

4. Capping emissions is a tool for a rapidly growing market like the Pearl River Delta, not a mature market like Hong Kong. A progressive reduction, 10% per year based on the previous year's total, in allowed emissions and a phased approach of not more than 10 years is the tool used worldwide for a mature market

5. The executive summary contains an excessive amount of non-neutral phrases, unsubstantiated supposition, and suggests that a significant amount of research is being deliberately withheld because the public is considered to be incapable of understanding it. All studies related to the preparation of this consultation must be made available to the public, not just summaries created by Government officials.

Regards,

Annelise Connell
Vice Chairman
Clear the Air

Government consultation document	Clear the Air response
1 -CHAPTER 1INTRODUCTION Policy Objective1.1 Reliable electricity supply is vital to the economic development of Hong Kong and the livelihood of its people. In this respect, Government's policy objective is to ensure that consumers receive 1. reliable, 2. safe and 3. efficient electricity supply at 4. reasonable prices while 5. minimising environmental impact caused by the generation and use of electricity.	No documents on the environmental impact or cost of pollution is included in these consultation documents. No documents on the health effects and health cost of power generation have been included. **As important as the environment is, the health of the people is even more important.** We therefore propose that "*environment*" be changed to "*environmental and health*" throughout this document. The primary concern is not about the emotional value of improved visibility and seeing blue sky, but about reducing sickness and death from air pollution. The phrase "minimizing environmental impact" is not sufficient. The cost of sickness and death influenced by air-pollution would be more accurate and we can measure it.
Both power companies are investor-owned and vertically integrated, i.e. they own and operate the entire electricity supply chain, including generation plants, transmission and distribution networks, and supply directly to customers within their respective service areas.	The words "geographic exclusivity" should be used to convey the correct economic connotation – namely the Government approved geographically monopoly – in the absence of any other power suppliers.
CLP/ ExxonMobile HKE/ Cheung Kong Infrastructure	Shareholder "rights" are often held up reasons for Governmental decisions. As such, all the large shareholders should be listed very clearly so that we know who controls this critical asset and profits from the sickness and death caused by the air pollution.
The latest electricity demand	The source of this information is the power

forecast indicates an annual growth rate of 2-3% over the next 10 years.	companies themselves. It is dubious considering that such tools such as the Business Environment Council's BEAM project can actually reduce consumption by existing individual non-residential customers. The government must promote savings and reduce consumption (fiscal incentives and legislation is needed , not just "education" and "hope" that people will reduce).
Electricity Consumption (by customer type) in 2003	Figure 2.3 does not show as a separate item the 10% of the coal generated power CLP/ExxonMobil sells to China – coal power that is not used in Hong Kong, yet causes sickness and death in Hong Kong. This is a serious oversight.
Figure 2.2 – Present Generation Fuel Mix in Hong Kong	Does not show the cleanest Fuel Mix currently available given the existing power generation equipment. Nor does it show the amount of pollution that is created unnecessarily by NOT using the cleanest fuel mix that is currently possible.
The power companies have made substantial, long-term investments to provide reliable and safe electricity supply that supported Hong Kong's economic development over the years.	This is a non neutral phrase. The neutral phrase would be "In order to secure a reliable and safe electricity supply Government has required the power companies to make appropriate investments to support Hong Kong's economic development. In return they have been given a non-benchmarked13.5-15% rate of return , they were not prevented from creating vertical monopolies, and they have control over the power grid which has, to date, prevented new entrants to the marketplace.
Page 9. - for the Government to monitor the power companies' financial affairs and technical performance. Key features of the SCAs which contribute to achieving our policy objective of providing reliable, safe and efficient electricity supply at reasonable prices include:	The "environment and health of the people" has been improperly left out of this statement.
"The power companies have made"	Again a misleading statement. It should read "The power companies have fulfilled their legal obligation and have made" [i.e requirement to serve]
an obligation for the power companies to supply electricity at lowest possible cost. In general, the	"Lowest possible cost" is not the same as "reasonable" cost. Which is the driving premise? There is no discussion of the value of these two

electricity bill accounts for less than 2% of the general household monthly expenditure (see Figure 2.3) for residential customers	statements or of what objective measures can be used to define these two terms 20% of the CLP/ ExxonMobil coal pollution is caused because CLP sells 10% of the power generated to the Mainland. Government appears to have used "lowest possible" instead of "reasonable" cost in allowing this sale. The cost of the pollution must be factored into the actual cost to society not just the retail cost of electricity. CLP has noted that 80% of the profit from this pollution is used to lower Hong Kong power costs. One of the reasons HKE has been able to charge more than CLP is because CLP is using the pollution created and some of the profits from power sold to China to subsidize Hong Kong prices.
We enjoy a high level of supply reliability that currently exceeds 99.99%, which is among the highest in theworld, when compared to that ranges between 99.95% and 99.99%9in some major cities such as San Francisco, London, Sydney, Seoul and Shanghai are the chosen cities.	Tokyo, Singapore, New York figures should also be included. Number of hours of downtime is a better number because it is more understandable to the average person. The difference listed is less than one minute per day averaged over one year. To suggest that these other cities suffer because of the difference is ridiculous.
It is, however, very difficult to compare non-residential tariffs in the different cities because of the variety of tariff schemes offered by different power companies to different non-residential customer groups in the commercial, industrial and agricultural sectors, which in turn are affected by the policies and economic considerations, etc., of the countries or cities for each	75% of our energy use is non residential. Stating that the comparison is difficult suggests that Government has conducted a study that could be released to the public but it will not do so. Refusing to compare the tariffs and discuss that possible inclusion of any effective policies – and rate variations – suggests that Government is withholding information from the public because the power companies and non-residential users have already agreed to policies that will continue to pollute our air and make us sick rather that pay the real price for corporate electricity use and abuse.

economic sector.	Who actually controls the energy agenda? The Government on behalf of the people or the power companies? As Enron has proven, it is a serious mistake to put energy decision in the hands of those for whom profit independent of the well being of the people, is the only consideration.
2.6 The table below shows Hong Kong's residential electricity tariffs and those in other major cities 12.Residential Tariff of Major Cities (as at January 2005) CityTariff range (HK$/kWh)Tokyo (Tepco)1.41 – 1.73London (London Energy)1.17 – 1.68San Francisco (PG&E)0.89 – 1.41Sydney (EnergyAustralia)0.75 – 1.23Hong Kong (HEC)0.82 – 1.18Brisbane (Energex)0.75 – 1.15Hong Kong (CLP Power)0.85 – 0.99Singapore (Singapore Power)0.8Taipei (Taipower)0.51 – 0.65	Aside from perception of these cities as being "world class" there is no explanation of the climatic conditions, populations and public/private uses of energy to justify using these cities. Specifically, New York, which is similar to Hong Kong is not listed. *e.g. San Francisco has less than 1 million people and most residences have no air conditioners as the weather in comfortable year round. Commercial Buildings use air-con sparingly. Furthermore, 100% of San Francisco fuel comes from clean sources and therefore the prices are considered high compared to may other US cities. In comparison - over half of Hong Kong power comes from dirty coal yet the prices are similar.* The US cities of New York or Chicago would be better comparisons because of - heavy reliance on coal, - May-October temperature extremes - similar populations/densities. e.g. Chicago's Energy Plan focuses on building "virtual" power plants through smart energy management, utilizing modern technologies, employing economically meaningful efficiencies, and building both a local supply and demand for renewable power. As Guangdong has proven, and has been true all over the world, old coal plants will never be shut down, and will be reopened if there is any profit at all in doing so – even if there is irresponsible energy use or significant ill health and death. *It is a myth that old plants will be permanently closed down. Therefore, all existing coal-fired*

power plants should be required to meet the same emissions standards as new coal-fired plants.

How much energy can be saved in Government buildings? What does the Business Environment Council evaluation program - BEAM - say about the energy efficiency of our Government buildings.

Ideas from Chicago, USA:

OPPORTUNITY #1:
Improving Installation and Maintenance Practices for Residential Air Conditioners

Residential air conditioners are frequently not properly installed and maintained. This means inflated bills and excess energy use, especially during summer peaks. Studies estimate that correcting routine problems could reduce air conditioning peak demand by 14 percent in existing homes, and 25 percent in new construction.

Power companies can help support technician training programs and help customers hire the right contractor. California utilities, for example, created the Residential Energy-Efficiency Contractor Program, which pays consumers US$75 for checking and correcting refrigerant and airflow, US$75 for testing for duct leaks, and US$200 for sealing ducts if tests find significant leaks. The program also includes a contractor training and monitoring component. More than 1,000 homes have been through the program and participation is increasing.

OPPORTUNITY #2:
Commissioning of Existing Commercial Buildings

Commercial buildings account for a larger portion of peak demand in most regions than any other sector. But very few of the complex cooling, electrical and distribution systems in these facilities are properly tuned. That's why so many workspaces are either too hot or too cold. Often, systems were installed improperly; other times, they have fallen out of synch as building uses change.

Commissioning such buildings - optimizing their energy-using systems - can significantly cut energy use. A recent Commonwealth Edison pilot project in Chicago commissioned 11 buildings, reducing peak demand by about 2 megawatts. Total annual savings were more than 6 million kilowatt-hours and nearly half a million dollars. Another study found average energy savings of nearly 20 percent in 44 commissionings. Most paid for themselves in less than a year.

One impediment is the limited number of qualified commissioning engineers. And building owners are often

	unaware of the services they can provide. Both problems can readily be addressed. For example, Oregon's Portland General Electric is paying half the cost of commissioning services for local buildings, along with part of the costs to implement the recommendations.
• the permitted return, based on fixed assets, is perceived to have encouraged over-investment;	"perceived" is a non neutral term. The neutral phrase would be "has resulted in a current overcapacity of 40%"
The main drivers for market reform in other economies included privatisation of government-owned assets and improving supply reliability	Public and Governmental unwillingness to build new nuclear or fossil fuel plants has also been a policy driver and must be researched and the results presented to the public. **Case study:** **California 2001 Energy Crisis** How did California reverse its supply crunch so quickly? The answer, to a large degree, is conservation. In the midst of the crisis, state legislators and Gov. Gray Davis scrambled to assemble a far-reaching, $730 million statewide conservation campaign that included a blitz of "kill-a-watt" TV and radio ads, tougher efficiency standards for new homes and office buildings, and financial incentives for curbing electricity use, such as utility bill rebates. At the same time, the state expanded programs shielding low-income residents from higher electric rates, while utilities beefed up their own efforts to encourage energy efficiency. Together, these actions spurred Californians to embrace conservation in ways both large and small, from buying more efficient refrigerators to turning off idle computers. The result: an unprecedented drop in power demand. Electricity use fell 6 percent in the first nine months of 2001 compared with the same period the year before. The reduction in peak use was even more dramatic; *in June alone peak demand dropped 12 percent -- the equivalent of 4,800 megawatts, or the output of 10 giant power plants.* Over the past two decades, for instance, California diverted a small fraction of every electricity bill to utility-run conservation programs, which, collectively, eliminated the need for nine 500-megawatt power plants From June through September, nearly one-third- of households served by Pacific Gas & Electric slashed their monthly electricity use 20 percent or more. Even more impressive, this group's total electricity use over the summer months plunged 40 percent, compared to a year earlier.

	At the urging of the governor's office, hundreds of companies promised to trim power use by at least 20 percent, a goal many of them met by dimming unneeded lights, controlling building temperatures and asking employees to switch off equipment not in use. Unions representing janitors in California pitched in, too, by encouraging members to turn off lights once they were finished cleaning a particular office or floor, and by arranging to have buildings cleaned earlier in the day, when fewer lights would be needed. Changes to the state's building code, for example, will boost the energy efficiency of all new residential and commercial structures by 10 to 15 percent. Over a five-year period, the tougher standards are expected to save about 1,000 megawatts of electricity -- roughly the equivalent of peak output from two large power plants. Obviously, conservation alone can't solve an energy crisis -- or guarantee clean, reliable and affordable power in the future. What's needed, too, are investments in energy-efficient technologies and new ways of tapping wind, solar power and other renewable resources. (Determined not to be caught flat-footed, California is leading the way in this as well, earmarking $2 billion for such research over the next decade.) Yet as the state's experience shows, energy policies that ignore or fail to encourage conservation sell both citizens and businesses short, which is hardly a bright idea. Source: http://www.nrdc.org/air/energy/fcal2001.asp
To achieve the required emission reduction targets, we will cap emissions from power generation in Hong Kong through specifying the maximum allowable emission quantities in future licences for power plants under the Air Pollution Control Ordinance. 3.7 While imposing emission caps through licences will be an effective means to reducing emissions from power generation, measures taken to achieve the "**emission reduction can lead to substantial costs**." It is therefore necessary to	ExxonMobil is the largest oil company in the world. They do not need any corporate welfare. Capping emissions is a tool for a rapidly growing market, not a mature market *The old coal plants must be decommissioned.* A progressive reduction in allowed emissions and a phased approach of not more than 5 years is the tool used worldwide for a mature market. "**substantial costs**" is a non neutral phrase. The actual number must be used and compared to the health costs currently paid for by the people of Hong Kong in terms of ill health and premature death. It is not the responsibility of Government to "**work with**" the power companies to reduce pollution. This is not the "**polluter pays principle**" Those who profit from pollution are 100% responsible for eliminating it. The Government's role is to set a target that is technologically feasible and it is up to the power

explore means to optimise the costs involved, and we propose to work closely with the power companies to introduce measures and new technologies that aim at achieving emission reduction target, as well as ensuring sustainability, energy conservation and efficiency	producer to meet the goal. This statement clearly is intended to suggest that the Government is going to give corporate welfare to power companies to reward them for refusing to install pollution reduction equipment using the exorbitant profits they have earned over the last few years. Rewarding polluters financially for polluting for any reason is immoral. It is they who must carry the cost and do so not by passing the cost to consumers, but by earning smaller profits if they fail to do so. Practicable is not an acceptable term to use as every pollution reduction mandated by Governments worldwide have been preceded by power producers claiming that is either "cannot be done" or is "not practicable". These statements have all been false and the Government must not let the children of Hong Kong grow up with stunted lungs and bodies and respiratory problems because they cannot go outside to play because ExxonMobil and Cheung Kong Infrastructure will not reduce pollution using existing technology. Hong Kong does not have to use the lax "best endeavor" standard that has been offered to Guangdong. Also, the goals for Hong Kong are pitiful. We must, and can, cut our pollution from power generation by 80% - using improved technology and demand-side energy management and cleaner fuels. . The target must be set and adhered to or significant loss of profits by the power industry must result. The polluter is in the best position to know the technology to clean up and do not need corporate welfare to achieve their required goal. Loss of profit is all the motivation they need.
Adequate and a reasonable level of investment in relevant infrastructure is crucial to maintaining this level of supply reliability.	This statement is not neutral. It is complete doubletalk and a misdirection tactic in order to direct public and media attention away from the real questions that must be asked and answered. How to finance is not the issue. Whether to finance, and how much capacity is needed - must answered

	first. The investment regime and investment vehicles are irrelevant unless we know how much money we are talking about – and if that investment cannot be financed directly by the consumer by demand-management driven energy costs. The word "reasonable" is not defined and is therefore a license to gouge the consumer based on nothing at all. Supply reliability has not been proven to need additional investment if there is sufficient "excess" profit to meet investment goals.
Regulating Tariff 3.23 Given the importance of electricity supply to our economic and social development, we intend to continue with economic regulation to ensure that electricity tariffs are reasonable and will take into account the prevailing economic conditions.	Again, there is no objective definition of "reasonable" especially as it relates to air pollution and the intangible benefit to society of energy conservation. The consultation must stop using this word and it invites an abuse of power by man, over the rule of law. Furthermore, there is no discussion in using the tariffs to effects environmental goals. The people have said time and time again that they are willing to pay more, if and only if it can be proven that the additional cost are actually going to reduce pollution. Proof that tariff rises actually result in cleaner air must be shown objectively.
3.29 (A) Increased Interconnection 3.30 **"to provide this "full access" capability would be very costly and might not be economically viable.** firstly, in order to allow all customers in one service area to have full access to supply sources in the other service area, the interconnection as well as the networks of the	Non neutral phrases: "Full access" – who made these decisions and based on what numbers? "Much enhanced" is undefined. CLP is ready right now. Why the protectionism for HKE and Cheung Kong?. "Significant environmental and space requirements." "Significant". How much? "More capacity" is false. Each already has 40% overcapacity.

two power systems would have to be much enhanced. There would also be significant environmental and space requirement issues associated with the network enhancement; and• secondly, **the two power companies would need to develop substantial additional generation capacity to cater for supplying customers in both service areas.** It means that the relevant transmission circuit should have large enough capacity to handle the highest possible level of electricity supply required to meet the demand of all customers. In short, a large amount of upfront cost would have to be borne by all consumers while the perceived benefits would be uncertain and long incoming. Moreover, there would be transmission charges levied by the'local' power company for transferring electricity supply obtained from thepower company in another service area.	Many of these statements are actually false and deliberate misrepresentations. **Transmission circuit. This issue shows how critical it is to provide proper competition within Hong Kong by removing the power grid from the vertical monopolies of Exxon Mobil and Cheung Kong.** Why is the Government stating outright lies regarding the need for increased capacity? This is indefensible. "Consumer cost" CLP is salivating to get the Hong Kong Island market. We support this because currently – based on the amount of pollution per unit of energy provided - CLP provides cleaner power than HKE. **Emergency conditions:** In case of a disaster, natural or otherwise, it is critical that Hong Kong be able to recover right away in case of one of the power suppliers becoming inoperable. It is critical to the security of Hong Kong that there be full interconnectedness between the power grids and the mainland grid.
3.34 Customer choice is a means rather than an end in itself	Choice is the Government position on public transportation. Either it is valid for both the public transportation and power sector, or neither. Government cannot apply the principles arbitrarily
objective of providing a reliable electricity supply at reasonable prices	Again, environmental and health costs have been removed from the argument
.Lessons from other	CLP can currently handle 100% of all the Hong Kong SAR's current power needs – risk free.

economies have indicated that introducing more players into the electricity market to provide customer choice is not without risks, and lower supply reliability and price fluctuations could be the outcome	Why is Government giving obviously false arguments? What "risks"? Are we already being threatened by Cheung Kong and ExxonMobile – putting the security of Hong Kong in the hands of multi-nationals instead of the Hong Kong Government?
• Would need significant up front costs that will have to be borne by the consumers through the tariff, while the associated benefits would likely take some years to realise. • Would not in itself provide customer choice and would not displace the need for new generation capacity to meet growth in demand	Both statements are false
3.37 Whether or not increased interconnection should be pursued would to a great extent depend on the net economic benefit it could provide.	Again, there is no discussion of net environmental benefit or the fundamental opening of the market which we in Hong Kong, as capitalists, claim to be the best economic model both for cost and efficiency.
	Hong Kong Electric / Cheung Kong Infrasturcture is the most irresponsible power company in Hong Kong and should not be rewarded for their behavior. HKE burns 100% coal. (CLP is a little over 50% coal) In 2001 HKE built a filthy coal plant in Zhuhai after the Hong Kong EPD forbade them doing so in Hong Kong. Yet the pollution enters Hong Kong airspace. We have also been forced to pay for the "gold plated" HKE headquarters on Hong Kong Island on which they have received 13.5-15% profit by claiming it is "infrastructure". Wresting control of the Hong Kong island power grid from this irresponsible power provider and forcing them to compete with ExxonMobil is in the best

	interest of Hong Kong people both financially and in cleaner air. If all the gas fired turbines at ExxonMobil were placed in operation, and we shut down the dirtiest of the HKE coal turbines - the public would benefit from less ill health. .
3.42. Would involve complex technical, cost, legal, liability and interface issues.	These statements suggest the Government is incompetent to deal with these issues. This is not reassuring. If we do not have this expertise, it is crucial for our government to develop it.
Full interconnection with Guangdong	The key to the interconnection with Guangdong is not because we need more power – we have a 40% overcapacity and plan to introduce demand-side management to keep the power usage either steady or decreasing - but to encourage the renewable energy suppliers in China by giving them access to a large market that will pay a premium price for the energy and also for the security of Hong Kong. As an example, you can look at the city of Palo Alto, California where Stanford University is located, which has as a public policy to buy a certain amount of energy from renewable power producers guaranteeing a steady income for such providers. That same market power can be created by just a single housing complex in Hong Kong if they were to decide to "invest" in renewables and their children's health instead of relying on coal. In tandem, our power suppliers should get far less profit from selling coal generated power in order to encourage them to use the more profitable cleaner fuels. With all the nuclear plants being build across the border, there is likely to be an energy glut in about 4 years. If we do not start connecting Hong Kong Island to CLP and their link to Guangdung now, then 1/3 of all Hong Kong consumers will be shut out of this potentially very cheap – low emission - energy market.
the Government's established policy of no government subsidy or cross-subsidisation of business	We approve of this policy. However, we would like to highlight that there is a public utility that is directly subsidized by the

endeavours.	Government – bus companies. They do not have to pay for the roads, the upkeep for the roads – and they do not pay fuel duty. The cost of their dirty diesel pollution is borne by the ill health of the people. This is a direct government subsidy which rewards polluters. Until this subsidy is removed and all vehicles are required to pay for the road they use and the amount of pollution they generate, the Government would be well advised to stop claiming that it follows this principle of no corporate welfare. Controlling the tariff collected by the power company by requiring them to allow access to the grid by small providers is a far cry from "government subsidy" of the renewable energy market.
• Would take longer time to implement and could be perceived as Government's intrusion into property ownership and private business operation. • Would involve increased Government's commitment and resources to develop and implement regulatory framework, establish and maintain technical standards and codes, and monitor and ensure compliance. • While enabling customers to access alternative supply sources, existing power companies might no longer be held responsible for meeting demands of all customers within their service areas.	CLP has intimidated at least one small player from the market already in terms of using recycled fuel to create electricity. CLP and HKE will not make a business decision that reduces their profits. This is why voluntary access should not be entertained because it assumes that a company would go against sound business practice of maximizing profits. "perceived" is a non neutral term. Public utilities have a unique position as the welfare of the entire society is at stake. Thus their position as a private company is not the same as, say, a wristwatch retailer. Once the grid is connected, the main power companies, as is fitting based on their high profits and current excess capacity, should still be held to their obligation to supply. But that obligation can change to be a percentage of the market rather than a geographical area. .
3.64 perception	Perception again. Are the energy and clean air needs of the people to be held hostage by US based multinational utilities which are required to work under similar regulatory environments all over the world? Why is the Government threatening us, the people with such intimidation tactics?

shorter agreement periods, say of 5 or 10 years duration, to provide flexibility for amendments as circumstances may so require. However, the uncertainties thus posed would deter continued or longer term investments by the power companies.	Once again the Government it trying to intimidate us into believing that a politically secure, guaranteed low operating cost highly invested energy network with 40% overcapacity will prevent the required investment. No description of the investment is provided, however.
4.1	Again the environment is eliminated from the language of the "priorities" set forth in the beginning of this document
4.6 Option 2 - Regulatory Framework Supported by Legislation .• Would be perceived as Government's intrusion into private business operation. • Might entail a lengthy legislative process. • Would involve more bureaucracy and higher administrative costs. • Would mean complete overhaul of a regulatory framework that has generally operated satisfactorily for several decades.	Not one of these statements labeled "con" is a negative. Proper legislative support is crucial as they are the people's representatives and will be responsible for marketing the message to the people. LegCo is not the enemy – they represent the people. They are duly elected to monitor Governmental behavior. Again the threat of two companies holding the wellbeing of the public hostage to their greed. Laissez faire should not mean carte blanche. The air pollution problem facing us today – and its solution – will require proper Government administration and intervention as was done in California by their Government to solve that state's extreme pollution problems.. California has no deaths from air pollution, based on the website cleartheair.org. HKUST has recently told us that 15,000 people die prematurely from air pollution in Hong Kong This is not "satisfactory". People are sick and dying and steps must be taken since the power industry is using filthy technology that is 20 years old.
Regulatory approach	Government must intervene in the power-for-profit model because it is causing severe sickness and death of the people and acid rain in Guangdong Until the responsibilities of the regulatory body is defined – e.g. reduce energy consumption by 20% by

	2008 – there can be no substantive discussion on its form.

END of response to consultation

"Cliff \(i-cable\)"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Electricity Supply
☐ Urgent ☐ Return Receipt

2005/04/30 11:53 PM

Electricity is indispensable as air conditioners, lifts, computers, and many electrical appliances are widely used today. Most of electical appliances relies on stable and reliable electricity supply. Both electricity suppliers perform very well in the past. I trust they would do much better in the future.

Cliff Chan

"Cliff"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Can Most People Enjoy The Benefits Or Suffer From It ?
☐ Urgent ☐ Return Receipt

2005/04/29 12:06 AM

Dear Sir,

After going through the consultation paper on the Future Development of the Electricity Market in Hong Kong (Stage I Consultation), as one of the many mid-classes in Hong Kong, I would like to express my concern on the some of points stated in the paper.

1. As most of the electricity users in HK are for business and industrial, I cannot see that new competitors could be targeted household users, as our electricity usage is relatively low.

2. A decrease in electricity bill has very little help, only saving $10-20 per month has minimal effect over my household expenditure. Government rates and tax cut could help me a lot better !!!

3. Why putting so much effort on developing a new system, and who would be benefited? A lot more attention should be made in preparing HK for the challenges from other Asian countries. What about the huge tunnel fare increase in East Harbour Tunnel Crossing? The Government is helpless over the issue!!!

4. I am terribly put off by continuous road works around HK. If there comes a new competitor, how could there be no addition construction and road work around us? Please consider the traffic jam that they would cause, especially at the heart of business district.

5. I am glad to pay the bill at the present level, as long as the service is kept as good. Cheap isn't the only thing in the World! My internet service provider is Netvigator by PCCW NOT HK Broadband ONLY because of the good service and reliability.

Thank you for the consideration.

Yours faithfully

Clifford Wong

阮蘇少湄
常務董事
Betty Yuen
Managing Director

中華電力
CLP Power

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Our Ref CSPD/372/L47860/05-04/BY

26th April 2005

Mr. Stephen Ip, GBS, JP
Secretary for Economic Development & Labour
Economic Development and Labour Bureau
Government Secretariat
2/F., Main Wing, Central Government Offices
Lower Albert Road, Central
Hong Kong

c.c. Ms. Sandra Lee
Ms. Miranda Chiu

Dear Stephen,

Public Consultation on Future Development of the Electricity Market in Hong Kong (Stage I)

In January 2005 the Government published its Consultation Paper on Future Development of the Electricity Market in Hong Kong - Stage 1 Consultation. We are pleased to submit to you herewith our formal response to that Consultation Paper.

In preparing our response we have actively consulted and included the views of our stakeholders: our employees, our shareholders, and the community that we serve. We hope it represents a valuable and fair-minded contribution to an informed discussion on the future of an industry that is of great importance to Hong Kong's social and economic well-being.

In addition to our response, another of our recent publications – "*Powering Hong Kong's Future*" which explains more of CLP's views relevant to the issue – also forms part of our formal submission to you.

We welcome and value the consultation process and the engagement and input of all stakeholders. We hope that the outcome of the consultation will result in a clear direction for the Government to develop a regulatory framework that continues to meet the long-term needs of our society.

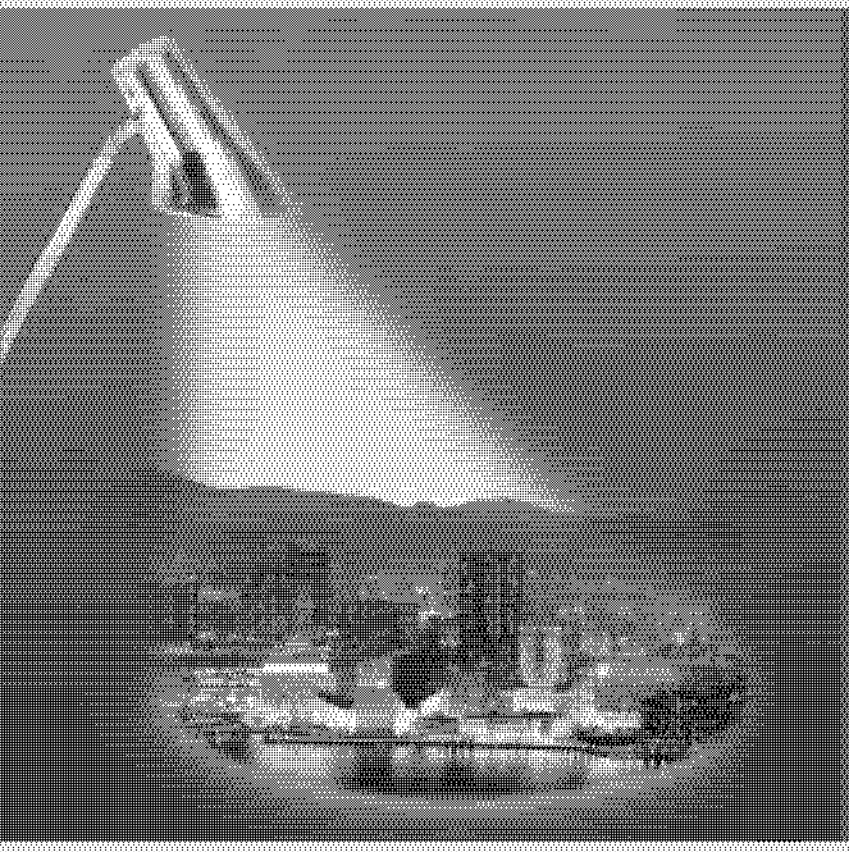
Yours sincerely,

Betty Yuen
Managing Director

Encls. as stated

中電集團
CLP Group

CLP's Response to Government's Consultation Paper on Future Development of the Electricity Market in Hong Kong — Stage 1 Consultation



A Balanced Deal — A Bright Future

April 2005

A Balanced Deal — A Bright Future

- Government's consultation on the future development of Hong Kong's electricity supply industry raises key questions for our society:
  - is our system of regulation working in Hong Kong?
  - can we improve it?
  - should we introduce competition to the sector?

- Competitive markets have been introduced in some parts of the world. The CLP Group itself has invested significantly in Australia, a fiercely competitive market. We understand the conditions that are required for these markets to function

- A meaningful electricity market in Hong Kong can only be realised on an integrated basis with South China. A level playing field would be necessary to ensure that, whether from an economic, environmental, technical, or customer service standpoint, all suppliers are treated equally

- The plain fact is that no such market conditions yet exist. This response explains in detail the practical difficulties involved in introducing competition to our industry in the short to medium term

- Where does this lead us? It is our view that Hong Kong's electricity service is outstanding in all respects. To continue delivering the electricity service that our community expects and enjoys, we believe the way forward is a practical and balanced deal that takes the achievements of the past as the platform on which to power Hong Kong's future

Introduction

Electricity is a key component of modern life. No industrialised economy can work without it. A stable and reliable supply, at reasonable tariffs, is a prerequisite for economic progress. At the same time, society demands that electricity be supplied in a manner that is cost effective, safe and with environmental responsibility.

Future regulation of the electricity industry in Hong Kong is a matter of great importance to all our citizens — a long term, stable and fair regulatory regime underpins our past success, and will drive our growth in the future. The Government has published its "Consultation Paper on Future Development of the Electricity Market in Hong Kong", a first look at the issues involved.

We welcome the debate on the future of our industry. This is CLP's formal response to Government's Consultation Paper.

Maintaining the Balance

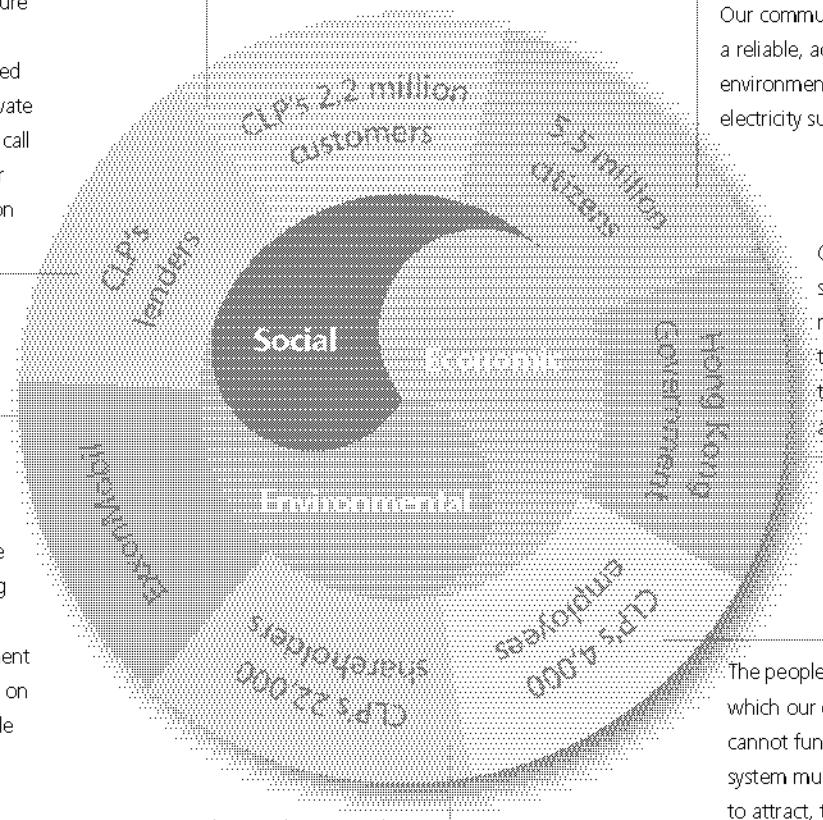
A successful system of regulation must balance the interests of all the stakeholders in Hong Kong's electricity sector

This balance is not a static process. As our industry evolves and the needs and expectations of our society change, we must revisit the interests of our stakeholders.

Customers are entitled to receive a high quality electricity supply and excellent customer service in return for reasonable tariffs

The providers of HK$18 billion of funds to enable the infrastructure to be built. Together with our shareholders, they have financed that infrastructure through private sector investment alone — no call for funds or subsidies, direct or indirect, has ever been made on Government and taxpayers

Our community depends upon a reliable, adequate and environmentally responsible electricity supply



Government must be satisfied that the regulatory regime supports their duty to the people of the HKSAR to ensure the provision of an essential public service

CLP's longstanding partner, the owner of a 60% interest in the power stations operated by CLP in Hong Kong. ExxonMobil is the largest US investor in Hong Kong and over the past 40 years has shown an unwavering commitment to invest in electricity generation on the basis of a balanced and stable regulatory regime

The people capital without which our electricity system cannot function. The regulatory system must enable our industry to attract, train and retain future employees to serve our community in the years ahead

Representing many thousands more with a beneficial or other interest in our shares who, on the basis of their trust and confidence in Hong Kong, a fair regulatory system and CLP itself, have an investment currently valued in excess of HK$100 billion in our company

> "The balance we need is not only between stakeholders, but also between social, economic and environmental considerations."
>
> **Andrew Brandler**
> *Chief Executive Officer, CLP Holdings*

Listening to our Stakeholders — Making their Voices Heard

The success of our business over the past century is the result of the trust and confidence which customers and the community have placed in CLP to provide Kowloon and the New Territories with its electricity supply

In order to retain that trust and confidence, we pay great attention to the needs and expectations of all the stakeholders in our business.

We have adopted the same approach in developing our views on the way ahead for Hong Kong's electricity supply industry after 2008. This submission speaks for CLP, our customers, our shareholders, our employees and, we believe, for all those who rely on CLP.

We have actively consulted and included the views of our stakeholders in preparing this response to Government's Consultation Paper.

In order to say with confidence and authority that we have listened to this wide base of stakeholders, and that we can speak on their behalf, we commissioned Lingnan University to conduct an independent survey of our customers and shareholders. This survey was conducted between January and March of 2005. We highlight the results* of this survey throughout this response.

Engaging our stakeholders

Employees	• Over 50 face-to-face communication sessions with 4,000 employees • Web communications, telephone and fax hotlines, and an on-line enquiry service were used to promote interactive dialogue
Community	• Surveys conducted by Lingnan University • CLP reached out to different local community bodies, customers, trade groups, green groups, and professional bodies in over 130 meetings
Shareholders	• Shareholders' opinion survey conducted by Lingnan University • We met 3,000 shareholders during their visits to our facilities

* *Data in the survey results may not add up to 100% due to rounding*

The Qualities of a World Class Electricity Supply

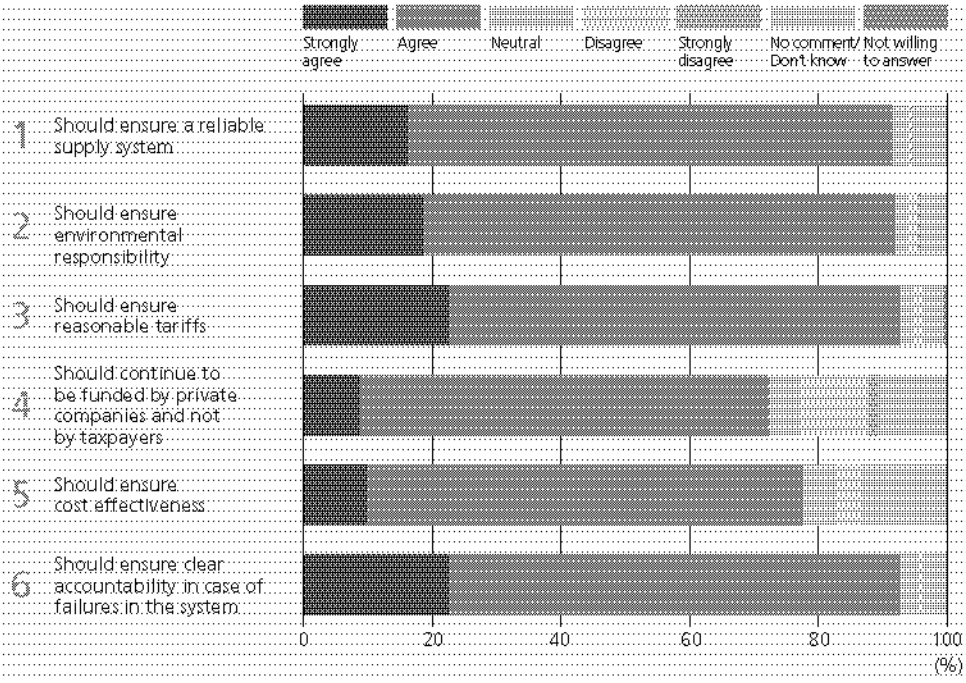
There is clear consensus on what the qualities of a world class electricity system are — and that Hong Kong's electricity system has those qualities

In "*Powering Hong Kong's Future*", which we published in February 2005, and which forms part of our submission to Government, we laid out the qualities which our citizens expect from their electricity service:

1. An adequate and reliable system
2. Environmental responsibility
3. Reasonable and affordable tariffs
4. Private funding of investments
5. Cost effectiveness
6. Clear accountability and responsibility

The Consultation Paper itself and the feedback we have received over the past three months demonstrate clear agreement that these are the qualities which our community expects.

The future regulatory framework must continue to promote these objectives



70% – 90% of the community support the continuation of these six qualities in the future regulatory regime

Survey commissioned by CLP and conducted by Ipsos Asia Pacific

These qualities have not happened by chance — they are the fruit of a good regulatory system, fairly administered by Government and responsibly operated by CLP

Understanding our Industry — The current regulatory system has delivered a world class electricity system

An adequate and reliable system	• Reliability stands at 99.99% — among the world's best • Hong Kong's electricity demand has grown 20-fold in the last 40 years. Our society has never been hampered by a lack of electricity
Environmental responsibility	• Despite a 68% increase in local electricity sales since 1990, our total emissions in Hong Kong in 2004 were lower than our 1990 level by: — 35% for SO_2 — 80% for NO_x — 68% for particulates
Reasonable and affordable tariffs	• In line with comparable cities such as New York and Tokyo • Accounts for only 1.3% to 2.7% of monthly household expenditure in Hong Kong • Unchanged since 1998 with six rebates totalling HK$3 billion • Reduced by 34% in real terms between 1984 and 2004
Private funding of investments	• HK$70 billion in electricity infrastructure • Taxpayers have not been called upon to fund the power sector
Cost effectiveness	• 127% increase in productivity over the last 10 years • 100% of cost savings are passed to customers
Clear accountability and responsibility	• CLP is responsible for providing electricity to customers across every link of the electricity chain, from procurement of fuel right through to customer services • We are wholly accountable to our customers for any shortcomings in the electricity supply

There is clear agreement that Hong Kong's electricity supply, regulated for the past 40 years under the Scheme of Control ("SoC"), has these qualities. The objective of Hong Kong's electricity regulatory framework must be to both preserve these existing achievements and to provide a platform for continuing excellence.

The Keys to a World Class Electricity Supply

The keys to the excellence of our electricity supply are found in a regulatory system which delivers:

- Practicality
- Service Excellence
- A Fair Deal for Investors
- Clear Accountability and Responsibility

These keys cannot be taken in isolation — each of them is an integral part of a balanced deal.

Upsetting that balance undermines the ability of the regulatory system to deliver the electricity service which our community expects and enjoys. Preserving that balance is critical to an industry which provides a vital public service and which demands constant excellence and long term commitment.

Practicality

The regulatory regime must be practical — it should promote the things which can and should be done, and promote doing them well

Competitive and regulated markets

The Government's Consultation Paper discusses certain alternative or additional elements that might be incorporated into a new regulatory regime. These elements must be judged on their practicality.

Over the last 40 years, Hong Kong's power industry has operated under a regulated regime as opposed to a competitive market. In other countries, there are moves towards competitive markets in generation and in the retail sale of electricity to customers. Some of these competitive regimes are seen to be working well while others have problems.

Developments in the electricity industry

Over the past 15 years several regions overseas have restructured their electricity supply industries. The effects of these changes have varied. Whilst in some countries efficiency gains have been made, concerns about investment incentives have emerged. Moreover, in some markets, high profile failures such as blackouts and in at least one case, California, the complete collapse of the market have led to policymakers rethinking their objectives, and often introducing further change to cope with problems that emerged.

One clear conclusion is that there is no single model for change and no one model that is seen as generally superior to all others. Each system is unique, and changes must take proper account of local circumstances. There are also significant risks involved; where local circumstances are not properly reflected or where short term considerations dominate, for example in California, reform can lead to chaos. Changing the way that we control our electricity industry is not a risk-free process.

Furthermore, efforts to reform small, localised systems (such as we have in Hong Kong) by introducing various forms of competition have run into particular difficulties, due to few large generation units and the problems of creating effective competition between them.

Initially reform was often about improving efficiency, particularly in moribund state owned industries that were being privatised in parallel. However, capital investment has increasingly become a priority in recent years, for several reasons:

- many regimes reformed at a time when the sector was inefficiently run by the state; that has now changed, and opportunities for future efficiency gains now appear to be more limited
- for some time, commentators have wondered whether reformed regimes, which often focus on cost efficiency, provide appropriate incentives for capital investment
- recent blackouts in the US and Europe have heightened concerns amongst regulators and utilities over ensuring that investment needs are recognised and delivered

CONSULTATION ISSUE

Key Observations from Overseas Experience

Our views

Overseas experience is mixed, and few clear lessons emerge. Recently the emphasis in other jurisdictions has shifted from efficiency improvement to concerns over adequate incentives to invest

The SoC was originally derived from the typical US regulatory approach, which historically looked towards encouraging investment. There were a number of initiatives in the US to add onto existing arrangements more explicit efficiency incentives, commonly found in UK and Australian regimes. The recent increased interest in system reliability and security, however, has shifted the focus in the US back towards the need to encourage and maintain investment, not least because of the impact of the major blackout in 2003.

Concerns about the adequacy of investment incentives have also been raised in the UK and Australia, by both regulators and commentators. In a recent consultation paper on price controls, for example, the UK regulator Ofgem devoted considerable space to a discussion of investment incentives, whereas in the past these have been clearly subordinate to efficiency considerations.

South China regional competitive market

In Hong Kong the characteristics needed for a competitive market are absent. Meaningful competition needs more than several players and can only be realised in Hong Kong by involving parties in South China. A regional competitive market must be conducted on a level playing field that ensures that all suppliers are treated equally, whether from an economic, environmental or technical standpoint. It is important that all suppliers in a regional market be allowed to sell to any customer in that market, as opposed to only suppliers from South China selling to Hong Kong customers.

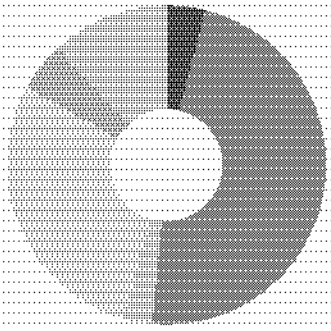
> "I would assert to you that before much is done, or as you are discussing what should be done in Hong Kong, there is a simplicity and elegance in the SoC, which I find to be quite attractive... When you have an elegant solution that works in a unique environment, I would be very careful about doing much dramatic with it."
>
> **Branko Terzic**
> [illegible]

The plain fact is that no such market conditions yet exist. For the moment, the electricity market in South China is not reliable as generators are not able to meet ever-increasing demand. Grid investment is insufficient, resulting in grid reliability standards being highly incompatible with those of Hong Kong. As illustrated by the major blackouts in North America and Europe in 2003, increased power flows between interconnected systems offer risks as well as benefits. Hong Kong's supply reliability would be subject to events and decisions made across the border.

Even if reliability improved in South China, there are other issues that need to be addressed. For example:

- dissimilar legal and technical systems
- widely differing environmental standards
- state ownership of most major generation assets (meaning decisions may be taken on a non-economic basis)
- subsidised coal prices
- end user tariffs that are regulated by the state, do not reflect actual costs, and subsidise certain customer classes

Most people do not believe there is room for an additional electricity supplier in Hong Kong



Strongly agree	4%
Agree	48%
Neutral	3%
Disagree	29%
Strongly disagree	5%
No comment/ Don't know	12%
Not willing to answer	0%

52% agree vs 34% disagree that "there is little room for additional players in the small Hong Kong electricity market"

[illegible]

CONSULTATION ISSUE

Supply Situation in Guangdong

Our views

We agree with Government that there are considerable supply reliability problems in Guangdong that remain to be addressed, and that whilst ambitious plans to resolve them are being implemented, it is likely to be some time before the situation stabilises.

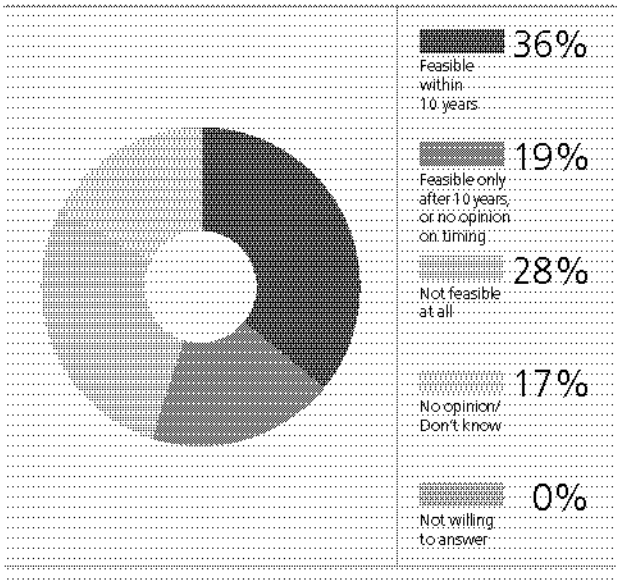
Even if a long term, sustainable balance of supply and demand in Guangdong were to be achieved, there are other obstacles to be overcome, not least the differing environmental standards, the present degree of state ownership of key assets, state setting of tariffs, subsidies of fuel costs, and the need to reconcile significantly different technical and legal systems.

"Limited" opening of the market does not work as it would cause unnecessary investments and create unfairness between customers.

We agree that the situation should be kept under review. In the meantime the risks and the timescales involved mean that development of a regime for 2008 should not be predicated upon developments in Guangdong being compatible with those in Hong Kong.

A divided view about supply from South China

"Is competition in Hong Kong involving a broader South China market feasible?"



Survey commissioned by CLP and conducted by Gallup University

We believe that there are many issues to be resolved before a regional market can benefit Hong Kong. We also believe that this is not possible in the medium term, and therefore the post 2008 arrangements should not be predicated on this.

Customer choice

Customer choice seems appealing, allowing customers to choose their supplier. Unless that supplier has ready access to a competitive wholesale market, however, there is unlikely to be real competition for customers and the presumed benefits of customer choice will fail to arise. Market access can be improved by increased interconnection, as the Government notes, but if there is no market in the first place, such expansion is difficult to justify. We therefore believe that the conditions to enable customer choice to flourish are not present in Hong Kong and South China at the moment.

Grid access

Grid access refers to the conditions under which third parties can use our transmission and distribution systems. To ensure safety and reliability, grid access rules are complex and need to link to market rules. We see little prospect in the short to medium term of meaningful competition developing in Hong Kong from third parties, and therefore believe that the development of grid access, which facilitates market opening, is not cost justified.

There has recently been discussion about "limited" opening of the market, a hybrid of the two basic models — a regulated market and an open market — involving selected suppliers from South China supplying selected customers in Hong Kong. This will not work. It results in inefficient use of resources, creates unfairness between customers, uses systems differently to the manner in which they were originally designed and built, and blurs the line of accountability and responsibility.

Moreover, there are major issues such as third parties seeking to "cherry pick" particular customers, "free riding" on the back of infrastructure provided for all customers, and interfering with the property rights of the private sector owners of the existing electricity infrastructure.

There are many different forms of regulatory arrangements that could be considered for Hong Kong. Those with market features might work elsewhere, but are inappropriate for our present needs. The small size of the Hong Kong market, and the lack of a safe and reliable supply in Guangdong to which Hong Kong could link to create a larger market, mean that for a considerable period of time, moves to create competition are either impractical or pose significant risks to key attributes such as security of supply. Developing associated instruments such as grid access or customer choice when the conditions for a competitive market are absent will create costs for very little or no benefit in the short to medium term.

Increased interconnection within Hong Kong

The existing interconnection between CLP and Hongkong Electric has been used for mutual system support for the past two decades. The Government's Consultation Paper discusses a number of issues related to increasing interconnection within Hong Kong, which would cost around HK$2 billion, and whether this increased interconnection would optimise the use of resources in Hong Kong. Whilst we recognise that gains can be made, they would be marginal for some years to come. On present estimates the costs of expansion would largely exceed any gains.

CONSULTATION ISSUE

Grid Access

Our views

The Government correctly identifies some of the disadvantages of various forms of grid access.

Given that the conditions for a competitive market are absent, the considerable investment and disruption involved appears to offer little by way of real benefit, either to Hong Kong or to its electricity customers.

CONSULTATION ISSUE

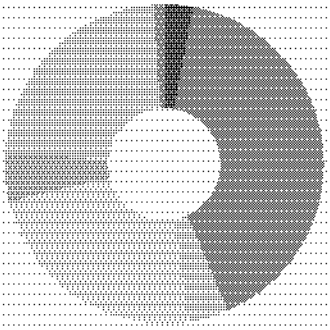
Customer Choice and Interconnection

Our views

The Government considers customer choice and notes that, without other things being in place in parallel, it has little or no merit on its own. We agree with this assessment.

Hong Kong is not ready for a market in the medium term, so interconnector expansion to facilitate customer choice cannot be justified at present.

The public are not convinced of the benefit of increased interconnection



Strongly agree	3%
Agree	41%
Neutral	4%
Disagree	24%
Strongly disagree	5%
No comment/ Don't know	23%
Not willing to answer	1%

44% vs 29%

agree disagree

that "increased interconnection between CLP and Hongkong Electric involves large scale investment in the grid and generating capacity, so may not benefit consumers very much"

Survey commissioned by CLP and conducted by Ipsos Asia Limited

The Government also discusses whether interconnector expansion, if needed, should be undertaken by the existing power companies or by a new third party. The existing interconnector was provided, and is currently operated, by the two companies. There is no reason why any new interconnection, as and when required, should not also be provided and operated in the same manner. The involvement of additional parties would also bring technical and operational difficulties.

While we are not opposed in principle to increasing the capacity of the interconnection, the costs and benefits of doing this must be carefully considered and, ultimately, fairly shared among all stakeholders. We agree with the Government that at the moment the benefits appear to be far lower than the costs necessary to deliver them. The costs and benefits will change over time, and it would be appropriate to reconsider this issue in the future. For now, we do not believe that expansion should be a key requirement for a new regulatory regime.

Regulatory and institutional arrangements

The Government raises issues related to regulatory and institutional arrangements in its Consultation Paper. It discusses whether the current contractual arrangements should continue and whether Government oversight and control should be exercised through an independent regulator. These issues are very much dependent on the structure of the electricity market.

As and when a regional competitive market becomes feasible, the market would be much bigger and more complicated than today, involving multiple players participating in different parts of the supply chain. Various items will need to be in place first:

- complicated wholesale generation market systems and regulations
- an Independent System Operator
- technical, safety and environmental standards, to be followed by all market participants

CONSULTATION ISSUE

Interconnector Operation and Expansion

Our views

There are only small marginal benefits associated with interconnector expansion to enhance system efficiency and optimise system resources. On the other hand, interconnector expansion costs are substantial and likely to be several times the scale of the benefits.

While we are not opposed in principle to increasing the capacity of the interconnection, the costs and benefits of doing this must be carefully considered and, ultimately, fairly shared among all stakeholders.

There is little merit in introducing a new third party to provide and operate any new interconnection.

Emergency management becomes more complex the more parties are involved.

- a grid code
- regulated returns for transmission and distribution assets
- arrangements for a supplier of last resort
- Government oversight

If the market remains regulated, there is little justification for the additional cost of setting up an independent regulator. It is also unclear how policy objectives for the electricity industry, which affect a wide range of stakeholders, and considerations ranging from social and economic to environmental, could be set, implemented and enforced by a regime independent of Government. We believe that the present arrangements have stood the test of time, and have proved cost effective for both consumers and taxpayers.

Similarly, the current contractual arrangements have proved simple, low cost and effective. They have promoted a balanced relationship between CLP and Government (acting on behalf of customers), as parties to a binding contract governed by the laws of Hong Kong. In circumstances where CLP has not been given any statutory franchise or right to provide electricity, and where investments are funded, controlled and owned by the private sector, we see no reason why its business should be controlled by statue.

CONSULTATION ISSUE

Regulatory Arrangements, and Institutional Set-up

Our views

The present system of regulation by Government under a contract has worked well for a regulated market.

No clear benefits have been identified from changing the present regulatory and institutional arrangements, until a competitive market becomes feasible.

Service Excellence

Our customers enjoy:
- World class reliability
- Moderate tariffs
- Excellent customer services

This makes for satisfied customers. We intend to keep things that way

Service excellence means that we deliver a reliable and adequate supply of electricity, with excellent customer services, at reasonable and affordable tariffs.

The facts speak for themselves

In this response we have not set out all the outstanding, objective and measurable achievements of CLP in excellence of customer services, cost efficiency, productivity and reliability.

In all of these areas, the facts speak for themselves. They are set out on page 6 of this response, summarised in *"Powering Hong Kong's Future"*, in our 2004 Annual Report, and in our 2004 Social and Environmental Report.

The Consultation Paper rightly recognises the importance of reliability, and properly commends CLP for its achievements in this respect.

Understanding our Industry — CLP's tariff

- Electricity is affordable
- Median electricity bill is $220 per month
- Compares favourably with similar cities
- A good deal for customers — world-class reliability at moderate cost
- The increase in CLP's tariffs over the last two decades was 34% below that of inflation, and well below wages and most other public services
- Electricity accounts for an average of 1.7% of monthly household expenditure in Hong Kong
- Among the most affordable tariffs in Asia

Tariff

One aspect of service excellence which attracts particular focus is tariffs. The desire for lower tariffs is natural and understandable. To be sustainable in the long term, a successful electricity supply industry must perform efficiently and deliver, amongst other things, tariffs which are reasonable and affordable. Customers demand a fair deal with tariffs, and the SoC has delivered just that.

There has been discussion of tariffs being more closely linked to economic performance, for example if annual changes were governed by changes in the Consumer Price Index ("CPI"). CLP's costs are largely driven by world market considerations, however, and in fact less than 10% of our costs move with the CPI. In addition, we are in a long term business — if tariffs had been linked to CPI twenty years ago, they would today be 51% higher than they actually are. Only if the link had been started more recently would they now be lower. Whilst such a linkage could be considered, it should be recognised that it poses risks for customers as well as investors.

CONSULTATION ISSUE

Linking Tariffs to Local Economic Circumstances

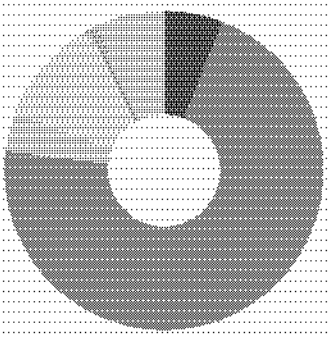
Our views

A low proportion of CLP's costs are driven by Hong Kong CPI

Tariffs will go up, as well as down, if a CPI linkage is made

Tying tariffs to local inflation weakens the link between the tariffs customers pay and the costs to CLP of providing electricity service to customers

There is wide support for basing CLP's tariff on CLP's costs



Strongly agree	6%
Agree	71%
Neutral	4%
Disagree	11%
Strongly disagree	1%
No comment/ Don't know	7%
Not willing to answer	0%

77% vs 12%

agree disagree

that "tariff adjustment by power companies should be based on the costs of providing the electricity supply system"

Survey commissioned by CLP and conducted by Ipsos Limited

The Government's Consultation Paper also raises two other issues that are related to the tariff-setting mechanism — the Development Fund and Fuel Cost Adjustment. We believe that they help stabilise tariffs, are beneficial to customers and should be maintained.

Although we believe that the tariff setting process is objective and transparent, fair and robust, the Consultation Paper raises the issue of further transparency. Hong Kong is increasingly sophisticated. We understand society's need for more information which is why we voluntarily publish information in our Annual Report, our Social and Environmental Report, as well as other ad hoc publications. CLP is regularly acclaimed for our corporate governance standards and excellent levels of disclosure, and we will continue to improve these to meet the expectations of the public. However, we believe a certain degree of Government scrutiny on behalf of customers is necessary, both to preserve a degree of confidentiality, and because much of our operations and cost structure are complex, with frequent volatility in costs.

CONSULTATION ISSUE

Development Fund

Our views

- The Development Fund is an important mechanism for smoothing tariff changes. Careful financial management, including maintaining an appropriate balance in the fund, has held down tariffs and enabled rebates to customers
- Through controls that include paying customers 8% per annum interest on Development Fund balances and limiting the total in the fund, we are incentivised to operate it efficiently
- The Development Fund benefits customers — it should be kept

CONSULTATION ISSUE

Fuel Cost Adjustment

Our views

- The regulatory regime must recognise the reality that Hong Kong does not have its own sources of fuel — we import everything that we need to generate electricity
- The Fuel Clause Account mechanism smoothes changes in tariffs due to fuel cost movements
- Annual tariff scrutiny ensures that we purchase efficiently
- The Fuel Clause Account mechanism should be maintained in the new regime

CONSULTATION ISSUE

Increased Transparency in Setting Tariffs

Our views

- We have a high level of information disclosure, as evidenced by the awards we win for the transparency of our public reports
- Our tariffs are set based on the costs of providing the system, and are fully scrutinised by the Government
- A sensible balance needs to be struck between transparency and commercial confidentiality

Environmental responsibility

CLP shares the community's concerns about the environment, and has spent considerable time and resources to reduce power station emissions. The SoC has provided excellence in the past — as described in "*Powering Hong Kong's Future*" — for example we have cut particulate emissions in half, and kept CO_2 and SO_2 emissions below early 1990s levels, despite a 68% increase in generation output since then. The SoC has also helped us to diversify our fuel sources, in particular to invest in and operate gas fired equipment, which is cleaner for the environment.

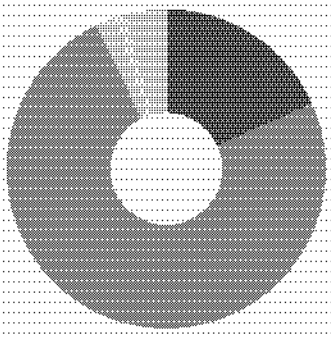
The post 2008 framework for the electricity industry must promote good environmental performance.

There has been growing interest in the use of renewable energy in Hong Kong. The challenges to renewable energy development in Hong Kong are technical and physical, not regulatory:

- **Wind** — A wind farm big enough to generate 4% of CLP's current capacity in Hong Kong would fill the space of the entire Kowloon peninsula
- **Solar** — To meet the annual energy demand of the population in Wong Tai Sin alone, about one-third of the Kowloon Peninsula would need to be covered by solar photovoltaic ("PV") panels
- **Hydro** — There is no potential for small hydro projects as there is no sizeable running river within Hong Kong

No changes to the regulatory framework would overcome these obstacles.

The public has a high expectation of environmental responsibility for the future regime



91% vs 1%

agree disagree

that "the future regime should ensure environmental responsibility"

Strongly agree	18%
Agree	73%
Neutral	2%
Disagree	1%
Strongly disagree	0%
No comment/ Don't know	4%
Not willing to answer	0%

Survey commissioned by CLP and conducted by Hong Kong University

Until new technology can support the large-scale generation of electricity for developed economies based on renewable energy, then Hong Kong, like any developed economy, must rely on conventional generation. The priority is to enhance the performance of conventional generation. CLP has specific proposals to do this.

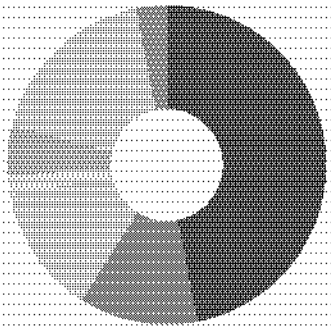
In December 2004 we published "*Our Manifesto on Air Quality & Climate Change*", where we committed to improve the environmental performance of our electricity generation activities, including by:

- developing the infrastructure needed to assure the availability of natural gas in Hong Kong, including building a liquefied natural gas ("LNG") receiving and storage terminal for use by early next decade
- taking forward a plan to raise the environmental performance of Castle Peak Power Station to state-of-the-art levels for existing plants. By measures such as the installation of flue gas desulphurisation ("FGD") and selective catalytic reduction ("SCR") equipment we intend that, upon completion of the plant around 2011, SO_2 and NOx emissions per unit of electricity produced will be reduced by over 90% and 80% respectively from current levels. Particulate emissions, of which 99.4% already captured, will be further reduced

These continuing improvements come at a cost. Our society's increasing willingness to face those costs is an example of how the balance between economic and environmental considerations evolves over time.

The public is willing to pay for environmental improvements

"How much more are you willing to pay for cleaner electricity?"



0%-4.9%	47%
5%-9.9%	12%
10%-14.9%	13%
15%-19.9%	2%
20% or more	5%
Hard to say	18%
Declined to answer	3%

Survey commissioned by CLP and conducted by Ipsos Asia3.

CONSULTATION ISSUE

Supply from Other Local Sources

Our views

In this context other local sources means primarily environmentally friendly schemes, given the lack of indigenous fuels. The Government concludes, much as we do, that such schemes have their place but will not offer large scale alternatives to present generation needs.

If, as a society, we still decide to invest in renewable projects, the SoC provides an excellent basis to facilitate that investment, and CLP would work with Government to develop fair and objective criteria to take these projects forward.

In the first place, the emphasis must be on continuing to improve the environmental performance of our existing generating facilities.

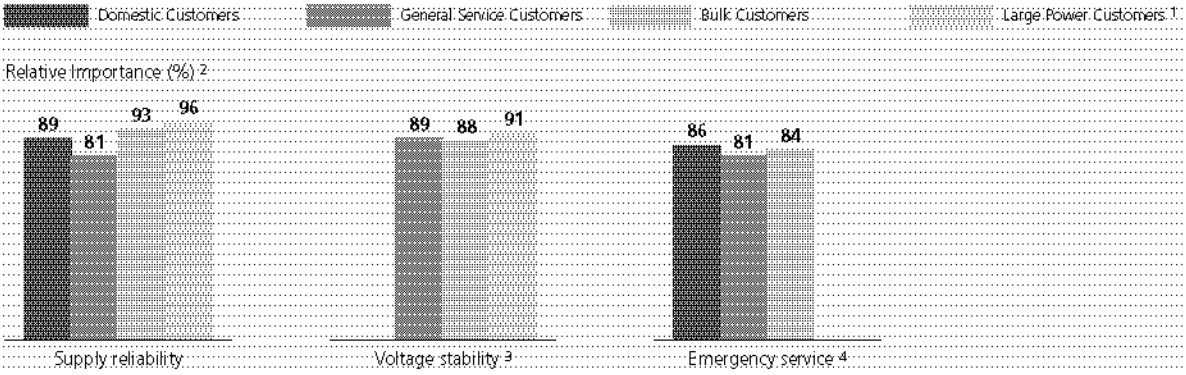
Satisfied customers

To make sure we have satisfied customers, we:

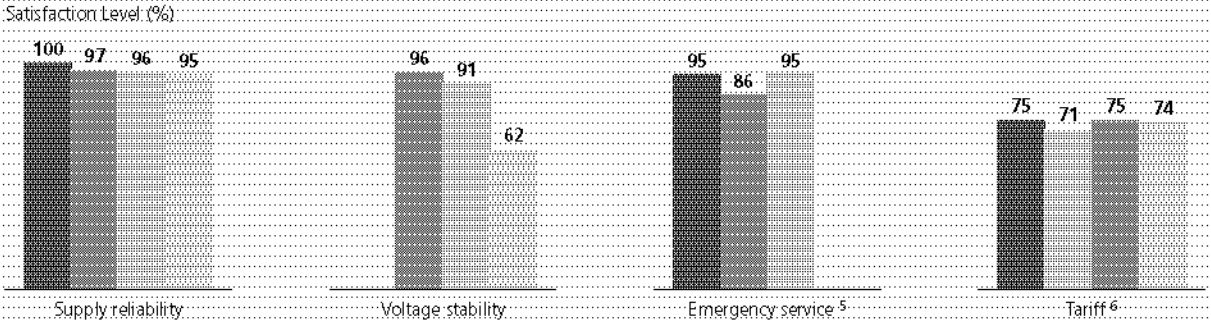
- ask our customers what aspects of our service matter most to them
- measure customer satisfaction by reference to those aspects
- improve our performance in those aspects where our customers are less satisfied

Since 1999, we have used AC Nielsen, a world-renowned survey firm, to collect and collate information from our customers. In 2004, AC Nielsen's survey identified three aspects of our service (supply reliability, voltage stability and emergency service) as of highest importance to CLP's customers:

What matters to our customers?



How did we do?



1. Domestic Customers (over 1 million accounts)
   General Service Customers (e.g. small shops, restaurants) (210,000 accounts)
   Bulk Customers (e.g. large businesses) (40 accounts)
   Large Power Customers (e.g. large industrial customers) (20 accounts)
2. Relative importance means factors rated at over 80% by customers
3. Domestic Customers did not rank voltage stability as one of their top three important factors
4. Large Power Customers did not rank emergency service as one of their top three important factors
5. Rated only by customers who used this service
6. Tariff is included for reference as only our Domestic Customers included this category in their top three (among others)

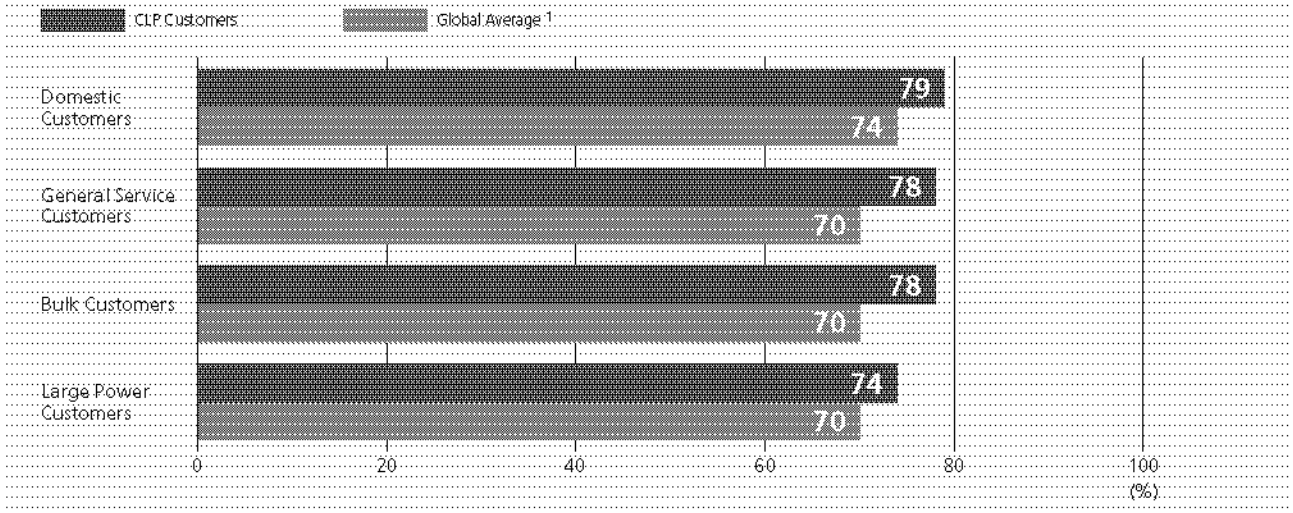
Customer Satisfaction Survey 2004 commissioned by CLP and conducted by AC Nielsen

Overall, there is a high level of satisfaction with CLP's service — including by comparison to other utilities and public service providers around the world.

We respond to feedback from customers by improving our services. For example, in the three areas classed as key importance factors, satisfaction levels were higher than 86%, with the exception of voltage stability for Large Power Customers, which was rated at 62%. These customers often have equipment which is highly sensitive to voltage dips. We have assisted many of these customers, for example the airport, with the design and operation of their own installations and have made investments in our own infrastructure, such as line arrestors. This remains an area of focus for us — an example of our commitment to satisfy our customers.

One result of this continuing commitment is that reliability of electricity supply is regarded by the business community as one of Hong Kong's outstanding qualities.

Overall customer satisfaction scores in 2004

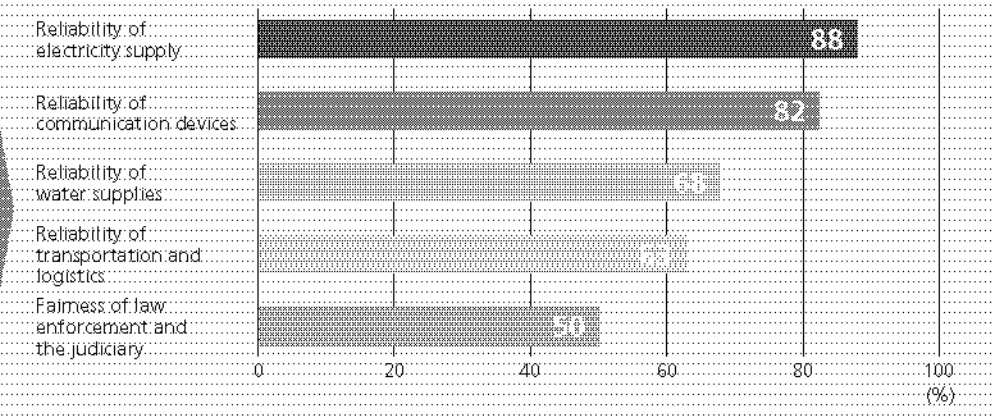


1 Global average is calculated based on ACSI findings published from 1995 to 2004

Customer Satisfaction Survey 2004 commissioned by CLP and conducted by an external agency

The reliability of electricity supply is an outstanding quality of Hong Kong's public and civic infrastructure

Satisfaction with Hong Kong's business environment



Survey of the Cost Competitiveness of Hong Kong Business conducted by Chinese University of Hong Kong and Lingnan University in October 2004 through face-to-face interviews conducted by CLP

The experience and skills to keep our customers satisfied

No matter how reliable and modern the components of the power system, without the constant attention of experienced personnel, nothing would work properly. Our people's skills and expertise are wide ranging, varying from engineering aspects such as power station operation, system control, and maintenance of transmission and distribution lines, to home services such as replacing meters, or answering billing inquiries.

Competitive markets are experiencing problems in this area. With significant cost cutting as the priority, investment in people has been sacrificed. This has meant a significant reduction in headcount, which in turn has led to deterioration in many areas of service, particularly research and emergency services.

We spend tens of millions of dollars each year in staff training and development to ensure a seamless blend of our hardware — our fixed assets — and our software — the skills of our staff — so that together we can deliver a world class system for all our customers. It is important not to take for granted our technical expertise and our professionalism, and assume that others can quickly and easily deliver the same level of service quality.

Hong Kong's stable, long term regulatory regime underpins our level of customer service excellence.

> "Without your staff's prompt response even during Christmas and 2005 New Year period, we would not be able to complete [the project] which is essential for us to be able to handle the surge of our container through put right after the Chinese New Year."
>
> **Hong Kong Container Terminal Manager**
> February 2005

> "I would like to thank your Company for sending volunteers to replace electrical wirings, install safety tripping devices and bathroom safety handles for needy families in Cheung Chau, which has improved their quality of living."
>
> **Islands District Councillor**
> July 2004

A Fair Deal for Investors

Hong Kong's electricity system is entirely funded by the private sector. For this to continue, investors must receive a fair deal

Level of return

A critical element of a fair deal is fair returns. There must be sufficiently attractive returns to compensate investors for the risks they take.

Understanding our Industry — The risks for investors

- A large amount of long-lived investment, which cannot easily be redeployed elsewhere
- A regime life that is shorter than the asset life. Because most of our assets can run for 25 years or more, CLP's business is heavily exposed to uncertainty of return beyond the duration of the regime (in fact, we have no certainty as to any of the terms on which we will be allowed to run our business)
- Continuous investment is necessary to maintain performance
- Return is capped, but not guaranteed

Under a regulated environment, the terms of the regime determine the risk and return trade-off for investors. If returns are not set at an appropriate level, then the private sector will not invest. It will be taxpayers who end up bearing the cost of that investment, whether or not individual taxpayers derive any benefit from the service in question.

Return comparisons with power companies in other parts of the world are misleading because in many cases they are not vertically integrated, dealing in only one part of the supply chain, for example the transmission and distribution side of the business. In other cases, they may not be providing the same deal in terms of tariff charged versus reliability delivered.

The fundamental point to bear in mind is that returns to investors must not be judged in isolation. There has been considerable discussion as to what constitutes a fair return, with a multitude of methodologies and an infinite range of figures that may be bandied about.

Our view is a straightforward one — in circumstances where an electricity supply is characterised by:

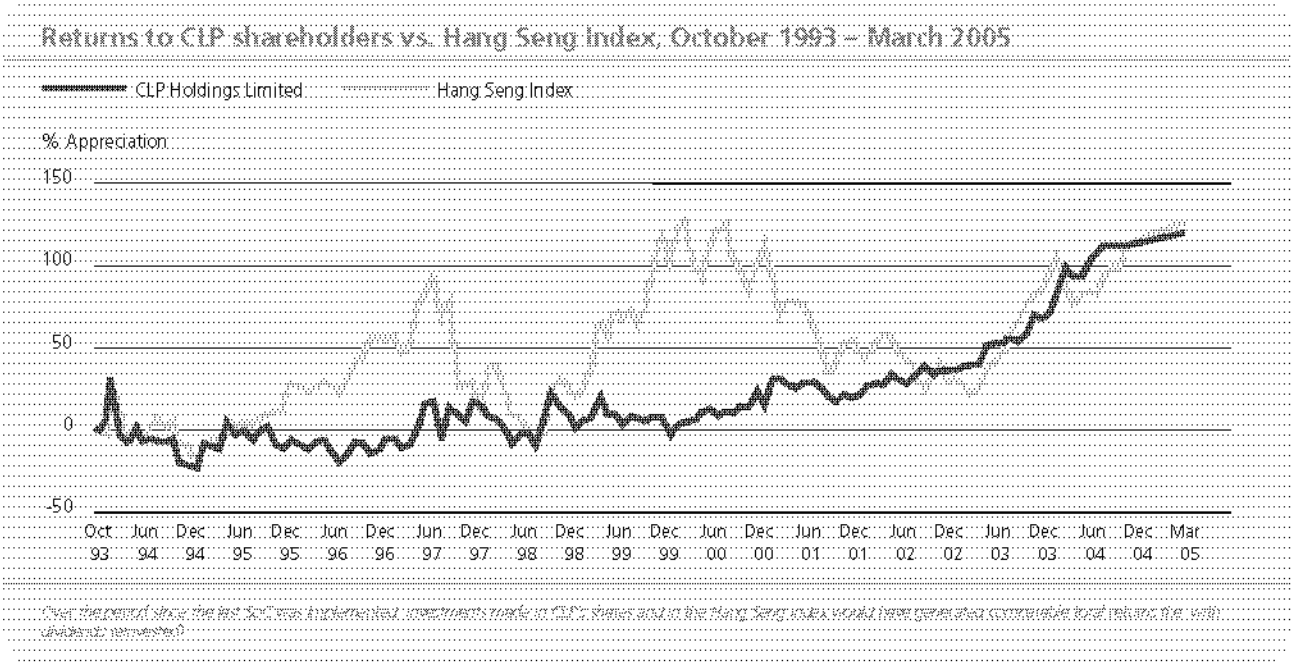
- reliability
- adequacy
- reasonable and affordable tariffs
- environmental responsibility
- excellence in customer service
- private funding

then the returns earned by investors to make this possible are fair. This is true with the SoC, and has been true for over 40 years.

> "We in America were a superpower with a Third World grid."
>
> **Bill Richardson**
> Former US Energy Secretary
> Referring to the poor reliability of the US power system, which at that time was suffering frequent blackouts and affected business activity

> "A consistent and stable regulatory environment is required to make the sector more attractive to investors. Capital will only come with good rates of return."
>
> **Manfred Wiegand**
> Representative of Siemens
> Speech Excerpt – Asian Clean Energy Forum 2004

If CLP's returns were in some way extraordinary or excessive, there might still be cause to revisit the return level. This is not the case. The returns our investors earn are reasonable — over the period since the last SoC was implemented, investments made in CLP's shares and in the Hang Seng Index have generated comparable total returns, meaning our returns over the long run have been in line with other large Hong Kong companies.



Over the period since the last SoC was implemented, investments made in CLP's shares and in the Hang Seng Index would have generated comparable total returns (in HK$ terms, with dividends reinvested).

CONSULTATION ISSUE

Assessment of Asset Base vs Equity Base

Our views

- An asset based approach is appropriate, since it is the assets that:
  - must be financed
  - serve the customers
  - deliver reliability
- An equity based return lowers the incentive for efficient financing and ignores the fact that shareholders bear the risk of the whole asset, and the risk involved in debt financing

CONSULTATION ISSUE

Determining the Permitted Rate of Return

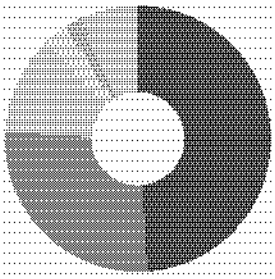
Our views

- Experience elsewhere shows that no one approach is perfect. Approaches such as benchmarking or the Cost of Capital model can give rise to an endless variety of results
- The key question is whether the outcome is a return that is fair, clear and objective, and which delivers the investment incentives investors need for a business that competes for international capital, is long term, and consists mainly of assets that are not easily deployed elsewhere

Stakeholders believe that the current return level is reasonable

Our shareholders believe the current rate of return is reasonable

Shareholders

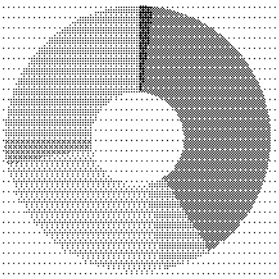


76% vs 5%
agree disagree

49%	Strongly agree	2%
27%	Agree	39%
12%	Neutral	6%
3%	Disagree	25%
2%	Strongly disagree	3%
7%	No comment/ Don't know	25%
N/A	Not willing to answer	0%

Public views differ, but more people agree than disagree that the current level of return is reasonable

Public



41% vs 28%
agree disagree

that "the current return level is reasonable in view of the long term and capital intensive investment required of the electricity industry, and the risks associated with it"

Survey commissioned by CLP and conducted by Ipsos Asia Pacific

> "Electricity prices have been driven down so much that energy companies were not making profits to invest back into the system and build extra power supplies."
>
> **Professor Ian Fells**
> Energy Adviser to the UK Government and the Henry Ellenby Chair
> at Newcastle University, England, who helped to develop the Hong Kong SoC in the 1990s

Ensuring the appropriate level of investment

Modern power systems are complex and require considerable investment and maintenance. No other private industry in Hong Kong requires continuous, long term investment on the scale of the electricity sector. CLP, together with its joint venture partner in the generation business, ExxonMobil, has invested around HK$70 billion in net fixed assets to deliver the safe and reliable system that today we take for granted. We will have to continue to maintain and expand that system — present demand can only be met by past investment.

Our system must be able to meet peak, not average, demand — if not, then the lights will go out and air conditioning will fail, probably on the hottest day of the year.

What matters is that the level of investment is correct, and that investment is made efficiently. The SoC has so far clearly delivered the investment that Hong Kong needs. It does this by involving both the companies and the Government in a simple yet effective form of regulation.

The companies agree investment plans with the Government through Financial Reviews and Annual Auditing Reviews, are obliged to deliver the planned level of investment, and in return are allowed to make reasonable profits.

Any over investment can be corrected by imposing sanctions and penalties if investment goes over previously prescribed limits, or if demand does not rise as expected. In 1998 we agreed with Government to introduce an Excess Capacity Test, so that penalties will be imposed if the reserve margin goes beyond previously prescribed limits. We have adapted our investment plans to be more flexible, and can react promptly to structural change now that business cycles have become more rapid. Our reserve margin is currently 30%, consistent with best practice. We make further efficient use of this capacity by selling electricity to China when conditions in Hong Kong allow. This alleviates the power shortages faced by many of the manufacturers from Hong Kong, and reduces the regional air quality problem since our sales generally displace small, polluting diesel generators.

Furthermore, it greatly benefits our customers since 80% of profits from these sales go back to them.

However, when addressing concerns about over investment, it is important not to overcompensate — under investment can lead to blackouts, with inevitable and costly consequences.

Efficiency incentives

The Government's Consultation Paper discusses the issue of efficiency incentives. We believe the SoC already has considerable implicit efficiency incentives. For example, investment plans are discussed and agreed with Government, and the annual review of tariffs bears down continually on costs. We also incur penalties if our reserve margin, a measure of the amount of generation investment, exceeds defined levels, and we have agreed a range of performance indicators with the Government.

> "The costs of having too little investment are very high relative to the costs of having a bit too much investment, so that there's an asymmetry of cost which ought to induce a prudent policymaker to err on the side of ensuring that if there's going to be an error, that's an error associated with having a bit too much rather than a bit too little."
>
> **Henry Ergas**
> *Managing Director, Network Economics Consulting Group*

CONSULTATION ISSUE

Efficiency Incentives

Our views

There are already considerable implicit efficiency incentives within the SoC

These efficiencies work:

- 127% improvement in productivity over the last ten years
- 34% real decrease in electricity tariffs over the last 20 years
- 100% of our efforts to control costs are passed back to customers

We welcome suggestions for additional incentives where efficiency can be further improved

Duration of the regulatory regime

"Powering Hong Kong's Future" discusses the long lead-time, and longer lifespan, of most electricity system investments as compared to elsewhere in the economy. From identifying and securing the appropriate fuel source, to designing and building a generation station through to operating it to the end of its commercial life can be 30 to 40 years or more. A duration of 15 years, as in the current SoC, may seem long but still represents a substantial risk for investors since, at most, there will be clarity for only half of the asset life (investment in assets is usually spread evenly over the contract period). Fuel contracts and power purchase agreements, such as with Daya Bay nuclear plant, also extend for long periods, 20 years or more, and represent commitments to the companies of tens of billions of dollars.

A regulatory regime that is too short lived will increase investment risk, which will in turn increase financial costs, as investors demand higher returns or decide not to invest. The new regime needs to be long term in nature, to reflect the long term risks that any investor in electricity assets has to take.

Frequency of interim reviews

It is possible within a long term agreement to have reviews of key parameters. Whilst some elements can be considered at regular intervals, an appropriate balance must be struck to avoid creating effectively a short term regime within what appears to be a long term arrangement.

> "Clearly, we need regulatory certainty and other incentives for investment."
>
> **Pat Wood III**
> Chairman of the US Federal Energy Regulatory Commission
> Statement made at the signing of the US energy security
> in August 2003

Under the current mechanism, there are reviews every five years whereby both parties can agree to implement improvements. Were changes able to be made unilaterally, then this would constitute a significant reallocation of risks and benefits. For example, a regime that has regular reviews and starts with a "clean sheet" each time will increase investment risks to the point that opportunities elsewhere will be more attractive, and performance standards in Hong Kong will suffer as a result.

Whilst not lasting for the lifetime of most electricity investments, the SoC recognises these issues and offers a sensible balance to customers and investors. The parameters established in the SoC last for 15 years. During that period the company takes on board risks associated with inflation, load growth and economic performance.

We recognise the concerns over flexibility, however, and believe that these can be addressed within the framework of a long term contract, providing that the long term nature of our investments, and the attendant risks, such as the inability to deploy assets elsewhere, are properly recognised.

CONSULTATION ISSUE

Review Period

Our views

The apparent flexibility of shorter review periods discourages long term investment.

Flexibility can be addressed within the framework of a new contract, provided the long term nature of our investments continues to be recognised. A duration of 15 years still represents significant risk to shareholders.

Clear Accountability and Responsibility

The regulatory regime must provide clarity for all stakeholders so each knows where they stand, and where their accountabilities and responsibilities lie

Government's responsibility and accountability

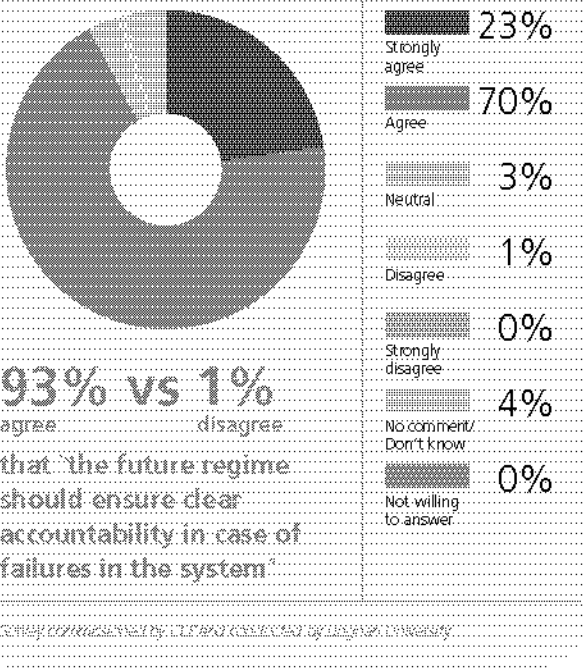
The administration is accountable to its executive, its legislature and the community for:

- setting Hong Kong's policy objectives
- ensuring that its rights and responsibilities, clearly and effectively enshrined in the SoC, are properly regulated, exercised and enforced
- ensuring its policy objectives are realised

Over the past 40 years, a regulatory regime in the form of the SoC has allowed Government to discharge its responsibility to the community to ensure the provision of a world class electricity supply by the private sector.

> "A problem with deregulation is that it still is unclear who is responsible for making sure enough electricity generating, transmission, and energy efficiency resources are developed to prevent market manipulation and maintain system reliability."
>
> **Adam Goldberg**
>
> [illegible]

There is overwhelming support in Hong Kong for a clear line of accountability in case of power failure



93% vs 1%
agree disagree

that "the future regime should ensure clear accountability in case of failures in the system"[4]

[illegible]

CLP's accountability to Government and the community

The responsibility and accountability under the present regime is clear and unambiguous, and has been a key driver toward excellence in performance. CLP is accountable to Government and the community for the entirety of the electricity supply chain for Kowloon and the New Territories. The SoC directly and efficiently holds us accountable to Government and the community for every single aspect of our service.

Understanding our Industry — Our duties and responsibilities under the SoC

Profits	CLP's annual profits are capped at an amount equal to 13.5% of average net fixed assets (15% for assets acquired by using shareholders' funds) less some deductions — a net return. For reference, in 2004 CLP's net return was 13.05% on those assets
Tariffs	Periodically approved by Government under financial reviews and reviewed annually by the Government under tariff reviews
Financial and Operating Performance	Reviewed by Government in annual auditing reviews
Investment	CLP is obliged to contribute to Hong Kong's development by providing facilities to meet the future demand for electricity. Government approves all capital expenditure before it is made and scrutinises it afterwards
Service Quality	In return for recognising CLP and its shareholders' rights to earn a reasonable return, Government must be assured that service to the consuming public is adequate to meet demand, efficient, of high quality, and is provided at the lowest reasonable cost
Environment	CLP is obliged to operate its facilities within the limits imposed by governmental licence, and we report our emissions data regularly to the Government. CLP will make continuing efforts to improve its environmental performance and promote efficient energy use, as well as work closely with Government in its efforts to reduce emissions and explore renewable energy sources

"**Canada and US blame each other** — Canadian officials insisted a massive power cut across the northeast United States and parts of Canada originated in America — but US power workers blamed Canada."

Associated Press report of the blackout in the US and Canada in August 2003

The Way Forward

The development by Government of options for the post 2008 electricity sector and decisions on those options must follow a process which is logical and structured. It also requires a vision for powering Hong Kong not only for the years following 2008, but for the decades to come.

1 Recognition that Hong Kong has and needs an outstanding electricity supply system

- Our community realises that Hong Kong has and needs an outstanding electricity supply system — whether judged by reference to tariff, reliability, customer service or environmental responsibility, and whether measured against electric utilities elsewhere in our region or, for that matter, anywhere in the world.

2 Recognition of the fundamental causes of these achievements

- Our success is due to the strong balance achieved between customers and investors under a clear and stable framework.
- The community needs to focus sharply on what underlies Hong Kong's world class electricity system, and the interlinked nature of these factors.

3 Understanding the realities of Hong Kong's electricity industry

- Sensible, balanced and long term decisions on the future of our industry require a proper appreciation of the different characteristics and practicalities of Hong Kong's electricity supply industry and, for that matter, the current situation in the Pearl River Delta and South China.
- The practicality, need and timing of changes in areas such as grid access, interconnection and others, demands careful, informed and objective scrutiny and questioning — including from operational, legal, technical, economic and environmental standpoints.

4 Focusing on improvements

- CLP is open to discussion on improvements to the existing regime, in the same way that, over the past 40 years, refinements and modifications have regularly been proposed, discussed and agreed. As in the past, such changes should be practical and realistic, with the interests of all stakeholders taken fairly into account. CLP continually strives to improve the quality of its electricity service — it is right to strive for ongoing improvement in the quality of regulation.

5 Preserving Hong Kong's ability to embrace future opportunities

- Our industry and the needs and expectations of our customers will evolve over time, with the advent of
  - new technology such as distributed generation, for example fuel cells, solar panels, or increased energy efficiency
  - market opening in South China as part of the broader integration of Hong Kong and South China
- We must preserve Hong Kong's ability to benefit from these opportunities.

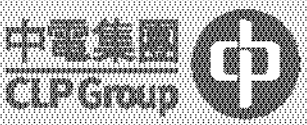
Vision

The success of CLP and Hong Kong in the past century stems from our ability to look ahead — to take the achievements of the past as the platform on which to drive our future.

We have a clear vision for the future of our business and our community. The first step is to recognise and safeguard what we already have — a world class electricity supply powering a world class city.

Looking further into the future, we see:

- Hong Kong remaining at the forefront of excellence in electricity supply
- CLP continuing to contribute to Hong Kong's competitive advantage, whether measured regionally or globally, by providing an electricity service which continues to be characterised by outstanding reliability, service excellence, environmental responsibility, and fair and affordable tariffs
- CLP and our community contributing to, and benefiting from, increased integration of our service economy with the manufacturing economy across the border



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Apr 2365

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"Humphrey Sum"

23/04/05 11:12 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage I Consultation on Future Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sirs,

In response to the above subsject, please find attached the file that contains my views/comments.

As a citizen, I sincerely hope that my view/comments would be considered in formualting the proposed framework for stage II consultation.

CLSUM(23/04/2005)



Future Electricity Market Comments.doc

Views and Comments on Stage 1 Consultation on Future Development of the Electricity Market in Hong Kong

1. Reliable and safe electricity supply is of paramount importance for Hong Kong. One can image what ordeal the general publics and commercial/financial institutes would suffer if there is long hours of or frequent electricity supply blackouts in mid summers.

   General publics would have to walk long staircase from ground level to their homes in high rise buildings, aged persons with chronological illness might be trapped in darkness and helpless, there would be have chaos in MTRC, business sectors might lose important transactions, operation of stock markets might be interrupted, international conference/summit might be suspended. Hong Kong as a major international city would be tarnished, and the whole community would be the loser.

2. Electricity industry involves intensive capital investment with long payback period. Without some forms of guarantee from government, power utilities would be reluctant to invest on new and existing plants that is essential to keep the electricity systems with adequate capacity to meet the rise in demand and refurbishment of aging plants/equipment. In financial sectors, they would either refuse to fund power utility projects or rise their loan rates to cover the increased market uncertainties/risks. Upsurge in financial costs would further threaten power utilities to make investment in market with risks and uncertain future.

   Blackout events in some developed countries, i.e. USA, New Zealand, UK, Italy etc during recent years are valid examples, proving that power generator and grid owners did not invest on new plants or upgrade their plants and networks under volatile electricity markets in which there are lack of guarantee on return of investment.

   In the consultation paper, ROA, ROE, PBR and CPI are mentioned. With proper regulation by government, ROA would be the best choice for Hong Kong as ROA would be the best incentive that could ascertain investment by power utilities at right time. ROE, PBR and CPI would make utilities tend to reduce investment which would be necessary for healthy development of electricity

supply system. Such tendency would contravene the basic objective of having reliable, safely and environmentally oriented electricity supply system.

3. The expense on electricity accounts less than 2% of household income. In comparison with other major cities worldwide, the current electricity tariff is at middle range. All these facts tell us that the electricity tariff and permitted return of 13.5 % are acceptable to our community.

   When bench marking the tariff with other major cities, it is important to include living standards, GDP, business nature of power utilities (i.e. privately or government run), etc. Otherwise, it would lead to incorrect interpretations and wrong judgment on performance of the power utilities in Hong Kong. Many academics, politicians and media made the above mistake and their data released was misleading.

   Reducing 13.5% permitted return would certainly discourage the power utilities to make investment that is necessary, ending in downgrade of electricity supply reliability. In the end, the Hong Kong community would suffer.

4. Performance of power utilities are satisfactory. The electricity supply reliability achieved over the years is the best among the world. They also care for Hong Kong community, i.e. participating in renewable energies development, offering of concession tariffs for aged groups, etc. As responsible citizens, we should let good performed utilities earn their reasonable reward. One can also easily assure himself that 13.5% is reasonable if one looks at the profit margins of other major businesses or corporations in Hong Kong.

5. The present form of Scheme of Control that allows power utilities to earn 13.5% permitted return over a 15-year period is simple and an effective regulatory mechanism that has been the basis for building up the reliable electricity supply systems in Hong Kong. 13.5% and 15-year period are important elements to induce investment at right time to keep the electricity supply system at healthy state. The world class electricity supply systems that Hong Kong is owning is already a successful story. It would be sensible to let this regulatory mechanism continue instead of introducing major changes to the system. Any changes that would worsen the electricity supply reliability would put Hong Kong's reputation and prospect at risks.

Improvement, i.e. to increase the transparency of present regulatory mechanism, can be considered. However, it has to take a good balance to prevent too much intervention of privately run business by LEGCO. Most of the LEGCO councilors are laymen to electricity industry and they are politically biased. Too much of their intervention may have negative effect on the operating efficiency of privately run utilities, and this outcome would not be desirable for Hong Kong.

…… End ……

27/04/2005 00:24

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: Connie

subject: The Electricity Market

Enquiry: Dear Sir / Madam,

I am writing to express my opinion on the local electricity market.

Because on the following reasons, I support the Government to keep the existing business practice of our electricity market.

1. Reliable of the electricity supply: in my memory, there is no any supply shortage for more 10 years at my home. I am really impressed by such reliable electricity supply which is vital to our daily life. I don't think we can afford an extensive electricity supply shortage, like what has happened in US.

2. Price of the electricity charge: what we should do is to educate people how to use electricity in a more effective way instead of arguing if the electricity charge is too high. Compared with other international city, like Tokyo and New York, electricity charge in HK in fact is not high. Moreover, the electricity charge in Mainland China is increasing, I don't think our electricity charge can be dropped significantly even if we have more suppliers in the market which has to invest hugely in the initial stage.

To sum up, I support to maintain the current practice of our electricity market in which the services provided by both the suppliers are very good.

Regards,

Connie

消費者委員會 CONSUMER COUNCIL

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30 April 2005

Ms. CHIU Shung Kwok, Miranda, JP
Deputy Secretary for Economic Dev & Labour
Economic Development and Labour Bureau
2nd Floor, Main Wing, Central Government Offices, Lower Albert Road,
Central, Hong Kong

Dear Miranda,

Re: Consultation Paper on Future Development of
the Electricity Market in Hong Kong – Stage I Consultation

I have pleasure in sending you Consumer Council's submission in respect of the 'Consultation paper on Future Development of the Electricity Market in Hong Kong'. We trust that our input from the consumer's perspective will enrich the discussions on the issue.

We thank you for briefing our Council members on 11 April and we shall be happy to elaborate our views if deemed necessary.

Warm regards,

Mrs. CHAN WONG Shui
Chief Executive

Consumer Council
Submission on Consultation Paper on Future Development of the Electricity Market in Hong Kong
Stage I Consultation

I. Introduction

1. The Council welcomes the opportunity to provide its comments on this important issue facing Hong Kong consumers. The Council welcomes the Government's view, as expressed in the Consultation Paper, that any future proposals on the development of the electricity market should:

   a) ensure that reliable, safe and efficient electricity supply will continue to be delivered to consumers at reasonable prices;

   b) address major criticisms and perceived shortcomings of the current regulatory regime; and

   c) have regard to environmental concerns.

2. The Council notes that the consultation paper indicates that this is the first stage of a two-stage consultation process, and that the views obtained during the initial stage will be considered when the government formulates proposals on the framework for the future development of the electricity market. Accordingly, the Council understands that the questions to be resolved at this stage will be largely focused on what broad policy direction should be applied to the future development of the electricity market in Hong Kong. In essence, the questions are:

   a) whether policies should be developed to introduce competitive forces into the supply of electricity, as against continuing with the current Scheme of Control Arrangements (SCA); and

   b) what regulatory measures should introduced to guide the future development of the electricity sector

Consumer Concerns

3. The Council is aware of the findings of a public opinion household survey conducted by the Government on electricity supply in Hong Kong. Although amongst the six aspects of electricity supply, only 35% of consumers considered "low electricity tariff" as the most important while around 50% of consumers considered "reliability supply" more important, 44% of households indicated they would use less electricity if the tariff rate were increased. This implies that electricity cost is a major concern to some consumers.

4. The survey also indicated that around 50% of respondents did not know that the power companies are regulated by the Government, indicating that the regulatory regime is not transparent. 88% of households considered that the permitted return rate for the electricity companies should be adjusted according to the economic situation of Hong Kong implying that electricity costs of the Hong Kong should reflect current economic conditions.

5. With regard to the findings, this current Council submission examines the following issues and makes Council recommendations for the Government's consideration:

a) Future Policy Direction
b) The Extent of Competition
c) Concerns Expressed by Incumbents and Some Commentators on Competition
d) Regulatory Oversight
e) Regulatory Institution

II. Future Policy Direction

Introducing Competition

6. The Council accepts that reliability of electricity supply is of great importance to consumers. The Government Consultation Paper has noted the high reliability rating achieved by both Hong Kong suppliers, Hong Kong Electric Company Ltd (HEC) and China Light and Power Hong Kong Ltd (CLP). However, the paper has also noted that the current SCA regime is not without drawbacks and criticisms of the SCAs arise particularly with regard to those aspects that are less acceptable by the community during periods of economic downturn. The paper notes (at paragraph 2.7) for example:

a) the permitted rate of return of 13.5% on fixed assets and the additional 1.5% on assets financed by shareholders' funds are considered high in present-day economic climate; ·

b) the permitted return, based on fixed assets, is perceived to have encouraged over-investment; ·

c) the permitted rate of return fixed over a 15-year period lacks flexibility, as amendments to the SCAs cannot be made without consent of the parties involved; and ·

d) the annual tariff and auditing reviews lack transparency.

7. Experience has shown that the maintenance of competitive pressures in various markets for goods and services is the best guarantee for ensuring that economically efficient decisions are made in the marketplace. Given the Government's broad policy stance to enhance competition in the economy, the Council believes it is imperative for the Government to consider all reasonable measures to remove market imperfections and distortions that limit market contestability, so as to improve consumer welfare without jeopardising supply reliability and the environment.

8. Whilst the SCA regime has served business and residential consumers well, at least insofar as reliability of service is concerned, the Council believes that the opportunity presented by the SCA review should be used to consider introducing some measure of competitive pressure into the electricity sector as a means of ensuring that Hong Kong's overall interest is best served, if not possible in the near term, then on a long term basis. Such a policy commitment towards introducing competitive pressures would

be wholly compatible with the government's policy in previously monopolized sectors. A notable example being the development of competition in the telecommunications sector, which was successfully begun in the early nineties.

9. An important factor in this regard is that unlike many other economies which have had to privatise government owned entities in the reform of their energy sectors, the two electricity producers in Hong Kong are private sector operations and therefore should be well placed to efficiently adapt to any market forces disciplines that are put before them in the future.

Experience in other countries

10. The Council's understanding from overseas experience, is that there are benefits in introducing competition into electricity markets. In Australia, electricity prices in certain states have reportedly been reduced by 25% to 30% since reform. In Japan, tariffs decreased about 11% from 1997 to 2002.[1] Competition in US electricity markets has reportedly resulted in new products being offered to end-users. For example, large end-users are offered interruptible contracts, where reliability is explicitly priced. In some states, end-users are offered "green" electricity, according to which a specified percentage of electric power is generated from specified (renewable) fuels.

11. In the U.K. the energy regulator, the Office of Gas and Electricity Markets (OFGEM) has stated that:

" All customers have been able to change their gas or electricity supplier since May 1999. Since then, over 19 million customers have changed supplier, seeing savings of up to £100 on their energy bills. Average energy prices have fallen by 13 per cent in real terms since competition began. The current rate of switching (38 per cent in electricity and 37 per cent in gas) is higher than in any other comparable industry.....

As a result of the competitive pressures introduced ... industrial customers have so far saved £1.5 billion pounds and domestic customer's £500 million pounds in lower electricity prices."[2]

12. While Hong Kong can draw on overseas experience in electricity market reform particularly in the area of 'green' electricity, the Council considers that there are many factors intrinsic to Hong Kong that differentiate it from other jurisdictions. For example, the ownership structure of the incumbents, power sources of electricity generators, and the scope and the scale of the geographic market, all of which will affect the cost of any reform and subsequent benefits to consumers.

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[1] "Overview of Electricity Markets in Other Economies", Reference Materials – Future Development of the Electricity Market in Hong Kong Stage I Consultation, 2005

[2] See www.ofgem.gov.uk website under "Competition Explained"

III. The Extent of Competition

A fully competitive model

13. The Consultation Paper makes the point that there are no exclusive franchises in Hong Kong and that anyone can enter the sector now by constructing their own generation and distribution systems. However, while there might not be any legal impediments to constructing another electricity generation and distribution system, there are substantial economic constraints such as intensive capital investment with long payback periods, the availability of suitable land for distribution network development and accessibility to the power grid of the two incumbents.

14. Other jurisdictions have deregulated their sectors in order to introduce competition in different ways. The most intensive competitive model is one that creates administrative systems to support wholesale markets (into which multiple generators supply), a common carrier distribution system, and competitive rivalry at the residential and commercial retail level (drawing supply from the wholesale market).

15. Singapore for example, has recently introduced the New Electricity Market (NEM) that has taken over from a previous pooling system to a fully competitive wholesale and retail market based system. Residential consumers in Singapore do not have access to competitive sources of supply at the present time. However, when that does occur, the experience of consumers in Singapore may shed light on the extent to which any immediate benefits might arise to residential consumers in Hong Kong by introducing a similar level of competition.

Competition at the generation level

16. Under the current SOC the incumbents are allowed, upon application to the Government, to make further investments in their generation capacity so as to meet projected demand. The Council believes that when this stage occurs, an opportunity arises for potential new entrants to consider

    a) entering the sector by building competing generation plant; and (upon entering into appropriate agreements with the incumbents)

    b) accessing the two current distribution networks to reach a viable number of customers.

17. If this opportunity is presented, either of the two following scenarios could possibly eventuate:

18. Firstly, a potential new entrant could identify major customers that could be signed up under individual power purchasing agreements (PPAs) to take its projected generation capacity; and thereby justify the investment.

19. Secondly, a major customer of the incumbents could consider whether it should begin generating its own capacity, and apart from satisfying its own requirements could on sell any spare capacity, either to the incumbents or other commercial parties through a PPA.

20. Whilst introducing competition at this level only is not likely to bring any immediate benefits to residential consumers in the short term, benefits will arise in lowering the costs of commercial interests that can arrange suitable PPAs, with resultant benefits to the economy as a whole; and also laying the foundation for more open competition into the future.

21. The Council believes that in order to bring about benefits to the economy as a whole, it would support the notion of introducing competition at the generation level, and the development of policies that would support access to current distribution systems by new entrants, in order to access customers signed up to PPAs. Scope for competition at this level would be limited to possible competition for new power plants procured against long term PPAs, either by the existing generators or by other customers. Once this is achieved, competition at other levels, such as on selling bulk purchases could be considered into the future.

IV. Concerns Expressed by Incumbents and Some Commentators on Competition

Reliability of Supply

22. The Council notes that in their arguments in support of retaining the current arrangements, the incumbents have raised the issue of reliability of supply and have argued that

    a) reliability of supply in Hong Kong is a more critical issue than that which applies in other economies that have deregulated their electricity sectors; and

    b) threats to reliability of supply may be posed by firms competing with each other over the same distribution grid. In particular, they have pointed to black out experiences in South Australia and North America as examples.

23. As noted earlier, the Council acknowledges that reliability of supply is a critical issue for Hong Kong, but it would be similar to any other large metropolis with a high concentration of multi storey buildings; such as New York. The real issue is what threats would result from introducing some form of competition into the supply of electricity.

24. In comparison with other economies where competition has been introduced, and supply problems have emerged, it can be seen that there are significant differences between the situation in Hong Kong that diminish the possibility that similar threats to supply will arise in Hong Kong.

25. To begin with, Hong Kong does not have the same geographical characteristics of Australia or North America, or even the UK where there is a widely dispersed power grid over a large geographic area and where the number of physical threats to major grid links, from bushfire, storm damage and accidental breakage, are as great. Hong Kong's distribution system is largely confined to a small condensed geographic area.

26. Apart from technical issues, another concern in jurisdictions that have deregulated electricity sectors has been that since the adoption of competition there has been a tendency towards cost cutting and delays in

constructing capacity. This has been raised as an issue in both Australia and North America and the possibility of it arising in Hong Kong has also been suggested.

27. However, it needs to be recognised that both Australia and North America are federal government systems where different states (which are run by separate state governments with incumbent electricity suppliers) contended with each other in the creation of a national market for electricity. Electricity deregulation, particularly in Australia was initially begun on the assumption that a strong national grid was a precursor to a national market. Nevertheless, due to various reasons, possibly state government rivalries in maintaining revenue streams from ownership of utilities, and difficulty in getting planning approval, the initial objective of a strong national grid was not and still has not been achieved.

28. Hong Kong, being essentially a 'city state' does not suffer the same dispersed political and jurisdictional problems, and it can be reasonably assumed that oversight of the sector and coordination of effort will be easier to achieve than in other jurisdictions.

Increased Costs

29. It has been suggested that the introduction of competition increases the likelihood of additional costs in setting up adequate systems and incentives for reinvestment and maintenance to ensure that reliability of supply is maintained, and that the distribution grid in Hong Kong is capable of meeting the demands that competitive supply will bring about. For example, this raises the issue of significantly increasing the size of the interconnector linking HEC and CLP.

30. It has also been suggested that the costs of introducing competition will eventually all be borne by consumers (although the Council does not necessarily accept that this should be the case), and that the benefits will only be achieved in the long run, with resultant increases in efficiency that competitive pressures can be expected to bring to the economy.

31. It is pertinent to note that the consultation paper does not provide any forecasting on what costs might be incurred for different regulatory scenarios, which leaves respondents at a disadvantage in deciding on what position to take. Nevertheless, the Council believes that benefit of the doubt should favour introducing competition into the sector but that more detailed information needs to be provided on the possible economic benefits of competition derived from new entry and expanded interconnection between the incumbents; and the costs that will be incurred to ensure reliability.

32. In this regard, the Council requests that in order to facilitate informed discussions, the Government should disclose their risk assessments about different impacts on the reliability of electricity supply in Hong Kong against different scenarios i.e. limited competition between two incumbents; limited competition between third party generators and the incumbents; or open competition between third party generators and the incumbents.

V. Regulatory Oversight

33. The Council understands that introducing competition into a sector such as electricity takes time and is to be undertaken with caution. This is particularly so where a limited degree of competition is introduced at an early stage and has not reached a level of maturity at which it can be relied upon to meet the expectations of all consumers. The Council would therefore recommend that in the above limited competition scenario, regulatory measures must be introduced to ensure reasonable residential tariffs. These measures cover areas raised in the consultation paper such as tariff review mechanisms, regulating tariffs, permitted rates of return and investment by suppliers.

Tariff review mechanisms

34. Reasonable pricing is a stated objective of Government policy, and the Council understands that a number of possible options were discussed by the Energy Advisory Committee (EAC) in 2002, for example:

    a) The pros and cons of utilising a flat rate, time of use rates, and volume discounts; and
    b) The process for undertaking tariff reviews.

35. In regard to tariff review processes, a number of options were identified, such as

    a) Annual Tariff Review with the Government, i.e. maintaining the status quo
    b) Annual Tariff Review with the Government and Making Public Available Information
    c) Annual Review of Tariff with Public Hearing
    d) More Frequent Tariff Setting Process

36. As for tariff structure, the Council's preliminary observations are that overseas experience suggests a flexible tariff structure is preferable as it could enhance efficiency in energy consumption. In addition, making the information provided to the Government in the tariff review process available to the public, would enhance transparency. An annual review of tariffs could also provide an opportunity for all concerned parties to express their views on pertinent issues; such as the cost data and information submitted by the power companies. Information has not been provided on the deliberations of the EAC on these matters, which would assist in commenting further on the issues involved.

Regulating tariff levels

37. Since the availability of an alternative supply source for a majority of consumers, i.e. from market competition over the near to medium term, does not appear feasible, the only viable avenue within this time frame, in order to ensure:

    a) that consumers are being charged optimal available prices from the private sector; and

    b) that they enjoy stable supply of power,

is to maintain some regulation over residential tariffs. In this regard, appropriate regulatory processes would be required to identify costs of generation and distribution.

38. There are currently measures in place that unbundle costs of generation and network provision, for the purposes of the SCA that could serve as the basis for these controls. Examples of approaches could be introducing a CPI type price control or a performance based ratemaking scheme for networks drawing on international benchmarking. Such schemes could introduce a performance scheme for generation, which rewards high availability of plant; low operation and maintenance costs; and efficient fuel purchasing (for example by comparing either purchase costs or cost changes to an international index). In addition, references could be drawn to returns that are obtained from comparable, alternative investments such as the rates of return for other utilities.

Permitted rates of return

39. The consultation paper, at paragraph 2.7, has noted that one of the drawbacks and criticisms of the SCA is that the 13.5% rate of return on fixed assets and the additional 1.5% on assets financed by shareholders' funds are considered high in present economic climate. The Consultation Paper provides information on other deregulated economies and notes that in the US, the cost of capital approach is usually applied to determine the permitted rate of return, which is applied to either an asset or equity base. Typical permitted rate of return for vertically integrated investor owned electricity supply utilities is in the range of 6-13%. In the UK and Australia, the regulators do not regulate the return directly but set initial price or revenue caps, leading to typical rates of return for regulated electric utilities in the range of 6-7% and 6-9% respectively.

Perceived over investment

40. The consultation paper also notes that the permitted return, based on fixed assets, is perceived to have encouraged over investment. More information needs to be provided on whether this has actually occurred, and a number of questions arise in this regard, as follows:

    a) Would existing generation capacity in Hong Kong verses projected demand enable adequate coverage of supply over a period in time without further capital investment being made until alternative stable supply from the Mainland becomes a reality. Following from this,

        i. Would a reduction in or exclusion of new capital expenditure investment be passed through to consumers through reductions in tariff rates?

        ii. What is the assessment of associated risk of building a utility supply plant that hinges on the Mainland coming on stream as a stable supplier as well as a better price?

    b) What is the understanding of the investment cycle (if any) on the generation/distribution facilities of the incumbents. An understanding of the capital expenditure profile cycle of the industry, to complement

an answer to the above question (a) could help to test the boundaries for variation on the existing SCA, such as its continued duration.

c) What is the current margin for back up supply. The fact that CLP is currently able to supply to the Mainland raises a question whether consumers could be paying for over protection of stability.

41. In view of the above issues on reasonable tariffs and over investment, the Council believes a number of questions arise that require further information from the Government.

a) Should CLP and HEC be treated merely as commercial concerns, or should be regarded differently because they provide an essential service that is critical not only for Hong Kong's economy to function, but for the daily well being of its citizens.

b) If the incumbents are to be treated differently to purely commercial concerns, to which utilities should they be compared; either locally or in other jurisdictions.

c) Once their status is established, the government needs to determine whether the current claims and counter claims on returns are justified; on what basis their returns should be measured; and what measures should be introduced to ensure maximum efficiency in providing the service which can in turn maintain downward pressure on costs and retail prices. For example, that the assets identified in calculating allowable returns must be used and useful for supplying into relevant markets.

d) If the incumbents are to face increased competition in the future from other electricity generators, then the basis upon which the above questions can be answered will differ compared to the situation where they both benefit from continuing to remain as electricity supply monopolies within their respective markets.

42. There are a number of ways in which appropriate tariff regulatory measures can be placed on market participants, depending on whether some form of competition is introduced or the SCA is continued with modification. With regard to the latter scenario, the consultation paper does not contain adequate financial/cost data to enable any quantitative/financial analysis on the permitted rate of return under the current SCA as a basis or indicator for what may be optimal permitted rate of return. Without that, given all other key parameters such as

a) ensuring stability of supply;

b) existence of a privately held power sector; and

c) that the lack of alternative viable supply sources is not going to change over the medium term

any comments on matters of consumer protection under an extension to the SCA would as a consequence be difficult to undertake.

43. In view of the fact that the government's consultation exercise is a two staged process and that the main decision now is what broad policy direction the government should take, the Council prefers to give feedback on

    a) the regulatory measures with regard to tariffs;

    b) as well as other arrangements, for example rules governing bilateral agreements or the establishment of a regulatory framework supported by legislation

    at the next consultation phase.

VI. Regulatory Institution

44. The consultation paper raised the question whether the creation of a separate regulatory institution to oversee the electricity sector might be perceived as government intrusion into private business operation. The Council does not agree, given the extent of useful and appropriate regulatory measures that are currently undertaken in the economy; and the importance of electricity as part of Hong Kong's overall energy sector to the well being of citizens and economy as a whole. In fact, the SCA itself is a government mechanism that crosses into the realm of private property and private business operation. Such safeguards are a legitimate response to safeguard public interests that can accommodate both private and public interests; if properly implemented.

45. The concerns expressed by the current private interests are also unconvincing, given the success of the Office of the Telecommunications Authority (OFTA) in overseeing the transition from monopoly to a competitive market in the telecommunications sector. Other advanced economies have constructed similar independent regulatory authorities to oversee their energy sectors. A comparable body would be required, particularly to oversee Government's policy in this sector and to address any problems that might arise in the negotiation stage where a potential new entrant is seeking access to the natural monopoly elements of the electricity distribution network; in similar way that OFTA administers access issues in telecommunications.

46. The Council believes that notwithstanding the different policy directions the government may decide to take in the sector, an appropriate regulatory environment is necessary to allow for a focused approach to meeting not only Hong Kong's future electricity supply, but all energy needs.

47. The Council recommends that the Government should as a matter of priority establish an appropriate regulatory authority to oversee Hong Kong's future energy needs, and the roles it should have. The functions of the proposed authority would be to set an agenda for the energy sector as a whole (including electricity, gas and petroleum based products) and coordinate the various regulatory and policy activities that affect the way in which energy is supplied, distributed and consumed in Hong Kong.

48. It is suggested that the proposed authority should have the following specific features:

a) That the board governing the authority should comprise representatives from government, representatives of users and independent persons with industry expertise. Insofar as industry input is concerned, representatives could be invited to invited to attend meetings of the board to provide input, or sit on specialist committees providing advice to the board.

b) That the authority be staffed by specialists in relevant economic and technical areas who will be recruited specifically for the work of the authority, and not rotated to other government departments as a matter of course.

c) That the authority be tasked with the role of overseeing the energy sector as a licensing body (similar to the role of OFTA) to administer legislation aimed at either introducing more competition into the sector or (if the competitive path is not chosen by the Government) the modification and ongoing administration of SCA type arrangements;

d) That regardless of whether competition or modification of the SCA is chosen, the board's role should be to ascertain the reasonableness of electricity pricing, and to address other concerns raised by the public, such as environmental concerns. In particular, if the SCA is continued, it should be a condition of the SCA that the operators are required to make available full and transparent information to the regulator and to the public that is sufficient to enable adequate debate on matters raised in the SCA.

e) If the SCA approach is chosen, oversight by the board should be made a condition of the SCA arrangements, with specific review periods.

Consumer Council
April 2005

"sylyoyo"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場未來的發展------個人意見
☐ Urgent ☒ Return Receipt

2005/04/25 08:43 PM

電力供應首要-重安全及穩定，其次就是有效的監管。香港的電力供應能達致世界先進水平，就是有賴這三方面都能做得到。如果罔然改變現有狀-，隨時會重蹈美國當年大停電的惡果，引致供電混亂，現在的電訊網絡也是一個很好的例子。將來的電力供應也都是要維護安全、保持穩定、加-監管，並不是要什麼加入競爭，這只會製造混亂。香港這麼小的地方並不適合容立太多電力供應商。

總結而言,現時我對這家電力供應商的服務和穩定性都非常滿意，不想有任何改變。

Corra Lai Yuk Yee

Lai Ka Yin Cedric

2005/04/29 02:45 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Consultation for the Electricity Market of Hong Kong
☐ Urgent ☐ Return Receipt

Dear officers,

Please find attached for your reference my little comments on consultation for the Electricity Market of Hong Kong.

I would feedback more for the second stage of consultation.

Regards,
Cedric Lai



Open Market for Electricity.doc

Open Market for Electricity

Many people claim to open the electricity market like the telecommunication market or other products. Apparently, it will bring saving to all customers according to the basis economy "Supply and Demand" Theory. However, I believe that the potential drawbacks of open market should also be taken note.

So far, various comments about the disadvantages of open market have been voiced out, such as the reduction of electricity supply stability, different economical and technical environments between Hong Kong and Kuang Tung province, saturated electricity market in Hong Kong, the inherent characteristic of the two power companies as investor-owned public companies, electricity is a long-term investment not like other commodities, etc…I would not be going to re-elaborate them that have been discussed among the general public recently.

On top of that, I would like to add the following.

Market Structure for Electricity

Reviewing the market structure of the commodity "Electricity" at the present moment, the Hongkong Electric Co., Ltd. and the CLP Power act as the manufacturer, supplier, distributor and retailer on the whole supply chain. The leveling of the supply chain is simpler than other short-term commodities.

As such, the supply chain must be more cost-effective and efficient, in certain sense, than as usual. It is obvious since the number of market participants (technical, administration, financing people) involved in the market must be lesser.

If the market is open to other business entrants, the only result would be more people entering into the business market. No necessarily an economist but a layman can realize that duplicate personnel with same professionalism will be playing in the market. The net result is obviously reduction of cost-effectiveness of the market, if the consumers are paying the same money in both market structures.

Like many cases in other places of the World where open market had been implemented, we can see that the electricity prices would be reduced initially, due to more market players entered into the market. However, some retail prices would be abnormally boomed due to the small economies of scale effect.

From my unprofessional point of view, I believe that more financial institutions would support the open market proposal since they can "share some benefits" in the market. Simply specking, their entry to the market would not bring much benefit to the end customers in both economical and technical aspects.

Conclusion

Like the opening of the telecommunication market in last couple of years, we can see that the retail prices are reduced insignificantly, while the technical stabilities of fixed network/internet services/cable TVs services/etc and also customer services are turning much worse. We can easily observe from the presses or magazines about the mass complaints of several telecommunication companies who are the new entrants of the market.

In short, I would like to point out that open market for electricity would most likely bring more harms than benefits, like the Telecommunication market.

Besides, I am satisfying with the services provided by the two electricity companies. For the benefits of Hong Kong citizens, the existing Scheme of Control may need amendment, but I strongly believe that Open Market is not a wise solution.



wanchiwai

2005/04/26 09:57 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: OPTION FOR THE FUTURE DEVELOPMENT OF ELECTRICIYT MARKET
☐ Urgent ☐ Return Receipt

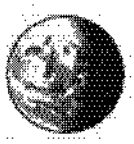
I have read the consultation paper and my option is listed as follows:

In my point of view, Reliable electricity supply is the major consideration in the future development. it is because everything in our living have to be use electricity. Any failure in electricity might caused great lost in money and even though life.

The second major point we have to consider is the price. It should reasonable and affordable to us.

Thanks

CWW



"C ZG"

07/02/05 06:14 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: CONSULTATION PAPER ON FUTURE DEVELOPMENT OF THE ELECTRICITY MARKET IN HONG KONG
☐ Urgent ☐ Return Receipt

Dear Sir/Madam

Regarding the consultation, do you accept anonymous responses, or do you require information like real name, correspondence address, HKID number, etc? Will such personal information become part of the "public information" as mentioned in the consultation paper?

Regards
CZG

"Please send us your views and comments on or before 30 April 2005:
By post: Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong
By e-mail: electricitycomments@edlb.gov.hk
By fax: (852) 2868 4679
All responses will be treated as public information unless otherwise specified."



20/04/05 11:26 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject:
☐ Urgent ☐ Return Receipt

Dear sir,

The extensive blackout in North America and Europe in 2003 have demonstrated very clearly the absolute importance of a steady and reliable power supply. While it is also desirable to promote care to the environment and to seek reasonable tariff, I consider that an uninterrupted power supply is most fundamental.

In this respect, I am satisfied with the performance of the 2 Hong Kong power companies.

The consultation paper has explored many alternative electricity market systems for the years beyond 2008. None of these alternatives appear promising.

In the short to medium terms, I feel strongly that we should retain the current regulatory framework to assure a high quality of power supply.

Daniel Lee

"Daniel Yung"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views on Future Development of the Electricity Market in Hong Kong - Stage I Consultation
2005/04/30 11:14 PM
☐ Urgent ☐ Return Receipt

Dear sirs

After reading the consultation paper, I would like to express some of my views as follows:

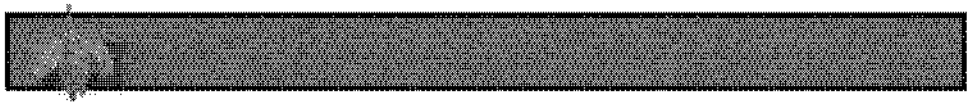
The issue here is to gather views of the public in order to provide inputs for consideration in reviewing the Scheme of Control Agreement between the Government and the two local power utilities, which will expire by year 2008. Referring to the time to time debates as read on the newspapers, the focus has been putting on the opportunities in lowering electricity tariffs.

For deregulation of Hong Kong's electricity market, the most possible new players are obviously those generators from the mainland. Yet we all know that the mainland has been starving for electricity as a result of its rapid economic development, and those polluted sources are still being allowed to service so as to make up the supply, disregarding the increasing air pollution which also adversely affects Hong Kong's air quality. In meeting its commitment to the Kyoto Protocol, the cost of generation is likely to rise which causes doubt whether choices of lower electricity tariffs could be realized through deregulation. Also, investments in the necessary facilities would impose a large initial burden to Hong Kong citizens as the costs can only be offset by increased tariffs or taxes. Real benefits in lower electricity tariffs might not be realized in the next few years. Deregulating today is nothing more than a theory - we would not know whether the actual return many years later would justify the huge costs we invest today.

For a longer term vision, fossil fuels would be used up and developing renewable energies is what we need to start looking at seriously. In my point of view, this is not the time for deregulating Hong Kong's electricity market, but rather to focus the resources in developing renewable energies, which would bring down the costs in the long term together with real benefits to all people. As we already have a very reliable electricity supply at affordable prices in sustaining our economic development and enhancing our living standard, it is not appropriate to alter the existing Scheme of Control Agreement, as the current arrangement has been proven to be adequate. But including renewable energy terms in the review would be a good start in establishing a sustainable energy

supply in the long term.

Daniel YUNG



"Danish Chamber of Commerce" <dcc@dcc.hk>

29/04/05 11:37 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Hong Kong Government Consultation of Regulation of the Energy Industry
☐ Urgent ☐ Return Receipt

Dear Sirs,

As a preliminary evaluation of the Consultation on the new regulatory environment for the electricity supply industry, we find that:

1. The need to prevent the sickness and premature death of the people of Hong Kong from air pollution is not mentioned in this document. "The environment" is not just good visibility to satisfy an emotional need. It is clean, healthy air for the people to breathe. There is a recent study from UST putting a price on the sickness and premature death from air pollution and these costs must be included in this document.

2. Responsible energy use as a concept is not included in this document. Providing the framework on this key element could offer substantial improvements to the environment.

3. The security of the Hong Kong SAR is at risk if we do not have a fully integrated power grid both locally and with the mainland in order to protect us from unexpected disasters. This has not been addressed.

Best regards

Jens-Erik Olsen

Chairman

Danish Chamber of Commerce

P.O. Box 25835

Harbour Building Post Office

Central, Hong Kong

Tel: 2851 3007

Fax: 2850 6633

Email: dcc@dcc.hk

"dc"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場未來的發展第一階段諮詢文件意見
☐ Urgent ☐ Return Receipt

2005/04/29 01:17 AM

在看完香港電力市場未來的發展第一階段諮詢文件，本人想在以下兩方面發表意見。

第一，在開放市場問題上，本人認爲現階段應沒有新公司能參與而不對現有網絡構成負擔，原因如下：

- 廣東省供電不足，在內地的電力公司應沒有剩餘電力供應給香港。

- 由廣東省輸電到香港需鋪設新電網，成本不輕，並會轉嫁到消費者上，電費應不便宜，但穩定性有待考驗
- 新公司未能即時鋪設輸配電網，需要借用現有輸配電網，必定影響現時供電的穩定性
- 在往後日子，新公司需自行鋪設輸配電網，必然增加道路挖掘工程，影響交通
- 爲了搶客，可能揭減價戰，爲求減少開支，服務質素必然下降

第二，在聯網問題上，本人亦認爲不應實行，因爲外國已有多個例子証明聯網會引致大停電，而且成本必然先大量曾加，真是未見其利，先見其幣。

有見及此，本人認爲現在的管制協議應盡量保持不變，以致兩電在合理利潤下願意投放合理資源來保持穩定電力的供應。

"Dennis Chien"

26/04/05 09:31 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comment on consultation paper - Future development of the Electricity market
☐ Urgent ☐ Return Receipt

1. The electricity market of Hong Kong, compared to the capital investment necessary for entering the market, is relatively small.
2. We do not have a big enough market to attract a third player in the field and we do not have enough land to accommodate another electricity generation plant within our territory taking into account the possible pollution problems that it may bring. Reliable supply from the mainland is not going to happen in the foreseeable future.
3. The administration cost in making the distribution network public and then renting them out to different companies will never offset the drop of electricity cost due to competition.

The risk involved in substantial changes to the current supply model, compared to the unpredictable benefit to users, does not seem to worth it.

Dennis Chien



2005/04/26 04:20 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage I Consultation on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sirs,

Hong Kong is an international financial centre, reliable electricity supply is extremely important. Overseas experience shows that lack of sufficient investment in power industry especially in deregulated markets could result in deterioration of supply reliability.

The present regulatory system could ensure reliable electricity supply and should be extended in its entirely after 2008.

Regards,

Dominic Wong



2005/04/30 11:20 PM

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
Urgent Return Receipt

realname: Dorothy Lee

subject: Future Development of The Electric Market in Hong Kong

Enquiry: According to the past record of electric deregulation hurting the many countries such as Oswego Country, California, etc, we can clearly see the effects: increased property taxes for the consumers, the loss of good paying jobs, and the increasing consumer and small business electric rates, increase the unemployed rate, lower the reliable and safe electricity supply to the customer.

In general, the electricity bill accounts for less than 2% of the general household monthly expenditure for residential customers. Compared with other expenses, town gas monthly bill which was expensive than electricity bill.

In my opinion, I don't believe that how many of benefit would be provided to the consumers after electric deregulation. Anyone can answer my question?



05/05/2005 13:24

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
Urgent | Return Receipt

realname: Doug Crets

subject: Consultation Paper on Scheme of Control

Enquiry: Where can I find this paper? I would like to read it as soon as possible. Can you make it available for me today?

I work for the Hong Kong Standard. I am writing an article.

Dr. C W Tso

28 April 2005

Economic Development and Labour Bureau
2/F, Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sir/Madam

Consultation Paper on Future Development of The Electricity Market in Hong Kong

It is evident that electricity is a commodity of national importance, contributing materially to the operation of business, the promotion of prosperity and the creation of comfort. The concept of public utility for essential services, which was originally developed for the protection of the public interest, was critically challenged in the early 1980s. The compounding forces of globalisation, the inexorable advance of technological innovation, and customers' demand for transparency and choice have had a great impact on the ways the delivery of electric power services is conducted in today's information and knowledge-based society. As a result, we have been witnessing a shift across the globe towards disintegrating the generation, transmission, distribution and retail sectors of the electric power industry and forcing power utilities to operate as market participants in a deregulated, competitive environment through radical reform.

Laying aside politics, there are indications that the overriding factor of reform is the belief that competition in a climate of free market forces will yield important short- and long-term benefits in terms of improving economic efficiency, lowering costs and stimulating technical innovation and efficient investment. There is strong evidence that diverse economic growth patterns and the varying business environments across the globe have determined the pace of reform, and the model of market structure adopted by each country depends very much on the local political, cultural, social and economic situation. It has been widely reported that, in view of the complexity of the issues and challenges notably serious blackouts and electricity price hikes being encountered by industrialized countries at the forefront of industry reform, many countries are now moving very cautiously towards market liberalization and some of them even put a hold on the whole process.

It is now generally recognized that there is no universal model for market reform as every market is unique. Furthermore, any form of market structure to be adopted must aim at addressing the challenge of balancing the interest of consumers, service providers and regulatory authorities while ensuring that the supply is adequate, efficient, reliable and cost effective. It is of imperative importance to get it right at the start, and accept that the planning of pace of change must take due consideration of the local political, cultural, social, environmental, technological and economic situations and the wishes of the community.

With the above in mind, I would like, in my personal capacity as a professional engineer, to submit herewith for your further processing my views and comments on the **Consultation Paper on Future Development of The Electricity Market in Hong Kong.**

Thank you very much for your attention.

Yours faithfully,

C W Tso (Dr)
Encl

Consultation Paper on Future Development of The Electricity Market in Hong Kong

Views and Comments from Dr. C W Tso

1. Creation of Regulated Public Utility

Let us look at the generic background for the creation of regulated public utility. According to some literature, "public utility" status is generally conferred, in the name of defending the public interest, to an essential service industry for two reasons:

- *The services regulated are viewed as necessary or essential, and the regulation itself is essential to assure adequate provision of these services.*

- *Utility plants possess technical characteristics which lead almost inevitably to monopoly or at least to ineffective forms of competition, i.e. leading to natural monopoly, so that regulation is necessary to protect the public from exploitation while permitting the public to enjoy the efficiency of the monopoly form under these conditions.*

Based on information gathered, most national and regional electricity service providers are traditionally organised in a vertically integrated structure because electricity service requires large scale, capital-intensive investment with a long pay-back period, and the technology skills required for electricity generation, transmission and distribution are complementary. He pointed out that a stable and secure supply of electricity is considered to be an essential ingredient of the national infrastructure. In view of the need to retain control of national industrial and energy policy and the possibility that the private sector may exploit a monopoly position for excessive profits at the expense of consumers, the electricity sector has historically been classified as an essential "public utility". This enables the government to fulfill its public service obligation with respect to security of supply and the guarantee of supply to remote areas and to the most vulnerable groups in the population.

Literature search reveals that for most of the twentieth century, the power utility in virtually all countries was thought of as a "natural monopoly" and consequently it was closely regulated. Some countries not only instituted such a monopoly but also owned the monopolistic service providers.

Private ownership was admitted but subject to government regulation of prices, investment, service quality and aspects of business and social behaviour. It is noted that similar regulatory arrangement has been adopted by the Hong Kong Government for the past 40 years through the SCA as outlined in Sections 2.3 to 2.6 of the Consultation Paper on the aspects of safety, reliability, efficiency and environmental protection including obligation to supply electricity to remote areas.

Based on the above, I strongly support the Consultation Paper's view given in Section 2.7 that the SCA has been the instrument for making available, reliable and safe supply of electricity to consumers in Hong Kong for some 40 years. The criticism of the SCAs on permitted rate of returns raised by certain sector of the community during periods of severe economic downturn is in my opinion understandable.

2. Definition of Market Reform for Electric Power Industry

Now, let us move on to understand more about market reform. It is now widely accepted that market reform of the electric power industry embraces the processes of restructuring, deregulation, commercialisation, corporatisation and privatisation, which can be defined as follows:

> *Restructuring is the process of changing the structure of the electric power industry from being a guaranteed monopoly over service territories, to one where the competitive elements of the sector are exposed to open competition, preferably across the whole economy.*
>
> *Deregulation is the process of relaxing tight regulatory control over state or private monopolies, and opting for more light-handed, performance oriented regulations to control both the natural monopoly and the competitive elements of the sector.*
>
> *Commercialisation is the process of attempting to introduce commercial incentives into a state department. This is often a precursor to selling a potentially commercial activity.*
>
> *Corporatisation is the process of turning a state-trading department into a state-owned enterprise formed to operate under normal business laws and compete on a level playing field with private firms. This may or may not lead to privatisation.*
>
> *Privatisation is the selling of state-owned assets and transfer of ownership.*

In the context of Hong Kong Electricity Market and in view of the fact that all electric power infrastructure assets are investor-owned discussions on market reform should therefore be confined to restructuring and deregulation.

3. Drivers of Reform for Electric Power Industry

The next question is what are the drivers for reform? It is generally believed that the compounding forces of globalisation, the inexorable advance of technological innovation and the emergence of e-commerce have promoted public awareness of the benefits of competition and significantly changed the ways business has been conducted over the past two decades. Apart from political considerations, many reasons have been given for undertaking reform; some have a macro bias while others take a more specific viewpoint, and the means by which the reform is implemented also differs.

Findings from a review of the literature suggest that the main drivers propelling reform in most nations are likely to be a combination of the following factors:

a) Promoting industry transparency and accountability
b) Enhancing operational efficiency and productivity
c) Driving tariffs to fair and reasonable levels without compromising on system availability and reliability
d) Maximising customer choice and improving quality of service
e) Facilitating new entrants to competition by taking advantage of technological advances
f) Governments adopting a global policy shift favouring private ownership of enterprises
g) Divesting state-owned enterprises of responsibility and of the commercial risks of running the utility
h) Reducing or relieving the national or local government's financial and organizational burdens

i) Attracting domestic and international private capital
j) Importing management skills and technology to raise the industry to a world-class level, especially for developing countries
k) Enhancing the overall competitiveness of the nation in a global marketplace
l) Abiding by IMF requirements for countries requiring financial assistance
m) Complying with regional or multi-national agreements, such as the European Directive on deregulation of the electric power industry

It can be seen from the above that as stated in Section 3.2 of the Consultation Paper given on Section 3.2 that most core drivers for marker reform in other economies are not relevant in the Hong Kong context as electricity has always been provided by the private sector and the supply has always been reliable and secured. I am of the view that the overriding issue to be addressed is to review whether there is any better form of market structure, regulatory arrangement and institutional set up that can further promote industry transparency and accountability, and drive tariffs further down without compromising on system availability and reliability, service quality and environmental protection.

4. Market Structure for Electric Power Industry

The electric power industry comprises four sectors: generation, transmission, distribution and retail. It is generally recognised in the industry that in terms of current and foreseeable technology, the transmission and distribution sectors will remain natural monopolies while the generation and retail sectors are inherently suitable for competition. With this in mind, let us have a quick look at the concept of in-service market structures and their benefits and shortcomings.

4.1 Vertically Integrated Monopoly

In a Vertically Integrated Market Structure with monopoly at all levels, one company or entity undertakes the production of electricity and its delivery through transmission and distribution networks directly to consumers. None of the business sectors are subject to competition and consumers have no choice of supplier. This model of market structure can exist side-by-side in separate designated geographic areas with interconnection between adjoining systems for emergency backup and efficient use of expensive standby capacity, as is the case in Hong Kong.

It is well recognized that this arrangement provides benefits from economies of scale, and easier access to funds at preferential rates enabling rapid development of sizable power generation facilities and transmission and distribution networks. It also enables the government to accommodate social policy obligations in terms of protection of the environment, development of renewable energy and serving small users in remote and rural areas. It can also ensure high security and reliability of electricity supply. However, the major deficiencies of this monopolistic market structure could include:

- *a lack of incentives to improve services and lower costs;*
- *a lack of transparency;*
- *poor investment decision-making; and*
- *gold plating of infrastructural components.*

4.2 Single Wholesale Buyer

In a Single Wholesale Buyer Market Structure, the single wholesale buyer has a monopoly on a regulated transmission network and can procure electricity produced by different generators on a competitive sourcing basis and sell it to customers through designated distributing companies for specified supply areas. Under this market structure, generators are not permitted to have direct access to the transmission and distribution networks for purposes of selling their electricity to final customers.

This market structure allows the entry of independent power producers to the generation market, putting pressure on existing generators to compete by improving their efficiency and reducing costs. It should be noted that this market structure enables the government to retain a certain control of national development policy and can ensure that social policy obligations are met. However, the drawbacks of this market structure include loss of economies of scale leading to high capital costs for generation, lower supply reliability, increased in transaction costs, and more constraints on system and capacity planning co-ordination.

4.3 Wholesale Competition

This model of market structure requires an independent system operator to manage the market pool/spot pool, and run the transmission network so that distribution companies and large customers can buy electricity directly from any competing generator. The distribution companies maintain a monopoly over energy sales to customers within their designated or franchised areas. The essence of this structure is to introduce competition into the generation and wholesale electricity supply sectors, and keep the market risk in the generation sector.

It is to be noted that in this market structure the transaction costs arising from the implementation of market and network agreements will inevitably increase. There are opinions that in order to create a true wholesale competition market a comprehensive and well thought out regulatory framework must be in place to eliminate the possibility of oligopoly and price manipulation, and to avoid a power crisis such as that experienced in California. The necessary pre-conditions are:

- embarking on reform in an environment of surplus generation capacity and strong transmission and distribution grids;
- having sufficient generators and buyers;
- providing non-discriminatory access to the transmission and distribution networks;
- ensuring the system is operated by a body that has no material interest in the market, and in particular in the generation sector,
- permitting utilities to pass price rises onto customers; and
- allowing utilities to set up forward contracts direct with customers

3.4 Retail Competition

In the retail competition market structure, the traditionally monopolistic activity of distributing electricity to customers is also opened up, and all customers are free to choose their supplier, as is now the case in England & Wales, Australia, New Zealand Scandinavia, etc. Full competition in both the generation and the retail sectors is expected to improve both short- and eventually long-term incentives for efficient production and consumption. But due to more complex trade arrangements and the metering of individual customers, transaction costs will inevitably be significantly increased and the costs may easily outweigh the benefits for the small users.

3.5 Observations

We all know that Hong Kong has two investor-owned power companies, Hongkong Electric Co. Ltd and CLP Power Ltd each operating in a vertically integrated market structure with monopoly from production to retail for a de facto supply area under the Scheme of Control Agreements Given the fact that Hong Kong is one of the most liberalized markets and one of the world's top ten trading entities, the two power companies in Hong Kong with separate supply areas, both power companies should have no reason to oppose to competitive markets. **However, it is quite evident that the pre-conditions required as outlined above, notably not enough power producers, lack of space for new entrants to build new generating units, for a competitive market in Hong Kong, even in the form of Single Wholesale Buyer, are currently not in place.**

I support the views of some stakeholders including the academia that meaningful competition can only be realisied by building a regional market by integrating Hong Kong with the Pearl River Delta Region operating on a level playing field with no discrimination to entry. However, in view of Mainland's persistent power shortage, lack of well-developed accounting, commercial and legal practices, and lower technical and environmental standards, such regional competitive market takes a considerable time to develop and is considered not be feasible in the next five to ten years. As the electric power industry is characterised by large scale, capital-intensive investment with long pay back period, certainty for electricity off-take and hence return of investments is of overriding importance for the service provider, **I am of the view that the current regulatory regime operating through the SCA once expired in 2008 should not be drastically changed for a period of not less than 10 years. However, the terms and conditions of the SCA in the current form do warrant further adjustments and refinements in response to public's wish for lower electricity tariffs without compromising on reliability and environmental protection.**

5. Impact on Reliability of Supply and Environment

Let us revisit the impact of reform of electric power industry on reliability of supply and environment

5.1 Impact on Reliability of Supply

With a competitive market in place, the generation section which has to competed on price tends to cut down its reserve margin and spinning reserve capacity (to cater for forced outage or unexpected surge o demand), push for maximum output from existing units and put less emphasis on maintenance and building new plants. This in turn would neglect the reliability aspect in favour of quick and big profit. The recent serious blackouts took place in major cities with competitive market in operation, such as New York, San Francisco, London and Singapore have served a painful reminder to all stakeholders the vital importance of security and reliability of electricity supply.

The achievement of more than 99.99% reliability of supply of electricity in Hong Kong, one of the best in the world, recorded over the past 30 to 40 years is attributed to the adoption of current regulatory regime which does encourage adequate investment in power infrastructure and quality service. Furthermore, the power companies operating Hong Kong have the obligation to supply electricity to all consumers including laying expensive long cables to remote areas serving few consumers because the costs incurred are shared by all users. This will likely no longer be the case in a restructured competitive market.

5.2 Impact on Environment

Due to its sheer physical size and nature of operation, the electric power industry is know to cause significant impacts on air and water environment, land use, marine and terrestrial ecology, etc..In a deregulated market, some profit-oriented companies will naturally be less enthusiastic in sustainable development ventures and may even import electricity form cheaper, older plants outside the home territories with more relaxed environmental controls. Concerns have been frequently raised by some environmentalists that competition would lead to environmental degradation and make programs of energy efficiency and renewable energy difficult to sustain.

Because of its operation as a regulated service provider with separate areas of supply, the power company in Hong Kong has been subjected to very tight environmental control. It is understood that power companies operating under current regulatory framework are allowed to pass to customers the costs incurred for compliance with even tighter environmental laws including the mandatory use of natural gas for new generating units and undertaking development of renewable energy such as wind power. **I am of the view that the current regulatory regime will no doubt enable Hong Kong to combat the rapid deterioration of air quality**.

6. Electricity Tariff

In general, the prime motives for industry reform are to improve operating efficiency and bring down the prices of electricity. Data from countries at the forefront of reform such as England and Wales, Australia and New Zealand have revealed that prices of electricity were lower than they were before reform ad some of efficiency gains in the industry had been passed on customers. It is worth noting that most benefits go to the large customers because they are better informed and have greater bargaining power. Anyway, the price reduction was primarily a result of efficient use of resources through privatisation.

It appears on surface that the main motive for reform in Hong Kong is to reduce electricity prices in an effort of lowering the costs of doing business and cutting down the household expenses particularly during sever economic downturn. **However, it is my view that the real agenda could have been to facilitate the access of a few large private corporations to a highly profitable market.**

According to data given in Section 2.5 of the Consultation Paper, the residential tariff charge in Hong Kong ranges from HK$0.82 to HK$1.18 which is much lower than Tokyo and London, slightly lower than San Francisco and Sydney, but quite significantly higher than Singapore, Taipei and Mainland China. **Given that the electricity bill constitutes about 2% of the general household monthly expenditure, Hong Kong's GDP is on a par with developed nations, and the supply reliability is one of the best in the world, the domestic electricity tariff in Hong Kong is considered reasonable and affordable.**

Notwithstanding the above, the criticism of the current regulatory regime is the huge profits reported by in the 2004 Annual Report of the power companies as summarized below:

- Hongkong Electric — Earnings of HK$6,280 million (Turnover of HK$11,407 million
- CLP Power — Earnings of HK$8,614 million (Turnover of HK$30,784 million)

The amount of profits compared with the turnover and the every increasing in profits made by the two power companies year after year especially during the period of severe economic downturn and deflation from 1998 to 2003 have acted as a catalyst for consumers, politicians and NGOs pushing for tariff reduction through market reform. **I concurred that the aforesaid profits arrived based on the permitted rate of return of 13.5% in fixed asset and the additional 1.5%onassets financed by shareholder's funds are considered high during the period of deflation and even in present day economic climate. But we have to recall that during the 1980s, Hong Kong's inflation was well above 10% and the power companies had to live with it. As the amount of investment in electric power infrastructure with a service life of 30 to 35 years is huge, it takes many years to plan and build.**

Based on the information available, it is very difficult to give a view on whether the current Permitted Rate of Return and the Rate Base adopted are too generous or quite reasonable. However, it is important that if the current Rate of Permitted Return and Rate Base are required to change, or a new tariff setting mechanism has to be introduced, it must enable the power companies to earn a decent and reasonable return with some certainty such that safe and reliability of electricity supply and protection of environment can be assured.



C W Tso (Dr)
28 April 2005

K H Lee

01/02/05 09:38 AM

To: "'electricitycomments@edlb.gov.hk'" <electricitycomments@edlb.gov.hk>
cc:
Subject: Opinions and Suggestions-Power Tariff and Regulations on the two
☐ Urgent ☐ Return Receipt

Dear Sir,

With the reference to this consultation in effect today we are pleased to say that the HKSAR has provided a 'moderate-fair' analysis for the public, and accept the criticisms of the current "Schemes of Control Agreement, SCRs" with the two power supplying plants in Kowloon and Hong Kong which are not fully satisfied and accepted by the Hong Kong general public.

In fact, it is true that the huge capital investments of the two plants have been providing HK a stable, efficient and safe power providing services in the past years. The past long years tired with SCRs is fair and just because we should allow the two companies to have incentive and motivation to invest to Hong Kong and the past HK Govemment had given them long years of investment assurance of the rate of return that the two companies could entitle to enjoy, this is fair and sound.

However, these long years of assured rate of return such as 13.5% and 1.5% of the assets must be reviewed and regulated because the two companies must have had their returns back by now even though they have mid-long investment plan for Hong Kong but there might have some 'over-investment' projects and causing heavy burden to the Hong Kong local service users.

In the area of safety, efficiency, cooperate images and public obligations that the two power companies have proven track records.
Having said that we must think and re-consider what we should do about them after 2008. It is definite and obvious from the voice of the HK Public that the present level of tariff is too high when compared to rate of inflation and local business environment. Meanwhile, we should not disrupt the present level of safety and efficiency we are enjoying.

I personally would suggest that the two companies:

1. Should have 15 years of renewal in 2008 and onwards to ensure their interest and incentive will be maintained;
2. the tariff must be linked to the yearly inflation rate;
3. must be continued to be regulated by the HKSAR Government and Hong Kong Legislative Council during the renewal of 15 years;
4. the rate of assured business return should be subject to 'Free Market' mechanism but it is impossible due to the unique nature of geography constraint and investment background of Hong Kong;
5. it is difficult to allow other competitor(s) to join and no 'Free Market' driving force will be introduced and drive the market to an equilibrium'
6. the tariff must be formed and designed with great degree of flexibility, a fair and efficiency mechanism must be set forth;
7. there must be mandatory requirements when drafting and finalization of 2008 Scheme of Control Agreement on the % rate of return that must be linked to rate of yearly inflation and should not more than 8% at its maximal overall;
8. HKSAR and Legislative council must be included and mandatory invited to have the final 'Say' on their long-term investments plans to ensure they will not over-invest to compromise the best interest of the Hong Kong General Public;

9. Other tariffs such as in case of the un-expected increase demand of Global coal and its price, should NOT pass to the Hong Kong general public because they will have 15 years long investment assurance given in the agreement, and no business in HK should have almost 'Risk Free' and 'Maximum Profit in the bad economic environment especially in these important power companies;

10. If possible, both business environment and technology-feasible, HKSAR must consider to introduce competitor(s) to the Hong Kong local market, hence the two companies are monopolized the HK market. The HK General Public can not enjoy the benefits of 'Free Market' and 'Free Competition';

11. In the long run, the HKSAR must have long plan for inclusion of the competitor(s) as this is a big business.

Most of all, the continuity of safe, efficiency and increase of operational transparency of these two power supply companies must be included in 2008, and full public consultation must be sought before finalizing with the companies.

HK Public's best interest must come first.

Thank you.

Regards,

Dr Grantham Kam-Hung, Lee Ph.D(London).,CSci., CChem., MRSC
Date: 01 Feb 2005

K H Lee

01/02/05 09:38 AM

To: "'electricitycomments@edlb.gov.hk'" <electricitycomments@edlb.gov.hk>
cc:
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8. HKSAR and Legislative council must be included and mandatory invited to have the final 'Say' on their long-term investments plans to ensure they will not over-invest to compromise the best interest of the Hong Kong General Public;

沒有可靠之電力，我們不能享受現在
舒適之生活。所以建議保留現有的
發電計畫。

Steven Chan

2014/05

9. Other tariffs such as in case of the un-expected increase demand of Global coal and its price, should NOT pass to the Hong Kong general public because they will have 15 years long investment assurance given in the agreement, and no business in HK should have almost 'Risk Free' and 'Maximum Profit in the bad economic environment especially in these important power companies;

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Thank you.

Regards,

Dr Grantham Kam-Hung, Lee Ph.D(London).,CSci., CChem., MRSC
Date: 01 Feb 2005

Dr Josie Close BA BArch PhD RIBA HKIA Assoc MEI
Centre Of Renewable Energy, Dept of Architecture, University of Hong Kong, Pokfulam Road, Hong Kong

29 April 2005

By post and e-mail to electricitycomments@edlb.gov.hk

The Secretary
Economic Development & Lands Bureau
2F Central Government Offices, Main & East Wings
Lower Albert Road,
Central
Hong Kong

Dear Secretary,

Consultation paper: Hong Kong's Future Electricity Market

I am pleased to forward my personal position in response to the Consultation Paper.

Yours faithfully,



Dr Josie Close

Enclosure: Personal Response (2 pages)

Personal view:
Dr Josie Close, Centre of Renewable Energy, Dept of Architecture, University of Hong Kong

Future generation:
Electricity generation is likely to undergo considerable change in the coming years, due to the rising cost of traditional fuels, (oil, gas and coal), the need to operate "clean generation" from carbon based fuels, the introduction of advanced generation methods and the take-up of new and renewable energy technologies either those that are already mature or those that are still emerging. According to informed opinion, future generation is less likely to be operated from large centralised plant but increasingly generated at point of use. (Known as distributed generation)

Flexible system:
Hong Kong's post-2008 Electricity Market must be capable of flexibility in operating the best mode for Hong Kong in this changing scenario.

Fairness, transparency, choice & competition:
Until the leverage of the post-2008 market negotiations occurred, the present utilities have not been interested in alternative, non-fossil fuel based generation methods or resources. In a business-as-usual approach, the interests of the shareholder have taken precedence over the consumer. The future structure must have balance and fairness for both and operate with transparency in the interests of Hong Kong as a whole. As a free-market economy, it is expected that there should be choice and competition in the electricity supply also.

Service and Reliability:
The quality of the existing utilities is acknowledged. It is also noted that a comparable high level of service reliability is maintained in other World Cities with lower rates of return.

Independent Regulatory Authority + protection for third-party access
I support a new, independent regulatory structure, mandated through legislation, to set-up and operate a system that will also include the separation of generation from transmission/distribution, allowing other generators into the market offering both choice and competition. There must be interconnection of the presently separate networks and, in the longer-term, the ability to link to the South China Market. An open system with third-party access to the grid must be protected by law as is the case in the US, Germany and recently Mainland China.

Sustainability and holistic approach
Hong Kong is presently inviting public consultation on a range of issues. Electricity is an important part of Hong Kong's economic success and also needs to be considered in the overall planning for sustainability. The environmental impacts of carbon-based electricity generation locally and in the region are inconsistent with sustainability. Electricity generation needs to be considered together with our plans for domestic solid waste disposal amongst other issues of an holistic approach

Energy Efficiency:
Planning, legislation, incentives and caps are required to increase energy efficiency in generation and use.
Generating utilities should operate demand-side management policies and government legislation and voluntary/market schemes need to be instrumental in encouraging much greater building, building services and transportation energy use efficiency.

Public support for renewable energy generation:
A government commissioned report has identified the large potential for wind power and building integrated renewable energy generation, using photovoltaics and longer-term fuel cells. Public response has indicated its support for a much faster/bigger introduction of these technologies into the resource pool. Surveys conducted on behalf of the HK Government have identified support and willingness-to-pay. The future HK Electricity Market structure should promote RE actively and rapidly, especially considering the poor air quality in HK.

Personal view:
Dr Josie Close, Centre of Renewable Energy, Dept of Architecture, University of Hong Kong

China Renewable Energy Law effective 1 January 2006
Mainland China passed its Renewable Energy (RE) Law on 28 February 2004. As indicated by the German Feed-in Law of April 2000, legislation has a marked impact on the rapid development of renewables by providing the security for investment loans that is particularly important for research and development, expanding production capacity and systems installation. The China RE Law sets targets, supports grid-connection and promotes with incentives, (soft loans) grants and tax breaks. Article 17 requires real estate developers to provide the necessary conditions for the utilization of solar energy in the design and construction of buildings. Hong Kong requires a similar law.

Financial structure:
The present rate of return is widely criticised. The future market should provide a long-term stable financial structure to continue to attract investment. However, as experts have advised, a government scheme provides protection for shareholders, and the investment risk is reduced. Thus the shareholders' return can also be reduced to levels comparable to other protected electricity markets.

Josie Close
29 April 2005

"Wai On, William Leung"

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Consultation paper on Future Development of the Electricity Market
☐ Urgent ☐ Return Receipt

2005/04/30 08:56 PM

Dear Sirs,

I submit herewith my views on the future development of the electricity market in Hong Kong.

Kind regards

Dr. Leung Wai On

Submission on Electricity Market ~ 30 Apr 2005.doc

Submission in respect of the

Consultation Paper

on

Future Development of the Electricity Market

in Hong Kong

30 April 2005

By

Dr. Leung Wai On

I welcome the opportunity to provide herewith an input to the consultation process on the future development of the electricity market in Hong Kong, in the role of an electricity consumer and a past practitioner in the Hong Kong electricity industry.

This brief submission seeks a consensus on the reform and development principles of the current electricity market. It is intended to leave discussions and deliberations on detailed reform arrangements to the next consultation stages.

In the interests of Hong Kong residents, I believe that the current regulatory regime on the electricity market needs a complete and immediate overhaul towards the following directions: -

1. An abolishment of the "Scheme of Control"

The current "scheme of control' on the Hong Kong electricity supply market is outdated, inefficient, and ineffective to protect the interest of the consumer. The higher electricity charge that Hong Kong Island residents have to suffer is a good indication for a complete overhaul of the current electricity supply arrangement.

The scheme provides the utility companies to maximize the return to the shareholders at the expenses of electricity consumers. To cite a few examples: -

- Power plants and transmission facilities are built substantially ahead of the demand;

- Facilities, equipment, and assets are lying idle, with the only purpose to attract a good permitted return. Giving professional ethics, idle plants and equipment should have been disposed of and taken out of the asset list; and

- Roads are dug and re-dug within a short period of time, for lack of forward planning, etc.

In short, the scheme allows "permitted return" to be based on asset ownership, whether such assets are used efficiently or left idle. The scheme permits the power companies a higher return for their inefficiency while consumers are being punished with a higher electricity price and a nuisance from the road digging work.

2. Consumers have a Choice

Consistent with the free market economy that Hong Kong practises, residents in Hong Kong and Kowloon alike should be free to choose the electricity supplier. Let consumers have the choice.

3. Competition is Vital

The opening up of the electricity market for competition will benefit consumers. The current monopoly should be broken up to allow competition between the two incumbent power companies and to encourage new market entrants.

Monopoly bleeds inefficiency and protects fat cats. The opening up of the Hong Kong electricity market is in the best interest of consumers.

As an example, Hong Kong consumers benefit enormously from the opening up of the telecommunications market for competition in Hong Kong, particularly from the international telephone service. Now we only need to pay a fraction of the costs for a minute of the international telephone call to the USA to what we had to pay some 5 years ago.

4. Segregation of the Electricity Distribution and Electricity Production Services

Investors are free to invest in power generation plants. Electricity generation may not necessarily be done in Hong Kong. Importing electricity from multiple sources provides diversity and helps to drive down the costs to consumers. A different regulatory regime should be introduced to govern electricity generating, and transmission/distribution. This concept is not new to Hong Kong, as China Light owns the transmission and distribution network while a separate Esso/China Light JV entity owns the power generation plants.

4.1 Electricity Generation

Investors should be free to invest in new power plants. Supply of electricity may come from any power plants that are most cost competitive, whether it is coming from China Light, Hong Kong Electric, new investors, or imports from China. Competition among these generation plants will lower the electricity price.

In a transparent process, consumers will be informed of the costs from individual power plants and be allowed a choice on the supply source.

4.2 Transmission & Distribution

There may be practical difficulties in the opening up of the current transmission and distribution network for competition, without the nuisance of digging up the roads. In building distribution of electricity via alternate transmission/distribution network is costly or impracticable, attributable to limited deducting capacity to accommodate a second distribution network to individual flats in most buildings in Hong Kong.

However, multi-distribution networks to new towns, districts, or bulk users should be allowed. Indeed, consumers should have a choice, either to lower the cost and/or to increase the supply reliability. I believe many industries or businesses would welcome supply from multiple sources to assure reliability, even if they have to incur additional investment in order to connect to multiple supply/distribution sources.

Again, consumers should have the choice.

5. Breaking up of the Territory Monopoly

The current territory monopoly is a barrier to cross-territory competition and the root cause of inefficiency. Consumers currently have to put up with the phenomenon that one power company has excessive capacity while another power company is building additional capacity. Likewise, electricity price in one territory is higher than another territory, which is unacceptable in a free market economy.

6. Interconnection between the two operators and among New Market Entrants

Under a new regulatory regime, interconnection should be mandatory among the incumbent operators and new market entrants. A 'super' grid minimizes the reserve capacity requirement; enhances reliability and permits competition among power generating plants, to the benefit of consumers.

7. Establishment of a Supervisory Committee

The current supervision, or lack of supervision, has left consumers at the mercy of the power companies. The Hong Kong SAR Government should establish a council or committee to supervise the electricity market and to protect the consumer interests. The committee should comprise of members from the industry, consumers, and professionals. The committee should be empowered to introduce competition, restructure the industry, and to protect consumer interests.

Dr. Leung Wai On
30 April 2005

"Mark Williams [AF]"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Submission Dr Mark Williams
☐ Urgent ☐ Return Receipt

2005/04/30 09:26 AM

Dear Sirs,
Please find attached my submission on the future of electricity supply arrangements in Hong Kong. Kindly acknowledge receipt.
Yours
Dr Mark Williams



Future of the Electricity Market in Hong Kong.doc

Future of the Electricity Market in Hong Kong

Submission on Stage I Consultation

Dr Mark Williams
School of Accounting and Finance
Hong Kong Polytechnic University

30 April 2005

Declaration of Interest

I am an Associate Professor of Law at the Hong Kong Polytechnic University. I am admitted as a Solicitor. I have no commercial links with nor hold any shares in either of the Hong Kong electricity utility companies, though I am an electricity consumer. My views are personal and do not reflect position of my institution.

Introduction

The current organisation and regulatory structure of the Hong Kong electricity supply industry is an accident of history. We have two vertically integrated, privately held territorial suppliers who have that rare market position – a true monopoly. This is because electricity has no close substitutes for many uses and so is an unusual economic good. This submission will outline and criticise current arrangements, discuss relevant economic policy matters and make constructive suggestions for change.

The Current Arrangements

The regulatory arrangements currently in force are voluntary contracts signed between the Hongkong Electric Company Ltd (HKE) and China Light and Power (CLP), which provide a permitted rate of return on assets employed of 13.5% and 15% for those assets funded by shareholders funds. In return the companies promise to meet demand and supply electricity. Thus, the companies in return for a handsome effective guarantees of profit, promise to supply their product to a captive market but they have no incentives to be efficient or prudent. This is a virtually risk free venture, as the likelihood of their market share reducing or being taken by a competitor is nil. Even better, the apparent regulator, the government, in fact merely gives its official imprimatur to excessive capacity formation, so increasing the profits made by the companies and legitimises the tariff charged to customers. As one of the incumbents made clear two years ago, in the face of protests at the prospect of price increases, the company was only exercising its contractual rights, as approved by the government. Thus, government is placed in the invidious position of being blamed by the public for both excess capacity in the industry, for which it is obliged to pay, and the level of the tariffs charged for electricity.

Government by its intimate involvement in the business decisions of the providers becomes the fall-guy when public discontent surfaces, legitimises the status quo and also removes any business risk, which is the sole justification for high profits, from the shoulders of the utilities. Further, the public concern of 'collusion' between

government and big business could be legitimised by this set of arrangements as the current system may be seen as unduly favourable to powerful business actors and not sufficiently protective of the public interest. From a public policy perspective, government should take immediate steps to disentangle itself from this unfortunate position.

To hold such a monopoly as is held by the two Hong Kong incumbents is the goal of any rational business. As Rupert Murdoch once (im)famously remarked,

'Monopoly is a terrible thing – until you have it'.

The monopolist has an easy life, supply as much or as little of the product as is convenient to you and charge what you like. No need to be economically efficient as any of your costs can be passed on to the captive consumer. No need to be innovatory because customers cannot go elsewhere. No need to pursue any other goals such as environmental protection, for there is no requirement or profit in such a course. This is especially true when there are high or, even better, as in the case of electricity supply in a small, crowded territory, insuperable barriers to entry into the relevant market. The current situation of the two incumbent companies would be the envy of any entrepreneur. What is even better is when an industry can capture its only potential regulator, namely the government and then let the regulator make all the unpopular decisions, so allowing the industry to trumpet its impeccable reliability record and concentrate on charity public relations events. In other words, the whilst the companies make high and protected profits, opprobrium is directed at government.

Whether these observations are fair or not in less important than the perception created in the public mind – that government is too close to the industry interest.
Thus, it seems that the time has come to radically rethink existing arrangements, whilst ensuring that Hong Kong retains a modern, reliable supply of electricity. This is the challenge that faces government.

Government Economic Policy

The government endless repeats that the bedrock of its management of the Hong Kong economy is its belief in the invisible hand of the free market as the primary economic regulator. Government annually trumpets its award of the title of the 'Freest Economy in the World'. However, its policy in relation to electricity supply is inimical to even the existence of a market in this industry and indeed promotes and protects of two integrated monopolists. This departure from pro-market orthodoxy needs substantial justification, if the government's credibility is not to be undermined.

Arguments that electricity is a natural monopoly were also heard in respect of telecommunications just over a decade ago but as a result of regulatory change, telecom has become one of the most dynamic sectors in many economies, including Hong Kong. Whilst botched examples of electricity deregulation in an attempt to establish electricity supply markets can be cited, this is to do with poorly considered legislative frameworks, not the inherent impossibility of creating markets in this industry.

Obviously, incumbent monopolists, given that they have everything to loose and nothing to gain from competition, as they cannot get more than their existing market share of 100%, will lobby vociferously about reliability issues and long-term investment disincentives; it would be irrational for them to do otherwise. 'Shroud-waving' is a long established tactic when the logic and plausibility of an argument has been exhausted. The incumbents have everything to loose from any change in existing arrangements and so, their special pleading should be disregarded.

Reliability and future supply capacity issues need to be considered carefully in the regulatory framework but they should not obscure the fact that these matters are perfectly adequately addressed in systems that are not vertically integrated monopolies.

Thus it is submitted that the government's general economic policy is correct, namely that markets should regulate business conduct and profits, participants must make risk assessments for themselves and competition between providers will provide the promised economic benefits of more choice for consumers and at the lowest economic price.

Government should be brave enough to follow its own economic credo and create the environment for the development of an electricity market in Hong Kong.

Suggested reforms

Government should announce that it has the intention to create an electricity market that will be regulated in such a way as to maintain the highest reliability of supply via a safe distribution system.

Government should announce a new pro-market policy for the electricity industry. The policy will involve the creation of an independent Energy Regulator, whose initial task will be to supervise a modified interim scheme of control with substantially reduced allowable rates of return whilst the new market structure is created.

The primary thrust of the policy will be the empowerment of the Regulator to create a market in electricity by a specific deadline. This will be accomplished by requiring the existing incumbents to hive down their transmission assets into a new electricity grid company (HKG). The floatation of the new company would involve the complete divesture of participation in the supply of electricity by HKE and CLP; they would remain as generating companies. The proceeds of the sale of the share capital of HKG will compensate the HKE and CLP for their past investments in supply assets. HKE and CLP will be prohibited from owning shares in HKG, as would any other electricity producer. This is because leaving the supply system in the hands of the two existing producers will involve endless access price wrangles with new potential suppliers, necessitating the too extensive involvement of the Regulator is setting access prices. The Regulator will have over-view powers to ensure that HKG does not abuse its dominance in the transmission business but otherwise access prices would be determined by commercial negotiations.

HKG will be tasked with the immediate upgrading of the interconnection between the two existing systems to facilitate the functioning of an integrated supply system. Further, upgrading of the interconnection with the Guangdong grid would also be undertaken, so that potential suppliers based outside Hong Kong, could participate in the Hong Kong market, when appropriate. The issue of shares or long-term debt by HKG could raise finance for these infrastructure improvements.

On a specified date, the market would commence operation, facilitated by HKG, supervised by the Regulator. Any supplier, approved by the Regulator on transparent and equal terms, might sell electricity into the system by a system of bids. The Regulator would devise the technical details of market operations. Pro-competition rules would be needed to prevent collusion between market participants as well as to prevent abuses of dominance and overly concentrative mergers. Customers would buy electricity from HKG initially but over time commercial and the domestic consumers would be able to choose suppliers directly, making supply contracts with companies who might not even be electricity producers at all but rather merchants, who have negotiated long term wholesale purchase contracts. These developments would be overseen by the Regulator and subject to technical developments including metering and billing. At this stage a full market would be operational.

Matters of reliability and long-term investment would need detailed consideration, as would a margin of excess production capacity for surges and emergencies; these matters would be considered in detail by the Regulator and incorporated into the market mechanism.

No time scale for these changes is given in this paper, as this would involve a detailed technical assessment of both and engineering and economic matters, to be undertaken by the Regulator's staff within a fixed period and would be subject to public consultation.

Given that this proposal will involve a paradigm shift from current policy and is directly opposed by the two incumbents (see their public pronouncements to date), a substantial campaign of public information should be prepared to reassure the public on reliability and safety questions. The vested interests of HKE and CLP will ensure significant opposition to reform by way of a large media campaign as well as extensive lobbying of officials and legislative council members.

Government should be prepared to meet these challenges, practically demonstrate its faith in market mechanisms to produce optimum outcomes and explain that whilst existing arrangements may well be in the interests of the shareholders of the incumbents, they are not in the best interests of the businesses and private consumers of Hong Kong. Government should bear in mind the successful example of the liberalisation of the telecommunications market in Hong Kong as a pattern to be followed. If a pro-market policy is adopted, government will also demonstrate its even-handed approach as between vested business interests and the public interest, so helping to dispel the perception of collusion between business and government. Government will also distance itself from intimate involvement in industry minutiae.

Government is therefore recommended to proceed toward adoption of a market-based strategy for the Hong Kong electricity industry.

"Chen, Shihe"

2005/04/30 04:57 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Personal Comments to the Consultantion Paper
☐ Urgent ☒ Return Receipt

Dear Sir,

Attached is my personal comments to the consultation paper for your consideration.

Regards
Shihe Chen

View on the Consultation Paper on Future Development of the Electricity Market In Hong Kong.doc

Personal Comments on the Consultation Paper on Future Development of the Electricity Market In Hong Kong

1. It is stated that the Government policy objective is to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimising environmental impact caused by the generation and use of electricity.

2. The existing regulatory regime, i.e. SCA, achieved the above objective evidenced by the high supply reliability (>99.99%) and low cost to the general customer (<2% of expenditure) in Hong Kong. The SCA provided also incentives for the utilities to adopt emission control measures such as introducing emission free nuclear power, cleaner natural gas and de-sulfur equipment for coal generators. The SCA contributed significantly to the development of Hong Kong in the past years. The Government should endeavor to renew the SCA to continue achieving the policy objectives.

3. An opened power market requires high redundancy or reserve margins in the power systems to avoid market manipulation. In a small place like Hong Kong, such a redundancy is not in line with the Government's policy objective of "efficient electricity supply at reasonable prices". Power system equipments involves a large amount of investment. In an opened power market, although the electricity price may be a little bit lower initially due to cut-throat competition for market share, the price will go up sooner or later because the market players need to get their investment back and make a profit at the end. The SCA and the Government's close monitoring minimizes the unnecessary redundancy.

4. The electrical power flows following the rule of physics. Due to the absence of central planning and coordination, third party access to the power grid may cause congestion to part of the network jeopardizing the supply reliability. The scenario of congestion can be visualized with reference to the uneven traffics through the cross-harbour tunnels but the consequences would be more severe as demonstrated by the recent blackout incidents in North America, UK, Sweden, Italy and Australia.

5. Reliable power supply comes only from reliable suppliers. It is too risky to rely on unreliable power source outside Hong Kong. Increasing power import from neighbouring areas may also increase the overall emission because the neighbouring areas would have to start up more higher polluting and lower efficient generators to compensate the shortage of supply.

6. Renewable energy (RE) is one of the environmental protection measures. As RE is currently not commercially viable, it is not competitive in an opened power market. RE should have better development opportunity in a regulated power market.

7. Customer choice is fair when all the customers have the same bargaining power. In an electrical power market, large customers have much larger bargaining power than the

small residential customers that the small customers may have to subsidize the large ones and pay a higher cost. Small customers could be protected under the SCA.

8. Power market reform started from UK with a political objective of privatization to reduce the Government's financial burden. Hong Kong's utilities have never been subsidised by the tax payers and should not be in the future.

Dr. Shihe Chen
CEng, MIEE, MIEEE
Asset Management Department
Power Systems Business Group
CLP Power Hong Kong Ltd.

"dragono"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 汲取美加大停電的教訓
☐ Urgent ☐ Return Receipt

2005/04/27 10:18 PM

我認爲美加供電系統癱瘓，以致兩地互相指責。然而，冰凍三尺、非一日之寒，加州早已發生電力公司瀕臨倒閉，使電力出現短缺的危機，可見這次絕不是意外，而是結構性問題。

我認爲，和美國相比，香港的能源供應肯定優質得多。帶給香港的訊息，不等如是要一成不變；而是改革電力市場要很小心，政府也不可以在開放市場後就擺出放任自流的態度，唯有審慎從事，才可兼得效益和穩健服務的好處。

美國和加拿大東部十四日突然大停電，美國的紐約、底特律、克利夫蘭和加拿大的多倫多、渥太華等十多個大中城市，數達五千萬市民受到影響。由於停電，機場、地鐵，以至手提電話，完全陷於癱瘓狀態，市民剎那之間好像生活在一個與世隔絕的黑暗世界，就算是全世界最先進的紐約市，全城交通停頓，繁華的曼哈坦黯然失色。 如果政府希望以開放民營電廠作爲能源供應的主要替代方案，難保加州缺電危機不會在香港發生。

duncan zhu

To: electricitycomments@edlb.gov.hk
cc:
Subject: Why do we need to maintain SCAs
☐ Urgent ☐ Return Receipt

2005/04/30 10:40 PM

Subject: Why do we need to maintain SCAs

Hong Kong is a cosmopolitan city and major financial center, its success rely on an excellent infrastructure and stable investment environment.
One of important item in infrastructure is electricity supply; and reliable electricity supply can provide perfect environment to carry out various activities. Especially, electricity becomes the most important power sources in the modern age.

Can you imagine how much we need to pay for blackout even for few minutes and how much inconvenient it caused for us? The answer is the financial loss will be enormous and all aspect of our daily life may be disrupted. Therefore, **highly reliable electricity supply is an absolute essential**.

In order to maintain highly reliable power supply systems, business owners have to take long term and large capital investment in their facilities. As a result, the pay back period will be quite long. No investor will take a risk on such large investment without guarantee.

Under the SCAs, investors are more willing to make long-term investment to improve their network system and customers services.
In fact, consumers have been enjoying extremely high quality services in the past decades. So far no blackouts have occurred in this territory.

Highly reliable electricity supply can hardly be obtained in deregulated markets as lack of sufficient investment in their facilities. The massive U.S. –Canada blackout in 2003 remind us what we need to face and what we really pursue. I cannot imagine if there is air conditioning in hot summer night.

In addition, I think there is no room for new entrant in such small market.

In conclusion the current SCAs has been proved to be successful, I think no one is willing to pursue a unreliable change. We have got what we purse, keep the SCAs is the best choice.

"Chan Cho Yan, Ernest"

To: <electricitycomments@edlb.gov.hk>
cc:

23/03/05 05:01 AM
Please respond to "Chan Cho Yan, Ernest"

Subject: Future Development of Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,
I would like to make some suggestions for your consideration regarding the future development of electricity market in Hong Kong as per my attached paper. Pls contact me by return email if you have any queries. Thanks for your attention.



E. Chan Suggestions.doc

Suggestions in respect of "Consultation Paper on Future Development of The Electricity Market in Hong Kong"

Financing for New Capital Expenditure

It is suggested that debentures should be used to finance a large part of the capital expenditures of the utility companies because of the following reasons:

- The electric utility business serves the general public in Hong Kong. The public has the responsibility and the right to finance the utility business. Public debenture is one of such means.
- The Hong Kong public has huge bank savings and other financial resources to finance such debentures.
- Debentures offer a relatively secure and attractive channel of investment for the public, particularly in a period of persistent low interest rates.
- It would significantly increase the market size of debentures/bonds in HK, thus strengthening HK's position as an international financial centre.
- The HKSAR Government has long been guaranteeing export credit and related commercial loans for the capital expenditures of the utility companies. The Government could make such loan guarantee available to the proposed public debentures, rather than just giving it to the shareholders of the utility companies.
- Interest rates for debentures are much more flexible and lower than the permitted rate of return under the current S.O.C. The electricity price will be lower and better reflect the cost of capital.

The mechanism for issuing such debentures and the associated treatment for shareholders' funds are proposed as follows:

- The utility companies to prepare 5-year forecasts of their capital expenditure requirements, including an estimate for the portion that can be financed by export credit loans from equipment suppliers.
- The capital requirements net of export credit loans be financed 60% by debentures and 40% by shareholder equity.
- A majority of debentures, say 60%, be issued to the public and institutions in Hong Kong and a minor portion, say 40%, be issued to international institutions.
- Debenture repayment be guaranteed by HKSAR Government. Repayment period relatively long, say 10 years. Interest rate be determined by market or by auctioning (say the rate is N% p.a.).
- Shareholder equity provided by utility companies to enjoy a rate of return of N + 2%. The utility companies also to receive a 0.5% management fee on the debentures.
- To avoid conflict of interest and undue political influence, no local or foreign government institutions shall be subscribers of the debentures. The Government, however, shall receive a fee of 0.25% for guaranteeing debenture repayment.
- Hongkong Electric (HEC) has the right to subscribe for up to 20% of debentures for HEC supply area (i.e. HEC may finance up to 60% (equity plus debentures) the capital requirements for HEC supply area).
- Similarly, CLP Power (CLP) and Castle Peak Power Company (CAPCO) together have the right to subscribe for up to 20% of generation-related debentures for

CLP supply area. And CLP alone has the right to subscribe for up to 20% transmission-related debentures for CLP supply area.

- Variance of actual capital requirement from forecast be divided into 2 portions: 60% be transferred to/from the Development Fund; 40% be financed by or returned to the utility companies' shareholders.
- Rate of return on capital expenditure financed by export credit loans shall be:
  $1\% + D \times 0.5$,
  where $D = N - L$ and L is the export credit loan interest rate in % inclusive of all fees and premiums charged by the export credit agencies and related institutions.
  If $N - L < 0$, put $D = 0$.

Treatment of Original Capital Employed

Capital expenditures before the new Scheme of Control financed by shareholders' funds of the utility companies shall receive a rate of return of:

$$N + 2\% + k\,(15\% - (N + 2\%))$$

where $k = 2/3$ for first 5 years of new S.O.C. (years 2008-2012),
$= 0.5$ for sixth to tenth years of new S.O.C. (years 2013-2017),
and $= 1/3$ for subsequent years (2018 and after);
subject to the resultant rate of return not higher than 15%.
The N in the above three periods shall be equal to the interest rate of the debenture issued in 2008, 2013 and 2018 or the nearest year respectively.

Capital expenditure before the new Scheme of Control financed by loans of the utility companies shall receive a rate of return, after deducting the loan interest, of:

$$1\% + k\,(13.5\% - M\%)$$

where k is the same as above, and
M is the weighted average loan interest rate, inclusive of all associated charges and fees, in the corresponding years;
subject to the resultant rate of return not higher than 13.5%.

Performance Bonuses and Penalties

The electric utilities should receive bonuses for good performance and be penalized for non-satisfactory performance based on the following performance indicators:

- Reliability of supply
- Generation, transmission and distribution efficiency
- Emission levels of power stations
- Timeliness of project completion dates
- Generating plant availability
- Deviation of actual capital and operating expenditures from budgets
- Unduly high generation capacity reserve margin (penalty only)
- Unduly high transmission and distribution plant redundancy (penalty only)
- Net amount of above bonuses/penalties be capped at ±15% of normal profit
- Also, Fuel Clause to cover only 90% (rather than the current 100%) of fuel costs so as to encourage prudent fuel procurement and high generation efficiency

Sale of Electricity to Mainland China

Profit to CLP/CAPCO on electricity sales to mainland China should be reduced from the current level to, say 10% of net proceeds. The reasons are that CLP/CAPCO have already earned their rightful amount of profits from the tariffs to HK consumers and that additional generation for sales to mainland China comes predominantly from coal-fired generation which increases pollution in HK.

Interconnection between CLP and HEC

Full interconnection to enable practically unlimited power flows between CLP and HEC may not be justified due to high capital costs and construction problems (land requirement, road works, etc.) However, a higher degree of interconnection than the existing level may be worthwhile in order to improve sharing of generation reserve, economic power transfer and emergency backup.

New Power Stations

Should a new power station be required to meet the consumers' demand in HK, we should seriously consider building it in mainland China. A new power station in China offers the following benefits:

- Requires no land in HK, which is scarce and expensive;
- The stationmay be financed by a new investor other than the existing utilities to create more competition;
- Less pollution in HK; and
- Lower construction cost, which may offset the higher transmission costs. Actually the existing transmission links between CLP and mainland China are quite strong and can probably accommodate the power transfer from the new power station to HK. (CLP is selling power to mainland China. The new power station would simply result in a reduction or reverse of power flows to China through the existing transmission links.)

To allow for the possibility of a new power station in mainland China, the Government should look into the necessity and feasibility of reserving suitable space in the HK-Zhuhai-Macao Bridge to enable the installation of transmission lines to a new power station in western Guangdong.

In case only new generating units are required in an existing power station in HK, the Government should also carefully look into the possibility of finding new investors for the new units so as to create more competition in the electricity market. For some kind of generating units, such as gas turbines, the need for sharing common facilities in the power station is small. Hence the units may be installed separately inside the station in an economical manner.

Duration of the New Scheme of Control Agreement

By using debentures and tying the rate of return on shareholders' funds to the debenture interest rate, the investment returns would better reflect the prevailing conditions of the financial market. The duration of the S.O.C. Agreement is therefore less of a concern to the utility companies and the Government. The current duration of 15 years may therefore be maintained.

Notwithstanding the above, should the average reliability of supply to consumers fall below certain threshold, particularly if the cause is under-investment by the utility company concerned, the Government shall have the right to rescind the S.O.C. Agreement for that company. The Government may then take any appropriate actions to restore the supply reliability. The threshold may be a supply reliability of less than 98% in any year or less than 99% in two consecutive years.

**********END**********

"0th April 2005

+ 852 2868 4679

Economic Development and Labour Bureau,
Government of the Hong Kong Special
Administrative Region,
Central Government Offices,
Hong Kong

Dear Sirs,

With reference to the Consultation Paper on Future Development of the Electricity Market in Hong Kong, Stage 1 Consultation, dated January 2005, I am forwarding for your attention a statement entitled "Evaluation of the Scheme of Control".

Your detailed consideration of this matter will be much appreciated.

Yours faithfully,

E.M.Laufer

Evaluation of the Scheme of Control

The Scheme of Control (SOC) governing the financial operations of China Light & Power Co. Ltd. (CLP) and its associated generating companies was approved by the Hong Kong Government (HKG) in November 1964. It was applied retrospectively from October 1963, initially for a duration of 15 years.

The SOC's adoption followed lengthy negotiations between the HKG, CLP, and Esso who were to be CLP's partners in the generating companies.

After relevant research it was postulated by Esso and CLP, and accepted by the HKG, that an appropriate profit would be 13.5% of net fixed assets (NFA), a rate that would result in fair electricity tariffs for consumers, while the injection of the capital required to finance the expected expansion would assure an adequate provision of electricity supply at all times.

In this connection it must be realised that NFA are assets after agreed rates of depreciation so that for each particular asset the NFA amount is reduced year after year, thus limiting profits accordingly.

The SOC has been renewed twice, each time for a term of 15 years. It proved so successful right from the start that the HKG applied similar schemes to other utilities.

Both in the original negotiations and in subsequent considerations of the SOC certain criticisms were examined:

The notion that CLP/Esso might spend more than necessary on capital assets in order artificially to increase the permitted profit was the subject of computer studies which showed that such action would prove detrimental as it would reduce cash flow, thus providing inadequate resources, since tariffs were of necessity limited in view of the HKG's supervision, and of comparison with tariffs of other electricity undertakings.

On the other hand, the possibility of installing assets somewhat earlier than strictly necessary was found to be of benefit in certain cases, mainly for reasons of economy of scale and of countering inflation. For instance, when a new generating station was planned it was in the interests of both CLP/Esso and of consumers to erect the whole building at once; again computer forecasts were employed to establish this result.

A further point made was the absence of competition in CLP's territory. Two factors militate against the need for such competition. The first is the supervision by the HKG which in 1999 was intensified considerably.

The second factor is the possibility of other companies, once admitted to CLP's territory, raising tariffs at will. As an example of this type of action I would mention that in England my own cost of current was raised twice in a year by my suppliers Southern Electricity, on 1.7.2004 by 3.8%, and on 1.3.2005 by 7.1%.

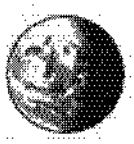
That under the SOC the tariffs of CLP compare in a favourable way can readily be shown. Citing again the example of my own power costs, for a consumption of 774 units per quarter, and using a conversion rate of 14.7 HKD per GBP, I would now be paying the equivalent of HKD ".30" per unit, and HKD 1.023 for

each additional unit. For the corresponding consumption of 516 units in a two months' period the CLP charges would be an average of HKD 0.867 per unit, and HKD 0.921 for each additional unit, provided no fuel clause adjustment is added.

Finally, it can be noted that between 1963 and 2004, CLP's average tariff rate rose considerably more slowly than the Consumer Price Index.

It has been conclusively demonstrated that since its inception over 40 years ago the SOC has adequately protected the interests of both consumers and investors. It should therefore be allowed to stand when its third tranche is due to expire in September 2008.

5.4.2005



"PCCW"

19/04/05 09:16 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on the future electricity market in H.K.
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

As a Hong Kong citizen, I wish to say a few words about Hong Kong's future electricity market. I think it is not practical to import electricity
from outside Hong Kong, especially from Mainland China since we all know that China as a whole, especially Guangdong, is always lack of electricity
supply. Also, the new market players, which I read from the newspaper, do not have any practical plans to import electricity to Hong Kong. Even if they really do, the investiment of upgrading existing networks and new setups in Hong Kong is huge and who would pay for this? I don't think the taxpayers should pay nor the customers of Hong Kong Electric or China Light & Power should pay. Therefore, I suggest to keep the present control scheme agreement with the two power companies after 2008 since they are already experienced operators and I believe they would continue to provide a reliable electricity supply which is very essential to the people of Hong Kong.

Thanks for considering my opinion.

Eddy Chan.



Mr edmond cheng

2005/04/30 11:28 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: electricity comments
☐ Urgent ☐ Return Receipt

Dear all,

It is fair to say what you pay and what you get. Reliable, safe and efficient electricity supply is an essential element to a modern city – HONG KONG.
"The Pearl of Orient" is not just the name of the world 's famous night scene, it also represent the successful achievement of Hong Kong in the past years.
We need to keep this achievement go on and go on, and stable electricity supply is an important element to it.
Can you imagine our city without electricity supply? We cannot accept our beautiful night scene without light!
So I agreed to keep the (SCA's) continue, so that Hong Kong will keep on progress!

Edmond Cheng

Economic Development & Labour Bureau
2/F., Central Government Offices
Main & East Wings
Lower Albert Road, Central
Hong Kong.

21 April, 2005

Dear Sir,

Consultation Paper on Future Development of
The Electricity Market in Hong Kong
Stage 1 Consultation

As a member of the community, I like to submit my view on the above paper.

We have to recognize the importance of adequate and reliable electricity supply in fueling economic growth for Hong Kong and improving the quality of life for its people over the past several decades. The public has been able to enjoy uninterrupted electricity supply in spite of the rising demand. We have taken this adequate and reliable supply for granted.

Hong Kong compares favourably in this regard with other cities in the region, some of which are still suffering from supply shortage, restraining economic development.

The fact that Hong Kong has been able to meet its rising electricity demand is mainly due to the Scheme of Control Agreement which has served Hong Kong well for the past 40 years. It provides a reasonable and balanced mechanism for the power companies to invest to build power infrastructure to meet increasing demand, which is not easy to predict with 100% accuracy. But the records tell us that Hong Kong is a city that is admired by others for our adequate and reliable supply of power.

Looking ahead, adequate and reliable electricity supply should continue to remain as the key objective of the new regulatory regime after 2008. We have to understand

that inadequate or unreliable supply will cause huge loss to the economy and tarnish Hong Kong's reputation as a financial centre.

Based on these overriding principles, my view is that the present Scheme of Control Agreement should continue into the future in its present form in regulating the power companies in Hong Kong. The Government should not be tempted to make change for the sake of making change.

Yours faithfully,

Edward Kwong

"Edward Tsui"

2005/04/30 12:19 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear sirs,

I would like to make the following comments on future development of the electricity market in HK.

1. The quality and security of electricity supply in HK is very important for HK being a financial centre in Asia. Interruption of electricity will lead to large economic loss as well as leading to criminals on the streets and inside buildings. The existing power companies in HK are going excellent jobs to supply secure and quality services to us.

2. The Scheme of Control is a simple and effective way to regulate the electricity market. A profit of 13.5% to 15% is reasonable as the return of profit period is slow. Investors are not making fast profit. It is important that the profit is attractive to make investors to improve / maintain the equipments.

3. Buying electricity from China will only cause more pollution problems in areas around Hong Kong. The power plants in China are making lots of pollutions. Hence, buying from these power plants in China will increase the global pollution, hence is not ethical and is morally not acceptable. Electricity from the Three Gorges should be used to replace the old power stations in China which are creating lots of pollutions. We must look at pollution from the point of view of the whole country.

4. I see not reason in modifying the government structure in monitoring the two power companies in HK. It will lead to more red-tapes and will waste a lot of public resources if we set up new organization within the SAR government to do things that we can do now.

5. Use of renewable energy to generate electricity in HK is not practical and a lot of capital investment will be needed. Hence the electricity tariff will increase.

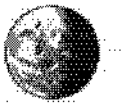
6. In order to improve the efficiency of our generation plants in HK, we should introduce an infrastructure to allow electric vehicles to be charged at night time. A discounted electricity tariff, e.g. less 20%, should be allowed for using electricity at night time for vehicle charging.

I hope the government can consider my comments.

Edward Tsui



winmail.dat



2005/04/30 12:42 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on future electricity market in HK
☐ Urgent ☐ Return Receipt

Dear Sir,

I am a student in the Poly U of H.K. studying a Master Degree in Environmental Management. I would like to express my comments on the future electricity market in HK relating to pollution control.

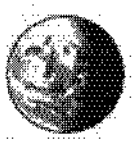
1. Buying electriciy from China to HK would mean shifting our responsibility of pollution controll to the power stations in China to make more pollution. It is not for the interest of the Country.

2. Polluters should pay. The consumers of electricity are the polluters, not the power companies. People in HK should pay more for reducing pollution from generation of electricty. Electricity tarrif in HK should include a part for pollution control, e.g. using natural gas as fuel in generation of electricity.

3. One way to motivate people not to waste electricity is to charge electricity similar to the tarrif structure of water. If you use more, the rate per unit will increase.

Regards.

Edward



"\"Iggy & Elaine Chong\""

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Regime for HK's Electricity Market
☐ Urgent ☐ Return Receipt

21/03/05 06:55 PM

Dear Sirs,

I refer to your public consultation paper on the future development of the electricity market in HK. I hope my views will be seriously considered by the Government and something will be done to safeguard the integrity of the market and ensure long-term substainability.

* Hong Kong is special place because we are small and do not have a lot of natural resounces for fuel. Fuel cannot even be renewable fuel given we do not have the resouces or space for wind farms or solar panels to be installed.

* Hong Kong is a World Class city and cannot afford to have any power interruption, not even for a single minute.

* HK Government does not need to apply its own fundings to the electricity industry except carrying its supervisory, regulatory role. All power facilities and transission and distribtution system are privately funded.

I believe what would be best for the future of HK's electricity market is to have a system that will follow the following key principles:

1) HK is a World Class city and we must ensure at all costs, an adequate and reliable system. It will be very shameful if HK faces any serious blackout after any market reform. It will be seen by the rest of the world as a major set-back (failing to learn from the massive California Blackout etc.) and will serious damage HK's reputation as Asia's financial Center.

2) Reasonable and affordable tariffs for customers.

As consumers, we understand and appreciate "values" and accept that for lower prices, we tend to get inferior quality. The new electricity market must allow moderate tariffs to be set by power companies. It is counter-productive to squeeze their margin whereby it will destroy any commercial reasons for them to improve their services and build better power plants and networks. Why should they continue to invest in this market if it is not profitable or there is no long-term prospect ? Tariff should also be linked to the price of fuel.

3) The electricity market must provide an environment that can attract private investment to be made. This means reasonable returns should be given to power companies.

4) On opening the market, I agree with Dr. Larry Chow, director of the Baptist University of HK Energy Studies Center that HK should not follow market liberalization implemented overseas e.g. the UK and the US. Situations overseas are very different and it is impossible to compare. Hong Kong's electricity industry (very small) is being operated by two well-managed and financially sound private companies which had been providing Hong Kong with reliable power supply and quality service, unlike in some countries where electricity supply was provided by companies owned by the state and the quality was bad. HK therefore should maintain its current market structure.

Merging our electricity system into South China is not an option in the short to medium term. Their

lack of sufficient power generation, poorer grid reliability standards and reliance on Gov. support makes this a long-term prospect at best.

5) Clear Accountability. It is vital to maintain the current market structure so that there is no ambiguity as to who is responsible for investment and who is responsible to the government and public if there are problems with the electricity system. In another words, any change to the current regulatory regime must:
a) preserve the quality of our electricity supply; and
b) define accountability and responsibility among the different players.

Overseas experience suggests that deregulation and the introduction of more players into the electricity sector have blurred the lines of accountability and responsibility, compromising standards of performance and impacting the ability to resolve crisis situations. HK should not risk this happening.

Yours faithfully,
Elaine Chong, Mid-levels

LI Eleanor

2005/04/30 12:43 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Response to Government's Consultant on Post-2008 Electricity Regulation
☐ Urgent ☐ Return Receipt

Dear sir

Please find my opinions as attached.

Regards
Eleanor Li S.P.



formal consultation.doc

Under the current regulated system, consumers of Hong Kong have been enjoying high reliability of electricity supply for years at quite a competitive rate. Reliability is very important especially for Hong Kong being a business and financial centre. Any supply interruption, though short as a second or two, would be disastrous and costly. Recently, there was a very short power interruption on the Island side and many peoples were trapped in lifts.

However, under the same regulating scheme, the tariff of Hong Kong Electric has 20% premium over that of CLP Power, while the latter has provided rebates to its consumers for 5 years continuously. The development fund of HKE is negative! CLPP has participated frequently in social activities and has great concern over environmental protection relatively. A conclusion that can be drawn is that the performance of CLPP is better with more effective and efficient management of the overall operation.

Talking about de-regulation, there must be serious considerations. Apparently, the HK market is not mature enough and is too small for generating meaningful competition. Integration into the South China provinces can allow more players to compete. However, there are still serious power shortage problems in Mainland China which cannot be solved in the coming few years. People there are already used to suspension of power supply at any time or twice a week or so, but HK citizens are not. Disasters have happened in overseas countries after de-regulating the power sector.

In the post 2008 electricity regulation, a regulatory regime should be maintained but what factors and conditions to link to have to be carefully reviewed and analyzed before decision making. Linkage to local indices may not be reflective of the power companies' costs. In the past 10-15 years, the US CPI has an annual average increase of 2-3% which will not be favourable to consumers as it implies tariff increase in the long-term. A basket of international indices should be considered, which sound complicated in the determination of the right indices. Further, it is suggested to consider mechanism to align the tariff of both power companies, to introduce kinds of competition between the two companies, or consumers should have the choice for power supply from any of the two.

"Elina"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views and comments on future development of the electricity market in Hong Kong

2005/04/29 12:35 PM

☐ Urgent ☐ Return Receipt

Below please find my personal views, comments and conclusion on future development of the electricity market in Hong Kong:

Views/Comments

In view of some incident reports on blackouts happening in different large cities in the past 1-2 years, I realize the importance of electricity supply reliability. If there is no supply, i.e. no lights, no water, no telephone services, etc., I think the total loss to me due to one single blackout incident may be much higher than I pay for electricity bill for a few years.

At present, most of my friends (family of 3 - 4 members) only pay HK$ 800 or less for electricity bill per month in average (about HK$27 a day), which is much less than they pay for transportation or even cheaper than I buy a lunch for myself. I think electricity is quite reasonable in current living standard in HK. However, my comment is that I will be happy if the electricity tariff can come down a little bit, but I would prefer paying the current electricity rate to suffering a less reliable supply.

Conclusion

Although I think there should be some improvements in existing regulatory structure, many evidences in the past 15 years showed us that current Scheme of Control Agreement (SCA) for 2 power companies is simple and effective, and should be continuous. Besides, I am not sure other alternatives could maintain such high reliability value (>99.99%) and good customer services that we currently have. Therefore, in order to help us to avoid major blackout incidents happening in HK employing the two power companies with current SCA would be the best choice for HK after 2008.

"ecs"

25/02/05 03:34 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Load Factor to improve SOC
☐ Urgent ☐ Return Receipt

According to our telephone conversation I want to inform you and your colleges that the former electricity advisor recived information about the German marked liberalization from me as well as the suggestion to include the Load Factor as an easy to calculate Energy Efficiency benchmark to improve the SOC Agreement.
During my meeting with him on the 26 April of 2002 and several telephone conversation I explained him that marked liberalization need to have well informed marked players.

For bargaining process the record of the last 2-3 years of your consumption pattern is used!
The government can not wait much more longer to announce if electricity marked liberalization will come are not.

My paper read at the International Conference on Electrical Engineering 2003 may be of interest for you.
Thank you for your attention.

Best Regards,

Thomas Heidenreich
Managing Director

Energy Control Systems Limited

Unit 1, 2/F, Wah Chun Industrial Centre
95 Chai Wan Kok Street
Tsuen Wan
Hong Kong



full_paper_297.pdf

How To Control Electricity Cost - New Means To Increase Electricity Efficiency By Intelligent Systems Taking Influence On The Load Factor.

HEIDENREICH, Thomas
Managing Director
Energy Control Systems Limited
ecs@netvigator.com

Abstract

Cutting electricity cost is a hot topic nowadays. The special nature of electricity provides a wide variety of methods. Information about the electricity consumption pattern is important to find out which method will be most cost efficient. The Load Factor is a useful benchmark to measure electricity efficiency and can represent a highly efficient means of cost reduction. Energy Controlling with an intelligent System increases the Load Factor significantly by producing a flat Power Profile. Empirical data of the Load Factor from larger Hong Kong electricity consumers are presented in this paper. The data shows a wide spread of the Load Factor within a company over the time resulting in a difference of monthly average price of 17 cents/kWh within the same year and between different companies ranging from 67 cents/kWh to 110 cents/kWh. There is a large room for Hong Kong to improve energy efficiency.

Keywords

Demand Side Management, Energy Controlling, Energy Management, Load Factor

1. INTRODUCTION

The purpose of this paper is to introduce the Load Factor as benchmark for Hong Kong larger electricity consumers and describe a method new to Hong Kong how to increase the Load Factor. Empirical data up to 37 electricity bills from Hong Kong lager electricity consumers are used to calculate the average Load Factor.

The current economic situation makes a lot of pressure to cut cost. This pressure is passed to the utility companies which are allowed to earn under the Scheme of Control agreement up to 15% return on their fixed asset. However most electricity consumers do not realise that they are self-responsible for the high electricity cost by ignoring energy efficiency.

Electricity is a special commodity. It has to be produced in the very moment of its consumption. Therefore electricity cost have two economic components. Variable cost of transforming oil, gas, coal etc. into electricity and capacity cost, such as Power plants and transmission grip depend on system maximum demand plus a reserve capacity for a reliable electricity supply.

This situation provides two means of cutting electricity cost with given technology of production and transmission infrastructure. The first one is the reduction of electricity consumption (kWh) called energy conservation. The second one is the increase of efficiency by improving the relation between energy consumed and maximum capacity needed, which is expressed by the Load Factor.

Increasing the Load Factor will open interesting perspective on both macro- and microeconomic level.

2. DEFINITION OF THE LOAD FACTOR

A variety of definitions for the Load Factor are used to cover different purposes. In the electricity business of the macroeconomic part, the Load Factor is defined as a measure of the degree of uniformity of demand over a period of one year, equivalent to the ratio of average demand expressed as a percentage. For better comparison between both utility firms in Hong Kong, the System Load Factor is also calculated as the ratio between local electricity sales per year and local system maximum demand expressed in hours and also as percentage of total hours in the year. This benchmark based on the year takes the different consumption pattern between the summer and winter months into account and is more stable in aspect of weather conditions or different meter-reading periods.

In the microeconomic part, the Load Factor is calculated on a monthly basis. This allows a fast response by rating the own performance with this benchmark. Two Load Factors on a monthly basis are used. First, the on-peak Load Factor is calculated as the ratio between the monthly energy consumption during on-peak period and the on-peak maximum demand. This benchmark is useful for comparing different branches. Second, the total Load Factor is calculated as the ratio between total energy consumption per month and the higher of on-peak and off-peak maximum demand for the month. This benchmark is useful within the same branch or branches with the same number of working shifts.

3. MACROECONOMIC PERSPECTIVE

In a macroeconomic perspective a higher Load Factor decreases the production cost of electricity per unit generated.
There is a large cost difference between generating the electricity for the basic demand and for the high demand periods. For the basic demand, high efficiency power plants are used. They have long running hours and use fuel with low cost. Production cost per unit lays by 20 cents/kWh to 36 cents/kWh. For the high demand periods, low investment cost power plants which can use more expensive fuel and running less than 1000 h per year are used which production cost per unit is up to 400 cents/kWh.[1] If existing capacity reaches a higher degree of utilisation, then in the long run it allows economic growth without corresponding expansion of power plant capacity. Of course the utility firms in Hong Kong need an economic incentive to increase the Load Factor.

The current Scheme of Control agreement which took effect from 1st October 1993 and covers the period to 30th September 2008 allows the utility companies to earn up to 15% return on the average net fixed asset relating to the electricity business in Hong Kong. It does not yield a higher Load Factor. Building new power plant - increasing their fixed asset - will increase profit. With providing good arguments that indicates a higher system maximum demand in the near future, they can get approval from the government to expand their generating capacity.

If the Scheme of Control agreement includes a formula with taking the Load Factor into account, the utility firms have a direct economic incentive to increase the System Load Factor.

Table 1 shows the different System Load Factor with our own calculation expressed in hour and percentage and the published one from operating statistics over the past 11 years of both China Light Power (CLP) and Hong Kong Electric (HEC), and it is shown graphically in figure 1 expressed as a percentage for both calculation method.

The spread between the best and the worst System Load Factor was for both utilities firms 5.4 points with our own calculation. For the published figure, the spread was 13.5 points for CLP and 4 points for HEC. With both calculations, CLP has in average a higher System Load Factor, 5.0 points higher with our own calculation, 1.2 points higher with the published figures. The fluctuation of the System Load Factor can be explained due to the unsteady consumption pattern of their customers.

Year	CLP Load Factor			HEC Load Factor		
	in hours	in % cal.	in % pub.	in hours	in % cal.	in % pub.
1992	4308	49,0	56,0	3966	45,2	51,2
1993	4472	51,1	61,8	4101	46,8	53,1
1994	4352	49,7	48,3	4086	46,6	53,0
1995	4531	51,7	48,4	4177	47,7	54,2
1996	4466	50,8	57,1	4000	45,5	54,3
1997	4543	51,9	57,2	4117	47,0	53,5
1998	4691	53,6	59,4	4185	47,8	54,2
1999	4697	53,6	59,2	4120	47,0	53,4
2000	4699	53,5	50,2	4134	47,1	53,5
2001	4612	52,6	50,3	4098	46,8	53,0
2002	4754	54,3	54,2	4369	49,9	55,2

Table 1 System Load Factor of CLP & HEC[2]

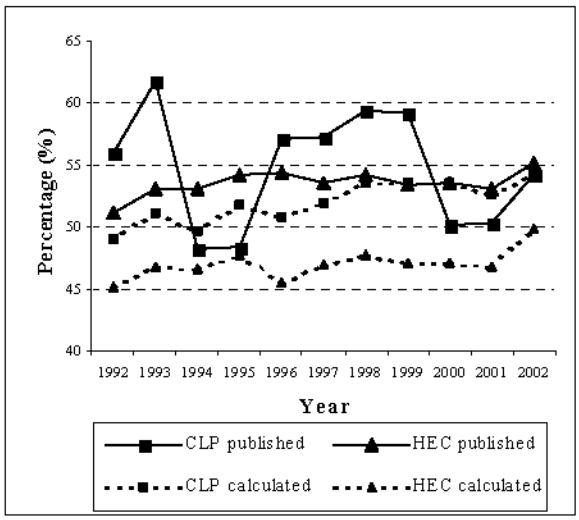


Figure 1 Graphic of comparing System Load Factor of CLP & HEC[2]

The utilities companies cannot directly influence the System Load Factor. They have to influence their customers to increase the Load Factor by offering more economic tariff type for a better Load Factor, by informing their customers about their consumption pattern and by introducing special programs like the Demand Side Management.

The Demand Side Management program was implemented in July 2000 and runs up to June 2003. With the System Load Factor as a benchmark, the effect of the program can be monitored.

The upwards trend of System Load Factor in the year 2002 as shown in figure 1 indicates some success of the Demand Side Management program. The change of performance of the customers' Load Factor where Demand Side Management was introduced would be needed to evaluate the effect.

[1] German figuers, exchange rate HK$ 8 per 1 Euro; Neuman, 2002

[2] Data from 10 years summary Operating Statistics

Our analysed data basis of 37 electricity bills of CLP customers in the period between the year 2001 and year 2002 shows an average Load Factor of 4360 h or 49.8% when expressed in percentage. The best performance of a company reached a Load Factor of 5968 h or 68.1%, while the lowest Load Factor was 2220 h or 25.3%.

4. MICROECONOMIC PERSPECTIVE

4.1 Information

From the business point of view, the Load Factor can represent a highly efficient means of cost reduction, if firms are charged both for electricity consumed and for maximum demand. The cost reduction depends on the ratio between the tariff charged for demand (kVA) and for energy (kWh). The ratio by HEC maximum demand tariff is around 40, by CLP bulk tariff is around 95 and by CLP large tariff is around 220. That means cost reduction by increasing the Load Factor with bulk tariff is 95 times more efficient than by energy conversation. Besides, the HEC maximum demand tariff and CLP large power tariff include rebate for high Load Factor. In addition, there is a special rebate for High Load Factor Rider by the large power tariff.

Decisions on the reduction of energy cost should be based on information about the energy consumption leading to a full transparency of consumption pattern not only for the total but also for different cost centres within a company. Good Energy Management is needed to gather this information. Analysis of the data provided by the electricity bill gives the first hint which method of cost reduction will be most appropriate.

The Load Factor, which can be calculated from the monthly electricity bill, is a good starting point. Introducing a benchmark for the monthly Load Factor by comparing historical data within the same company and comparing the Load Factor within the same branch points out the grade of electricity efficiency realized by a specific company.

4.2 Load Factor

The Load Factor is a good benchmark because it does not reveal sensitive information, which companies want to be kept confidential like their average price and units consumption. Unlike the average price, different tariff types, change of charge rate and level of energy consumption do not affect the Load Factor.

For customers with the same tariff and the same proportion of on-peak to off-peak units consumption is strictly inversely correlated with the average unit price, that means the higher the Load Factor the lower is the average price. A low Load Factor reflects unsteady energy consumption where the output is less compared to the high utilisation of production capacity. A high Load Factor reflects a more steady energy consumption where the proportion of output is higher than utilisation of production capacity.

4.3 Data basis of the Load Factor

The empirical data for calculation of the average Load Factor for year 2002 consists of 28 electricity bills from CLP, mostly hotels. At the end of the year, the data basis consists of only 10 electricity bills, which explain a smaller spread between the worst and the best Load Factor.

4.4 On-peak Load Factor

Figure 2 shows the average on-peak Load Factor. It is used for CLP large power tariff rebate of 2 cents per unit over a Load Factor of 200 h. The optimal on-peak Load Factor equals the total number of hours between 9 a.m. to 9 p.m. at working days in a month. February is therefore usually the month with the lowest Load Factor.

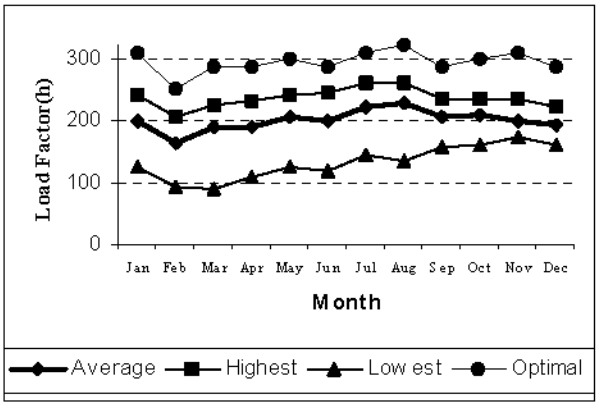


Figure 2 On-peak Load Factor expressed in hours

Average on-peak Load Factor was 202 h or 68.2% as shown in Figure 3, where the on-peak Load Factor is presented as percentage.

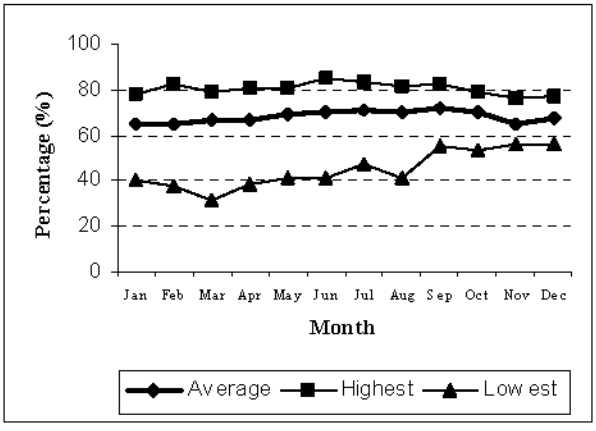


Figure 3. On-peak Load Factor expressed in percentage

Figure 3 shows that even the data basis decreases at the end of the year, the average Load Factor expressed as percentage is quite stable.

4.5 Total Load Factor

The total Load Factor is used for the rebate of the HEC maximum demand tariff which gives a rebate of 4.2cents/kWh over a Load Factor of 200 h, as well as for CLP large power tariff High Load Factor Rider, with an additional rebate of 5 cents/kWh over a Load Factor of 500 h or even 10 cents/kWh over a Load Factor 600 h. As seen in Figure 4, none of the company of our data basis was able to reach a Load Factor over 600 h in the year 2002.

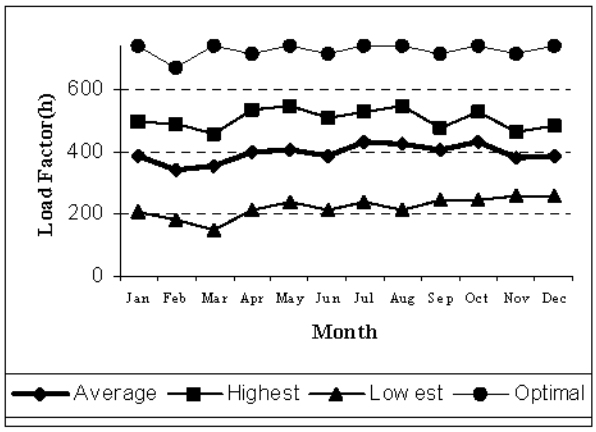


Figure 4 Total Load Factor expressed in hours

The optimal total Load Factor is equal to the number of hours in the month. The average total Load Factor in the year 2002 was 396h or 54.3% as shown in Figure 5.

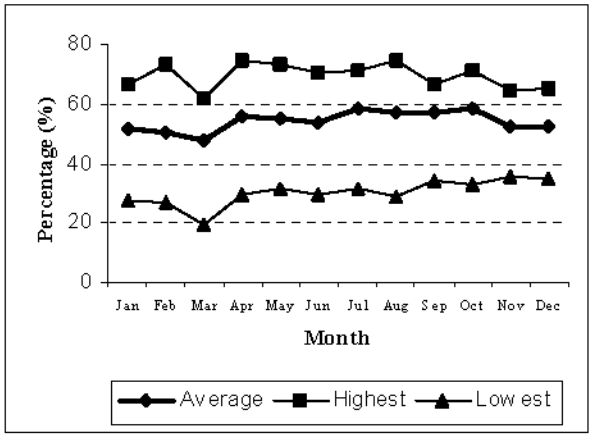


Figure 5 Total Load Factor expressed in percentage

The lower total Load Factor is caused by companies which do not run night shifts. The highest and lowest values are not constantly performed by one and the same company but from different companies resulting in a large difference in monthly average price. In the full data basis, price ranges from 67.2 cents/kWh to 110.6 cents/kWh.

4.6 Spread of the Load Factor within companies

To analyse the spread between the worst and best performance of the Load Factor within one company gives additional information to draw a picture of the energy efficiency of these companies. The spread of Load Factor within the same company was in average for the on-peak Load Factor 70 h. The smallest spread was 49 h the largest spread 101 h. For the total Load Factor the average spread was 121 h. The smallest spread was 74 h, the largest 221 h resulting in a difference of monthly average price of 14.3 cents/kWh. Our full data basis even includes a company where the average price fluctuates by 17.9 cents/kWh within three months.

Fitting these results together point out that even the companies with a high average Load Factor performs in some months below the average Load Factor, indicating that there is still room to increase their energy efficiency.

A wide spread and an erratic fluctuation of the Load Factor indicate that the maximum demand is caused by accident.

5. DEMAND SIDE MANAGEMENT

Demand Side Management can be defined as measures to influence the level or timing of demand in order to optimise the use of available resources.

High differences to the Load Factor sometimes only detectable by an expert indicate a big chance of cost reduction by Demand Side Management. There are two common instruments of Demand Side Management:

- Peak shifting, where the electricity consumption is shifted from on-peak period (day time) to off-peak period (night time, Sunday and public holiday) and

- Peak clipping where electrical appliances with high power rating and running during on-peak period are replaced by new appliances with higher energy efficiency.[3]

6. ENERGY CONTROLLING

6.1 Description

For Hong Kong a new means of Demand Side Management is energy controlling, where the electricity consumption is shifted away by an intelligent Energy Control System from the maximum demand period. This system collects the information

[3] Some of the Demand Side Management program focus on energy efficiency lighting equipment which does not necessary affect the Load Factor.

from the meter or power monitor system, makes a trend calculation as to see whether the electricity consumption during a measuring period will exceed the pre-set maximum demand.

6.2 Trend calculation

Crucial for the success of optimisation the demand is that the trend calculation is based on the total consumption of each electricity bill of the customer and that the calculation process is done constantly every second and it has to be time critical. A requirement for a real trend calculation is a mathematical correct formulation for the optimisation process. Out of the remaining time and the remaining energy that is still at disposal in a measurement interval the optimal demand is calculated to meet the pre-set maximum demand precisely. The difference of the optimal demand and the current demand represent the amount of total power rating of appliances that has to be controlled at that time.

6.1 Switching Strategy

The Energy Control System regulates specified appliances according to the switching strategy in order to avoid violating the pre-set maximum demand during the 2-5% of the measurement periods per month where the demand is very high.

The switching strategy ensures that appliances are controlled at the last possible moment. This results in a minimisation of action periods with maximisation of disposal of appliances. Energy controlling does not affect the production output neither the quantity nor the quality of services standards. For critical appliances, special option are available that ensure the quality such as hygiene standards regulation HACCP[4]. The temperature or humidity is monitored and the data as well as the action of the Energy Control System is recorded. The effect of energy controlling can be shown for example by playing for a few minutes on temperature reserves at maximum demand period by simultaneously proving the quality standards.

The Energy Control System produces a flat power profile, where the periods with the highest demand have the same value. Flattening the Power Profile is a good instrument to increase the Load Factor.

6.2 Power Profile

The Power Profile provides easy access by a chart, which evaluates the performance of energy efficiency per month. The graph shows the values of demand in each measurement period per month, sorted from the highest value to the lowest.

[4] HACCP stands for Hazard Analysis and Critical Control Point.

Figure 6 shows a modified Power Profile of an object in Hong Kong with modern building management system running 3 shifts 7 days per week.

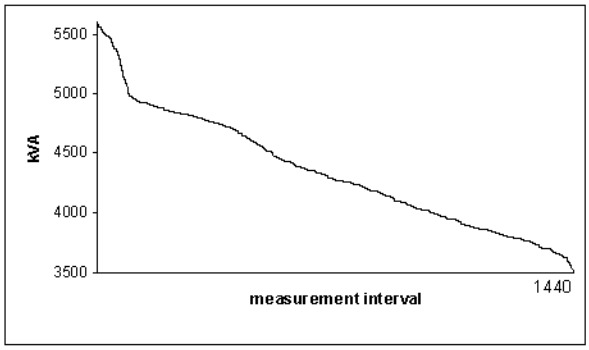


Figure 6 Power Profile without energy controlling

Figure 7 shows how the Power Profile can be flattened by 5.5 % with energy controlling.

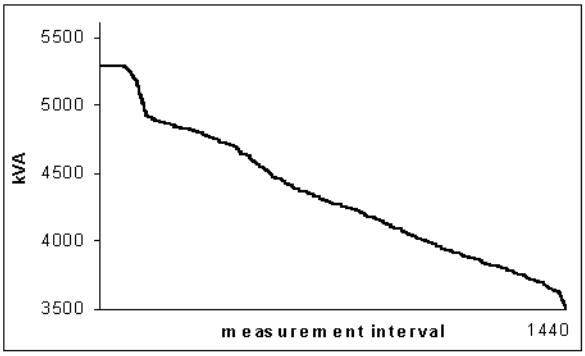


Figure 7 Power Profile with energy controlling

In a simulation the maximum demand was reduced by 310 kVA, the total Load Factor increases from 557 h to 590 h, resulting in an electricity cost saving of around HK$ 35,000 in a month.

7. LIBERALIZED ELECTRICITY MARKET

In a liberalised electricity market instead of standard tariff types each customer can bargain their own tariff type, structure and charge rates. Knowledge about the own consumption pattern is essential to reach a good contract. Utilities have to offer lower rates for companies with stable energy consumption and where the maximum demand does not present at the time when system maximum demand occurs.

Also new kinds of tariff are established, which enable the utility firms to plan their production of electricity in advance, which results in competitive prices. But the consumers have to announce 24 hours in advance their consumption volume and pattern. Actual demand below the ordered one will not be refunded, but if the actual demand is higher than the ordered one, then there will be a heavy fine. In order to take the full advantage of the new tariff firms need to have good

production plan and a complete transparency of energy consumption and full control of the demand.

8. CONCLUSION

Higher System Load Factor will result in the reduction of the generation cost for utility firms. The System Load Factor in Hong Kong is fluctuating because of the unsteady energy consumption pattern of their customers. This can be concluded from the analysis of the Load Factor in the microeconomic perspective which shows a wide spread. The Load Factor is a good benchmark for measuring the electricity efficiency for both macro- and microeconomic. We suggest it should be used within the Scheme of Control agreement to give economic incentive for the utility firms to increase the System Load Factor by taking influence on their customers' consumption pattern.

Companies in Hong Kong can save a large amount of electricity cost by increasing the Load Factor under the existing tariffs which include special rebate for high Load Factor. Energy controlling with intelligent Energy Control System is able to help companies to increase their energy efficiency. There is a large room for improvement for energy efficiency and energy management in Hong Kong before the electricity market will be possibly liberalised in the year 2008.

Acknowledgements

The author would like to thank the Hong Kong industries specially the hotels for providing the data of their electricity bills and CLP for their support.

References

Neumann, Dr-Ing. Helmut; Lastprofile fuer unterbrechbare Verbrauchseinrichtungen von der Methode zur Praxis, 2002; Berlin/Germany: vdn; NWS Energievertriebs AG&Co. KG

"Robert Allender \(Energy Resources Management\)"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Demand Side Management
☐ Urgent ☐ Return Receipt

30/04/05 08:22 AM

Dear Sir or Madam:

The consultation paper on Future Development of the Electricity Market in Hong Kong makes no reference to Demand Side Management. The Reference Papers make only oblique reference to this topic.

The current Scheme of Control does address this subject directly, however, and make the electricity companies responsible for providing Hong Kong with a demand side management program.

An electricity company's principle objective is to sell electricity. Demand side management is essentially an effort to result in end-users buying less electricity. It is our contention that making electricity companies responsible for demand side management is illogical.

How are the shareholders of an electricity company expected to reconcile themselves to this contradiction?

What other profit-making entity has one department to sell more of their product or service, and another department to thwart those sales efforts? The tobacco industry's involvement in "Quit Smoking" campaigns is one, and the contentiousness of that situation is well known.

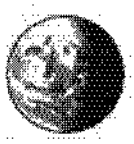
Demand-side management programs evolved in an environment where electricity companies could not produce enough electricity to meet the demand. Hong Kong's electricity companies face no such difficulty.

We respectfully suggest that any future scheme of control or replacement not include any provision to make the electricity companies in any way responsible for diminishing the sales of their own products and services.

Yours faithfully,

Robert C Allender, CEM
for and on behalf of
Energy Resources Management
2/F, Kam Chung Commercial Building
19 Hennessy Road, Hong Kong

Celebrating Twelve Years of Energy Management Excellence
1992 - 2004



Eric Chow

22/03/05 01:46 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: 關於電力聯網
☐ Urgent ☐ Return Receipt

HI~
我覺得應該聯網
因爲香港電燈的電費過高
亦因這樣我夏天都不敢使用空調~~~~

"Eric Ho"

2005/04/28 01:16 AM
Please respond to anric

To: <electricitycomments@edlb.gov.hk>
cc: "Angel & Eric"
Subject: 開放電力市場的個人觀點
☐ Urgent ☐ Return Receipt

香港從來沒有專利電力市場，所有人仕都可以安裝發電机以作供電之用，所以很多大厦都裝有發電机以備不時之需。電力市場一向是開放給有興趣的投資者，其他地區的電力市場是政府的資產，所以才有開放電力市場的安排。

爲什麼香港開放了電力市場這麼久，但沒有第三者參與，主要原因是投資大、回報長及用户少。政府爲保這市民可用合理價錢換取电力服務，才与电力公司簽定協議。一來可鼓勵電力公司更換老化的設備，保持電力可靠性，二來可隱定电價。

有人問怎樣的电價才是合理？香港有三間私營能源公司-兩間电力公司及一間煤气公司，电力公司和政府有協議，但煤气公司則沒有任何協議，2004年度煤气公司的資產回報率多達22%，在同一經濟環境下，电力公司的13.5%回報應是合理回放報。

很多人以电訊市場爲例，引入競爭後，電話費平了，但电話斷線你可以忍，停电你可以忍嗎？如果有線电話壞了，你可用internet或mobile代替，但电纜壞了就沒有替代品，一定要修理，而且修理需時。要有隱定的电力供應，一定要有設點更換老化設備訊誘因。當時世界各地所採用的開放电力市場方案都沒有以上的誘因。缺少足夠电網是美国加州大停电主要原因之一。

如果政府爲引入競爭者而干預商業市場運作，恐怕得不償失，樓市便是一個好例子。作爲香港市民，當然希望開支少一些，但絕不希望因減少些微開支而對香港经濟發展造成傷害。

Eric LAM

05/03/05 09:09 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Public Consultation on the Development of the HK Electricity Market after 2008
☐ Urgent ☐ Return Receipt

Dear Sir,

I strongly propose that the future electricity regulatory regime should ensure a reliable supply system and reasonable tariffs. The current method whereby private investors earn a return based on net fixed assets should be maintained to ensure continuous private investment. Additionally, the future rate of return should be set at a level that continues to encourage sufficient long-term investment by the investors. Furthermore, there is not much room for additional players in the small Hong Kong electricity market. To conclude, the current regulatory regime should be maintained without changes.

Regards,

Eric Lam

Ernest Wong

2005/04/30 02:54 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Re: 電力市場安排第一階段公眾諮&#3542 6;

☐ Urgent ☐ Return Receipt

1. To build a new electrictiy network in Hong Kong will cause a lot of problem to road user and general public.

2. Not necessary the price of electricity will cheaper than the present 2 electricity company due to huge investment. How can the invester to bear huge initial investment without reasonable profit.

3. From the past experience in UK / Canada, lots of report showing the interconnection of the electricity network will lower the reliability. Nowadays we all talk about the reliability of electricity network. We cannot bear the economic loss.



Eva Lee

2005/04/29 10:00 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments of Hong Kong'sElectricity Market
☐ Urgent ☐ Return Receipt

I hope the future development of Hong Kong's electricity market should maintain the present status. I do not have any objection to maintaining the current form of SCA after 2008.

Finally, I agree to maintain current SCA regulation.

EVA LAM
29 April 2005

Eva Lum

2005/04/30 12:30 AM
Please respond to evalum

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Consultation Paper on Future Development of the Electricity Market in HK
☐ Urgent ☐ Return Receipt

My Viewpoint is as follows:
1) The existing electricity tariff is acceptable. I'm happy to have a reliable supply. There is no severe outage and the 2 electricity companies have been providing highly reliable services.
2) Regarding possible approaches to future regime, as the electricity companies are currently owned by private sector, the SCA can ensure sufficient investment for providing quality service. I think the SCA should be kept and the government may consider minor changes to suit the coming economic trend, instead of bringing in new regime.

Thanks.

Eva Poon

21/04/05 11:34 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Views & Comments on Stage I Consultation
☐ Urgent ☐ Return Receipt

Dear Sir,

My view on the future market structure is very simple – the present reliability of supply must be maintained, and the present tariff level, which is affordable and reasonable, should also be maintained. If the existing system works, don't change it.

My view is supported by my actual experience of living in Hong Kong compared with that of my daughter who is living in Melbourne of Australia now, the place where deregulation and retail competition is in place.

First, on reliability of supply, I live on upper floors of high-rise buildings all throughout my life in Hong Kong, and the last time I needed to climb 19 floors to my home while I was eight months pregnant was 29 years ago. The experience was awful because when I finally arrived home and was sweating, I found no water supply, and later I was told that it was because we need electricity to pump water to 19th floor. Since then, I have never had the same experience again, thanks to the high reliability of supply in Hong Kong. Now I am getting old and I just can't image how difficult life will be if I need to climb 16 floors to my present home from time to time.

On the other hand, my daughter's experience in Melbourne is quite different. She has experienced an average of one power outage per year. In her last experience of power outage, although she did not have to climb 19 floors and still had water supply because she lives in a one-story house, she could not go to work punctually as her car was locked in the electric-operated garage. Life without electricity in Melbourne was less painful as compared with that in Hong Kong, but she still complained.

As for the electricity price, it did increase quite a lot since my elder daughter was born 29 years ago (probably by about 3 to 4 times higher), but most people's income has increased by at least 10 times due to inflation in the same period. From my experience, electricity has been getting more and more affordable in the last 29 years and is still very affordable even after some 60 months of deflation since 1999.

What about the electricity price of Melbourne? In 1989 when we emigrated to Melbourne we paid about AUS$100 for the electricity bill per quarter for a family of four living in a house of moderate size, and with very modest consumption because electricity is not used for space heating/cooling, and cooking. At that time, a fresh graduate earned about AU$30,000 per year. Now in 2005 the same house is occupied by only 3 people - my daughter and her grand parents, she has graduated and is earning about AU$40,000 per year as a fresh graduate, but the electricity bill is over $200 per quarter. It is estimated that inflation has led to an increase of income of about 30% to 40% for a fresh graduate since 1989, but the electricity price has been doubled! Though the electricity price in Melbourne on per unit basis is still slightly lower than that of Hong Kong now, yet the price over these 16 years has increased in real terms. This real life experience has demonstrated that deregulation and full retail competition has not brought down the electricity price.

With the above true stories, I wish to express my views as above.

Eva Poon

24/04/05 09:15 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場未來的發展第一階段諮詢文件的意見
☐ Urgent ☐ Return Receipt

經濟發展及勞工局局長,

以下是本人對香港電力市場未來的發展第一階段諮詢文件的意見:

1. 若本港開放市場, 本港電力會有大幅加價壓力:
原因是鋪設電纜來港會需要大量資金, 因此這些資金來源會轉嫁給本港市民身上.

2. 開放市場會影響本港供電穩定性:
因大陸經常停電, 而且大陸很多地方嚴重缺電, 因此若大陸供電來港本港會出現經常停電的情況.

3. 聯網會產生大停電:
若本港兩間電廠聯網, 會產生美加大停電的情況, 若不聯網假使一方電力供應有問題, 另一方會做支援/後備供電給本港市民.

4. 聯網/開放市場會製造大量失業率:
因聯網/開放市場大量工序會集中大陸或精簡人手而裁員, 因而本港會產生很多失業大軍, 對本港經濟造成很大影響.

5. 大陸增建電廠嚴重增加空氣污染:
因大陸增建電廠而燃燒大量劣質煤或其他有害物料, 加上大陸沒有中央政府嚴格監管電廠排出廢氣, 因此造成空氣嚴重污染, 嚴重影響生態環境及人類健康.

6. 本港兩間電廠有優質服務保証:
本港市民有任何電力查詢, 需求, 本港兩間電廠很快作出適當處理,幫助市民, 給香港市民信心保証.

綜合以上意見, 本人希望保持現有的規管機制, 這樣香港市民便會繼續得到可靠,安全,有效率的電力供應.

Eva Tam
24/04/2005

Eva Wong

To: electricitycomments@edlb.gov.hk
cc:
Subject: 希望政府與電力公司訂立協議增加使用可再生能源
☐ Urgent ☐ Return Receipt

2005/04/30 12:14 AM

致經濟發展及勞工局：

你好，本人希望就電力市場未來發展提交意見。本人只是一普通市民，但有見本港空氣污染越來越嚴重，實在希望在2008年和電力公司訂立新協議時，要求現有電力公司及新加入之電力投資者，減少使用污染度高、排放大量溫室氣體的煤作爲發電燃料。另外，本人深信要長遠解決問題，必需加快使用可再生能源，如風力及太陽能。事實上，香港使用可再生能源的比例極低，十分落後。

本人建議應合理但進取地和電力公司訂立本港發電之可再生能源比例，本人認爲在2015 年達到10 % 是合理的水平，希望貴局可以切實考慮，爲保護地球，維護本港空氣質素而努力。

市民
Eva Wong

Yeung Eva

To: electricitycomments@edlb.gov.hk
cc:
Subject: 開放電力市場的我見解
☐ Urgent ☐ Return Receipt

2005/04/30 10:46 PM

開放電力市場的我見解

本人認爲香港的電力市場不宜開放，原因是:

1.開放後政府不能監管電力公司，環保及污染問題有可能惡化。
2.倘若電費下調，這變相鼓勵浪費電費資源，這對環保方向背道而馳，所以現行制度可有效監管電力公司。

Eva Yeung

敬啟者:

我們作為香港的市民及中華電力的電力客戶,對於香港未來電力市場的發展欲提供以下意見:

1. 電力行業涉及長遠和龐大資金的投資,要引導投資,必須提供足夠吸引力的回報,而回報亦必須反映電力投資長遠及資金龐大的特質,不應與短期經濟的波動掛,總而言之,設立了合理的回報機制才能確保私人資金的持續不斷;

2. 香港的經濟及社會發展有賴安全及可靠的電力供應,故此必須清楚界定系統的權責及有關機構負責投資,若一旦電力系統出現問題時,誰要向政府及公眾負責;

3. 行之已久的制度使香港擁有國際水平的電力供應,無須刻意為改變而改變;

4. 從客戶利益出發,電價當然愈低愈好,但如果低價是犧牲市民的服務來換取,相信香港市民與本人一樣寧願維持現狀。

以上數點乃我們對香港電力市場未來的發展而提供的意見,祈望政府有關機構慎重考慮。 謝謝!

此致

經濟發展及勞工局

For and on behalf of
[illegible]
EVERFIRM DEVELOPMENT LIMITED

Authorized Signature(s)

ExxonMobil Energy Limited
埃克森美孚能源有限公司
10/F., St. George's Building
2 Ice House Street, Hong Kong
(852) 3197-8021 Telephone
(852) 3197-8095 Facsimile

Brad W. Corson
Chairman

ExxonMobil
Gas & Power Marketing

April 29, 2005

Mr. Stephen Ip
Secretary for Economic Development
& Labour Bureau
The Government of the HKSAR
2nd floor, Main Wing
Central Government Offices,
Lower Albert Road, Hong Kong

Dear Stephen,

Thank you for the opportunity to provide our views and comments on the future electricity framework for Hong Kong. We appreciate Government's effort to seek the input of all parties, given the importance of reliable electricity service to Hong Kong. ExxonMobil Energy Limited's response to Government's "Consultation Paper on the Future Development of the Electricity Market in Hong Kong" is attached for your consideration.

I believe that we all share the same objective for Hong Kong's electricity system, which Government's paper has ably expressed as "reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact." Hong Kong is a unique place -- a modern high-rise city in a confined area surrounded by the rapidly growing economy of the Pearl River Delta region -- and it needs an electricity framework that fits its special circumstances. Historically, Hong Kong's interests have been well served by a proven regulatory regime which facilitated necessary long-term investment. Looking to the future, post-2008 regulatory arrangements must continue to facilitate long-term investment to ensure that Hong Kong's high standard of reliability is maintained, while facing the critical challenges of environmental improvement and securing future natural gas supplies.

We look forward to working with you, the Economic Development and Labour Bureau, and other stakeholders as Hong Kong progresses the resolution of the post-2008 electricity regulatory arrangements. With the shared objective clearly in mind, and building on the experience of more than 40 years of a successful regime, we trust that an effective successor regime can be established.

Please let us know if you have any questions regarding our response. We welcome the opportunity to discuss our response with you and your staff. Thank you.

Yours sincerely,

BW Corson

Ms. Sandra Lee
Ms. Miranda Chiu
Ms. Brenda Cheng
Mr. John Floyd
Mr. Harry Lai

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Brad W. Corson
Chairman

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Gas & Power Marketing

敬啟者：

我們欣然與閣下分享埃克森美孚能源就政府《香港電力市場未來的發展諮詢文件》的回應(見附件)。我們和中電合營的青山發電有限公司(青電)是香港最大的電力來源，因此希望閣下能了解我們對這重要議題的看法。

我深信我們大家都對香港電力系統懷著同一目標和期望，就正如政府諮詢文件內所提及的--「要確保消費者能夠以合理的價格得到可靠、安全及有效率的電力供應，並致力將發電和用電對環境所造成的影響減至最低。」香港是一個獨特的城市--現代化的高樓大廈矗立在有限的土地上，且毗鄰一個經濟發展迅速的珠三角區域--因此香港需要一個切合其本身特殊情況的電力架構。過去香港一直受惠於一個能夠促進所需的長遠投資且行之有效的規管架構。放眼未來，二零零八年後的規管安排亦必須在面對改善環境及獲得長期穩定天然氣供應的挑戰下，依然能繼續促進長遠投資，以確保香港電力系統的卓越可靠性得以維持。

我們期盼能與香港各相關人士共同探討和建立二零零八年後的規管安排。本著清晰的共同目標，並憑藉過去四十多年來一個成功架構所奠下的基礎，我們深信要建立一個有效的後繼規管架構並非難事。

閣下若對我們的回應有任何疑問或希望提出討論，請隨時與我們聯絡。

主席及行政總裁
高立信謹啟

二零零五年四月二十九日

ExxonMobil

RESPONSE TO GOVERNMENT STAGE I CONSULTATION ON FUTURE DEVELOPMENT OF THE ELECTRICITY MARKET IN HONG KONG

EXXONMOBIL ENERGY LIMITED

April 2005



ExxonMobil

CONTENTS

FOREWORD		1
EXECUTIVE SUMMARY		2
I.	**ExxonMobil in Hong Kong**	4
II.	**Hong Kong's Electricity System**	5
III.	**Future Regulatory Approaches for Hong Kong**	8
	A. Market Approach	9
	B. Regulated Approach	10
	(1) Duration of Regulatory Framework	11
	(2) Review Period	12
	(3) Modes of Regulation	12
	(4) Asset-Based Approach	13
	(5) Rate Base	13
	(6) Permitted Return	13
	(7) Tariff Regulation	15
	(8) Development Fund	16
	(9) Fuel Cost Adjustment	17
IV.	**Environmental and Fuel Issues**	18
	A. Environmental Improvement	18
	B. Fuel Supplies	19
V.	**A Regime with New Features**	20
	A. Interconnection	20
	B. New Supply Sources	20
	C. Choice and Access	21
VI.	**Implementation Arrangements**	22
VII.	**Conclusion**	23

ExxonMobil

FOREWORD

ExxonMobil Energy Limited offers the following views and comments on the Government of Hong Kong's "Consultation Paper on the Future Development of the Electricity Market in Hong Kong". We appreciate Government's effort to seek the input of all parties, given the importance of reliable electricity service to Hong Kong's economic development and to the way of life of its citizens in a modern high-rise city.

Hong Kong requires and expects the highest standards of electricity service. With its lack of fuel resources and its location in a rapidly developing area, a high degree of self-reliance in electricity and fuel infrastructure is appropriate. This means that Hong Kong needs a regulatory system that fits these special circumstances. As the Consultation Paper confirms, the current Scheme of Control regulatory arrangement has efficiently facilitated continuing long-term investment in reliable and safe electricity supply for Hong Kong for more than 40 years. There has always been sufficient supply infrastructure to meet the community's needs. The post-2008 regulatory arrangements must likewise facilitate continuing investment to maintain the highest standards of service, to provide environmental improvement, and to secure long-term fuel supplies.

EXECUTIVE SUMMARY

- Hong Kong consumers, business, and industry have benefited for more than 40 years from having a world class electricity system. The competitive and reliable supply of power this system provides has helped underpin Hong Kong's remarkable economic growth and prosperity.

- The Scheme of Control that has regulated this critical utility service has been most effective in ensuring a sufficient, affordable and highly reliable electricity supply service to the community. With a clear and balanced regulatory regime, Hong Kong has consistently attracted the significant and timely investment required to support this performance.

- Hong Kong's unique features – a modern high-rise city in a small area next to a rapidly developing economy – dictate special requirements for electricity supply, including a high degree of self-reliance in its electricity and fuel supplies. Hong Kong needs an electricity regulatory framework that fits its particular circumstances. Historically, Hong Kong's interests have been successfully met through a proven regulatory system.

- Guangdong is not at the required stage of electricity system or institutional development to make a regional market approach to electricity supply feasible, as demonstrated by its persistent power shortages. Even if the conditions should evolve to allow an integrated regional market approach in the future, there would be significant risks involved in an untested market scheme that would rely on market and regulatory forces outside of Hong Kong.

- Current tariffs are comparable to other leading cities at a similar advanced stage of economic development. CLP/CAPCO has a strong incentive to continuously manage costs effectively. Moreover, the public's interest is protected by the Government's careful monitoring of investments and operating costs. We recognize the public's sensitivity to tariff levels and we too have a direct interest in Hong Kong being a prosperous and competitive city.

- Major future investments are required to maintain reliable electricity supply, to meet continuing demand growth, to provide environmental improvement, and to secure long-term fuel supplies. Hong Kong's regulatory approach must provide Hong Kong's electricity companies with the incentive to invest the necessary, continuing stream of

capital to ensure adequate, environmentally responsible, and reliable electricity supply in the future.

- The current contracted return has proven to be adequate to attract required investment, and it is appropriate for the future as well given the long-term risks faced by the industry.

- The long planning horizon and commitment for significant electricity investments means long-term and durable regulatory arrangements are needed. Provisions for future "review" of the regulatory framework should not make it in reality a short-term framework, since that would put at risk investor ability to commit to required long-term investments.

- Liquefied natural gas (LNG), an environmentally preferred fuel, will be required as the future fuel supply for CAPCO's gas-fired generation. Long-term regulatory stability is a foundation for securing future access to global fuel supplies, since commitments to infrastructure and long-term supply contracts must be made.

- A balanced approach to alternative energy can be incorporated in the post-2008 framework. We believe that alternative energy options need to be evaluated on their ability to benefit consumers.

- Customer choice and commercial grid access must await regional market development. Interconnection investment should be pursued only if the added costs can be shown to benefit consumers.

- Continued reliance on some form of balanced regulation is the most practical approach with the most predictable outcomes for Hong Kong. Regulatory arrangements should be clear, internally consistent, and rules-based.

I. ExxonMobil in Hong Kong

ExxonMobil Energy, through CAPCO, is Hong Kong's largest electricity generator

1.1 ExxonMobil[1], through its affiliate ExxonMobil Energy Limited, participates in the Hong Kong electricity industry through a joint venture with CLP Power Hong Kong Limited (CLP Power) formed in 1964. We are the majority owner of the Castle Peak Power Company Limited (CAPCO), including the Castle Peak, Black Point, and Penny's Bay power stations in Hong Kong, and of the Pumped Storage Development Company Limited (PSDC), with capacity rights at a Guangdong pumped storage power station.

Generation Capacity	MW
CAPCO Power Stations	
Castle Peak	4,108
Black Point	2,500*
Penny's Bay	300
PSDC Capacity Right	600
	7,508
* Including 625MW under construction	

1.2 The CAPCO power stations represent 65% of the installed generating capacity in Hong Kong. CAPCO and PSDC provide most of the electricity requirements of the CLP Power service area in Hong Kong.

ExxonMobil is Hong Kong's largest U.S. investor

1.3 ExxonMobil has been a leading supplier of fuels to Hong Kong for over a century and involved in electricity generation for over 40 years. Our investments in electricity generation, as well as our role in the petroleum products business, make ExxonMobil the largest U.S. investor in Hong Kong. ExxonMobil's businesses in Hong Kong now include power, petroleum products retailing and terminals, chemicals sales, and management of China ventures, as well as support functions, staffed by some 400 employees.

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[1] For convenience and simplicity in this Response Document the name *ExxonMobil* and the terms *corporation, company, our, we and its*, may refer to any one or more of Exxon Mobil Corporation, its divisions or the companies affiliated with Exxon Mobil Corporation, including ExxonMobil Energy Limited.

1.4 ExxonMobil's contributions to the CAPCO power generation business include our technology and management expertise, our focus on the highest standards of safety, operations, and corporate governance, and our financial capability. We provide CAPCO with access to our worldwide best practices. ExxonMobil's investments in electricity generation in Hong Kong since 1964 total about HK$30 billion. We have made these investments in good times and bad to meet Hong Kong's needs regardless of the immediate political and economic outlook. Our commitment has been based on a long-term view of the Hong Kong economy and the stability of the electricity regulatory framework.

II. Hong Kong's Electricity System

Hong Kong has an outstanding electricity system

2.1 When considering the future electricity framework, it is important to reflect on the advantages of Hong Kong's current electricity situation, which is superior – outstanding (99.99%) reliability, prices comparable to similar large developed cities elsewhere in the world, infrastructure in sound condition, and sufficient generation resources. Hong Kong's success in attracting foreign investment to contribute to this performance reflects its sound legal system and recognition of the value of private industry, in contrast to the public sector approach historically applied to electricity in many other places. The industry in Hong Kong has been privately owned since its inception, putting Hong Kong far ahead of places like Singapore, Korea, and Australia, which continue to face challenges associated with government ownership, uncertain privatization prospects, and evolving and ambiguous regulatory processes.

2.2 With a clear and settled regulatory regime, Hong Kong has ably managed to attract timely foreign investment on a consistent basis. This has been critical to sustain reliable electricity supply and provide Hong Kong with the quality electricity system it has today.

Hong Kong's unique features dictate special requirements for electricity supply

2.3 Hong Kong is a unique place: small geographically with a large population divided by islands and rugged terrain, and no indigenous energy resources. Most of the population lives in high-rise apartment buildings, and many work in high-rise buildings as well. There is high dependence on an electrified rail and subway system. A modern

economy requires a high-quality electricity supply. These characteristics make Hong Kong particularly dependent on reliable electricity supply. Moreover, electricity is a unique commodity, since it is difficult and costly to store and generation must be matched to consumption on a real-time basis or blackouts result.

2.4 Hong Kong's characteristics have posed special challenges for ensuring adequate and reliable electricity supplies. The surrounding area of China is now developing very rapidly, but still has far to go before it reaches Hong Kong's level of economic and institutional development – or its level of electricity supply reliability, as demonstrated by the continuing power shortages in Guangdong. As a result, Hong Kong has developed a largely self-reliant electricity system. The scarcity of usable land has led to a limited number of compactly developed electricity generating facilities, mostly on expensive reclaimed land. The lack of local energy resources has made the logistics of fuel supply by ship or pipeline critical. Economies of scale have been important factors given these characteristics, and Hong Kong has benefited from the concentrated development of electricity supply infrastructure. The natural result is an industry with few players focused on ensuring reliable electricity supply to specific service areas within the SAR.

Hong Kong has received real value from its electricity regulatory arrangements

2.5 For 40 years, Hong Kong's electricity system has been regulated through a succession of regulatory contracts known as the Scheme of Control Agreements. The purpose of these contracts was to create a stable environment within which private companies would invest to meet the growth of electricity demand. ExxonMobil entered the Hong Kong electricity industry at the inception of the scheme as a supplier of fuels and an investor in power generation. This regulatory framework has been the foundation allowing CLP Power and CAPCO to provide Hong Kong with an affordable electricity supply characterized by high reliability, safe, productive and efficient operations, excellent customer service, and environmental responsibility. This fits exactly with the policy objectives identified in Government's consultation paper – "reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact" (paragraph 1.1 of Consultation Paper) and "ensuring safety in the supply and use of electricity is of paramount importance" (paragraph 3.4 of Consultation Paper). The companies aim to sustain this performance in the future to continue contributing to the growth and development of Hong Kong.

2.6 Recognition should be afforded to the fact that Government has played a critical regulatory role in implementation of the regulatory scheme. In particular, it has ensured that asset development was appropriate via careful scrutiny of investment plans by internal and consulting experts, Executive Council approval of Financial Plans, audit, and continuous monitoring of projects and plans. This has contributed to the quality and affordability of electricity service.

Investment Requirements

Major future investments are required to maintain reliable electricity supply

2.7 For CLP Power's Hong Kong service area, generation capacity and supply requirements will be in reasonable balance at the beginning of the next regulatory scheme. Electricity demand in Hong Kong continues to grow at a steady pace, so a steady supply of new generation capacity will be required. Peak electricity demand, which determines the need for additional generating capacity, now grows on average about 200MW per year – the equivalent of a commercial scale combined cycle gas turbine every two years. At times, peak demand may grow at much higher rates, as with the almost 8% surge (455 MW) in CLP Power's Hong Kong maximum demand in 2004. As described further in Section IV, Hong Kong now faces additional challenges to contribute to regional environmental improvement and to access future fuel supplies. Additional generation capacity will be needed to replace the power purchase contract for the Daya Bay nuclear station, which ends in the next decade. Major investments are also required to achieve emissions reductions and to access future natural gas supplies (discussed further in section IV). Further, the need for investment to maintain adequate capacity and reliability of the transmission and distribution system continues. The investment requirements to serve the CLP/CAPCO supply area amount to many tens of billions of HK dollars every decade. Meeting the challenge of providing reliable supply and environmental quality in the future will require sustained investment by strong companies that can meet Hong Kong's needs over the long term.

Regulatory approach must ensure continued long-term investment in the face of risk

2.8 Electricity generation and transmission investments are large and long-term, with equipment expected to operate for many decades. Electricity assets are generally not movable, and so are exposed over long periods to risks not easily mitigated. At this juncture, key risks for necessary further investment in the Hong Kong electricity generation industry include regulatory policy and political uncertainties, market risks

associated with demand growth and with the South China electricity sector, cost risks, and interest rate and currency risks. The latter is an important long-term risk from the foreign investor perspective, since revenues are denominated in Hong Kong dollars, and regional currency realignment is to be expected.

2.9 Worldwide, the electricity industry has been characterized in recent years by high risks and poor returns. A key risk in many markets has been continuous regulatory change. Once made, large scale power investments, involving billions of dollars, are exposed to risks that cannot be readily managed. Investors in such projects must assess the investment environment in terms of the likelihood of significant changes in the terms and conditions after the investment is made. Investment risk increases as uncertainty over the future regulatory regime rises. Few sectors involve investments that are so large and so exposed to regulatory risk and uncertain future policy developments. There have been cycles of over- and under-investment in many places, often associated with regulatory change. International electricity investors have entered the industry in many countries only to withdraw a few years later. Of particular relevance to Hong Kong, Mainland China has been an example of cycles of foreign investor interest in electricity investment, and of investment cycles and risks associated with regulatory change. Lack of clarity about rights and responsibility for new generation capacity can add risk to investment and threaten the adequacy of supply. Environmental regulatory risks have also been significant as emissions standards are tightened in many countries.

III. Future Regulatory Approaches for Hong Kong

3.1 There are two broad approaches to electricity markets:

- to regulate to ensure a fair balance between consumer and producer interests, or
- to organize competitive market systems in relevant parts of the industry.

3.2 Hong Kong's Scheme of Control Agreements are representative of the former "regulated" approach. The latter "market" approach requires major restructuring in the electricity industry, with the government designing and setting up markets for certain parts of the industry, while other parts, such as transmission and distribution, continue to be regulated. With a regulated approach to the power industry, the regulated companies can take responsibility for the adequacy of supply. With a market approach, government is supposed to rely on the market to deliver adequate electricity supply, although it must bear ultimate responsibility for performance of the market system. Around the world,

governments who have moved to this model are finding it difficult to stay away from continued intervention because of the public policy importance of electricity reliability and pricing and the unforeseen consequences of market policies.

A. Market Approach

A market approach to electricity supply is not feasible for Hong Kong now

3.3 A market approach to electricity supply in Hong Kong by itself is not feasible at present, because of the natural lack of industry players, few suitable sites for generation facilities, and the lack of fuel resources. A small number of industry players in generation is not a realistic basis for a market. Therefore, restructuring of Hong Kong's power market would only be practical in the context of a broader regional power market involving Guangdong to provide sufficient scope for competition. Such a market, if desirable for Hong Kong, needs to wait for the South China power sector to mature to a comparable stage of development.

3.4 The current power shortages in Guangdong are widely known, but much more will be required to establish the basis for a market than simply to resolve these shortages. There would need to be a sustained record of timely generation investment delivered by private sector companies and massive investment in the Guangdong transmission system, so that supply reliability is no longer an issue. Further, the Mainland government's administrative control over electricity prices and ownership of generation facilities would need to be addressed. Credible and robust institutional, legal, and commercial processes would need to develop, so that a shared power market can operate involving Hong Kong and the Mainland. There would need to be reciprocal access between Hong Kong and the Mainland to permit fair competition.

3.5 Clearly, a South China regional power market will not be possible for some time. For these reasons and the ongoing uncertainty and shortage in Guangdong's power supply, the post-2008 electricity regime for Hong Kong should be developed independent of South China.

Long-term questions for Hong Kong in reliance on a market approach

3.6 Even if all the above requirements for competition were in place, Hong Kong would need to make choices between control of its own electricity supply and

competition in the electricity market. It is important that Hong Kong's citizens understand that a regional power market would mean that the power supply for Hong Kong would be provided through a regional market centered in Guangdong, and naturally focused on Guangdong's needs. Hong Kong's peak power demand is less than one-fourth as large as Guangdong's, and Guangdong is of course growing far more rapidly. Reliability in Hong Kong would necessarily be far more dependent on the situation in South China than at present – but shortages would have much higher cost in Hong Kong than elsewhere, because of the nature of living and working in the SAR. In a regional market environment, CAPCO's power stations would have to be operated to fit the regional market situation, not to serve Hong Kong's needs preferentially.

3.7 When considering the desirability of electricity market restructuring in the long run, consumers must also understand that markets must use price to balance supply and demand. For markets to function, market signals cannot be obscured or distorted. If electricity is in short supply in the region, prices would rise for all customers, in Guangdong and Hong Kong. Prices would be more volatile and higher prices would be needed at times to attract future supply. Capped consumer prices cannot coexist with a market approach to electricity; the California power crisis of 2000-2001 demonstrated what can happen with inconsistent market policies. Ontario's experiment with retail power market deregulation in 2002 lasted for only seven months before consumer prices were re-regulated. For power market deregulation, the Hong Kong community must be willing to accept the uncapped prices under a market approach, despite the limited advantages and manifest risks inherent in Hong Kong's unique situation.

B. Regulated Approach

Regulation continues to be the practical approach for Hong Kong

3.8 The practical approach to Hong Kong's electricity framework involves continued substantial reliance on some form of regulation, and the Government's consultation paper has rightly focused on this approach to the electricity market. The current Scheme of Control Agreement is an example of a regulated approach to the electricity market. It has been successfully applied in Hong Kong for over four decades, so it should provide a good foundation for post-2008 regulatory arrangements. The challenge for Hong Kong is to find improvements, not to seek changes for their own sake.

Regulatory arrangements should be clear, internally consistent, and rules-based

3.9 Putting together a new regulatory system for electricity is a difficult task. A workable regime cannot be formed by combining attractive-looking elements from multiple regulatory regimes elsewhere on the assumption that they will fit together into a stable framework. Further, a framework applied elsewhere would not necessarily be best for Hong Kong's situation. Electricity systems are complex, since they must match power generated with electricity consumed in real time. Continuity of supply (reliability) must be delivered consistently and without question; the public should not have to be concerned about this in a modern high-rise city. Generation and transmission facilities must be in place in time to meet the growth of demand, and this requires appropriate incentives for the electricity companies to invest as needed. The regulatory regime must be internally consistent, with clear rules that determine customer tariffs and clear responsibility and accountability.

(1) Duration of Regulatory Framework

The long planning horizon means long-term regulatory arrangements are needed

3.10 Electricity supply is a capital-intensive industry requiring long-term commitments. This highlights the importance of the term (duration) of regulatory arrangements. We must emphasize that investments and contractual commitments associated with future demand growth, environmental improvement, and future fuel supplies are if anything increasing the need for stability and long-term future regulatory arrangements.

3.11 Generation plants are designed and built to last for decades. Gas supply contracts may stretch for 25 years, and the lead-time from concept to completion for gas supply infrastructure may be seven years or more, because of the complexities of environmental permitting and site acquisition, as well as engineering and construction.

3.12 A short-term framework, for example five or even ten years, would in reality be no framework at all, since work would have to begin immediately on the next regulatory regime once the post-2008 regime is "completed". Shareholders would not be in a position to make responsible decisions about long-term investments, and deferral of necessary investments would compromise future reliability and security of supply. The Hong Kong community would not and could not be served by an "interim" fix. The time

horizon for regulatory arrangements should relate to the nature of the investments that are required, and electricity investments are very long term.

(2) Review Period

"Review" should not make the regulatory framework in reality short-term

3.13 The consultation paper raises the question of a review period, noting that the permitted rate of return and definition of rate base are fixed for the term of the current Scheme of Control agreements. If major features of a regulatory framework are subject to change periodically, then the regulatory arrangement in fact becomes short-term. A prudent investor could not take responsibility for future supply adequacy or commit to investments if the future business environment for those investments is unknown. Thus conditions under which regulatory terms can be reopened must be constrained and specified with care.

(3) Modes of Regulation

The regulatory approach can be either asset-based or price-based, but not both

3.14 Regulatory approaches to the electricity market span a range including both asset-based methods, in which a tariff is built up from costs, including return on an asset base, and price-based methods, in which a tariff is agreed and actual return to the companies is an outcome of their performance. It is important to recognize that both return and tariff cannot be regulated directly at the same time. Either returns are agreed, with tariff calculated as an outcome, or tariff is agreed, with return an outcome depending on sales and costs. Efforts to combine the two approaches could lead to great complexity, and the results may not be what consumers expect or what producers need to maintain reliable supply.

3.15 The choice of focus, asset-based or price-based, has implications for the degree of tariff variability borne by consumers and for the risks faced by shareholders. The consultation paper, with its separate sections "Return on Investment" and "Regulating Tariff", may give the impression that these components of a regulatory regime can be considered separately. It is critical to recognize that the economic elements of a regime are intimately interrelated and the regime must have an integrated, internally consistent approach to them. Ultimately either approach to regulation must deliver the necessary incentive for investment or reliability will deteriorate.

(4) Asset-Based Approach

3.16 Asset-based regulation involves building up a required tariff from the costs of providing electricity service, including both capital and operating costs. Government's consultation paper sets out alternative approaches to the cost of service calculation. Ultimately, though, it should be the tariff rather than the components of the calculation which is of greatest interest to policy-makers and consumers. Under the current regulatory approach, the CLP Power service area has achieved tariff performance in line with similar large, developed cities worldwide. Tariffs have been stable, rising far less than inflation over a long period, and electricity costs represent a very small percentage of total household expenditures.

(5) Rate Base

Fixed asset approach to the rate base is appropriate

3.17 With the asset-based approach, government regulates spending by the electricity companies to guard against excessive investment and thus overly high costs for consumers. Given this purpose, the net fixed asset (investment less depreciation) approach to the rate base fits, since investment in assets is the primary target of the regulatory system. An equity approach to regulation involves the regulator in how the business is financed by the owners, which is not the subject of primary interest and introduces another level of complexity.

3.18 Further, with an asset approach to the rate base, as in the current Scheme of Control, the companies bear most of the risk of changes in the interest cost of debt, since interest is paid by the companies out of permitted return on assets. With an equity approach, interest expense is passed through to customers, so they bear the risk of changes in interest rates. This emphasizes the appropriateness of an asset approach rather than an equity approach to the rate base, as in the current Scheme of Control.

(6) Permitted Return

No formula by itself can resolve the return necessary to ensure investment

3.19 To invest in a business over the long term, shareholders must see the opportunity for rewards for their long-term commitment of capital and resources. The necessary reward is not a matter of theory, but of what is needed to attract the required

investment from the actual investors under the actual circumstances. Many factors must be taken into account in reaching agreement on the appropriate return. The consultation paper discusses two references for returns: comparable investments and the cost of raising capital. In practice, return cannot be resolved by the application of theoretical formulas. The cost of capital approach in particular gives rise to a wide range of results, particularly when short-term financial data is incorporated. A long-term perspective to return is required given the long life of electricity assets and the long-term commitment to reliable electricity service. As an example of this long-term perspective, shareholder returns on the Hong Kong stock exchange have averaged 20% per year over the past twenty-five years.

3.20 Most importantly, though, the value of investment should be the key consideration, not return in isolation. Insufficient or delayed investment in electricity infrastructure can have high costs to society. It is now widely recognized that regulatory regimes elsewhere in the world have not always provided needed investment, with serious consequences including power shortages. The ongoing power shortages in Mainland China provide a clear example of that. It is notable that foreign investors have largely withdrawn from the Mainland market, as adequate and consistent returns did not materialize. Ultimately and importantly, the return must provide Hong Kong's electricity companies with the incentive to invest the necessary, continuing stream of capital to ensure adequate and reliable supply in the future.

The current contracted return is appropriate

3.21 The current Scheme of Control return calculations involve a maximum permitted return on net fixed assets of 13.5% before the cost of financing paid by the companies, plus 1.5% for assets financed with shareholders' funds. The actual return to shareholders is the permitted return less the cost of financing borne by shareholders. We believe this return is appropriate, and it has been acceptable to ExxonMobil considering the long-term risks to which the Hong Kong electricity business is exposed. The return should be viewed in the context of a long-term contract exposing large investments to many risks. Shareholders bear political and regulatory risks, including those associated with future regulatory policy and regional power market developments. Financial risks for the foreign investor include exposure to interest rate and currency movements, with the future relationship of the Hong Kong dollar to the yuan a potentially important factor. There are in addition the market demand and operational risks to be considered.

3.22 As an international investor in energy businesses, ExxonMobil must consider its current and future investments in Hong Kong power generation relative to energy investment possibilities of other types and in other places. ExxonMobil's return on invested capital across its worldwide businesses has averaged 19% over the past five years. If the regulatory regime were to be modified in a manner that materially increases the risks to which the power companies are exposed, ExxonMobil would need to re-assess the appropriateness of the reward relative to the risks. Our corporate philosophy is based on the efficient and disciplined use of capital, and our shareholders have high standards for the performance of current and future investments.

3.23 The commitment to secure future electricity supplies has been and is an important anchor for Hong Kong, and real value has been provided to Hong Kong over the term of the existing contract. Hong Kong enjoys premium electricity service, and the returns for investment must be concomitant with that.

(7) Tariff Regulation

Cost-based tariffs are an outcome with asset-based regulatory approaches

3.24 As noted earlier, the tariff mechanism should be considered as an integral part of the regulatory scheme, not as a separate layer in addition to return regulation. If the regulatory approach is asset-based, then the tariff is determined from projections of sales volumes and costs of supply. Tariff reviews are directed at agreeing on the projections of volumes and costs. Alternatively, if a price-based regulatory approach is substituted for the current asset-based approach, regulators and the power companies must negotiate a tariff periodically, and realized return becomes an outcome depending on actual costs and sales over that period.

3.25 A system could be designed to incorporate inflation or other adjustments to the tariff over the period, but the key requirement of such a regime is that the return outcome provide sufficient incentive for necessary investment by the companies, given the risks involved. Note that if inflation is brought in to the tariff process, careful consideration needs to be given to the relationship between inflation indexes and the costs of supplying electricity. Only 10% of CLP/CAPCO's costs are local to Hong Kong (mostly labour cost), and thus related directly to Hong Kong inflation. Fuel and equipment, for example, are all imported.

3.26 Whether the tariff system derives from asset-based or price-based regulation, the objective is the same – a reliable power system that attracts the necessary investment at reasonable cost to consumers.

A balance must be struck between transparency and politicization

3.27 The consultation paper discusses increased transparency in the tariff process, so that the public can better understand the basis of tariff adjustments. Company financial reports include the Scheme of Control statement and financial and operating statistics, so there is already an unusually high level of public disclosure, although this information is necessarily backward-looking. Public disclosure of forward-looking information is more difficult, because of the sensitive nature of certain commercial information, including price forecasts. For example, CAPCO is continuously engaged in negotiating fuel purchases. More public information on fuel requirements and price expectations would reveal our negotiating position, which would be damaging to the interests of consumers. A balance must be struck between commercial needs and public information. However, with regard to asset investment decisions, it may be appropriate for the companies and Government to communicate better with the public to ensure confidence that decisions have been taken responsibly, and that Government has fulfilled its regulatory duties.

3.28 On a more conceptual level, tariff-setting should be thought of as the implementation of an agreed regulatory process, not as an ongoing negotiation. There must be a balance between satisfying the natural public desire to understand the prices they are charged and taking steps that would encourage politicization of the tariff process. Tariffs need to align with the commercial requirements of providing electricity supply. If they become instruments of politics, they can become divorced from commercial realities, with potentially serious consequences for consumers. This type of mismatch was one of the features that led to power shortages, the collapse of the California market, and the bankruptcy of a major utility serving the area.

(8) Development Fund

The Development Fund prevents the companies from earning extra return

3.29 A unique feature of the current Scheme of Control regulatory approach is that there is an exact cap on company returns, determined by the asset base and the permitted return. The Development Fund is the mechanism in the scheme that prevents the

companies earning more than the permitted return. Any income above the cap is paid into the Development Fund, where it is used to mitigate future tariff increases for consumers and investment risk for the companies. Interest on the balance is accrued to consumers' benefit. Without a Development Fund, there would either need to be another mechanism for doing the same thing, or the companies would need to be allowed to earn extra return.

3.30 The Development Fund also provides a means to smooth the tariff. The consultation paper notes a concern that large balances may be built up in the Development Fund. Of course, this can only occur if the companies successfully manage costs, the benefits of which accrue to consumers under the current Scheme of Control. An upper limit mechanism was agreed in the last Interim Review to limit the size of Development Fund balances, addressing the concern about excessive balances.

(9) Fuel Cost Adjustment

The companies have a strong incentive to manage fuel costs effectively

3.31 The current Scheme of Control provides a fuel cost adjustment mechanism to allow the companies to manage changes in fuel costs, which can be volatile. This is the natural approach with asset-based regulation.

3.32 The consultation paper notes the concern that there may be insufficient incentive for efficient procurement. In fact, fuel costs are carefully monitored by Government to ensure prudent purchasing practices, and the companies have a strong incentive to manage and strong record in managing – fuel costs effectively because of the public's sensitivity to tariff increases. It is important to recognize that fuel cost variability arises not only from fuel prices, but from changes in the mix of fuels, particularly between coal and natural gas. Mix may be affected by environmental regulations or other factors outside the control of the companies. CAPCO has been very successful in its fuel cost management, with the result that consumers have felt little impact despite major fluctuations in coal prices and fuel mix in recent years. The Fuel Clause Account mechanism has been an aid to this effective management.

IV. Environmental and Fuel Issues

A. Environmental Improvement

Regulatory arrangements must enable environmental improvement

4.1 As a major city bordered by one of most rapidly developing areas in the world, Hong Kong faces major environmental challenges. In fact, Hong Kong itself has relatively low levels of pollutant emissions, since there is now little heavy industry here and there is a well-developed mass transit system. Hong Kong has comprehensive environmental regulations and thorough monitoring of emissions performance. However, Hong Kong has serious air quality problems because of its proximity to industrial areas in the Pearl River Delta. Hong Kong has recently agreed with Guangdong on an initiative to reduce emissions jointly in the Pearl River Delta area, on a best endeavor basis. The targeted reductions leave Hong Kong with very low emissions rates. As the power plants are the largest industrial facilities in Hong Kong, their emissions performance is naturally an important concern.

4.2 Since it was first constructed in the 1980s, the coal-fired Castle Peak Power Station has had better than 99% particulates removal. Sulfur dioxide emissions have been managed through choice of low-sulfur coals. NOx emissions have been reduced with low-NOx burners and improvements in boiler control systems. Black Point Power Station brought high-efficiency combined cycle gas turbine technology to Hong Kong, and the environmental benefits of natural gas as fuel. Continuing technical improvements and fuel diversification have significantly reduced the emissions rates for serving the CLP Power supply area. Over the 1993 to 2004 period, NO_x emissions per unit of electricity sold have been reduced by 80%, SO_2 by 65%, and particulates by 79%. CAPCO has operated for more than 2,500 days without exceeding its licensed emissions limits.

4.3 CAPCO has proposed to government that the Castle Peak "B" station be retrofitted with additional control equipment to further reduce emissions levels. This will require multi-billion dollar investment. While lower emissions levels are desirable, they necessarily come at a cost. Regulatory arrangements must provide a way to recover the costs of environmental improvement, with consumers willing to bear the costs. Both the community as a whole and investors benefit from clear, achievable emissions goals that allow efficient long-term planning. If environmental improvement is to continue, consistency of long-term environmental policy and future electricity regulatory arrangements will be required, to facilitate responsible decisions on generating

investments. The Scheme of Control has proved an excellent mechanism for enabling environmental improvement, since investors can recover the associated costs.

4.4 In addition, if a broad South China power market is ever to be feasible, compatible environmental policies through the region will be required. Otherwise Hong Kong generators would lose market share to Mainland competitors with lower environmental standards, with negative results for the regional and thus Hong Kong environment.

B. Fuel Supplies

Long-term regulatory stability is a foundation for securing future fuel supplies

4.5 Review of Hong Kong's electricity regulatory arrangements comes at a critical time with respect to decisions about future fuel supplies. CAPCO's current gas supplies from the Yacheng field in the South China Sea will be depleted early in the next decade, dependent on the gas offtake rate and the actual level of reserves. In addition, natural gas is the preferred fuel for future generation increments because of its desirable environmental characteristics. The Hong Kong electricity sector faces unique challenges in arranging fuel supplies, since there are no local fuel sources.

4.6 Liquefied natural gas (LNG) will be required as a successor gas supply. For Hong Kong to access LNG, infrastructure in the form of an LNG terminal and pipelines to connect it to the power stations is required here, while gas field development, a liquefaction plant, and port facilities are required in the gas producing area. LNG tankers complete the supply chain, connecting Hong Kong to the producing country. A lead-time of around seven years is required to access new gas supplies because of the need to develop the full supply chain to connect those resources to Hong Kong, with all associated permits. This means that contractual commitments must soon be made to progress successor supplies at the necessary pace.

4.7 Not only CLP/CAPCO, but also the LNG-selling counterparties, will need clear, long-term regulatory arrangements to be in place governing the terms under which power is sold to consumers before LNG contractual arrangements can be concluded. Long-term regulatory stability is a key ingredient to facilitating long-term environmental and fuel commitments. An interim or short-term regulatory arrangement is not a workable solution if the community is to be provided with future fuel supplies for reliable electricity generation and sustainable environmental improvement.

V. A Regime with New Features

A. Interconnection

Interconnection investment should pass a benefit-cost test

5.1 Government's review considers the subject of increased interconnection between the electricity supply systems, an issue which has become of great interest to the community. As noted in the consultation paper, interconnection within Hong Kong and with South China for mutual security has been a feature of Hong Kong's electricity system for many years. Mutual support is important for the maintenance of reliability. The question of expansion of interconnection capacity should really be a technical and economic issue of structuring the most efficient and secure electricity transmission system. We concur that investment in increased interconnection should depend on its providing net economic benefits. We do not see at this time that the benefits outweigh the costs. Increased interconnection is not an end in itself, but part of the design of the transmission system, and it must serve a useful role in the context of the regulatory framework, just like any other investment.

B. New Supply Sources

While shortages persist, Guangdong is not a prospective supply source

5.2 The situation of Mainland electricity supply has been discussed in section III A. Guangdong is currently experiencing severe power shortages and environmental difficulties and it is not credible that it will be a prospective supply source while this continues. Even if a generating plant could be located near the Hong Kong border with Guangdong for the purpose of serving Hong Kong, it could not provide continuous reliable power supply without backup connection to the Guangdong grid. This would make it in effect part of that grid, subject to all of the issues of a broader market, discussed in paragraphs 3.3 - 3.7 of section III A.

5.3 It should be noted that the Pearl River Delta area surrounding Hong Kong is very populous and rapidly developing, and part of the same environmental "airshed" as Hong Kong. Incremental coal-fired generation will not be allowed in this area. The Pearl River Delta should not be thought of as a hinterland in which low-cost power generation will

easily be located in the future, and there are no real environmental benefits from shifting generation from Hong Kong to the Mainland.

A balanced approach to alternative energy can be incorporated in the framework

5.4 Government's consultation paper also addresses renewable generation, which has recently been the subject of another consultation. As agreed in the last Interim Review, CAPCO is now engaged in a pilot study of a commercial-scale wind turbine in Hong Kong. The future approach to wind energy in Hong Kong should build off the results of this study, which will provide information on the site possibilities and practical wind energy potential of Hong Kong, as well on the economics of wind generation here. However, land constraints will inevitably limit the scope for wind energy in Hong Kong. To the degree that wind energy is a practical alternative here, it should be considered as a future generation source in parallel with other options. Asset-based regulatory arrangements, like the Scheme of Control, are flexible and can accommodate alternative energy if the community is satisfied with the benefit-cost tradeoffs.

C. Choice and Access

Customer choice must await regional market development

5.5 The issues of customer choice and "access to the grid" relate to possible future market development, which, as discussed earlier, would need to be on a regional basis. Customer choice of electricity suppliers requires an underlying competitive generation market that those suppliers can draw on. Otherwise, there is really nothing meaningful to choose. Third-party access to the transmission and distribution grid is part of the implementation of customer choice, so that electricity suppliers can connect generators and customers.

5.6 As the consultation paper notes, grid access requires major restructuring of the electricity industry. This can be time-consuming, difficult, and expensive, particularly when the industry is privately owned. There is no point in engaging in such a restructuring process unless there is somewhere to go with it – that is, unless the conditions for a competitive market exist and there are clear benefits from a move to such a model. These conditions do not exist in Hong Kong, so restructuring cannot be realistically accomplished until the shape of eventual South China market development is clear. Also, restructuring inevitably raises questions of "stranded cost" and risk, since

investments made under one regulatory regime may not fit the requirements of another regime.

5.7 Customer choice and grid access are not required to accommodate alternative energy, such as energy-from-waste, as this can be handled within a regulated market structure. Smaller-scale renewables for own-generation are accommodated by fair terms for backup connection to the power grid, to balance the interests of self-generators with those of other customers.

VI. Implementation Arrangements

Contractual implementation is the simplest and most suitable approach

6.1 The current Scheme of Control is based on commercial contracts between government and the power companies. The contracts are public documents available on government's web site. In its reliance on contracts, the scheme has in many ways been ahead of its time. Commercial contracting is a flexible tool adaptable to implementing a broad range of regulatory arrangements, and one that fits well with Hong Kong's highly-developed commercial and legal institutions. In contrast, legislation is a cumbersome tool when contracting can suffice. Unless and until full market restructuring is feasible and desirable for Hong Kong, there seems to be little advantage and no obvious point in switching to a more complex and potentially less clear implementation format.

6.2 The simplicity of the contractual approach lends itself to efficient monitoring and administration by existing bureaus and departments of government. The need for other organizational arrangements, such as an independent regulator, will depend on the nature and complexity of the post-2008 regulatory regime. Certainly more complex arrangements and particularly market restructuring would require substantially more government resources, as government must assume more direct responsibility and accountability for economic matters and the reliability and adequacy of electricity supply. Rationalization within government is an interesting concept, but it might prove challenging to reorganize statutory authority over diverse matters in this manner.

VII. Conclusion

Hong Kong needs an electricity framework that fits its particular circumstances

7.1 Hong Kong is a developed world-class city with scarce land and no indigenous fuel sources. It requires and expects the highest standards of electricity service. The neighboring areas of Guangdong are growing rapidly but are not at a comparable stage of development. Hong Kong thus needs a high degree of self-reliance in its electricity and fuel supplies. These special circumstances demand a regulatory system that fits Hong Kong's unique situation.

7.2 Current regulatory arrangements have efficiently facilitated continuing long-term investment in Hong Kong's electricity supply. This has been accomplished with a clear, simple regime and an appropriate return to investors. The result has been a superior electricity system that provides outstanding reliability and reasonable tariffs. The post-2008 arrangements must likewise facilitate continuing investment to maintain the highest standards of service, to provide the environmental improvements that the community wants, and to secure the long-term fuel supplies that Hong Kong needs.

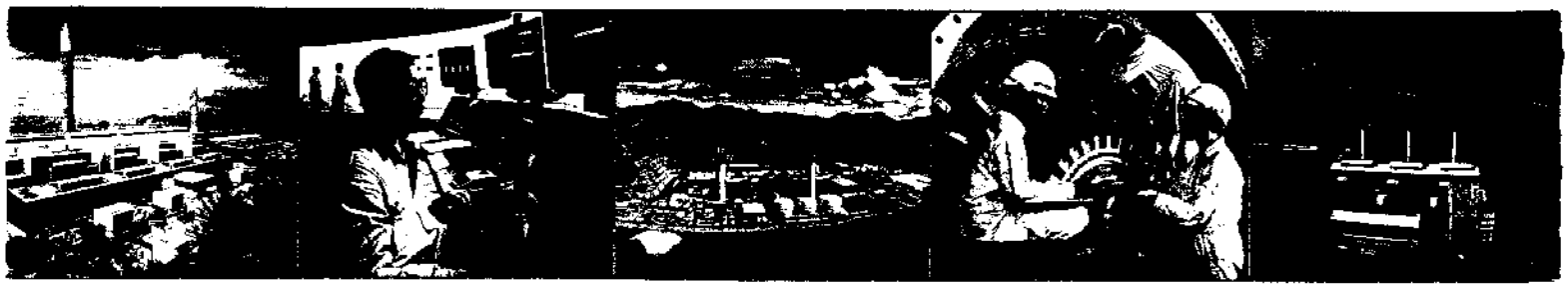
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回應香港電力市場未來的發展

第一階段諮詢文件

埃克森美孚能源有限公司

二零零五年四月



ExxonMobil

目錄

前言		1
摘要		2
I.	埃克森美孚在港業務概覽	3
II.	香港電力系統	4
III.	香港未來電力市場的規管方案	6
	A. 市場化模式	6
	B. 受規管模式	7
	(1) 規管架構的年期	7
	(2) 檢討期	8
	(3) 規管模式	8
	(4) 資產基數方法	8
	(5) 投資回報基數	9
	(6) 准許投資回報	9
	(7) 電價規管	10
	(8) 發展基金	11
	(9) 燃料價格調整	11
IV.	環境及燃料事宜	12
	A. 環境改善	12
	B. 燃料供應	12
V.	引入新元素的規管機制	13
	A. 聯網	13
	B. 新的電力供應源	13
	C. 顧客選擇與開放電網	14
VI.	實施的安排	15
VII.	結論	15

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前言

埃克森美孚能源有限公司就香港政府發表的《香港電力市場未來的發展諮詢文件》提供以下觀點及意見。我們認同香港政府致力尋求各方意見的做法並表示讚賞，因為在香港這個大廈林立的現代化城市，可靠的電力供應對經濟發展和市民日常生活都非常重要。

香港需要並期望最高水平的電力服務。由於本地缺乏燃料資源，又位於快速發展的區域，所以高度自給自足的電力和燃料基建設施都是應當的。基於以上特點，香港需要一個適合本地特殊情況的規管制度。正如《諮詢文件》所肯定，現行《管制協議》的規管安排有利於持續的長線投資，使香港可在過去逾四十年享有可靠及安全的電力供應。二零零八年以後的規管安排亦同樣必須有利於持續投資，以維持最高電力服務水平、改善環境和確保穩定的長期燃料供應。

摘要

- 香港的消費者及各行各業在過去逾四十年一直受惠於一個世界級的電力系統。這系統為香港帶來具競爭力及穩定可靠的電力供應，促成了本地的經濟增長及繁榮。

- 規管此項重要公用事業的《管制協議》一直非常有效地確保社會獲得充足、價格處於可負擔水平及高度可靠的供電服務。香港由於擁有清晰及均衡的規管制度，因此能不斷吸引對以維持這服務水平的重大及適時投資。

- 香港獨特之處在於地少人多，現代化的高樓大廈林立，且毗鄰一個發展迅速的經濟體系，因而對電力供應有特殊的要求，包括在電力及燃料供應上皆要高度自給自足，香港亦因此需要一個切合其本身獨特情況的規管制度。長久以來，一個已證實為行之有效的規管制度成功保障了香港的利益。

- 現時廣東的電力系統或制度發展並未達致所需的水平，且持續受電力短缺影響，顯示出這地區欠缺形成競爭性市場的條件，所以在現時以市場化模式供電並不可行。儘管將來令整合的區域性市場得以形成的條件能逐漸出現，採用未經測試而又源自香港以外的市場及監管機制的市場制度亦會涉及重大風險。

- 現時香港的電價與其它經濟發展同樣發達的主要城市相若。中電/青電均有強烈誘因繼續有效地管理成本。此外，由於政府對投資及營運成本作出審慎規管，公眾的利益因而受到保障。我們明白公眾對電價水平非常關注，事實上保持香港的繁榮及競爭力亦合符我們的切身利益。

- 為了應付不斷增長的需求、改善環境，以及確保長期的燃料供應，未來仍需要重大投資以維持可靠的電力系統。香港的規管方案必須提供足夠誘因，令香港的電力公司繼續作出必要的投資，以確保日後有充足、合符環保及可靠的電力供應。

- 現時合約訂明的回報率對吸引所需的投資行之有效，考慮到電力行業面對的長期風險，這回報水平即使在將來仍屬適當。

- 重大的電力投資需要長時間的計劃以及長遠承擔，這意味著需要有長期而持久的規管安排。容許日後對規管安排作「檢討」的條款，不應使規管安排實際上變成一個短期架構，因為這樣將會令及投資者承諾作出必要長遠投資的能力。

- 較環保的液化天然氣將會是青電的燃氣發電設施未來的必要燃料。電力公司必須對相關的基建設施及長期供應合約作出承諾，因此規管制度的長期穩定性，是確保將來可覓世界各地獲取穩定燃料供應的基石。

- 二零零八年後的規管架構可以均衡方法納入另類能源。我們相信有需要評估不同種類的另類能源是否能為消費者帶來利益。

- 為顧客提供選擇及開放電網必須配合區域性市場發展。只有在新增成本能令消費者受惠的情況下，才應作出聯網的投資。

- 最實際可行的方法是繼續依賴某種形式的均衡規管，這將為香港帶來最容易預測的結果。規管安排必須清晰明確、有都貫徹一致，且以法則為基礎。

I. 埃克森美孚在港業務概覽

埃克森美孚能源有限公司透過其合營公司青電成為香港最大的發電公司

1.1 透過其關聯公司埃克森美孚能源有限公司，埃克森美孚與中華電力有限公司(中電)於一九六四年成立合營公司參與香港發電業務。我們是青山發電有限公司(青電)的大股東，青電旗下的發電廠包括位於香港境內的青山發電廠、龍鼓灘發電廠及竹篙灣發電廠，我們也是香港抽水蓄能發展有限公司（香港抽水蓄能）的大股東，擁有廣州抽水蓄能發電站部分容量的使用權。

發電容量	兆瓦
青山發電有限公司發電廠	
青山	1,108
龍鼓灘	2,500*
竹篙灣	300
香港抽水蓄能的容量使用權	600
	7,508

* 包括興建中的625兆瓦

1.2 青電的發電廠佔香港境內發電容量的65%，青電與香港抽水蓄能為中電提供其香港服務範圍的大部分電力需求。

埃克森美孚是香港最大的美國投資者

1.3 百多年來，埃克森美孚一直是香港的主要燃料供應者，同時亦參與發電業務逾四十年。埃克森美孚於本地發電及石油產品業務的投資使它成為香港最大的美國投資者。現時埃克森美孚在香港的業務包括發電、石油產品零售、油庫、化工產品銷售、中國項目之管理以及其它後勤服務，員工人數約為400人。

1.4 埃克森美孚對於青電發電業務的貢獻良多，包括提供科技及管理方面的專業知識，對最高的安全、營運及公司管治水平的標準，以及雄厚的財政實力。青電可參考我們在全球的最佳營運模式。自一九六四年以來，埃克森美孚於香港發電業務的投資總額逾300億港元。無論環境是好是壞，當前的政治和經濟展望如何，我們依然信守承諾繼續投資，這承諾正是建基於對香港經濟持長遠觀點，以及電力規管架構的穩定。

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[1] 為簡便起見，本回應文件中*埃克森美孚*以及*總公司*、*公司*、*我們的*、*我們*及*其*等同詞可能是指埃克森美孚公司、其部門或埃克森美孚公司之關聯公司(包括埃克森美孚能源有限公司)之中任何一家或一家以上實體。

II. 香港電力系統

香港擁有超卓的電力系統

2.1 於考慮未來電力市場架構時，我們必須認清香港現時供電情況的優勢，其中包括超卓的可靠性(99.99%)、與世界其它發達城市相若的電費、健全的共建設施及足夠的發電資源。香港之所以能夠成功吸引外資，在於其擁有健全的法律制度及對私有企業的價值的認同。在許多其它地方，電力行業長久以來都以公營模式運作，這正是與香港不同之處。在香港，電力行業自始以來一直是由私人經營，這使香港得以遙遙領先於區內許多其它國家，如新加坡、韓國及澳洲。這些國家的電力行業仍面對著重重困難，例如電力行業屬政府擁有，私有化前景未明，以及規管程序多變且模糊不清。

2.2 香港擁有清晰穩定的規管制度，故能成功地吸引外資作遠時、貴徹的投資。這對繼續維持香港現時的可靠電力供應以及優質的電力系統至為重要。

香港的特殊環境造成對電力供應的特殊要求

2.3 香港獨特之處，在於地少人多，當中又包含多個島嶼，且地勢崎嶇不平，又缺乏天然能源資源；大多數人口都居於高樓大廈，許多人並於高樓大廈內工作，市民亦相當依賴電氣化鐵路及地鐵系統。在現代經濟中，高質素的電力供應是不可或缺的。這些特點令香港尤其倚重可靠的電力供應。此外，電力屬於特殊商品，此於電力難於貯存，而貯存成本又高昂，再者發電量必須隨時隨刻配合實際用電量，否則便會出現電力中斷的情況。

2.4 香港的特殊環境令確保充足可靠的電力供應成為一項極富挑戰性的任務。中國臨近地區現時正在急速發展，但要超上香港的經濟及制度的發展水平以及供電可靠性與高需時日，廣東的電力不足正好說明這點。區此，香港已發展了一個整體上自給自足的電力系統。由於香港缺乏可用土地，以致發電設施稀少而密集，且大多建於昂貴的填海土地上，再者本地能源資源缺乏，故經由船隻或管道運送燃料的物流管理變得相當重要。基於這些特點，規模經濟一直都非常重要，香港亦因電力供應基礎設施的集中發展而受惠。自然的結果就是，電力行業中只有少數公司集中向指定地區提供可靠的電力供應。

香港已享受到電力規管安排帶來的好處

2.5 四十年來，香港的電力系統一直受一連串名為《管制協議》的規管合約所規管。這些合約的目的在於創造一個穩定的環境，使私人公司願意投資以滿足不斷增長的電力需求。埃克森美孚在協議開始時即以燃料供應商及發電業務投資者的身份涉足香港電力行業。這個規管架構建立了良好基礎，令中電及青電一直能以香港市民可負擔的價格提供電力供應服務，且其供電服務一向以高度可靠、安全、營運效率高、優質客戶服務及著重環保見稱。這完全符合香港政府《諮詢文件》中所提及的政策目標－「以合理的價格，得到可靠、安全及有效率的電力供應，並致力將發電和用電對環境所造成的影響減至最低」（《諮詢文件》第1.1段）及「確保供電和用電安全至為重要」（《諮詢文件》第3.1段）。公司致力於日後維持這表現水平，繼續為香港的發展作出貢獻。

2.6 政府在監管架構中繼續一向非常重要的規管角色，為了確保新增資產發展能適切性，政府透過內部及顧問專家仔細檢視投資計劃、行政會議審批財務計劃、審計、以及對發展項目和計劃的持續監察，構成高質素及可負擔的電力服務。

投資需求

維持可靠電力供應有賴日後的重大投資

2.7 在中電的香港服務範圍內，發電容量與供電需求在下一個規管計劃開始時將會大致平衡。由於電力需求持續穩定增長，香港因此需要新的發電容量以確保穩定的供應。我們預計香港需要額外發電容量的高峰電力需求，現時每年平均增長大約200兆瓦，相等於每兩年便需要多一台商業運轉合併循環燃氣輪機。高峰電力需求有時可能出現較大的增長，如在二零零四年，中電的香港最高需求的增長便達到8%（即455兆瓦）。如詳述於IV節，香港現時需面對來自改善地區性環境問題以及如何在日後獲取燃料供應等挑戰。此外，香港將需要額外發電容量以取代將於十年後到期的大亞灣購電合同，同時亦需大量投資，以減少排放及在日後取得天然氣供應（詳見IV節）。再者，要維持足夠及可靠的供電及輸電系統，便需作出投資。中電/港電供電範圍每十年在這方面的投資需要便達數百億港元。面對維持可靠供電和配合環保要求所帶來的挑戰，香港需要有實力的公司作持續投資，才能滿足本地長遠的需要。

規管方式必須確保在有風險的情況下長遠投資依然得以持續

2.8 發電及輸電是大型及長遠的投資，機械設備預期可運作數十年。電力資產一般不能遷移，因此有令投資難以減低的長期風險。在這關鍵時刻，進一步投資於香港發電行業的主要風險包括規管改革及政治的不明朗因素、與需求增長及單一電力行業有關的市場風險、成本風險及利率和貨幣風險。對海外投資者而言，貨幣風險是一項重要的長期風險，因為收入是以港幣計算，而區內貨幣匯率有可能改變。

2.9 近年來，世界各地電力行業的特徵是高風險、低回報。其中主要的風險是規管政策不斷變化。投資者一旦投入數以十億元的大規模電力投資，便承擔了不能輕易管理的風險。在此情況下，投資者在評估投資環境時，必然會考慮在作出投資後有關條款及條件可能出現的變化。若未來規管制度不明朗，投資風險自然亦會增加。具有少數行業的投資會涉及如此龐大的資金，首又要面對因規管及未來政策發展不明朗因素所帶來的風險。以往許多地方都曾經出現過過度投資及投資不足的循環週期，這些問題大都與規管上的轉變有關。在許多國家，國際電力投資者往往在進入電力市場數年後便撤離。其中一個與香港息息相關的例子，便是中國內地，它正面對著海外電力投資循環週期問題、投資遲期及與規管變動有關的風險。假若無法就新發電設施的權利及責任提供明確指引，不但會增加投資風險，更會威脅到該地區未來能否有足夠的電力供應。此外，由於不少國家均收緊排放標準，所以與環境有關的規管風險亦更顯重要。

III. 香港未來電力市場的規管方案

3.1 電力市場大致有兩種規管方案：

- 為確保消費者與生產商的利益得到平衡而進行規管；或
- 在電力行業相關部分引入市場競爭機制。

3.2 香港的《管制協議》屬於第一種「受規管」模式，第二種「市場化」模式需要電力行業進行大規模的重組，由政府為該行業某些環節設計並建立市場，而對其它環節如輸電及配電則繼續進行規管，電力行業如按「受規管」模式運作，提供充足電力的責任可由受規管的公司承擔，若採用「市場化」模式，政府便須倚賴市場去提供充足的電力供應，儘管政府仍須對市場的表現承擔最終責任。由於可靠電力供應及電價是公共政策重要的一環，而市場化又會帶來不可預見的後果，因此世界各地的政府都無可避免地對電力市場進行持續的干預。

A. 市場化模式

市場化模式供電在香港現時並不可行

3.3 因為適合興建發電設施的地點少，本地亦無天然燃料資源，造成參與電力行業的公司數目少，因此以市場化模式供電並不可行。如要重組香港電力市場，便只有建立一個包括廣東在內的區域性市場，以提供足夠的競爭。即使香港有意建立這種市場，亦需要等待華南電力行業發展至相若水平之後方有可能。

3.4 眾所週知，現時廣東電力嚴重短缺，即使能夠解決電力短缺問題，要建立市場化的基礎仍是遙遙不夠的，還需要有私人公司持續不斷地作出適時的發電投資，和有大量投資提升廣東的輸電系統，以確保供電的可靠性。此外，內地政府以行政手段控制電價及發電設施的擁有權問題亦必須處理。只有發展出可靠、穩健的體制、法律及商業秩序，才可建立一個由香港和內地共同參與的電力市場，而香港和內地市場亦必須雙向開放，才能有公平競爭。

3.5 要在廣東建立區域性電力市場顯然為時尚早。基於上述原因，再加上華南地區電力供應短缺以及相關的不明朗因素，二零零八年後的香港電力制度發展應獨立於華南地區。

香港電力市場按市場化模式運作所面對的長遠問題

3.6 即使能達致上述所有市場競爭的必要條件，香港仍需從控制本身的電力供應及提倡電力市場競爭中作出選擇。香港市民必須明瞭，區域性電力市場意味著香港的電力將由一個以廣東為中心的區域性市場所提供，而這個市場自然會集中於廣東的需要。現時香港高峰電力需求不及廣東高峰電力需求的四分之一，而廣東的發展當然比香港快得多。屆時香港供電的可靠性必然更加受華南的供電情況所影響，但由於香港獨特的生活和工作方式，香港供電不足的代價將會遠比其它地方為大。在區域性市場之中，香港的發電廠自然會按照區域性市場的需要來運作，而非優先滿足香港的需要。

3.7 從長遠角度考慮電力市場重組是否可取時，消費者還須明白到市場必須透過價格來平衡供求。為確保市場運作暢順，就不能使市場訊號模糊不清或被人為地扭曲。如果地區內電力供應不足，廣東及香港兩地的客戶都將要承擔更高的電費。價格將變得更為波動，並不時需要提高價格以取得未來電力供應。附設上限的消費價格與按市場模式運作的電力市場無法並存。二零零零年至二零零一年的加州電力危機主好說明不一致的市場政策可導致嚴重後果。安大略省在二零零二年開放了零售電力市場，但只維持了短短七個月便需再次對零售價格作出規管。鑑於香港本身的特殊情況，要開放電力市場，除了要考慮市場化模式所帶來的有限好處和昂貴風險，還需要香港市民願意接受因市場化模式而帶來不設上限的價格。

B. 受規管模式

對香港而言繼續規管是實際可行的模式

3.8 香港電力架構實際可行的運作模式是繼續以某種形式的規管為主，而政府《諮詢文件》已恰當地將重點放在這種模式上。現時的《管制協議》安排就是受規管模式的一個例子，它在香港已經成功運作了逾四十年，因此已為二零零八年以後的規管安排提供了一個良好基礎。香港現時所面對的挑戰是尋求改善，而非純粹為改變而改變。

規管安排應當清晰明確、內部貫徹一致且以法則為基礎

3.9 要建立一個新的電力市場規管制度並非易事。設立一個可行的制度，不可單單將幾個規管架構中看似吸引的元素湊合起來，假設他們都能融合為一個穩定和合乎邏輯的架構。此外、其它地區適用的架構未必最適合香港。由於發電量與實際用電量必須時刻保持平衡，電力系統是一個非常複雜的系統。供電的可靠性必須保持不變而且確實無疑，令生活在這個高樓大廈林立的現代化城市的市民大眾毋需為電力而擔心。要應付增長需求，便必須及時建成所需的發電及輸電設施，而這需要適當的誘因，令電力公司於有需要時作出投資。規管制度必須內部貫徹一致及互相呼應，並須具備有關釐定電費水平、責任和問責性的清晰法則。

(1) 規管架構的年期

長遠的規劃期需要長遠的規管安排

3.10 電力供應是一個需要長遠承擔的資本密集工業，這突顯了規管制度年期的重要性。我們必須強調，與日後需求增長、環境改善及燃料供應有關的投資及合約承諾，更增加了穩定和長遠規管安排的需要。

3.11 發電廠預期可以運作數十年，天然氣合約則可能長達二十五年，而於辦理環境許可證及批地手續後，而且建築工程開時，供氣的基建設施從構思到竣工可能需要七年甚至更長時間。

3.12 一個為期五至十年的短期規管架構，事實上差不多是形同虛設，因為當二零零八年後的規管制度「完結」後，在另一個規管制度下的工作已立刻展開，若股東因無法對長遠投資作出負責任的決定而延遲作出必要投資，將會損害未來的供電可靠性。一個「中期」措施並不會亦不能迎合香港社會的需要。因此，規管安排的年期應顧及所需投資的性質，而電力投資屬於非常長期的投資。

(2) 檢討期

「檢討」不應使規管架構實際上變成短期架構

3.13 《諮詢文件》論及檢討期問題，指出在現行《管制協議》的有效期內，准許投資回報及投資回報基數都是固定的。若規管架構的主要條款可能定期有所變動，那麼規管安排實際上就是短期安排。對審慎的投資者而言，假若未來營商環境不明朗，就不能負責確保將來供電充足的責任或作出投資承諾。因此，必須小心限制及明確指出在甚麼情況下才可重訂規管條款。

(3) 規管模式

規管模式可以是資產或價格基數方法，但不能兩者兼用

3.14 電力市場的規管模式有多種，包括資產基數方法和價格基數方法；資產基數方法即根據包括資產回報基數在內的成本以確定電價，價格基數方法則是電價以協商方式釐定，而電力公司的實際回報則取決於其表現。明白到回報與電價不能同時直接受管制這點尤其重要。一是先協定回報，然後以此為基礎來計算電價；或者先協定電價，回報要視乎銷售情況和成本。將兩種方式混合起來將會導致極其複雜的情況，而且結果可能並非客戶所預期，亦非投資者維持可靠供應所需。

3.15 選擇資產基數方法還是價格基數方法將會影響到客戶要承擔的電價波幅及股東所面對的風險。政府的《諮詢文件》把「基於投資的回報率」與「規管電價」列為兩個環節，這可能會給人留下一種印象，以為這些規管制度的組成部分可以分開作獨立考慮。有一點非常重要，就是必須明瞭制度中所有的經濟元素都是緊密關連，而制度亦必須是內部整合貫徹一致的。無論是哪種規管方法最終都必須能夠提供必要的投資誘因，否則將削弱供電可靠性。

(4) 資產基數方法

3.16 資產基數方法指按照供電服務成本釐定所需電價，供電服務成本包括資本及經營成本。政府《諮詢文件》載有多種計算服務成本的方法，不過，政策制訂者及消費者最關注的始終是電價，而非如何計算電價。在現行的規管方式之下，中電服務範圍內的電價總是世界其它和香港發展程度相若城市的水平。長久以來，中電的電價保持穩定，升幅又遠不及通脹，且電力成本僅佔家庭總開支一個很小的部分。

(5) 投資回報基數

採用固定資產方法以釐定投資回報基數是適當的做法

3.17 使用資產基數方法時，政府透過規管電力公司的開支以防止過度投資以保障消費者需承擔的成本。在這既定目標之下，使用固定資產淨值（投資減折舊）方法來釐定投資回報基數相當合適，因為資產方面的投資是規管制度的主要對象。至於股本基數規管方法則涉及規管電力公司應有否如何安排業務融資，這既非大家關注的議題，亦增加了問題的複雜性。

3.18 此外，當以固定資產來釐定投資回報基數時，如在現行的《管制協議》之下，電力公司承擔了絕大部分的債務利息成本變動風險，因為利息是由電力公司從其准許資產回報中支付。使用股本基數方法時，利息開支會轉嫁予消費者，他們因而承擔了利率變動的風險。這進一步說明，資產方法較股本方法更適用於釐定投資回報基數，就正如現行《管制協議》中所規定的。

(6) 准許投資回報

並無一條方程式可以提供足以確保投資的回報

3.19 股東如欲對某一些業務進行長期投資，便必須看到以其長期資金及資源承諾換取回報的機會。必要的回報並不是一種理論，而是怎樣的回報才能吸引投資者在實際情況下作出必要的投資。在協定適當回報之時，有很多因素都必須考慮在內。政府《諮詢文件》提出了兩種釐定回報的方法：參考其它類似投資的回報，及與資金成本掛鉤的計算方法。從實際的角度出發，回報無法透過理論性的方程式釐定。採用資金成本方法尤其會得出許多不同的結果，特別是當如剔除務資料計算在內之時。由於電力資產的壽命長，而可靠電力服務又需要長期承諾，故應從長遠角度考慮回報問題。一個相關的例子就是在過去二十五年，香港股票市場的股票回報平均為每年20%。

3.20 但最重要的是，考慮的重點應該是投資的價值，而非單單在於回報。電力基建設施投資不足或拖延可令社會付出高昂的代價。大所共知，世界其它地區便曾因規管制度未能經常確保必要投資而導致電力短缺等嚴重後果。中國內地的持續電力短缺便是一個很好的例子，很多投資者都因為無法取得足夠及穩定的回報而撤出內地市場。最後和最重要的是回報必須為香港的電力公司提供進行必要投資的流動資金和誘因，使他們持續投放必要的資本，以確保日後供應充足可靠。

現時合約訂明的回報是合理水平

3.21 根據現行《管制協議》，最高准許投資回報為電力公司支付融資成本前的固定資產淨值的13.5%，而融資來自股東資金的資產則可另外賺取1.5%的回報率。股東的實際投資回報相等於准許回報扣除股東所承擔的融資成本。考慮到香港電力行業的長期風險，我們認為這是合理的回報。考慮回報時應視之為一份長期合約的一部分，當中涉及的龐大投資需面對多項風險。股東要承擔政治及規管風險，當中包括與將來規管政策及區域性電力市場發展有關的風

險，海外投資者則需承擔利率和貨幣波動等財務風險，而將來港元與人民幣之間的關係亦是一個潛在的重要因素。此外，還要考慮到市場需求和營運上的風險。

3.22 作為國際能源市場投資者，埃克森美孚必須參照其它地區以及其它形式的能源投資機會，從而考慮當前及日後在香港發電項目的投資。在過去五年，埃克森美孚眾多環球業務的平均已投資資金的回報率為 19% 。假如因為規管制度的改變而導致電力公司面對的風險大增，那麼埃克森美孚便需要重新評估回報相對於風險是否恰當。我們的企業哲學建基於有效率和審慎地使用資金，而我們的股東亦對現在及將來的投資表現有相當高的要求。

3.23 能夠有肯定可靠電力供應的承諾，一直以來是香港社會的重要基石，而香港亦已在現行合約期內，真正地受惠。香港享受卓越的電力服務，投資回報亦應與之相符。

(7) 電價規管

成本基數電價是採用資產基數規管方法的產物

3.24 如前所述，電費釐定機制應被視為規管制度中一個不可或缺的部分，而非投資回報規管以外的一個獨立環節。若採用資產基數規管方法，電價便按照預測銷售量及供應成本釐定。電價檢討的焦點便會集中於就預測銷售量及成本達成共識。然而，若以價格基數規管方法取代現時的資產基數方法，規管當局及電力公司便必須定期檢討電價，而實現回報將取決於期內實際成本及銷售量。

3.25 雖然可設計一個包括期內通脹或其它電價調整因素在內的機制，但整個制度的核心要求在於所得回報能提供足夠誘因，使電力公司在面對風險時依然進行必要投資。值得注意的是，若在電價制訂過程中把通脹因素包括在內，便必須審慎考慮通脹指數與電力供應成本之間的關係。中電／青電的成本僅有 10%源於香港（主要為勞工成本），可以直接與香港通脹掛鉤，其它如燃料及設備等均從外地入口，與本地通脹無關。

3.26 無論電價機制是源於資產基數還是價格基數規管方法，目標都是一致，就是建立一個既能吸引必要投資，而消費者又能承擔的合理價格和可靠電力系統。

透明度與政治化之間必須取得平衡

3.27 《諮詢文件》論及電價制訂過程的透明度應該提高，以便公眾能更理解電價調整的基準。公司的財政報告包括了《管制協議》的報告以及財務和營運統計，雖然這些資料屬回溯性質，但對外公開的程度已是非常高。由於某些商業資料如價格預測的敏感性，所以向公眾披露前瞻性資料會更為困難。例如青電需要不斷就購買燃料進行洽商，公司更多有關燃料需求和價格期望的資料，將會涉及我們的談判立場，反而損害消費者的利益。因此，在商業上的需要與公開資料之間必須取得平衡。然而，電力公司和政府就資本投資決定如何對公眾負責的溝通可能是一個適當的做法，這樣可以確保公眾有信心這些都是負責任的決定，而政府亦執行了規管的職責。

3.28 從一個比較概念性的角度來看，電價制訂過程應被視作執行一個已獲同意的監管程序，而不是持續的談判。公眾自然希望了解電價的由來，但在滿足這要求之時，公佈有關措施可能令電價制訂過程政治化，這兩者之間，必須取得平衡。電價需與電力供應的商業要求相符。假若電價本身成為政治工具，則可能令其脫離商業現實，而給消費者帶來嚴重後果。兩者之間不能配合正是導致電力供應短缺、加拉吉場崩潰及當地一家主要公用事業企業破產的原因之一。

(8) 發展基金

發展基金可避免電力公司賺取額外回報

3.29 現行《管制協議》規管模式的一個獨特之處是公司回報設有指定上限，該上限由資產基礎及准許投資回報釐定。在《管制協議》中，發展基金其實是一個避免電力公司賺取多於准許回報的機制。任何超出上限的收入均會被撥入發展基金，用以為消費者舒緩日後的電費加價壓力及為電力公司降低投資風險。發展基金的應計結餘利息將撥歸消費者。倘無發展基金，則可能需要另一套可發揮同一功能的機制，或需允許電力公司賺取額外回報。

3.30 發展基金亦有穩定電價的作用。《諮詢文件》提及對發展基金可能積存大量結餘的關注，當然，這只有在公司能成功控制成本，而將所得利益撥歸消費者的情況下才會發生。為解決過量結餘的問題，上次中期檢討已訂立一上限機制，以限制發展基金結餘。

(9) 燃料價格調整

電力公司具備有效管理燃料成本的強烈誘因

3.31 現行《管制協議》訂立了一個燃料價格調整機制，以助電力公司管理燃料價格的波動，此乃資產基數規管方法的一貫安排。

3.32 《諮詢文件》關注到鼓勵採購效率的誘因可能有所不足。事實上，為確保採購活動得以審慎進行，政府一直密切監察燃料成本，而且由於公眾對電價上升的關注，電力公司事實上具備有效管理燃料成本的強烈誘因，過去在這方面的管理亦有良好記錄。須注意，燃料成本的變動不僅源於燃料價格，亦可源於燃料組合的變化，尤以煤與天然氣為言。燃料組合可受環保條例或公司控制範圍以外的其它因素所影響。背電的燃料成本管理向來非常成功，即使煤價及燃料組合近幾年來出現大幅波動，也沒對消費者造成重大影響。燃料價格調整條款機制一直協助達致這有效管理。

IV. 環境及燃料事宜

A. 環境改善

規管安排必須有利於改善環境

4.1 作為毗鄰全球發展最快地區之一的主要城市，香港面臨著巨大的環境挑戰。事實上，由於現時本地重工業稀少，而集體運輸系統又非常發達，香港本身的污染排放水平相對較低。香港有著完善的環保條例及全面的排放監測系統，然而，由於毗鄰珠三角工業區，香港的空氣質素問題日益嚴重。近年香港已與廣東省達成協議，雙方將盡其可最大努力降低珠三角地區的排放水平。若按這目標減少排放，香港的排放量將降至極低水平。由於發電廠是香港最大的工業設施，它的排放表現自然成為焦點所在。

4.2 自八十年代建成後，以煤為原料的青山發電廠已能清除逾99%的懸浮粒子。二氧化硫排放量已透過低硫煤的成功得到控制。由於採用低氮氧化物燃燒器，並改善鍋爐控制系統，所以氮氧化物排放量亦有所降低。能源發電廠將高效能聯合循環燃氣輪機技術引入香港，使用天然氣作為燃料，有助改善環境。持續的技術改良及燃料多元化已大幅降低為中電供應區域服務所引致的排放水平。一九九一年至二零零四年期間，每度售電所含的氮氧化物、二氧化硫及懸浮粒子的排放量分別下降80%、65%及79%。青電已連作超過二千五百日，期間排放量從未違出發牌規定。

4.3 青電已向政府提出建議，為青山發電廠 B 廠添置排放控制設備，以進一步減低排放量，此舉將涉及數十億元的投資。大家都希望降低排放水平，但我們必須為此付出代價。規管安排必須提供收回改善環境成本的方法，而消費者亦必須願意承擔有關費用。無論是社會大眾還是投資者都可從清晰、可實現的排放目標中受益，根據目標才可作有效的長遠規劃。若想環境得到持續改善，則長遠環境政策及日後的電力規管安排必須保持一致，以使對發電項目投資作出負責任的決定。就環境改善而言，《管制協議》已證明是一套有助環境改善的優良機制，因為投資者可以收回相關成本。

4.4 此外，如果一個大型的華南電力市場有天得以實現，則整個地區必須採納相近的環境政策。否則，香港的發電商將因此而喪失市場佔有率予來自內地環保水平較低的競爭者，這對整個地區包括香港的環境均會造成不良後果。

B. 燃料供應

穩定的長遠規管制度是確保未來燃料供應的基石

1.5 香港電力規管安排的檢討，剛好在我們需要對未來燃料供應作出決定的關鍵時刻中進行。青電現時的天然氣供應來自位於南中國海的油氣氣田，視乎天然氣的提取率和實際儲量，該氣田的天然氣將於下一十年代初耗盡。此外，由於天然氣更符合環保要求，因此成為未來高

要增加的發電量的首選燃料。而本地缺乏燃料來源，香港的電力行業在安排燃料供應方面正面臨獨特的挑戰。

4.6 我們將需要液化天然氣作為後續的天然氣供應。香港如要引進液化天然氣，便需要興建一個液化天然氣貯存庫，以及連接至發電廠的管道等基建設施，而在天然氣開採區域則需進行氣田開發及建設液化工廠和碼頭設施，再由液化天然氣船隻將天然氣從源產地運至香港。引進新的天然氣供應需時約七年，因為需要發展完整的供應鏈，並取得所有相關許可，這代表有關合約必須在短期內落實，以使這時等候後續的天然氣供應。

4.7 在落實液化天然氣供應的合約之前，無論是中電、港電，還是液化天然氣的賣方，都需要一個清晰、長遠的規管安排，當中包括將電力售予消費者的條款。穩定的長遠規管制度是促成長遠改善環境及燃料供應承諾的重要因素。若要確保在將來獲得穩定的燃料供應，以提供可靠電力及持續環境改善，那麼中期或短期的規管安排並非可行的方案。

V. 引入新元素的規管機制

A. 聯網

聯網投資應具備成本效益

5.1 政府的檢討範圍亦包括供電系統之間加強聯網，此為一項備受公眾關注之議題。正如《諮詢文件》所述，多年來香港本地及香港與華南地區透過聯網互相支援已成為香港電力系統的一個特點。互相支援對於維持可靠性十分重要。擴大聯網容量其實涉及一個技術及經濟議題，就是如何建立效率最高而又穩定的供電系統。我們認同加強聯網的投資應取決於它帶來的淨經濟效益，但此時此地我們並不認為加強聯網的得益大於成本。加強聯網為輸電系統設計的一部分，而非一項獨立的目標或結果，正如其它任何投資一樣，加強聯網必須是規管架構中能發揮實際作用的一環。

B. 新的電力供應源

若電力短缺持續，廣東不會是可考慮的電力來源

5.2 我們在 IIA 節已討論過內地電力供應的情況。廣東現時正經歷嚴峻的電力短缺與環境問題。當這情況持續，廣東可向香港供電的說法便不足為信。即使可以在廣東邊境附近興建發電廠以供電給香港，亦必須作為廣東電網相連的後備系統，才可確保可靠穩定的電力供應。這代表香港將成為廣東電網的一部分，因而受制於 IIA 節 3.3 – 3.7 段中提及種種關於華南區域性市場的問題。

5.3 我們應當注意鄰近香港的珠江三角洲大應對空氣質素發展迅速，並與香港處於同一「大氣」環境。內地地區亦不會准許興建新增的燃煤發電廠，因此我們不應有一種想法，就是以為將來可以輕易地在珠江三角洲興建低成本的發電廠。再者，將發電廠從香港移至內地並無實際環保效益可言。

以均衡方法把另類能源納入規管架構

5.4 政府《諮詢文件》中並提及利用可再生能源發電，而這亦是近期另一項諮詢的主題。就上次中期檢討中的協定，青電現時正在香港就商用風力發電設施進行一項試驗計劃。香港未來利用風能發電的方式應該建基於該研究的結果之上，該研究將提供關於選址可行性、實際潛在風能、以及本地風力發電經濟方面的資料，然而，香港有限的土地資源無可避免地限制了發展風力發電的規模。若風能在某程度上可成為本地實際可行的另類能源，它應與其它可供選擇的能源一併被考慮。和《管制協議》一樣，資本基數規管安排具備靈活性，在公眾對另類能源的成本效益感到滿意的前提下，它能容納另類能源的考慮。

C. 顧客選擇與開放電網

為顧客提供選擇必須配合區域性市場發展

5.5 為顧客提供選擇及「開放電網」議題都與開放市場的發展互相關連，正如先前所述，開放市場要建基在區域性市場。如欲為顧客提供電力供應商的選擇，就先要有一個让供應商參與的競爭性發電市場，否則，實際上根本是無可選擇。供第三者使用輸電及配電網絡是實施顧客選擇的一部分，只有這樣，電力供應商才能將電力從發電廠輸送至客戶。

5.6 正如《諮詢文件》所述，如要開放電網，電力行業就必須進行大規模重組。這可以是費時、困難重重且代價高昂，尤其是當電力行業現時屬私人營運。除非組成競爭性市場的條件出現，而轉型至這種市場又會帶來明顯的利益，否則並無理由進行這種重組。這些條件在香港現時並不存在，因此在其內市場發展有清晰方向之前，無法切實完成。此外，重組無可避免地會引發「已投入成本」及風險等問題，因為在一種規管制度下進行的投資活動未必符合另一種制度的要求。

5.7 引入另類能源未必需要涉及顧客選擇與開放電網，如廢物轉化能源，因為這可在受規管市場架構中加以處理。現時有關後備連接電網的公平條款已容許規模較小作自用性質的可再生能源，和平衡自用發電者與其它客戶的利益。

VI. 實施的安排

以合約形式實施規管是最簡單和適合的方法

6.1 現行《管制協議》是以政府與電力公司之間簽訂的商業合約為基礎。該等合約屬公開文件，可在政府網站上查閱。基於合約的形式，《管制協議》在許多方面都是走在時代前頭。商業合約是一種靈活的工具，可用以執行多種不同類型的規管安排，而且它能夠和香港高度發展的商業和法律制度相容。當合約已能滿足需要之時，立法almost對地使繁的工具。除非及直至全面市場重組對香港而言是可行及可取的，否則轉而採用一個更複雜及清晰度較低的實施方式似乎無甚好處和實質意義。

6.2 簡單的合約方式，令政府政策局及部門可以有效地監察與管理。是否需要作出其它安排，例如獨立的規管機構，則要視乎二零零八年以後規管制度的性質與複雜性。當然，越複雜的安排，尤其是涉及市場重組時需要越多政府資源，大為政府須親自對經濟事宜及可靠充足的電力供應承擔更直接的責任與問責角色。政府大部整合是一個頗新的概念，但是要就涉及範圍如此廣泛的規管制度改組法定權力機構，可能是個重大挑戰。

VII. 結論

香港需要適合其特殊情況的電力架構

7.1 香港是一個已發展的世界級城市，這裏寸金尺土，且本地並無燃料生產。然而，香港需要亦期望享有最高水平的電力服務。毗鄰的廣東雖然發展迅速，但論發展程度卻始終未及香港。故此，香港在電力及燃料供應上均需要高度自給自足。這種特殊環境說明香港需要一個切合本身情況的規管制度。

7.2 現時的規管安排能有效地促成香港電力供應所需的持續性長期投資，因為它擁有清晰及簡單易明的制度，並為投資者提供合理回報。這最終為香港帶來一個以合理電價提供可靠服務的超卓電力系統。二零零八年以後的安排亦必須同樣地促進持續投資，以維持最高的服務水平，提供市民大眾所期望的環境改善措施，以及確保香港取得所需的長期燃料供應。

（此為中文譯本，原意請參閱英文版本。）



"F.M. Li"

2005/04/30 08:13 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Electricty Market in Hong Kong Stage I Consultation
☐ Urgent ☐ Return Receipt

Dear Sir,

Please find my view as below :

As a consumer, I would like the electricity tariff as low as possible, however, electricity reliability and environmental isues are my concerns as well. Also, I doubt whether the intergration of HongKong electricity system with Guangdong system is feasible or not as the electricity supply in Guangdong's is rather low standard.

Regards,

F.M. Li



"Fung Ping & Chak Lam"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Response to Consultation Paper on Future Development of Electricity Market in Hong Kong

2005/04/30 11:49 PM

☐ Urgent ☐ Return Receipt

Dear Sir,

I would like to express my point of view that the electricity supply in Hong Kong is very reliable and the power company do offer excellent services on both operation and customer service. Therefore, I would support to keep the existing regulatory regime so that Hong Kong people can enjoy the reliable electricity supply in future.

Regards,

F.P. Leung



"fanny"

23/04/05 10:30 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 兩電利潤管制協議的個人立場
☐ Urgent ☐ Return Receipt

個香港市民，我願意表達對兩電利潤管制協議的個人立場，在香港島居住能享受電力供應的穩定，電力公司的服務也令我十分滿意。

我希望現有的模式不變，聽聞有國內投資公司意欲在香港，參與發電的計劃，深感不安，恐怕供電不穩定，帶來生活上很多的不便。

請政府慎重考慮。

Fanny Fung

香港工業總會
Federation of
Hong Kong Industries

29 April 2005

The Honourable Stephen Ip, GBS, JP
Secretary for Economic Development and Labour
Government Secretariat
Room 815, West Wing
Central Government Offices
Lower Albert Road
Central
Hong Kong

Dear Mr Ip,

**Future Development of the Electricity Market in Hong Kong:
Stage I Consultation**

With reference to the subject public consultation, the Federation of Hong Kong Industries would like to submit the enclosed report for your consideration.

Yours sincerely,

Robin Chiu
Director-General

Encl.

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Restructuring Hong Kong's Post-2008 Electricity Market: A Proposal by the Federation of Hong Kong Industries



香港工業總會
Federation of
Hong Kong Industries

April 2005

Restructuring Hong Kong's Post-2008 Electricity Market:

A Proposal by the Federation of Hong Kong Industries

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香港工業總會
Federation of
Hong Kong Industries

Foreword

In view of the expiry of the Scheme of Control Agreements (SCA) between the SAR Government and the two power companies in 2008, the Federation of Hong Kong Industries formed an "Ad Hoc Committee to Study Hong Kong's Power Supply Market" in late 2003 to recommend how the post-2008 electricity market should be restructured to meet the long-term development needs of Hong Kong.

The Ad Hoc Committee, chaired by Deputy Chairman Mr Clement Chen, comprises experts from different fields of the business community and local universities. It also commissioned Dr Graham Thomas, a British consultant specialised in electricity market reform, to carry out a consultancy study on the best approach to the restructuring process.

In the past 18 months, the Ad Hoc Committee has put in great efforts to draw up the present report, which has been endorsed by the General Committee as the Federation's formal response to the Stage 1 Public Consultation on Future Development of the Electricity Market in Hong Kong launched by the Government.

We believe the recommendations contained herein will enable Hong Kong's electricity market to develop in a gradual, steady and environmentally sustainable manner, while allowing consumers to continue to enjoy safe, reliable and quality electricity supply, but at more competitive prices.

We hope the Government will give serious consideration to this report and take our proposal into full account when mapping out the next stage of public consultation.



Kenneth Ting
Chairman
Federation of Hong Kong Industries

Introduction

First of all, I would like to thank my fellow Committee members, whose expert advice and valuable input have greatly contributed to the successful completion of this report.

Over the past 18 months, the Committee has discussed the consultancy study by Dr Graham Thomas and reviewed many other options at great length. Our recommendations, premised on promoting Hong Kong's long-term development and from the perspective of commerce and industry, aim to address the various concerns about the present Scheme of Control Agreements and to set the path for the gradual evolution of the local electricity market.

In formulating our proposal, we have taken good care of the need to balance the interests between the power companies and electricity users. The market restructuring process proposed in this report has also been designed in such a way that it will match the trend of closer economic integration between Hong Kong and the Mainland, as well as the community's wish to promote sustainable development.

Given the small size of Hong Kong's electricity market and the necessity to maintain high security of supply, any attempts to introduce market competition needs to be carefully measured. In our view, to increase the choice of consumers by beefing up the transfer capacity of the inter-connector between the two power companies and the setting up of an independent regulatory authority will be among the first steps to open up the market. It is also imperative that the permitted rate of return for the Post-2008 Scheme of Control Agreements be reduced to align more closely with the prevailing market environment. Unbundling the two power companies' generation, network and supply operations is seen by us as the final step to prepare for the eventual opening up of the market to a restricted number of new approved suppliers whose standards and capabilities are comparable to the incumbents.

Finally, I wish to express the Ad Hoc Committee's appreciation of the useful comments and strong support that the General Committee has given to us.



Clement Chen
Chairman
Ad Hoc Committee to Study
Hong Kong's Power Supply Market

Table of Contents

	Page
Chapter 1: Objectives of Market Restructuring	1-2
(a) Security of supply	1
(b) Sustainable lower electricity prices for all customers	1-2
(c) Allowing consumers a choice of electricity suppliers	2
(d) Reasonable balance between the interests of all stakeholders	2
Chapter 2: Establishment of an Independent Regulatory Authority	3-5
(a) Continued control of CLP and HEC activities	3
(b) Suitable transmission capacity between Hong Kong Island and the Mainland	3-4
(c) Access arrangements for renewable energy sources and co-generation and monitoring of their activities and performance	4
(d) Long-term investment planning	4-5
Chapter 3: Post-2008 SCA for CLP and HEC	6-9
(a) Rates of return	6-7
(b) Asset lives	8
(c) Purchasing electricity from the Mainland	8
(d) Gradual unbundling of generation, transmission, sales and other operations	8-9
(e) Incentivised performance regulation	9
(f) Demand side management	9
(g) Renewable energy sources	9
Chapter 4: Gradual Opening of the Market to Approved Suppliers	10
Chapter 5: Summary of Major Recommendations	11-12
Appendix: *Membership of the Ad Hoc Committee to Study Hong Kong's Power Supply Market*	

Chapter 1:
Objectives of Market Restructuring

Any market restructuring should aim to deliver the desired objectives effectively using cost efficient and simple methods that can be further developed over time to meet anticipated future objectives.

In the present Scheme of Control Agreements (SCA) with the two power companies, the Government requires that "... service to the consuming public continues to be adequate to meet demand, to be efficient and of high quality, and is provided at the lowest cost...". In return, "the Government recognises that the companies and their shareholders are entitled to earn a return which is reasonable in relation to the risks involved and the capital invested in and retained in their business".

Regarding the government requirements, both CLP Power Hong Kong Limited (CLP) and Hongkong Electric Company Limited (HEC) have demonstrated that they are able to construct sufficient generation capacity to meet demand with a high quality service. The main problem with the present SCA lies in the fixed permissible rates of return allowed to the utilities and over a very long period contractually, regardless of dynamic market conditions and risks. CLP and HEC first entered into a SCA with the Government in 1964 and 1979 respectively. The annual 13.5% permitted rate of return on average net fixed assets was stipulated in the 1964 SCA, and an additional 1.5% return was introduced in the subsequent SCAs on assets funded by the shareholders. These permitted rates of return have remained unchanged for decades in spite of the fact that Hong Kong has experienced both double-digit inflation and several years of deflation during the period.

Against this background, the restructuring of Hong Kong's post-2008 electricity market should aim to deliver the following objectives.

(a) Security of supply

Such a key commercial and financial hub as Hong Kong must have a high security of supply. Over the past decades, the two incumbent power companies have achieved remarkably high standards in this respect, in particular in meeting peak demand. Any restructuring proposals for the future electricity market must ensure the continuation of these high standards, while requirements for future investment in generation capacity and transmission links should result from a co-ordinated forward plan for Hong Kong.

(b) Sustainable lower electricity prices for all customers

This must account for future government energy policies that may include such issues as the role of sustainable and renewable energy and consideration of greenhouse gas emissions.

Given the continued dominant role of CLP and HEC in the post-2008 electricity market, control of their activities through new and modified agreements (Post-2008 SCA) is necessary to encourage the companies to further improve efficiency, thus delivering cost savings through to their electricity prices.

(c) Allowing consumers a choice of electricity suppliers

Allowing consumers to enjoy a freedom to choose their electricity suppliers is one effective means to force tariffs down. In the short term, the inter-connector between CLP and HEC should be upgraded so that consumers on either the Kowloon or Hong Kong Island side could be offered a choice of electricity providers. In the mid-term, the local electricity market could be opened up to new entrants (including electricity supply from the Mainland) to further expand the choice of consumers.

It is also important that renewable energy sources and co-generation be given a much easier access to the post-2008 market than the system presently allows.

(d) Reasonable balance between the interests of all stakeholders

Currently, the balance is heavily in favour of CLP and HEC. The restructuring must seek to strike a reasonable and right balance between all stakeholders. A feature post 2008 will be the continuation of market power by both CLP and HEC and hence the restructuring must include a negotiated form of agreement with these companies regarding their future operation requirements and return levels. The ideal scenario is for the Government to form an Independent Regulatory Authority with sufficient powers to negotiate a new SCA with the power companies and to establish rules to balance the interests between the stakeholders.

Chapter 2
Establishment of an Independent Regulatory Authority

Regulatory changes to deliver the above objectives will be needed and the early establishment of an Independent Regulatory Authority (IRA) with suitable powers is required to ensure that these beneficial changes are delivered. However, if the appropriate legislated powers for the IRA cannot be enacted well before 2008, a government negotiated contract with the power companies that is subsequently managed by the regulator would be acceptable.

The advantage of independence from all interested parties and with specific powers is that the IRA can focus on the long-term interests of consumers with dedicated resources managing the necessary agreements and supply arrangements on a day-to-day basis. With more than one utility, there would be a central role in contributing towards a forward plan with sufficient capacity investment to ensure that long-term supply of electricity is secure and at reasonable costs.

In short, the IRA will need suitable powers to fulfil the following responsibilities.

(a) Continued control of CLP and HEC activities

As duopolists, both CLP and HEC must be controlled in future with a regulatory agreement. Ideally these agreements specifically for electricity should be with the IRA because its responsibilities would be focused on its efficient and economic supply to customers.

(b) Suitable transmission capacity between Hong Kong Island and the Mainland

The capacity of this link should be sufficient to cover requirements of system stability, safety and the transfers of energy to meet dispatch requirements as well as forecast requirements sufficiently far in the future. Clearly, an assessment of such future use is needed as soon as possible. The Government and/or IRA should invite the co-operation of both CLP and HEC in the production of such an assessment.

In terms of allowing consumers to have a choice of suppliers, it is important that energy transfers between Kowloon and Hong Kong Island are efficient. Our observation is that a capacity to transfer up to 1000MW regularly would be advisable. The connections with the Mainland are sufficient for the foreseeable future being well in excess of 30% of total Hong Kong demand.

The upgraded interconnector between Kowloon and Hong Kong Island may not have been ready for operation for the beginning of 2009, but could be operational shortly afterwards. Such constructional timing should also emerge from assessment that should cover the capacity requirements for at least 10 and 20

years beyond 2009. It would need to be based on suitable scenarios of demand forecast and across border conditions in the Mainland.

For future operation and ownership of interconnections (and all transmission) the simplest solution is for CLP and HEC to form a joint company holding all these network assets. The investment requirements would be consistent with the forward plan requirements and cost recovery would be through the use of system charges for the networks. These revenues would be controlled through the Post-2008 SCA and overall monitoring of all activities would be through the IRA.

(c) Access arrangements for renewable energy sources and co-generation and monitoring of their activities and performance

The introduction of choice into the industry consists of defining procedures and agreements so that renewable energy generators and co-generators can make the necessary connection applications and proceed to operate on a fair basis with incumbents.

From 2009, renewable energy generators and co-generators having met the requisite technical, service and environmental standards should be able to use the networks owned by the incumbents, which may charge them a connection fee approved by the IRA.

The activities, performance and service standards of renewable energy generators and co-generators will be monitored by the IRA and they will be required to agree to certain requirements in the way that they operate and interface with other parties and systems. These will be captured in the documentation for application procedures, licences and acceptances by other parties.

(d) Long-term investment planning

Security of supply is a top priority for Hong Kong. This is delivered through the appropriate margins on spare generation capacity and reserve policy. A key issue is whether this should be left to market fundamentals or be delivered through some central planning activity. The central planning role has to date been conducted by CLP and HEC making recommendations to the Government. An issue for debate will be "should this function be continued through a more independent regulatory authority with no profit motive?"

It is a common problem for many regulated monopoly utilities to spend excessively on assets yet operate them inefficiently. It will be the future role of the IRA to strike the balance of investment in assets, maintenance and operation to be economically more efficient under the Post-2008 SCA, so that future security of supply is adequate and prices are more competitive.

The production of an annual forward plan by the IRA would provide encouragement for private investment, and any predicted shortfall would be identified sufficiently early for procurement procedures to intervene. The investment plans in totality will include those of CLP, HEC, renewable energy sources, co-generation, independent power producers and supply from the Mainland in future.

For the longer term, the IRA may require tenders for new plants, networks and services for supply in open competition. Both CLP and HEC would compete with new entrants to invest and it is quite possible that one of these may be able to offer the lowest cost terms.

Chapter 3
Post-2008 SCA for CLP and HEC

The Post-2008 SCA for the two power companies should include the following major elements:

(a) Rates of return

The current SCA permits CLP and HEC a rate of return on assets financed through equity of 15% and on assets funded through debt of 13.5%. Excess profits are lodged in a Development Fund that may also be used for future assets for which the permitted rate of return is also 13.5%. The present SCA also provides for fuel cost increases to be passed through to customers. This could ensure continued profits to their fuel suppliers and provides little incentives on the utilities to purchase prudently. The agreement is weak on incentives to become more efficient, with no hard penalties and no incentives to deliver mutually efficient operation.

Over the years, there have been numerous comparisons with other utilities. Just concentrating on the last decade when interest rates have been low, CLP and HEC have been able to deliver returns that are typically twice those achieved by other utilities considered to be performing well elsewhere in the world. These profit margins and rates of return for little investment risk and in the current economic climate are excessive to electricity users. The table below compares the levels of return of CLP and HEC with other power companies in the world:

Companies	2000 Returns on		2001 Returns on	
	Assets (%)	Equity (%)	Assets (%)	Equity (%)
CLP	**11.79**	**26.52**	**11.98**	**25.87**
HEC	**12.12**	**24.61**	**12.76**	**27.03**
American Electric Power	0.82	3.25	2.80	11.58
Beijing Datang Power	9.12	8.21	10.64	10.38
British Energy	2.67	11.42	0.55	2.23
Chubu Electric Power	1.27	7.06	1.49	8.00
Duke Energy	1.98	7.11	1.88	5.75
Huaneng Power International	7.76	9.45	10.58	12.20
Kansai Electric Power	0.73	3.74	1.70	7.82
Origin Energy	5.29	7.70	5.30	8.27
San Diego Gas & Electric	3.84	13.27	3.98	15.71
Scottish Power	7.52	14.80	2.04	5.22
Southern Electric	4.60	11.87	4.70	15.11
Tokyo Electric Power	0.63	4.73	1.49	10.20

Source: Lam, Pun-lee (2003) "The Hong Kong Electricity Industry Beyond 2008", Research Report, Hong Kong Polytechnic University.

The power utilities have argued that their return is not high compared with those of Hong Kong's blue chip companies and that if the permitted rates of return are reduced, investors will be discouraged from investing in power companies. Their arguments are not justifiable because the business of these blue chip companies is not protected by a SCA. The likely scenario is that when there is a SCA, investors are willing to accept a lower rate of capital appreciation of their investment in exchange for a safe dividend. For such investment with a low risk, a 15% return on shareholders' funds is a fair return, and this translates into an 8% return on fixed assets.

For this reason, the Federation recommends that the permitted rate of return for the Post-2008 SCA be reduced to 8% on net fixed assets.

However, in order to promote more efficient and environmentally friendly operation of CLP and HEC, an incentive/penalty scheme should be put in place whereby the power companies will be rewarded for good performance against efficiency and air emission benchmarks or penalised for poor performance. The reward or penalty will be in the form of adjustment of their level of permitted return. The proposed maximum adjustment is plus or minus 2% on the 8% baseline. That is to say, the power companies may earn a maximum of 10% return and a minimum of 6% depending on how best they perform in the promotion of efficiency and environmental protection.

The advantages of using net fixed assets over equity as a basis to calculate the permitted rate of return include:

- It will encourage investment in electricity infrastructure, which is crucial for ensuring sufficient and reliable supply to meet Hong Kong's future electricity demand; and

- The calculation of permitted return based on net fixed assets is easier for the general public to understand, which may better enable them to monitor the profit margins of the power companies.

The review interval of the Post-2008 SCA including the provisions governing the permitted rate of return should be set at five years, so that it can better reflect the prevailing economic conditions in Hong Kong. If such a review concludes that a change needs to be made to the permitted rate of return (be it upward or downward), any new investment of the power companies in plants and networks after the review should be subject to the new rate, while the old return levels will continue to apply to their existing assets and commissioned investment.

(b) Asset lives

In US (45 years) and UK (40 years) as well as much of Europe, the useful lives of coal plants are declared longer than similar plants in Hong Kong, where they may be considered as having 25 years or 35 years of life.

It would be possible for CLP and HEC to extend the lives of their plants, thus increasing the future generating capacity and reducing the need for investment in new plants. The Post-2008 SCA should encourage this and ensure that consumers will benefit from the reduced investment through lower prices.

It is also important that the Post-2008 SCA have an express requirement that any over-capacity is not allowed to be included in the calculation of the power companies' permitted return. At present, the reserve margin on generation capacity commonly adopted by overseas countries is 25%. The Government may use this as a reference in determining whether the power companies have any over-capacity.

(c) Purchasing electricity from the Mainland

The production cost of electricity in the Mainland is much lower than that in Hong Kong. Importing electricity from the Mainland would be an option to lower local electricity prices.

Although the Mainland still has shortages of electricity supply, the situation may reverse in a few years' time. The Post-2008 SCA should make it a mandatory requirement for CLP and HEC to purchase electricity from the Mainland during the interim period between 2009 and 2018 if such new sources are available and if the prices of the imported electricity are lower than the local costs of production.

CLP and HEC could still enjoy their permitted return in full when buying cheaper electricity from the Mainland, but they need to pass on the benefits of the cheaper costs to consumers in the form of lower tariffs.

As for the mid to longer term, electricity sources from the Mainland should be allowed to sell directly to Hong Kong consumers through the networks unbundled from CLP and HEC.

(d) Gradual unbundling of generation, transmission, sales and other operations

CLP and HEC are already structured into generation and transmission and the Government already has access to unbundled accounts to manage the current SCA.

Given that the local electricity market would be progressively opened up to new entrants (including supply from the Mainland), the Post-2008 SCA should require

the two power companies to eventually separate their generation, transmission, sales and other operations into different entities.

The unbundling process should be completed well before 2018. This will allow new entrants and supply sources from the Mainland that have met the requisite safety, reliability, service and environmental standards prescribed by the IRA to supply to Hong Kong consumers using the transmission and distribution networks unbundled from CLP and HEC. They will need to pay a connection fee to the networks according to rates approved by the IRA.

Once the unbundling is completed, the production, transmission and other activities of CLP, HEC and other new approved entrants would be controlled by separate schemes of control. Different permitted rates of return may be specified for each type of these unbundled business activities according to the prevailing market conditions. However, a uniform rate of permitted return should apply to all companies in the same nature of business.

(e) Incentivised performance regulation

The Post-2008 SCA should promote more efficient operation of CLP and HEC. While the IRA will approve tariffs and price reductions as overall targets within the new SCA, to encourage CLP and HEC to meet these, performance monitoring against targets is needed. Methods of regulation could include incentivised performance to beat targets whereby a share of any additional cost savings against such targets is retained by CLP and HEC as additional profits. In this way, efficiency savings are shared between the companies and consumers. Targets and cost sharing could be developed over time within the operation of the Post-2008 SCA.

(f) Demand side management

The Post-2008 SCA should require the power companies to continue to implement demand side management programmes and measures to shave peak level consumption and to shift consumption from peak to off-peak periods, thus reducing the need for future investment in new plants. Such measures may include offering more discounts on electricity consumption during off-peak hours.

(g) Renewable energy sources

The Post-2008 SCA should provide incentives to promote renewable energy sources into the integrated resource pool and ensure the take-up of new, clean and sustainable technologies as they mature. It is also advisable to stipulate specific and progressive targets which the power companies will need to fulfil in terms of using renewable and clean energy sources.

Chapter 4
Gradual Opening of the Market to Approved Suppliers

During the ten-year period after 2008, the IRA will prepare rules and regulations and get the necessary legislation completed for the eventual opening of the electricity market to new entrants and approved suppliers from the Mainland. Once the conditions are right, the market will be opened to controlled competition.

The IRA could issue licences to approve new suppliers who wish to compete in the Hong Kong electricity market. These suppliers must meet certain conditions in financial strength, size, safety and environmental standards prescribed by the IRA before licences are granted.

The number of these approved suppliers should be strictly controlled to avoid any system instability and insufficient investment in new capacity arising from over-competition. The ideal number of these suppliers is not more than a handful.

When the market is opened, the approved participants will make their own investment plans. The role of the IRA is to identify when there is not enough investment to meet future demands. In such instances, the IRA will invite participants to invest in new generation capacity and new networks in an open competitive tender process.

For network investment commissioned by CLP and HEC, it is important that the forward plan is delivered at least cost. To achieve this would require a transparent procurement process involving the approval of the IRA and including a competitive tender process for construction.

Chapter 5
Summary of Major Recommendations

(a) An Independent Regulatory Authority should be set up as soon as possible. It should be empowered by legislation to carry out the following duties:

- To oversee the post-2008 electricity market;
- To regulate the activities of CLP and HEC, and assess their performance against a set of benchmarks;
- To draw up access arrangements for renewable energy generators and co-generators and monitor their supply and service standards; and
- To prepare an annual forward plan on future plant and network requirements.

(b) The transfer capacity of the inter-connector between Kowloon and Hong Kong Island should be upgraded to 1000MW to allow efficient transmission between the two regions, thereby enabling consumers to have a choice of their suppliers.

(c) Renewable electricity generators and co-generators should have a much easier access to the post-2008 market than the system presently allows.

(d) Timely procurement of new generation capacity and network investments should be made according to the IRA's annual forward plan.

(e) The major provisions of the new SCA for the two power companies should include the following aspects:

- The permitted rate of return for the two power companies should be reduced to 8% on net fixed assets. A maximum adjustment of plus or minus 2% can be made to the power companies' 8% permitted return under an incentive/penalty scheme to promote efficiency and environmental protection;
- The allowed lives of generation plants of the power companies should be extended to a span comparable to those commonly adopted in overseas markets;
- Any over-capacity should not be included in the calculation of the power companies' permitted returns;
- CLP and HEC should be required in the interim period between 2009 and 2018 to purchase electricity from the Mainland if such supply is available and if the prices of the imported electricity are lower than the local costs of production;

- CLP and HEC should be gradually unbundled into generation, networks and supply. Upon completion, each of these activities should be regulated by a separate SCA;

- A set of benchmarks in respect of generation, network and supply should be introduced to monitor and assess the performance of CLP and HEC. The power companies should be allowed to keep a portion of any cost savings arising from meeting efficiency targets as profits.

- Continued implementation of demand side management should be a requirement for the two power companies; and

- Incentives should be provided to encourage the wider use of renewable energy sources as well as new, clean and sustainable technologies by the power companies. There should be specific and progressive targets which the power companies will need to fulfil in terms of using renewable and clean energy sources.

(f) During the ten-year period after 2008, the IRA will prepare rules and regulations and get the necessary completed for the eventual opening of the electricity market to new entrants and approved suppliers from the Mainland. Once the conditions are right, the market will be opened to controlled competition.

(g) The number of new approved suppliers should be strictly controlled to avoid any system instability and insufficient investment in new capacity arising from over-competition.

(h) When the market is opened, the IRA needs to identify when there is not enough investment to meet future demands. In such instances, the IRA will invite participants to invest in new generation capacity and new networks in an open competitive tender process.

Appendix:
Membership of the Ad Hoc Committee to Study Hong Kong's Power Supply Market

Chairman:	Mr Clement Chen Deputy Chairman Federation of Hong Kong Industries
Members:	Ir Cary Chan Head of Technical Services Swire Properties Management Limited
	Ms Chan Shuk-fong Assistant Executive Director Federation of Hong Kong Hotel Owners
	Dr Josie Close Research Assistant Professor Department of Architecture University of Hong Kong
	Mr Ho Chun-wing Chief E&M Manager – Shenzhen MTR Corporation
	Dr Stephen Luk Assistant Professor School of Accounting and Finance Hong Kong Polytechnic University
	Mr Erik Raftsjö Chief Engineer Shiu Wing Steel Limited
	Mr Bill Ruccius Managing Director BR Consultants
	Mr Warren Wei Senior Adviser – Energy & Infrastructure Projects WAG Management Consultancy Limited

Mr Alexander Wong
General Manager, Technical Support
Kowloon-Canton Railway Corporation

Mr Alex Woo
General Committee Member
Federation of Hong Kong Industries

Ir Paul Wu
Senior Manager
Electrical, Mechanical & Electronic Services
Airport Authority Hong Kong

Observer: Mr Roger Nelson
Managing Director
Thomas Group Hong Kong Limited



26/04/2005 02:27

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
Urgent | Return Receipt

realname: Fion Lau

subject: Future Development of Electricity Market

Enquiry: On the issue of opening up the electricity market for more competitors, it sounds good but it is indeed too risky. How the government can ensure that the new players can maintain a high reliability rating as the current two electricity companies? Supply reliability is very important to HK and to the investors as well.

I believe that electricty charges is just some 2-3% of people\'s disposal income, I don\'t it is worthy of taking the risk to open up the market that might cause many uncertainties. The public are always yelling to the utility companies to reduce charges; they might not really think that the charges are unreasonable but they are really expecting to have free lunch or pay the least for the best.

Dennis / Florence

25/04/05 09:10 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Views on Future Development of Electricity Market
☐ Urgent ☐ Return Receipt

After reading the consultation paper, I would like to share my views on the subject.

Hong Kong is very unique in the world because we all **WORK AND LIVE IN HIGHRISE BUILDINGS**. This type of buildings basically rely highly if not 100% on electricity for its proper function. The disruption and inconvenience caused to the general public is more severe in Hong Kong than any other place in the world if there is an interruption of electricity not to mention the potential financial and economic loss.

Reliable electricity supply is very important and should not be compromised in anyway.

Market reforms in other parts of the world has resulted in unprecedented, devastating and embarrassing blackouts such as that in USA. If such an open and technologically advanced country cannot guarantee a reliable electricity supply after market reform, we should not rush into a market reform until a more suitable scheme can be worked out and demonstrated successfully.

I think the way forward should be to keep the Scheme of Control agreement and improve on it rather than anything drastic.

Florence Kan

Economic Development and Labour Bureau
2/F., Central Government Offices,
Main & East Wings,
Lower Albert Road, Central, Hong Kong

23rd April, 2005

Dear Sirs,

Subject: Support the continuation of SCA

I am writing to support the continuation of SCA after 2008 with the following grounds:

1. Opening the market and deregulation does not necessarily guarantee a reduction in tariff. Reduction in the economy of scales of the electrical company will raise the cost factor in operation. Hong Kong is a small place and it is impractical to introduce sufficiently many new electrical companies to create a truly competitive open market. The tariff may even soar due to additional administration costs in monitoring the open market.

2. From the past experience of USA and Canada with open electricity market, deregulation will bring more risk in the reliability of electrical supply and may not always bring down the tariff. It is not worthwhile to strive for a slight reduction while exposing ourselves to larger chance of black-out.

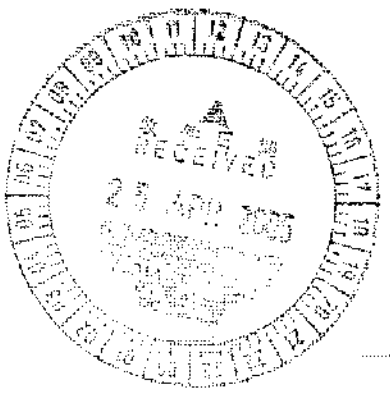
3. Right now, the tariff is just about 2% of monthly income of general public, and it is a very small portion of income when compared with other household necessities like gas and transportation cost. The tariff is reasonable and affordable.

4. Thanks to the guaranteed rate of return, electrical companies are more willing to comply with stringent regulations of environmental protection. Otherwise, electrical companies may neglect the obligations of protecting our Earth in order to attract customers with lower tariff.

Thanks for your attention.

Yours faithfully,

Fok Bit Yin Michael



Suet Fong Suen

23/03/05 09:52 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity market
☐ Urgent ☐ Return Receipt

Dear Officer,

The most important consideration is to keep stable electricity supply for Hong Kong people when the government considers the electricity market.

I don't recommend to open the market to suit the request of pressure group or some people when there is no suitable competitor to provide the stable electricity supply or the Hong Kong market is too little to attract new investor for high investment and very long term return business.

Out of stable electricity supply for some big cities in
USA is a reminder during your
consideration

Please to balance both consumers need and the investors reasonable return expectation

Regards,
Fong

25th April, 2005

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

To Whom It May Concern,

Comment on the Stage I Consultation Paper
On Future Development Of The Electricity Market In Hong Kong

Our beautiful Hong Kong under the clear and blue sky could appear only in my recollection as the air quality in Hong Kong is tangibly deteriorating. There is no doubt that the uncontrollable polluting sources outside Hong Kong, the low efficiency small thermal power plants in Guangdong, are the culprits. For better air quality in the Pearl River Delta, all those power plants should be shut down. But due to the tight power situation in Guangdong, those power plants are still generating "dirty" power.

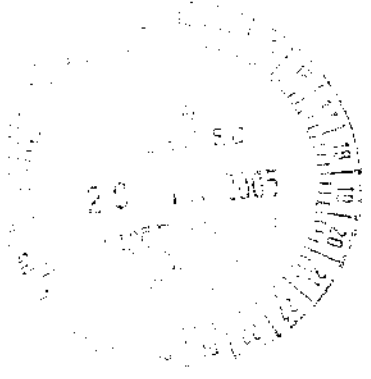
Should we, the Hong Kong people, jeopardize our health in order to save few bucks from using cheaper but "dirty" power from Guangdong? As I do not want to borrow a buck at present from our children's health in future, I do not want this kind of "dirty" energy at all. Therefore, I do not think import of "dirty" electricity from Mainland China is feasible and rational.

The tariff of Hong Kong as depicted in the consultation paper is comparatively reasonable and I think that the government has done a great job in monitoring the utilities. Personally, I think that increase in interconnection could not contribute a great economic benefit but by all means, could only force the Hong Kong people to pay the huge cost for such interconnection.

Since 1997, we have gone through a lot of government reforms and public policy amendments. Frankly speaking, some of them are unnecessary and most of them are made become so controversial by politicians. Introducing a separate regulatory authority as suggested in the consultation paper will not only require more money from the taxpayers, but also will make the monitoring of the utilities more complicated and political. Drastic change in the monitoring policy should not be pursued. As the SCAs work for so many years and the current government's monitoring is effective, I think the SCAs should be kept in a similar fashion.

Yours sincerely,

Forrest Choy



Francis Au-Yeung

To: electricitycomments@edlb.gov.hk
cc:
Subject: 香港電力市場未來的發展第一階段諮詢
☐ Urgent ☐ Return Receipt

28/04/05 10:35 PM

香港電力市場未來的發展第一階段諮詢

本人得悉香港特別行政區現正就本港電力市場未來的發展進行第一階段諮詢。在細閱過 貴局的第一階段諮詢文件後，現有意見如下：

- 我認為可靠、安全及合理價格的電力供應在過去數十年為本港經濟發展提供了不容忽視的貢獻。縱觀過往不少先進國家如美國、加拿大、英國、澳洲等都經歷了不同程度的大停電，對其經濟及民生構成了極大的影響。據調查所得，這些大停電都與該等國家所推行的電力市場改革有關的。開放及競爭的電力市場打擊了電力公司對發電及輸配電設施的投資及長遠的整體規劃，造成設備老化及可靠性下降的情況。而各供電體系統又互相推卸責任。
- 作為一個小市民，我當然希望電費可以便宜點，但要因此而付出可靠及安全供電水平下降的代價是本人所不能接受的。我在過去長時間住在港島區的高層大廈，停電對我及家人的影響會很大。有幸本人從未因停電而被困升降機。但過往一次因機件故障而被困升降機一小時的經驗，使我深信可靠及安全的供電系統是我家人及全港無數住在高層大廈住戶的基本要求。目前兩電的管制協議有效地規管著兩電的營運，確保了穩妥的電力供應。任何未來的電力市場規管機制都不應使供電的可靠性及安全性下降，而維持目前的管制協議是一個可取的選擇。
- 在價格方面，按諮詢文件所說，住宅用戶的電費開支，只佔一般家庭每月開支少於2%，遠低於交通開支的9%。但近期不少傳媒硬把內地電費與香港的作比較，並鼓吹從國內供電本港。其實這種評論看似合理，但實有誤導之嫌。試問兩地人均收入不同，國民生產總值又有很大差距，在這種情況下作比較是不公平的。據諮詢文件所述，本港的電費在其他國際城市中只在中游位置，並非過高。如計入本港供電的可靠度，我們的電費實是物有所值的。

總括以上所言，維持高可靠及安全的電力供應是極為重要的，我看不到目前有其他比現行的管制協議更好的方案。所以我支持與兩電延續目前的管制協議並在某些條款上作出適當的改善。

Francis Au-Yeung

28/4/05

2005/04/29 10:51 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sirs,

It is my pleasure to provide my comments as follows:

(1) The reliability and security of electricity supply is most important to the residents and economy of HK, but it is usually taken for granted by the general public.

(2) De-regulation is not necessarily directly linked to the reduction of the tariff. There are lots of examples in overseas that once electricity is de-regulated, there are more frequest blackout and electricity tariff may also be increased.

(3) Electricity tariff of CLP is significantly lower than that of HEC. This has demonstrated the difference of the two companies in the management of the business.

(4) The electricity tariff in Kowloon has been stable and low (compared with HEC) for many years. At the same time, CLP has been keeping the operating costs low so as to provide the return to shareholders. This is a win-win situation.

(5)I agree to keep the existing permitted return to the shareholders as long as the electricity tariff can be kept at stable level.

Best Regards
Frank K F Lam

29 April 2005

Frankie Wu

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity Comments
☐ Urgent ☐ Return Receipt

2005/04/30 12:25 AM

Please see below attachement for my points of view and comment towards the future development of Hong Kong's electricity market after 2008.
Thank you.

Best regards,
Frankie HF Wu



Electricity Comments.doc

贊成保持現有的電力管制制度

現今，電力是我們日常息息相關會應用的能源。事實上，能源項目都須要很大的投資和很長的回本期。

香港是一個國際金融中心，電力公司過往爲香港提供隱定而可靠的電力供應，經常更新電力設施和擴建發電廠，從而改善市民生活質素。

若果香港的電力市場開放，我好擔心電力供應的可靠性，例如開放電力市場的先進國家：美國、英國、加拿大等等，往往受到大停電的威脅。原來電力聯網後，當一個電力系統發生故障時，會產生骨牌效應而造成大停電。

試想，如果大停電發生在香港，我們的集體交通運輸系統，包括地鐵、九鐵及輕鐵等等，必造成本港交通大混亂，到時損失無可估計。更甚者，可能會造成經常停電，這是香港市民及工商界不能接受的。

除此之外，我亦懷疑當電力市場開放後，電費也隨之會下調，因爲建立一套完善的供電系統需要龐大的資金，動輒數十億或甚至數百億元投資，還有不斷更新設施和? 修設備。就以成本效益來計算，試想電費何來能夠有下調空間呢！

還有，我亦不贊成由國內輸電入本港，據知，國內電力都供不應求，往往導致國內很多地方實施限制用電量和工廠間歇性停工。再者，我們需要考慮國內發電所帶來的環境污染。

從上述的理由，我贊成保持現有的能源政策，保持現有的管制制度，不改爲妙。有可能情? 下，電費能像現在一樣維持合理的水平。

Frankie HF Wu

"Fred HY Leung"

2005/04/29 10:43 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Consultation Paper on Future Development of the Electricity Market in Hong Kong (Stage I Consultation)
☐ Urgent ☐ Return Receipt

To: EDLB, HKSAR

Dear Sir/Madam,

Here I would like to express my views on the captioned.

I agree with the Government's policy objective of ensuring a reliable, safe and efficient electricity supply at reasonable prices while minimizing the associated environmental impact, and it appears to me that this objective can be well achieved with the current regulatory framework.

The highly reliable electricity supply achieved under the current SCA definitely needs to be maintained. Opening the electricity market and importing electricity from Guangdong will probably result in much more interruptions in view of the poor supply reliability in Guangdong, not to mention the electricity shortage there. Moreover, this is equivalent to exporting jobs out of Hong Kong and also leading Hong Kong's people to use much more polluting electricity and contribute more to the pollution problem in the Pearl River Delta. I believe that any responsible citizen in Hong Kong will not want this to happen. In fact, Hong Kong has already been suffering from the serious pollution in the Pearl River Delta.

In conclusion, I opine that the current form of SCA should be maintained after 2008.

Thank you for your kind attention.

Fred H.Y. Leung
29 April 2005

"Steven"
<steven@foe.org.hk>

03/05/05 04:20 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: FoE's Response Paper for Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

It is the final edition of our response paper for the Stage I Consultation of Future Development of Electricity Market in Hong Kong. Sorry for our late submission!

If there are any problems, pls contact me.

Best regards,
Steven Cheng
Environmental Affairs Officer
_____

Friends of the Earth (HK)
Tel: (852) 2528 5588
Fax: (852) 2529 2777



FoE's response paper for future development of electricity market in Hong Kong.doc

香港地球之友
就香港電力市場的未來發展（第一階段諮詢）之回應
2005/4/30

整體回應

1. 對政府提出的「香港電力市場未來的發展第一階段諮詢文件」，香港地球之友深表失望。該會認爲，整份文件在環境保護上 —— 特別是空氣污染議題 —— 缺乏長遠和進取的目標，也無解決良方，既讓本港的空氣質素持續敗壞，也讓電力公司逃脫應該負起的社會及環保責任。雖然環境運輸及工務局在協議當中「負責有關發電及供電的環保政策事宜」(2.3 段)，但相關內容蒼白，表現缺乏承擔。

2. 電力公司不斷增加燃燒石化燃料，不但污染空氣，也加劇溫室效應，與《京都議定書》的精神背道而馳。

3. 「以固定資產爲投資回報基　，被視爲鼓　過份投資」(2.7 段) 。文件延續過往維持利潤「保証」的做法，卻沒有相應要求電力公司採取關顧環保的積極手段。這樣的協議將成爲護身符，電力公司只須負起有限的環保責任，便可賺取最高准許回報。因此，本會認爲現行的准許投資回報率不合理地過高。

4. 縱管政府早在 2002 年已指出，「可再生能源有潛　作爲新的電　供應　源，爲香港提供部份的電　供應」(3.55 段)，然而，文件並無積極推動這種無污染的清潔能源。

5. 本會支持兩電聯網，認爲整體有利降低備用電量，直接減少燃燒石化燃料，紓緩空氣污染。此外，此舉也有助香港電燈公司與內地聯網，爲以後中、港互通電力打下基礎。

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兩電：空氣污染元兇，責無旁貸

6. 「香港政府的政策目標，是要確保消費者能夠以合　的價格，得到可靠、安全及有效　的電　供應，並致　將發電和用電對環境所造成的影響減至最低。」 (1.1 段)。文件開宗明義提出以上目標，但對如何具體達致「致　將發電和用電對環境所造成的影響減至最低」，卻著墨有限。其中最明顯之處，是未有清晰地點出電力公司惡化本港空氣質素之責任，及其應肩負起的承擔。

7. 事實上，本港空氣質素每況愈下，發電廠已經成爲污染主要源頭。環保署 2003 年收集到的數據指出，本港發電廠所排放的二氧化硫、氮氧化物和可吸入懸浮粒子，已佔全港排放總量的 92%、57%和 46%。

8. 以中華電力爲例，其於 2003 至 2004 年在香港排放的二氧化硫，便分別較 2002 年增加了 90%及 98%。於 2003 至 2004 年所排放的粒狀物，亦比 2002 年增加了 41.67 及 66.67% (見表一)。

表一　　中電排放污染物情況一覽

打放的污染物	**2002 年**	**2003 年**	**2004 年**
二氧化硫(千公噸)	26.9	51.1	53.4
與 2002 年度比較(%)	---	89.96%	98.51%
粒狀物(千公噸)	1.2	1.7	2.0
與 2002 年度比較(%)	---	41.67%	66.67%

整理自中華電力《2004 年社會及環境報告》

9. 空氣污染，除導致入院及早夭個案外，也嚇怕投資者。2004 年，香港總商會公布的問卷調查結果就顯示，有高達 81.2%受訪公司表示不滿香港的污染問題，較前年大幅上升了 68%，總商會呼籲本港政府正視。

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與《京都議定書》背道而馳的諮詢文件

10. 《京都議定書》於 2005 年 2 月 16 日正式生效。全世界都竭力爲減少排放溫室氣體作出努力，阻止全球暖化現象。而中國早於 2002 年 9 月 3 日也核准了該協議。

11. 雖然本港跟隨主權國(中國) 確認《京都議定書》，但卻未爲自己是已發展城市的實際情況，主動負起減排溫室氣體的責任，反而借中國是發展中國家不必履行減排的條文作擋箭牌，繼續大排溫室氣體，而有上升趨勢 (見表二)。

表二　　中電消耗能源的趨勢

	2000 年	2001 年	2002 年	2003 年	2004 年
中電發電量(百萬度)	19,955	20,747	22,531	23,690	25,109
煤消耗量(兆兆焦耳)	74,472	82,248	100,645	153,450	133,403
天然氣消耗量(兆兆焦耳)	93,139	95,403	92,912	59,367	85,777
二氧化碳(千公噸)	12,410	12,606	14,473	17,318	16,867

整理自中電《2004 年社會及環境報告》

12. 由以上消耗石化能源的趨勢可見，即使諮詢文件提到「盡　減少因燃燒化石燃　而排放的污染物和溫室氣體，已日漸成爲發電業務的重要考慮因素。」(3.5 段)，卻未就以上問題提出有力對策，或只是虛應履行協議之責 (3.6 段)。

環境運輸及工務局：自我閹割環保職能

13. 文件指出，環境運輸及工務局的角色是「負責有關發電及供電的環保政策事宜」(2.3 段)；而諮詢文件又提及「可再生能源有潛　作爲新的電　供應　源，爲香港提供部份的電　供應」(3.55 段)。然而，負責把守環保大門的環境運輸及工務局，猶如自我閹割，既無大力對付污染的具體大計，也沒有落實過去顧問報告推動可再生能源的建議，變相讓經濟發展及勞工局與電力公司「合謀」荼毒香港的空氣質素和市民健康。

14. 機電工程署在 2002 年公佈的《香港使用可再生能源的可行性研究第一階段研究摘要》，是推動香港可再生能源的催生方案，提出的策略和行動包括：

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- 促進制定有關可再生能源的政策、制度安排和技術標準，以提倡可再生能源；
- 創造適當環境以鼓勵投資可再生能源技術；以及
- 創造市場，讓消費者可以選購可再生能源。(4 段)

15. 問題是，環境運輸及工務局對有關建議無動於衷，讓可再生能源的發展有疾而終。

16. 此外，環境運輸及工務局最近回應傳媒有關電廠排出污染物的提問時，指「環保署現正和有關電力公司商討收緊牌照的條款，以減少污染物的排放和增加使用天然氣。」(《經濟日報》(2005) 兩電牌照研收緊 改善空氣　環署回應本報 指 8 成污染來自內地，2005 年 4 月 21 日)

17. 當局的回應，清楚表明政府只會循「增加使用天然氣」等手段來對付排放污染，再一次漠視發展——甚至優先發展——可再生能源的需要，也未善盡保護環境的重責，表現令人失望。

18. 再者，天然氣雖然較燃煤不污染，卻不代表它是乾淨的環保能源，因爲它的燃燒過程同樣會排放溫室氣體。依仗天然氣發電，無助於根治空氣染污染問題的當務之急。

19. 爲解決珠三角地區和本港的區域性空氣污染難題，諮詢文件又提及會與內地合作，把 2010 年的污染排放量，削減至 1997 年的水平 (3.5 段)。本會不明，當局爲何把目標定在 1997 年，而非其他年份？當中的理據爲何？我們發現，1999 年時的空氣污染排放量較低，政府應該更進取地選擇 1999 年的排放量作目標？

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保障利潤而不保護環境的不平等協議

20. 「以固定資產爲投資回報基　，被視爲鼓　過份投資」(2.7 段)。過去的利潤管制協議，實質是一條鼓勵電廠污染的條款，等同興建越多的發電機組，便可穩收更多的准許利潤。至於用甚麼方法發電來減低污染，從來就不是電廠最關心的問題。（馬雅燕 (2003)《可再生能源換來清新空氣》，香港地球之友，2003 年 1 月 25 日。）

21. 這次的諮詢文件，延續過往維持利潤「保証」的做法，卻沒有相應要求電力公司採取關顧環保的積極手段。這樣的協議將成爲護身符，容許電力公司只須負起十分有限的環保責任，便可賺取最高准許回報。因此，本會認爲現行的准許投資回報率不合理地過高。

22. 再者，過去的協議，根本未曾反映發電的整體成本，舉如忽略了環境破壞及醫療開支等社會成本。本會認爲，新的諮詢文件應引入計算發電的外在成本的方法，以評估各種發電形式所造成的損失，讓兩電在獲取利潤的同時，也負起應有的環保責任。

把可再生能源納入優先發展的能源項目

23. 本會研究發現，若本港的電力供應有 5%是可再生能源，每年可減少排放大量溫室氣體：即可減少佔總體 14%的二氧化硫(約 8,000 噸)、13%的氧化氮(約 7,000 千噸)、13%的懸浮粒子(約 440 噸)及 5%的二氧化碳(約 183 萬噸)。(香港地球之友，《香港地球之友對政府可再生能源報告的立場書》，2003 年)

24. 誠如上文(13)指出，香港具備發展可再生能源的潛力。香港地球之友在 2003 年完成，爲期 12 個月的風力能測試研究亦顯示，蒲台島及南丫島的平均風速分別爲每秒 6.6 米(時速 24 公里)及每秒 5.6 米(時速 20 公里)，表明本港具備發展風力能的資源。

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25. 若按國際發展，風力發電的成本已接近燃料發電的成本。但如果計入環境成本，發展可再生能源的成本，反而較燃煤便宜。奈何政府對推動有關清潔能源裹足不前，以致本港空氣質素無法有效改善。

26. 諮詢文件亦反映了政府一貫無意支持、甚至否定可再生能源的負面態度。機電工程署的《香港使用可再生能源的可行性研究》列明，「管制計劃協議所准許的發電方式並未包括可再生能源發電項目，所以電力公司並沒有投資發展可再生能源。」（機電工程署(2002)《香港使用可再生能源的可行性研究第一階段摘要》，2002 年 12 月，4.2.2 段）由此可見，政府過去並未把可再生能源，列作「協議所准許的發電方式」。既然政府不予准許，或不支持推動發展可再生能源，電力公司便可名正言順地予以漠視。

27. 在是次公布的諮詢文件中，政府雖然建議發展可再生能源，但所訂目標過低，既不合理，又不合時宜。當中建議，在 2012 年前，可再生能源最高只須佔全港整體電力供應百分之一（機電工程署(2002)《**香港使用可再生能源的可行性研究第一階段研究摘要**》）。

28. 倘若屆時要達到百分之一這個「卑微」目標，即 13 百萬度電(GWh)，本港只需豎立一座陸上風車，以及一座海上風車（假設採用 3.2 兆瓦的風車）已能達標。根據國際經驗，發展大型風力場的技術已趨成熟，價格亦可與傳統電力匹敵，風力能應該擁有更大的發展空間。

29. 由於廣東頗具風力發電的資源優勢，香港不應畫地自限，可透過鼓勵兩電向珠三角投資可再生能源、排污權交易、輸入可再生能源等靈活手段，引入清潔能源。

30. 值得一提的是，本諮詢文件所引用的機電署顧問報告，視「轉廢爲能」(Energy from Waste) 的焚化手段爲可再生能源，本會認爲絕不能接受。因爲可再生能源是指從自然界獲取的、可以再生的非化石能源，目前主要是指風能、太陽能、水能、生物質能、地熱能和海洋能等。而焚化技術，則以消耗天然或可回收資源作手段，其實是一種資源浪費，與「可再生」的概念背道而馳。

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31. 本會認爲，在新的協議中，政府有必要加上電力公司必須優先發展可再生能源的條款，並不應把「轉廢爲能」定性爲可再生能源，以便創造清潔能源的市場，同時紓緩香港空氣污染的情況。

打破壟斷，支持兩電聯網

32. 香港的電力市場一直爲兩間電力市場所壟斷。中華電力佔據了九龍、新界和大嶼山的供電市場；香港島及南丫島則由香港電燈所獨攬。兩電各自擁有獨立的輸電網絡，現時有限度的聯網亦只是用作緊急的後備用途。

33. 這種割據的局面，讓電力用戶別無選擇，所以港島居民，不能選擇向電費較便宜的中華電力買電。

34. 割據式的電力市場在減低環境污染方面的工作亦呈僵化。由於兩電擁有使用電網的絕對權力，只要兩電拒絕開放電網，其他電力供應商一律無法加入香港市場。因此，即使風力能的發電成本已節節下降，並貼近傳統電力的水平（傳統電力如煤等每度電約二至四角；風電則爲每度電二至三角五仙），但倘若要把這個既經濟又無污染的能源駁上電網，輸給市民使用，卻必須得到兩電的「首肯」。（馬雅燕 (2003)《電力市場改革的底線：供電與輸電分家》，香港地球之友，2003 年 6 月 20 日）

35. 事實上，政府在 1999 及 2003 完成的 份顧問研究均指出，「加強港燈與中電之間的 網，初步顯示可以帶 整體的經濟效益，而這計劃在技術上是可 的。」(3.30 段)

36. 本會認同兩電聯網的提議，認爲整體有利降低備用電量，直接減少燃燒石化燃料，改善空氣污染。此外，此舉也有助香港電燈公司與內地聯網，對以後中、港互通電力打下基礎。

查詢：香港地球之友環境事務主任 鄭秉賢先生 (Steven Cheng)
香港地球之友環境事務經理 朱漢強先生 (Hahn Chu Hon-Keung)
電話：2528 5588

完

香港地球之友有限公司
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To: Economic Development and Labour Bureau

Dear Sir/Madam,

I support to continue the scheme of control (SOC) for 2 power companies in Hong Kong after 2008. The reasons are as follows:

1. The current customer services provided by the 2 power companies are good under SOC.
2. If the market for power supply provider is deregulated, the customer services must be badly affected. It is because the profits for the companies are lowered due to deregulation.
3. The Supply reliability in Hong Kong is good under SOC.
4. If the market for power supply provider is deregulated, the supply reliability in Hong Kong must be badly affected due to less investment on infrastructure.
5. The current tariff for electricity in Hong Kong is reasonable under SOC. The current expense for electricity is only a small percentage of family income.

Yours faithfully,

Gary Lam

Gary Lam





"gary lee"

21/04/05 12:08 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: My opinion
☐ Urgent ☐ Return Receipt

Reliable electricity supply is essential to everyone in HK. It is hard to imagine how worse the situation would be when there is a massive blackout. Remember the case of without electricity supply for several hours in Canada and US in 2003, there were no lift service, no air-conditioning, no traffic light signals, no internet, no lighting and everything requiring electricity. I do not want similar blackout to happen for just saving for 20% of the electricity charges. I do not trust that the electricity supply from China is as stable as what we now have. So, keep the existing scheme of control unchanged. I am satisfied with it now.

Regards,
Gary Lee

Future Development of the Electricity Market in Hong Kong
Stage I Consultation

I am a System Control Engineer of the HEC and I would like to point out the following advantage in keeping the current scheme of control.

1. The investment of the company on the transmission system will not be reduced.

2. The current reliability of the electricity supply will be provided.

3. No uncertainty in term of tax paid to the government by the company.

4. The price of the electricity is ensured within the scheme. If other scheme is adopted, it will be unknown.

5. The financial state of the company is strong and the investment on future development is ensured.

6. The human resources and expertise of the company are strong and the development of any future plan is ensured.

7. The efficiency of the company is nearly the highest among other company in the world.

8. The company has taken a good effort to ensure the least pollution to the environment.

9. The company has made a great effort to service the society in every aspect of the community.

By George Seng

FAX to 28684679 Economic Development and Labour Bureau



2005/04/30 10:54 PM

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: Ginnie Chan

subject: Electricity Market

Enquiry: I lived by myself in my unit, I\'m highly looking for reliable electricity supply to my place. If the government really open the electiricty market, please make sure it can provide same reliable service as providing by China Light Co & HK Electric, & must ensure not spending our money to sponsor its development.

I remembered I had a dinner in Zhong Shan last 2 years, tthe supply in Zhong Zhan was so unreliable, electicity supply was lost & no power at all for the whole dinner, it was really spoiled the whole fun. The restaurent\'s manager said it was always happened but they couldn\'t do anything.

In Aug 2003, my friend in Toronto told me the power outage affected her so much, The outage happened around 4-5pm which was peak hours for the traffic. No train, no subway, no traffic light, she couldn\'t go home until midnight.

I hope HK Government takes serious consideration when accept 3rd company to supply electricty, I can\'t stand for the power outage.

香港中環下亞厘畢道
中區政府合署中及東座貳樓
經濟發展及勞工局

敬啓者:

我們作爲香港的市民及中華電力的電力客戶,對於香港未來電力市場的發展欲提供以下意見:

1. 作爲星斗市民,我們所期望的是穩定可靠的電力供應,並隨時滿足我們的需求,香港目前享有世界級的供電力服務,將有亦應如此;

2. 中電的電價自1998年起一直維持不變,期間更爲客戶提供了6次的電費回扣,香港市民以中等水平的電價享有可靠程度甚高的電力供應,價格較紐約、倫敦、巴黎和東京等大城市的電價更便宜;

3. 環保的表現是香港電力供應商要承擔的重要的責任之一,電力公司要採取開放的態度,履行對社會的承諾,以環保的原則營運,力求臻善,爲客戶提供電力服務,並將相關資料公開。

4. 行之有效的制度使香港擁有國際水平的電力供應,保持現狀是最好的方法,無須刻意爲改變而改變,若然要改變現行的制度,必須保証要能維持現有的供電質素及清楚界定不同的責任及釐定他們的角色。

謝謝

For and on behalf of
GLOBALCORP INTERNATIONAL INC.
環宇國際有限公司

Authorized Signature(s)



24/04/2005 19:43

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: Gloria Chu

subject: Future Development of the Electricity Market

Enquiry: I have read the consultation paper on the above subject and have the following comments:

It is true that we enjoy a much low tariff on communication after opening the telecom market. But I wonder whether the same magic formula will work on Electricity Market. Especially when Hong Kong is such a small place and so densely populated. Deregulation based on a illusion without a feasible plan is risky.

The tariff @ 2% of the general household monthly expenditure is within my acceptable limit in consideration of the reliable electricity supply being provided to us. My last experience in sudden interruption of power supply was in the 70s.

Hence I cannot see any valid reasons for changing the SCA.

However I do recommend the government to put some emphases on environmental protection when extending the SCA with a aim to make the two electricity companies doing something for a cleaner Hong Kong.

Regards,

Gloria

GREEN COUNCIL
環保促進會

Ref. No. 072-05-EDLB-L

April 18, 2005

Economic Development and Labour Bureau
2/F, Central Government Offices, Main & East Wings
Lower Albert Road
Central
Hong Kong

Dear Sirs,

Consultation Paper
on Future Development of the Electricity Market in Hong Kong

Being one of the leading NGOs focusing on environmental education, Green Council is very pleased to submit our views on the captioned consultation paper as follows.

(a) We support the idea of opening up the electricity market to enable the public at large to have more choice on electricity supply. Apart from introducing more healthy competition, this move will further enhance the cost-effectiveness and efficiency of electricity generation and supply in an environmentally-friendly manner.

(b) Being corporations with social responsibility, the future electricity suppliers should provide electricity based on the principle of environmental sustainability. In other words, a balance should be struck between economic development, social progress and environmental protection.

(c) Under the premises of sustainable development, the future electricity suppliers should put in place suitable green measures to enhance their environmental performance and minimize impacts to the environment. In this regard, it would be desirable to have provisions in the future Scheme of Control Agreements (SCAs) to regulate the environmental performance of electricity suppliers. These may include, inter alias:

(i) Clearly defined environmental vision and policy;
(ii) Clean electricity generation technologies, e.g. clean fuel sources and electricity production processes, greater use of renewable energy;
(iii) Technological innovations to minimize and control emissions and discharges;

.../2

(iv) Environmentally-friendly operational practices such as internationally recognized environmental management system, life-cycle consideration in essential working processes, and green procurement;

(v) Market incentive such as contribution under the emission trading scheme proposed by the government. We strongly support the government's proposal of imposing emission caps through licences as a measure to reduce emissions from power generation;

(vi) Research and development on alternative energy supply such as renewable energy. Demonstration plants may be set up to evaluate the feasibility and cost-effectiveness of alterative energy supply; and

(vii) Green public education as part of environmental responsibility. Each electricity supplier may set up a Green Fund for green education with a view to heightening public awareness on green energy generation, supply and consumption. Education and reaching-out programmes could be launched to put across the message of sustainable power generation, green tips on energy consumption and renewable energy sources. From cost-effectiveness point of view, these programmes would be best implemented in association with NGOs.

(d) Regarding institutional set-up, it seems that a separate regulatory authority as proposed in Option 3 would be more appropriate from economic, environmental and social perspectives. There would be more room for operational flexibility and efficiency, resources deployment as well as technical and environmental performance.

(e) On environmental education front, Green Council is in a good position to help out in reaching out to the community especially primary and secondary schools. With our vision and motto of "Conservation begins with Education", Green Council set up the unique and internationally recognized Hong Kong Green Label Scheme (HKGLS) to promote green consumerism since 2000. Moreover, we have launched a variety of environmental education programmes in schools. For more details, please visit our website: www.greencouncil.org.

The above summarizes the position of Green Council on the future development of the Hong Kong's electricity market. We are more than happy to discuss further and explore the opportunities for collaboration with respect to green education.

Yours truly,

Linda W.P. Ho
Chief Executive Officer

綠色力量

BY FAX AND BY POST

Economic Development and Labour Bureau
2/F, Central Government Offices, Main &East Wings
Lower Albert Road, Central
Hong Kong
Fax: 2868 4679

29 April 2005

Consultation Paper on
Future Development of the Electricity Market in Hong Kong

Dear Sir/Madam,

1. Green Power, as a local green group, regards that the future development of the electricity market in Hong Kong should incorporate the following issues:

(a) Increase the energy efficiency of electricity generation, transmission and consumption, promoting a wise use of energy.
(b) Curb on emission of pollutants and greenhouse gas emission, reducing the impacts of energy production and consumption on the air quality.
(c) Improving the environmental performance of whole life cycle of electricity generation including fuel purchasing, power plant operation and associated infrastructure development.
(d) Exploration, development and integration of alternative clean energy and renewable energy to the existing energy market.

2. Regarding the above-captioned consultation paper, Green Power would like to draw the Administration's attention to the following points.

名譽贊助人：
專業顧問：Prof. Somwung Pitvaruwat
法律顧問：
主席：
行政總幹事：

Honorary Patron : Mrs. Betty Tung, Wife of the Chief Executive
Professional Advisors : Ms. Ada Wong, The Honourable Bernard Chan, Mr. John Wong, J.P., Prof. Peter Hills, Ms. Rebecca Lee, Prof. Somwung Pitvaruwat, Dr. Tse Ho, J.P.
Legal Advisor : Mr. Anthony Ho
Chairman : Dr. Eric Tsang
C.E.O. : Dr. Mar Chi Sum

地址 ：九龍尖沙咀亞士厘道34號天星大廈7樓A室
Address : Unit A, 7/F., Astoria Building, No. 34 Ashley Road, Tsim Sha Tsui, Kln.
電話 | Tel. : (852) 2314 2662
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3 Para. 1.1 and 1.2: Green Power agrees to Government's policy objective "*.....to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices.....*"and welcomes "*.....minimizing environmental impact caused by the generation and use of electricity.*"(para 1.1) Green Power also appreciates that the current review has "*regard to environmental concerns.*"(para. 1.2)

4. However, under existing regulatory framework for the electricity sector the associated environmental issues are not adequately addressed in local, regional and global context. These issues, for example the implication of use of nuclear energy, have still not properly addressed in the consultation paper.

5. Para. 1.4: Green Power expects that the future regulatory arrangement for Hong Kong's electricity sector can lead to improvement of their environmental performance in local, regional and global context. Also, the future regulator of the sector should be abided by not only local and regional environmental legislation and standards but also international environmental obligations.

6. Para. 2.3: From an environmental point of view, the present regulatory arrangement has no mechanisms to reduce the greenhouse gas emission and reflex the full external costs of electricity production. The externalities such as medical expenditure related to air pollution, economic loss due to impaired visibility, damages to agriculture and ecosystem by acid rain, etc, are not truly accounted for in the tariff.

7. Para. 2.5: Although Scheme of Control Agreements (SCAs) "*has provided a stable environment and incentive for continued investments in supply facilities to meet growth in electricity demand*" (para 2.5), such stable environment may not provide incentive for improvement in environmental performance.

8. Para. 3.12: Moreover, there are not sufficient incentives for the electricity utilities to upgrade the generation efficiency under the current permitted rate of return based on the Asset Base Approach.

9. Para. 3.5: As mentioned in the consultation paper, the Government proposes to minimize pollutant and greenhouse gas (GHG) by imposing emission caps. We would like to have a clarification of some principal questions about this proposal:

(a) Are the emission caps, i.e. the maximum allowable emission quantities (para.3.6), absolute values or variable values adjusted according to the amount of electricity generation?

(b) How many types of emission will be imposed emission caps?
(c) If the emission caps are absolute values, how to define and calculate these values?
(d) If the emission caps are variable values, then what is the mechanism to adjust the level and effective periods of those values?

10. Theoretically, emission caps for power plants may be a suitable measure to curb pollutant and GHG emission. Such cap values can be set with reference to the "carrying capacity" of the regional atmosphere, and thus avoid further deterioration of regional air quality.

11. However, we perceive some possible technical difficulties:
(a) Definition of "carrying capacity" of the regional atmosphere is a complicated practice. There may be diverse means and interpretations including amounts of emission that will not lead to
(i) a breach of certain air quality standard (e.g. Air Quality Objective of HKSAR),
(ii) a certain high hospital admission rate of diseases related to air pollution,
(iii) a certain pH of rainwater of Pearl River Delta region,
(iv) a certain duration of hazy day.

(b) The exact absolute values for "carrying capacity" for different emission gases and under different definitions may be different. However, "Precautionary Principle" can be adopted and a conservative value should be taken.

(c) The parameters for definition of "carrying capacity" in point 11(a) are heavily influenced by other emission sources in the region. This may not be feasible if there is no regional consideration and coordination in Pearl River Delta region.

12. Para. 3.11 and 3.22: Mechanism can be introduced to encourage the power plants to invest in environmentally friendly and energy efficient electricity generation through permitted rate of return and rate base, and/or return based on performance in SCAs.

13. Para. 3.25: In the existing fuel cost adjustment mechanism, there are no incentives for the power plants to purchase cleaner fuels.

14. Para. 3.36: Increasing interconnection should be one of the measures to improve the environmental performance and generation efficiency of territory's power plant.

15. Para. 3.45: Import of electricity from the Mainland to meet part of the demand in Hong Kong is not a favourable approach to develop for Hong Kong's future electricity market because

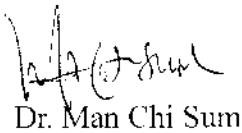
(a) Hong Kong should reduce the demand by eliminating wastage of energy.

(b) If Hong Kong competes for electricity supply with the Mainland neighbouring areas, their electricity supply will become tenser and their progress to eliminate "dirty" plants will be retarded. This is not a favourable scenario for regional air quality.

(c) Control of environmental performance of power plants outside Hong Kong's territory may not be feasible.

Thank you very much for your kind attention.

On and For behalf of Green Power,



Dr. Man Chi Sum
Chief Executive Officer
Green Power

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收件人：	經濟發展及勞工局	發件人：	譚凱邦 環保觸覺
傳真：	2868 4679	日期：	30/04/2005
電話：		頁數：	4 (包括此頁)
關於：	電力市場諮詢		

給經濟發展及勞工局：

本會環保觸覺十分關注本港兩間電廠發電時所產生的污染物及溫室氣體。2008 年利潤管制協議的完結，是檢討本港電力供應者過份使用化石燃料的契機。現本人代表環保觸覺，特致函 貴局，給予意見，希望在 2008 年起透過新的措施，減少電廠使用化石燃料，加強使用可再生能源。

附上較詳細的意見書，懇請仔細考慮，共同建立更美好的環境。

環保觸覺主席
譚凱邦先生

二零零五年四月二十九日

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環保觸覺回應

《香港電力市場未來的發展 第一階段》諮詢文件

主題：減少燃煤發電　使用可再生能源

1. 背景 － 氣候反常

全球氣候越來越反常，就在今年三月：

- 在三月初，歐洲多國受到百年難遇的大風雪侵襲，德國的氣溫更錄得攝氏 - 43.6 度
- 飄忽的天氣影響華南沿岸，本港及廣東一帶在三月曾多天錄得一天內溫差達 10 度，也間接令本港流感數字突破新高
- 瑞士冰川在過去 15 年已失去五分之一的表面面積，該國政府嘗試在今年夏季以「另類錫紙」包裹部分冰川，企圖阻止它在夏日的陽光下溶化。

如此種種，都是因爲地球各國排放過量溫室氣體，引致氣候反常和冰層溶化之故。電影《明日之後》也清楚告訴我們，若我們持續大量使用化石燃料，人類將承受氣候變化所引來的惡果。

2. 兩電排放大量溫室氣體

在香港，兩間電力公司，對氣候反常「貢獻」了不少。根據環保署的資料，在 2003 年，兩電共佔了本港二氧化碳排放量約 65%。中電於剛公佈的 2004 年年報並指出，中電在香港的電廠便排放了 16,867 千公噸二氧化碳，這二氧化碳量需要超過 400 個香港面積的森林以一年來吸收。

3. 減少燃煤發電　設定燃煤比例最高上限

根據諮詢文件，本港發電方式以燃煤爲主，佔了 57%。若只計算設於本港的發電機組，燃煤比例更超過 7 成，實在使人憂慮。這也是電廠成爲本港二氧化碳、二氧化硫、氮氧化物及粒子的污染源的主要原因。本會強烈要求，政府應和電廠訂立協議，訂立較進取的減用煤措施，例如訂立時間表，循序漸進地減少使用煤，並以天然氣(雖是化石燃料，但排放較少二氧化碳及粒子)及可再生能源取代。

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4. 加大使用可再生能源的比例

本會認爲各種可再生能源之中，在本港發展風力能最可行。本港風力資源豐富，沿海島嶼風速受到冬季西北風及夏季東南風影響，經常維持在 4 米/秒的水平以上(4 米/秒 爲一般風力發電機的起動風速)。在地球之友的風力能可行性研究當中，便在蒲台島及南丫島平均錄得超過 6 米/秒的風速。

透過政府以低廉而合理的地價，將風速較強、較易鋪設電網的離島及沿岸土地，售予或租予兩電，發展風力發電場，此可讓兩電有充足土地發展風能。

另外，政府應和電廠訂立電力中可再生能源佔的比例。英國、澳洲、美國個別州份，在推動可再生能源發展的初期，政府都採用此措施，即規定電力供應商，必須保證電力來源有相當的比例來自可再生能源。

本會建議可按照以下目標進行：

1. 在 **2013 年前**，每間爲本港提供電力的電力公司，需要有百分之十是來自可再生能源。
2. 在 **2018 年前**，每間爲本港提供電力的電力公司，需要有百分之十五是來自可再生能源。

以上目標是切實可行的，中國而定下在 2010 年前最少 10%的電力由可再生能源提供，不少國也已訂下類似或更進取的目標。

5. 大原則： 減少用電

本會認爲，減少用電是其中一個最有效減少污染物排放的方法。本會十分擔心，若 2008 年後電費可能因開放市場而減低，這可能促使不少電力使用者因電價廉宜不再節省用電。建議在制定新政策時，應顧及整體電力使用量不應有任何上升。

6. 二氧化碳稅

長遠而言，本會認爲市民應分擔保護環境的開支。本會建議政府應向電力公司及市民收取「二氧化碳稅」，這相信能教育普通市民在用電前要三思，避免浪費。

環保觸覺 Green Sense
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7. 總結

環保觸覺強烈要求政府把握 2008 年《管制協議計劃》完結的機會，從規管架構、政策與執行步驟各方面，積極而全面的增加可再生能源的供電比例。全球氣候越來越反常，本港政府應採取果斷措施，減用煤作爲燃料及加強使用風能，建設環保的已發展城市。

Gloria Chang Wan Ki
<gloria.chang@hk.greenpeace.org>

29/04/05 08:17 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Greenpeace response on "Consultation paper on future development of the electricity market in HK"
☐ Urgent ☐ Return Receipt

Dear Sir / Madam,

Attached please find the submission of "Consultation paper on future development of the electricity market in HK" from Greenpeace China.

There are three attachments.
1. Cover letter
2. Chinese response paper
3. English response paper.

Thanks for your attention.

Best regards,
Gloria Chang
———————

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www.greenpeace.org.cn


050429 - cover letter SOC.doc


050429 - SOC chinese.doc


050429 - SOC english.doc

Mr. Stephen Ip, GBS, JP
Secretary for Economic Development and Labor
Economic Development and Labor Bureau
2/F., Central Government Offices, Main & East wings
Lower Albert Road, Central
Hong Kong

30th April 2005

Mr. Ip,

Greenpeace Response to
"Consultation Paper on Future Development of the
Electricity Market in Hong Kong – Stage 1 Consultation"

Greenpeace China is glad to see that Economic Development and Labor Bureau conduct the stage 1 consultation electricity market reform. It is a good platform to engage various stakeholders and the whole society to design a better mechanism for our future energy market.

Greenpeace worldwide has been campaigning for clean, safe and renewable energy for the sake of our world climate for decades. For our future generation and world sustainability, corporate and governments must make a responsible choice now, by investing and supporting the development of renewable energy, and phasing out fossil fuels burning plants, in particular coal-fired power generation.

Attached please find the response papers of Greenpeace China to the captioned consultation in both Chinese and English. Should you have any further enquiries, please kindly contact me at (852) 28548323.

Greenpeace is ready to contribute expertise and devote efforts to create a sustainable future. Looking forward to sharing thoughts with you in the near future.

Best regards,
Gloria Chang
Climate & Energy campaigner
Greenpeace China
E-mail: Gloria.chang@hk.greenpeace.org

A Response to the《Future Development of the Electricity Market in Hong Kong Stage I Consultation》

Foreword

1. While the energy and electricity industry powers prosperous social and economic gains, it inevitably brings disastrous result as well. At present the power plants burn large amounts of fossil fuels (oil, coal and gas) for energy production, which is the direct cause of global warming and regional air pollution. With rapid economic growth, the government and the power companies should not turn a blind eye to public health, environmental protection and ignore the responsibilities of the global citizenship.

2. The two power companies, namely China Light & Power and the Hong Kong Electric Company, are the major emitters of greenhouse gases and other air pollutants in Hong Kong. Greenhouse gases and other air pollutants are largely emitted from power plants owned by two power companies, namely China Light & Power and the Hong Kong Electric Group.

	Carbon Dioxide	**Sulphur Dioxide**	**Nitrogen Oxides**	**Particulate Matters**
2002 Total	35,300Gg	67,300 Tonnes	86,400Tonnes	7,280 Tonnes
2002 Public Electricity Generation	Approximately 62%	Approximately 89%	Approximately 46%	Approximately 37%
2003 Total	37,600Gg	90,900 Tonnes	96,600 Tonnes	7,380 Tonnes
2003 Public Electricity Generation	Approximately 65%	Approximately 92%	Approximately 57%	Approximately 46%

（Source：Environmental Protection Department http://www.epd.gov.hk/epd/tc_chi/environmentinhk/air/data/emission_inve.html）

3. The above-mentioned gases, including the major contributor of greenhouse gases -CO_2, and the major air pollutant Sulphur Dioxide, have obviously been increasing since 2000, especially between 2002 and 2003. People's lives and health, as well as

environmental, social, economic and political development will inevitably be adversely affected by global warming and air pollution.

4. The government has neither requested the power companies to take measures preventing global warming and air pollution, such as setting threshold for CO_2 emission, and deploying the permitted rate of return to cover the cost for installing desulphurisation system. Nor the power companies are ready to bear the social responsibilities for their huge profit returns. The Hong Kong citizens as well as the government are inevitably forced to bear the risk of burning coals by the power companies and its harm to our next generations.

5. The future development of electricity market, therefore, has not to be only providing reliable and reasonably charged power supply, but also to take into account of social and environmental cost, as well as sustainable development. It is necessary to set out an energy policy with incentive for energy efficiency, rather than merely focusing on the guaranteed asset-based returns under the Scheme of Control Agreement.

6. This paper presented by Greenpeace intends to underscore the principles and mechanism of the electricity market reform in the future.

Principles of Electricity Market Reform

7. I: An energy policy with incentives for renewable energy technology

7.1 Why Renewables?

7.2 Devastative effects of coal-burning emissions: Climate change – Global warming is the worst environmental problem we face today as a result of climate change. Serious greenhouse effect brings extreme weather, and the ecosystems as a whole will be interrupted, becomes unpredictable, devastative and catastrophic. Climate change will not only have severe impacts on social and economic losses, but increase existing risks of species extinction and biodiversity loss. Scientists agree that abnormal climate change is induced by human activities, particularly to our reliance on fossil fuels such as oil, coal and gas for energy needs during industrialization. Emitting large amounts of greenhouse gases, particularly CO_2, is the major cause of damage to the climate. According to various surveys conducted by different local, national and international agencies, the evidence of climate change were found coincidentally:

（a） It has been estimated by WHO that 160,000 people died annually from diseases directly attributable to global warming. The number

of deaths doubles by 2020. Reinsurance Company Munich Re said that the coming summers would be hit by the heat wave as in 2003. Within a decade potential financial losses as a result of climate change will amount to US$150 billion, excessively exceeding what insurance companies can indemnify.

(b) According to the Hong Kong Observatory, the average temperature recorded last year was 0.4°C higher than its usual value. Very likely the temperature would exceed 28°C at night during summers and above 12°C during winters in the future.

(c) In June 2004, China Meteorological Administration issued a study report and estimated that between 2020 and 2030, the average temperature in China would increase by 1.7 Celsius degrees. By 2050, the temperature would increase by 2.2 Celsius degrees. Drought would be intensified at the northern and northeast regions, while the Guangdong Province has encountered the most severe drought in 50 years, resulting adverse and lasting impact on agricultural, social and economic development. Glaciers would shrink 27% and the Pearl River Delta would encounter serious flooding, with the water level of in the region likely to rise by as much as 26-28 cm by 2100.

Coal-burning power generation definitely led to such a global crisis.

7.3 Developing renewable energy is the global trend – The clean and safe renewable energy is the solution to avert climate change, minimizing the damage caused by burning fossil fuels. While the technologies for renewables have been developing rapidly, energy analysts agree that wind energy is the most economical renewable energy, evidenced by 20% cost reduction in last 5 years on wind power generation, making it as competitive as conventional coal burning plants. Wind energy is clean, free of emissions of CO_2 and other greenhouse gases blamed for global warming. Statistics released by European Wind Energy Association shows that during the last 6 years the EU wind energy market has cumulative wind power capacity increased by 20% to 34, 205 MW at the end of 2004, representing a wind turbine manufacturing turnover of some €5.7 billion. In early January, the international climate change task force of the Group of Eight leading industrial countries proposed to their national leaders that all G8 countries should set a lead by adopting national targets to generate at least 25 per

cent of electricity from renewable energy sources by 2025 to achieve large emissions reductions.

7.4 Hong Kong People Support Renewable Energy: The following are the results of 3 latest opinion surveys:

（a）In July 2003, Greenpeace commissioned the Centre for Social Policy Studies of the Hong Kong Polytechnic University to launch the Opinion Survey on Renewable Energy. Over 1000 people were interviewed successfully by random sampling.

61.4% of the respondents have heard of "global warming". Most of them understood the impact of global warming includes: thawing of the two poles (80.5%), worsening climate change (75.2%), rising the sea level (67.6%) and air pollution (62.7%).

Over 90% supported the development of renewable energy in Hong Kong so as to reduce air pollution (85.5%) and stop climate change (58.6%). Furthermore, 60% thought that developing renewable energy would provide employment opportunities (58.6%) and lower the electricity tariff (57.9%).

73.9% agreed that the SAR Administration as the largest electricity consumer, was accountable for implementing renewable energy policy. 63% agreed that the two power companies had responsibility to develop renewable technologies.

（b）The Census and Statistics Department of the SAR Administration launched the 《Thematic Household Survey Report No. 17》 in April 2004. 2,172,600 households were interviewed on the opinions on electricity supply in Hong Kong. (See p. 9-38 of the report)

- 63.6% supported the government launching renewables such as solar power and wind power;
- 45.8% thought that all the households should choose renewable energy and bear the related costs collectively, while 38.6% thought the costs should be borne by those who used renewable energy.

（c）The Council for Sustainable Development launched the Responses to the "Invitation and Response" Document on public opinion on developing renewable energy on 13 December 2004.

- 86% thought the SAR government should start planning to generate electricity from the renewables;
- Even though renewable energy might be more expensive than using fossil fuels, 82% agreed the citizens to pay more, of which 40% thought the government should bear the out-standing costs, while the remaining 42% thought it should be the consumers
- 73% did not object to having the renewable energy facility in their neighborhood, depending on the type of facility.

7.5 The Council for Sustainable Development suggested that the SAR Administration should formulate concrete guidelines and policy with clear directions. That includes: Opening the electricity market for power utilities generating electricity from renewable energy sources by 2008; providing incentives for power companies to generate electricity from renewable energy by 2006 such as installing Renewable energy facilities in the governmental buildings, appropriate town planning; producing certain percentage of Renewable energy by the power companies by 2008.

7.6 The legislative councillors support renewable energy: the Legislative Council endorsed the motions on 17 January 2001 and 30 October 2002 respectively, urging the SAR administration to provide support and incentives to facilitate the research and application of renewable energy resources. Furthermore, the administration should collaborate actively with the Guangdong Provincial Government and the Pearl River Delta authorities in studying the feasibility of developing and introducing renewable energy resources.

7.7 Central Government's objectives on developing renewable energy: China has the third largest wind energy reserve in Asia. It is targeted that by 2010 at least 10% of the electricity would be generated from renewable energy source, of which wind-generated electricity has an average growth of 21.8% during the past three years, making the wind industry in China listed top 10 in global wind energy markets. (《*Wind Force12*》, Greenpeace/EWEA, 2004 p.19-20). The Central Government has been actively drafting the "Renewable Energy Promotion Law", expecting to take effect next year pushing the nation toward renewable energy and addressing the issues of energy shortages and environmental protection. Preliminarily there will be 3 underlying principles in the Renewable Energy Law:

1. Each province should formulate guidelines on renewable energy on their own merits; 2. "Fixed Electricity Tariff": The grid companies should stipulate a long-term and stable electricity tariff so as to reinforce the electricity suppliers' confidence; 3. "Tariff Apportionment": Government, grid companies and consumers respectively should bear part of the initial capital costs of RE.

7.8 To provide incentives for developing renewable energy in the electricity market in the future is to allow Hong Kong to:

1. bear the responsibility as a "Global Citizen" to reduce CO_2 emissions;
2. respond to the public opinion, and allow citizens rights to opt for renewables;
3. Follow the global trend and China's development of renewable energy, and to grab the opportunities generated from this new industry.

8. Principle two: Sustainable Development in the region

8.1 The risk of global climate change- The biggest-ever drought in Guangdong Province in the last 50 years as well as the rise of coastal water level are the best examples of global warming. The Pan-Pearl River Delta area is sharing the common threat with the Guangdong Province. Based on the existing power grid arrangement between China Light & Power and the Guangdong Province, The Hong Kong SAR government can speed up the integration of the local electricity network with the power grid in the Guangdong Province, developing the energy supply strategy for the region.

8.2 The importance of acquiring a regional perspective- Environmental protection is one of the 10 major issues discussed in the "Pan-Pearl River Delta Regional Co-operation and Development forum". This demonstrates that the members in the Pan-Pearl River Delta area agreed that sustainable development is a common responsibility. In the area of electricity reform and the development of renewable energy, Guangdong province is taking the lead amongst other provinces. Measures taken include enhancing the freedom and competitiveness of the electricity market, like the separation of the plants from power grids. In addition, it tackled the serious problems of air pollution, acid rain and abnormal climate, The Development and Reform Commission of the Guangdong Province set a "standard rate" for wind power. It also requires electricity companies for buying the wind power from wind power generating companies. The price is set at RMB 0.528 Yuan per unit (in 2004), which is higher than that of the price of electricity power which comes from burning coal.

This measure not only gives confidence to wind power generating companies for the initial investment but also promotes business development of renewable energy, thus increasing the competitiveness in the market of renewable energy. The Guangdong Province and Hong Kong, can grasp such opportunity of electricity reform in both regions, moving towards the direction of sustainable development.

8.3 With the network between Guangdong province and Hong Kong getting more mature, the mainland increases the transmission of electricity to the neighbouring countries.

8.31Starting from 1996, China Light & Power is selling electricity to the mainland. For the year ended 31st December 2003, a total of 3,008 million units of electricity, or 3billion kilowatts/hour were sold to the mainland, which represents an increase of 38.3% than the previous year. The customer includes Guangdong Guangdian Power Grid Co., Ltd. and Shekou Indsustrial zone.

8.32 In 1982, the Central Government gave the go-ahead on the construction of nuclear plant at Daya Bay. China Light & Power now owns 25% of the Daya Bay Nuclear Plant. Starting from 1994, the Daya Bay Nuclear Plant began transmitting electricity to Hong Kong. About 70% of the electricity generated at the Daya Bay Nuclear Plant are transmitted to the power grid of the China Light & Power. The annual transmission of electricity reaches 11.4 billion kilowatts/hour (or 11.4 billion units)[1]. This is an astonishing figure. Say for example, a family of four will use 375 units of electricity, the amount of electricity that Daya Bay supply to Hong Kong is enough for the use of 200 households annually. During the last decade, the co-operation between China Light & Power and Daya Bay Nuclear Plant does not affect the stability of electricity supply.

8.33 On 25th September, 2004, Chinese Government transmitted electricity to other countries through the power grid for the first time, from Hekou County of the Yunnan Province to Lo Cai in Vietnam. The transmission is 4billion Watts. The annual sales of electricity is about 200 million kilowatts/hour (or 200 million units). Experts in China reckon that the successful transmission of electricity from Yunnan Province to other neighbouring countries demonstrated that a new economic direction- the "4th economic channel"- is forming. Critics argue that on one hand China is still selling electricity to other neighbouring countries while the power shortage problem remains serious in the mainland. An official of the Yunnan Power Grid explained that the amount of electricity sold to other neighbouring countries is insignificant to the annual electricity generating capacity, which is 30 billion kilowatts/hour (or 30 billion units). It will not affect the electricity supply to the Yunnan Province and the Southern China Region. The "4th Economic Channel" demonstrated that the co-operation of China and neighbouring countries on electricity business project is getting guarantee.[2]

8.4 To better utilize the wind power resources along the coastal area of Guangdong Province- To set out the development of the wind power project in the Southern China Region with the Guangdong province could bring along several advantages. First, it can reduce the emission of the carbon dioxide and air pollutants from the coal-fired power generating units, thus increasing the amount of investment and employment opportunities. Also, it can solve the problem of electricity shortage problem in the Guangdong Province. Greenpeace and the

[1]The generating capacity at Daya Bay Nuclear Plant is 1968 megawatts. The annual sales of electricity to Hong Kong will be:
1968 (megawatts) x 8760 (hours) x 0.95 x 70%= 11464387 megawatts hour x 1000= About 11.4 billion megawatts hour

[2] Read related news, please click http://www.ce.cn/cysc/nv/dl/200502/19/t20050219_3110689.shtml and http://www.news.163.com/40926/6/117ISH7C0001124T.html

European Wind Energy Association estimated that, up to 2015, wind power can generate 2 billion kilowatts in Guangdong province. It is equal to 14% of the total electricity needed. According to the estimates from the report "Wind Force 12", in 2020, the annual wind power generated in China will be 170,000 billion watts, equal to 12% of the total electricity demand. Therefore, it creates a total of 440,000 jobs in the market, new investment of 150 billion Euro dollars and the reduction of emission of carbon dioxide by 325 million tonnes. Wind power generation is the trend, which 50 countries have already joined. More than 100,000 people are working in this industry. Hong Kong is part of the Southern China region, therefore, the joint development of power in the region is helping Hong Kong to retain its competitive advantage, like financing, expertise training, well-established legal system and sound investment environment. In addition, as wind power will not emit carbon dioxide into the environment and it could prevent serious environmental disaster. As said before, power grid between Hong Kong and Guangdong Province is quite matured and the frequent co-operation between the two parties on electricity projects, the enterprises in both regions can join their hands with the governments on developing renewable energy projects.

8.5 The investment on electricity business in the region from Hong Kong business communities-According to the information from the Bureau of Statistics of the Guangdong Province, Hong Kong has been the biggest investor in the Pearl River Delta. In 2003, Hong Kong entrepreneurs had a direct investment of US$8.646 billion in the Guangdong Province. Except for the heavy investment on the manufacturing sector, the Hong Kong business consortiums have recently turned their eye on energy business in the Guangdong and Pan-Pearl River Delta region (see the table below). Manufacturing as well as the energy sector have always been blamed as the culprits for environmental pollution. The pollutants can affect everywhere and not confined to the local territories where the pollutants are generated. The table below listed the investment of coal-fire power generating factories from Hong Kong business consortiums.

Consortiums	Investment Projects	Facilities
Cheung Kong Infrastructure Limited	● Zhuhai Power Plant	● 2 sets of 700MW Coal-burning unit
NWS Holding Limited	● Zhujiang Power Station Phase I & Phase II ● Shunde Desheng Power Station	● 2 sets of 600MW coal-burning unit ● 1 set of 273.5MW fuel-burning unit
CLP Power Asia	● Anshun II Power Station, Guizhou Province	● 2 sets of 300MW coal-burning unit
Hopewell Holdings Limited	● The Shajiao 'B' and 'C' power stations, Shenzhen	● B power station（2 x 350MW） ● C power station（3 x 660MW）

At the same time, CLP holdings will sell the 'excessive' power supply to the Guangdong Province. Although such measure would help solve the problem of power shortage in the Guangdong Province, however, it neglects the pressing issue of dealing with the global warming and air pollution in the region. In the short run, if CLP will increase the size of investment and the revenue from regions/territories outside Hong Kong and, meanwhile, the permitted rate of return guaranteed by the government could be lowered then customers can enjoy a lowered tariff. In the long run, while the economic integration in the region is taking

shape, the local electricity market can be speed up the integration with the electricity market in the Guangdong Province, thus enhancing the diversity and customers could have more choices on electricity services. By doing so, it can lower the cost of power supply and can solve the power shortage as well as the environmental problems in the region.

Details of the recommended scheme

9. The Government set up a unit responsible for electricity and energy development
   By deploying staff from relevant policy bureaux and departments, this unit can set out new policy. Before laying down the new policy, issues like economic development, environmental protection, regional cooperation, energy efficacy, and the development of renewable energy and sustainable development should be considered. Such arrangement could prevent Economic and Labour Bureau from dominating the energy policy and solve the inadequacy of policy at present.

10. Renewables Portfolio Standard (RPS)
   During the initial stage of the promotion of the use of renewable energy, countries like England, Australia and several states in the US adopted the Renewables Portfolio Standard. Such mechanism requires electricity companies for making sure that a certain percentage of the power supply is coming from renewable energy sources, thus providing the choice of renewable energy for the market and customers. In such case, the electricity companies can develop its own renewable energy or buy the power from other renewable energy suppliers. According to a consultancy report, issued in 2002, from the Electrical and Mechanical Services Department, the biggest potential for developing renewable energy is the "offshore wind plant" and a joint development on wind power projects in the region. The establishment of RPS demonstrated that the government is determined on the development of renewable source of energy. The government should initiate the support services (such as leading the discussion with the Guangdong Province on integrating the electricity markets, the issue of technological development and the development of related industry), thus giving confidence to the market and investors.

11. Set up a mechanism to control pollution and emission
   The electricity generating process would emit gases that affect the air quality and the climate. Facing with such situation, the government should set a standard of maximum gas emission from these power plants and require all power plants to comply with. Its advantages are manifold. First, it encourages the power companies for using more renewable energy or natural gas, which emits less sulphur dioxide in production process than that of coal-fire. Second, it encourages the power companies and customer of high electricity usage to carry out demand side management. They include installing power-saving devices and prevent the use of electricity in peak time. Third, to speed up the emission trading scheme such as to organise activities in the region to promote the reduction of carbon dioxide emission. Moreover, some academics have recommended measures like levying carbon tax so as to punish power plants for emitting 'too much' air pollutants.

Summary

12. During the stage I consultation on "Future development of the electricity market in Hong Kong", the government listed the inadequacies of the present "The Scheme of Control Agreements"-a regulatory regime. They include: "the permitted rate of return are considered too high in the present economic climate", "perceived to have encouraged over-investment", "the permitted rate of return fixed over 15 years lacks flexibility" and "the annual tariff and auditing review lacks transparency". Obviously, "The Scheme of Control Agreements" cannot fulfil the present social needs and the need of the regional co-operation in the long-term. Therefore, reform must be carried out.

13. Greenpeace demands the government to set out a comprehensive electricity and energy policy before "The Scheme of Control Agreements" ends in 2008. By so doing, the Government must actively respond to the wake-up call from the international community which devotes to revert the climate change, fulfil the citizens' need for renewable energy and to speed up the integration on electricity system between Guangdong Province and the Pearl River Delta region, and to focus on advantages that the renewable energy could bring forth. Facing such a global crisis, the government must also take immediate actions without hesitation.

回應《香港電力市場未來的發展 第一階段》諮詢文件

引言

1. 能源和電力業，雖是推動社會和經濟發展的重要一環，但亦爲社會和環境帶來沉重的代價。目前發電廠依賴化石燃料（煤、石油和天然氣）的情況，直接加速全球暖化的危機和區域性的空氣污染問題。在經濟迅速發展的同時，香港特區政府和電力公司不可置保障市民健康、環境保護和世界公民的責任於不顧。
2. 香港的溫室氣體和空氣污染排放物，主要是來自兩家電力公司，即中華電力和香港電燈：

	二氧化碳	**二氧化硫**	**氮氧化物**	**粒子**
2002 年 總和	35,300 千兆克	67,300 公噸	86,400 公噸	7,280 公噸
2002 年 電廠所佔比例	約佔 62%	約佔 89%	約佔 46%	約佔 37%
2003 年 總和	37,600 千兆克	90,900 公噸	96,600 公噸	7,380 公噸
2003 年 電廠所佔比例	約佔 65%	約佔 92%	約佔 57%	約佔 46%

（資料來源：環保署 http://www.epd.gov.hk/epd/tc_chi/environmentinhk/air/data/emission_inve.html）

3. 以上所列的四種氣體，包括溫室氣體的主要元素「二氧化碳」，和空氣污染物的主要成份「二氧化硫」，自 2000 年開始有明顯的上升趨勢，特別是 2002 年與 2003 年間，上升幅度顯著。全球暖化與空氣污染，最終都會影響市民的生活和健康，對環境、社會、經濟、政治等方面的發展，都會帶來連鎖的負面影響和惡果。
4. 一直以來，政府並沒有要求兩電採取積極的措施以回應全球暖化和空氣污染的問題，如限制二氧化碳排放的上限，或以各自的准許利潤承擔進行除硫設備的費用；兩電亦沒有主動在龐大的利潤回報之外，承擔這些社會代價，變相是市民與政府，每人分擔了電力公司燃煤發電的風險，和將危機延禍給下一代。

5. 因此，電力市場的未來，不單是繼續爲大眾提供穩定和價錢合理的電力，更要多顧及社會、環保、可持續發展等方面，定下符合整體社會長遠利益的電力政策，以取代現時只著眼於利潤監管的《管制協議計劃》安排。
6. 本文件旨在簡述綠色和平對未來電力市場改革的原則和建議。

電力市場改革的原則

7. 原則一：爲可再生能源發展，提供制度上的誘因和規範

7.1 發展可再生能源的原因：

7.2 燃煤的代價：氣候反常 - 全球暖化只是氣候反常的其中一種現象。嚴重溫室效應所帶來的極端氣候，使天氣變得反覆無常，難以預測，破壞力也更大。這不但帶來沉重的社會代價和經濟損失，更令大自然很多物種處於瀕臨的邊緣。科學界已一致認爲，全球氣候反常，極端的氣象情況，是與工業化和能源消耗激增有莫大的關係，大量燃燒化石燃料，包括煤、石油、天然氣，排放大量的溫室氣體，特別是二氧化碳，是全球暖化，氣候變遷的主要元兇。本地和國際組織所做的各式各樣調查和統計，均不約而同發現了氣候變化的種種證據：

（a） 世界衛生組織估計，每年大約有 16 萬人死於全球暖化直接導致的疾病。這一數字到了 2020 年將會「翻兩番」；全球最大的慕尼黑再保險公司(Munich Re)去年表示，未來的夏季將會與 2003 年一般的酷熱，十年內因氣候轉變而帶來的經濟損失達 1500 億美元，金額遠超過保險公司所能承擔。

（b） 香港天文台表示，去年香港平均氣溫較正常值高了 0.4 度，未來香港的夏季有可能整整一個月晚上超過攝氏 28 度，冬季不會低於 12 度。

（c） 中國氣象局去年 6 月份發表研究，表示 2020 年至 2030 年，全國平均氣溫將上午 1.7 度，到 2050 年時上升 2.2 度，華北和東北南部等一些地區將出現持續的乾旱，包括廣東省多個地區已經發出 50 年以來最嚴峻的乾旱警告，影響農業、民生和經濟發展。全國冰川減少將會減少 27%，至 2100 年，中國海平面上升 26-28 厘米，珠江三角洲一帶可能被淹沒。

導致如此全球性的災難，責任在於人類繼續燃燒化石燃料。

7.3 可再生能源是全球能源發展的大趨勢－緩和氣候反常的現象，最徹底的途徑是發展潔淨、安全、用之不竭的可再生能源，減少燃燒化石燃料帶來的破壞。可再生能源技術發展迅速，在主流的能源分析家當中，風能被評爲最具前景的商業領域，單是風能的成本，過去的 5 年內已下降了 20%，可與傳統的燃煤發電廠競爭。風能既能提供清潔的能源，不會排放二氧化碳等溫室氣體，還可緩和全球暖化的現象。根據歐洲風能協會（EWEA）最新的數字，過去六年，歐洲的風能產業每年有 20%的增長，2004 年底的

累積裝機容量已達 34,205 兆瓦，去年風機產業共帶來 57 億歐元的利潤[3]。一月初，八大工業國的一個高層工作小組向八大工業國的元首建議，2025 年前，八大工業國至少要有 25%的電力由可再生能源供應，才可緩和氣候變化的危機[4]。

7.4 香港市民支持可再生能源 – 以下列舉三個最新的民意調查的結果：

（a）2003 年 7 月，綠色和平委託香港理工大學社會政策研究中心進行「可再生能源意見調查」，以隨機抽樣的方式成功訪問了超過 1000 位市民對全球氣候暖化及發展可再生能源的意見。

超過六成（61.4%）被訪者聽過「全球氣候暖化」，而當中大部份市民意識到氣候暖化帶來的影響包括：兩極區冰雪溶化（80.5%）、令氣候型態問題惡化（75.2%）、海平面上升（67.6%）及空氣污染（62.7%）等。

超過九成（98.5%）的市民支持香港發展可再生能源，認爲有助減輕空氣污染（85.5%）及遏止氣候暖化問題（53.7%）；此外，近六成市民認爲發展可再生能源有助創造就業機會（58.6%）及促使電費下調（57.9%）。

超過七成（73.9%）市民認爲特區政府作爲香港最大的電力使用機構，有責任制定可再生能源政策，而超過六成（63%）的市民認爲兩間電力公司亦有責任發展可再生能源。

（b）2004 年 4 月，特區政府統計處發表《主題性住戶統計調查第十七號報告書》，有關公眾對香港的電力供應的意見，調查了 2,172,600 個住戶的意見。（見報告第 9 頁至 38 頁）

- 超過六成（63.6%）支持政府引入可再生能源，如太陽能和風力發電；
- 約 45.8%的住戶認爲所有住戶均應使用可再生能源及共同承擔有關成本，38.6%認爲有關成本應該由選擇使用可再生能源的住戶承擔；

（c）2004 年 12 月 13 日，特區政府的「可持續發展委員會」發表《誠邀回應文件》的總結報告，詳細諮詢市民對「可再生能源」發展的意見。

- 86%的市民認爲香港政府應開始發展可再生能源；
- 即使可再生能源有機會比傳統的火電爲貴，82%的市民願意負擔，其中 40%認爲政府應承擔高出的電價，而 42%則認爲是消費者；
- 73%的市民不介意在他們的居住範圍附近興建可再生能源的設備（視乎技術而定）

[3] 請參閱歐洲風能委員會網頁：www.ewea.org

[4] 請參閱英國公共政策研究所網頁：www.ippr.org.uk （IPPR：24/1/05 press release）

7.5 可持續發展委員會建議特區政府爲「可再生能源發展」制定具體指標和政策，方向非常明確 – 包括：2008 年前開放電力市場予供應可再生能源的發電公司（本港與內地）、2006 年前向電力公司提供發展可再生能源的誘因（如於特區政府建築物內安裝可再生能源設備、土地配合等）、2008 年前電力公司應提供可再生能源。

7.6 立法會議員支持可再生能源 - 立法會亦分別於 2001 年 1 月 17 日和 2002 年 10 月 30 日，通過兩項議案，促請政府應提供支援和誘因，推動科技研究，扶助可再生能源市場的發展；長遠而言，還須積極與廣東省政府和珠三角洲各有關當局合作。

7.7 中央政府定下發展可再生能源的目標 – 目前，中國是亞洲第三大風能大國，還定下 2010 年前最少 10%的電力由可再生能源提供，其中風能市場於過去的 3 年平均增長 21.8%，爲世界第十大的風能市場。*（《風力12》，綠色和平/歐洲風能協會，2004，頁 19-20）*中央政府積極草擬的《可再生能源法》，已於本年 3 月正式通過，2006 年開始生效，加大了力度發展可再生能源，回應電力短缺和環境保護的訴求。初步知悉，《可再生能源法》將會包括三大原則：1. 每個省份自行定下因時制宜的可再生能源指標；2. 「固定電價」：電網公司爲可再生能源定下一個較長期和穩定的電價，以增加供應商投資的信心；3. 「電費分攤」：可再生能源的前期成本較高，電費有可能上升，政府、電網公司和消費者均須承擔部份的成本。

7.8 因此，在未來的電力市場制度，爲發展可再生能源提供誘因是符合：1. 負起香港作爲「國際公民」的責任，訂下減少二氧化碳排放的目標和時間表；2. 回應民意，讓市民有選擇可再生能源的權利；3. 配合國內和全球發展可再生能源的趨勢，把握這個新興產業的機遇。

8. 原則二：區域性的「可持續發展」方向

8.1 全球氣候變化的危機 - 廣東省 50 年一遇的最廣泛旱災和面對沿海水位上升的危機，是全球暖化最明顯的力證，「泛珠三角」亦有著唇亡齒寒的關係。特區政府可在現有中電與廣東省電網聯合的基礎上，加快本港電網與廣東電網融合的步伐，定下區域性的能源供應策略；

8.2 區域視野的重要性 - 「泛珠區域經貿合作」十大領域中「環境保護」是其中一個重要項目，可見泛珠區內各地已認同持續發展必須共同承擔，不能獨善其身。在電力改革和可再生能源發展方面，廣東省是全國進展較快的一個省份。除了增加電力市場的自由度和競爭，實行「廠網分家」外，針對嚴重的空氣污染、酸雨和氣候反常的問題，廣東省發改委爲風能定下「固定電價」，規定電網公司必須購買風電公司的風能，每度電爲人民幣

0.528 元（2004 年），比現時的火電價錢稍爲高。這個措施給予風電公司前期投資的信心，亦鼓勵更多可再生能源的產業發展，逐步增加可再生能源的市場競爭力。「泛珠三角」，特別是粵港之間，可把握雙方電力改革之機，互相配合，朝向發展「可持續能源」的方向；

8.3 粵港「聯網」成熟，內地亦增加與周邊國家「送電」-

8.31 中電自 1996 起，每年向中國內地售電。截至 2003 年 12 月 31 日止年度內，售予內地的電量增加 38.3%，佔 2003 年總售電量的 9.7%，共達 3,008 百萬度，即約 30 億千瓦時（或 30 億度），包括廣東省廣電集團有限公司和蛇口工業區。

8.32 中央政府於 1982 年批准興建大亞灣核電廠，中電擁有 25%的股權。大亞灣核電廠於 1994 年開始向香港供電，達 70%的大亞灣核電「輸送」給中電的電網。每年輸送往香港的核電達 114 億千瓦時（或 114 億度）[5]。這是一個非常可觀的電量，以香港的一般 4 人家庭用電量爲 375 度爲例，大亞灣供給香港的電力至少足夠供應 200 萬戶 4 人家庭的一年用電。十年以來，中電與大亞灣之間的合作和電力輸送，並沒有影響香港電力供應的穩定性。

8.33 2004 年 9 月 25 日，中國政府首次由大電網向國外送電，由雲南河口縣送往越南老街省。送電最大電力 40 兆瓦，年售電量約 2 億千瓦時（或 2 億度）。國內專家認爲，雲南電力成功輸往周邊國家，表明以電力輸出爲主要內容的「第四條經濟大通道」正在加快形成。對於在國內供電形勢嚴峻的情況下，中國爲何還向周邊國家售電時，雲南電網負責人表示，雲南電網向周邊國家的售電量，與年總電量 300 多億千瓦時（或 300 多億度）相比，實是微不足道，不會影響雲南及南方區域的供電。「第四條經濟大通道」證明，國內與周邊國家積極發展電力產業，技術或電網穩定等問題亦愈來愈得到保證。[6]

8.4 善用廣東沿海區域的風力資源 - 與廣東省政府定下發展華南地區區域性風能項目，既可減少區內因燃煤發電所排放的二氧化碳和空氣污染物，增加區內的投資機會和增加就業機會，亦可共同解決廣東省缺電的問題。綠色和平與歐洲風能協會估計，至 2015 年，單是廣東省地區，就可以發展 20 億千瓦的風能，相等於該區 14%的電力總需求。根據《風力 12》的評估，至 2020 年，中國每年的風力發電將達 17 萬兆瓦，等於 12%的電力總

[5] 大亞灣裝機容量爲 1968 兆瓦。每年售予香港的電力爲：
1968（兆瓦） x 8760（小時）x 0.95 x 70% = 11464387 兆瓦時 x 1000 =約 114 億千瓦時

[6] 相關新聞，請參閱：http://www.ce.cn/cysc/ny/dl/200502/19/t20050219_3110689.shtml
和 http://news.163.com/40926/6/117ISH7C00001124T.html

需求；因此帶來了 44 萬新的就業機會，1500 億歐元的投資總額，以及大幅減少 325 百萬噸的二氧化碳。這是大勢所趨，現時約有 50 個國家加入了風力發電的行列，整個行業從業人員已達 10 萬人。香港是華南地區的一部份，區域性的能源整合發展是有助發揮香港固有的優勢，如融資、專業技術培訓、健全法制和投資環境，亦因大規模使用不會排放二氧化碳的風能，而避免更嚴重的環境災難。如前所說，由於成熟的「粵港聯網」和電力合作的基礎，粵港企業和政府加大合作發展可再生能源項目是沒有困難的。

8.5 港商於區域內的電力工業投資 - 根據廣東省統計局資料顯示，香港一直是珠江三角洲的最大投資者，2003 年港商在廣東省的直接投資便高達 86.46 億美元。除了製造業外，香港財團近年亦參與廣東省和泛珠三角地區的能源業務（見下表）。製造業及能源業一向被視爲環境污染的罪魁禍首，其影響不以地域爲限。香港財團在廣東省與泛珠三角的火電廠投資：

財團	投資項目	項目配備
長江基建	● 珠海發電廠	● 700MW 燃煤機組兩台
新創建	● 珠江電廠一、二期 ● 順德德勝電廠	● 600MW 燃煤機組兩台 ● 273.5MW 燃油機組一台
中電亞洲	● 貴州安順二期電廠	● 300MW 燃煤機組兩台
合和	● 深圳沙角 B、C 電廠	● B 電廠（2 x 350MW） ● C 電廠（3 x 660MW）

同時，中電會將香港「過剩」的電賣給廣東省，雖能協助緩和廣東省的「電荒」，但卻繼續增加香港的燃煤和燃氣機組的容量，無視緩和全球暖化和區內空氣污染問題的逼切性。至今，沒有任何一個港資的企業於廣東省內投資可再生能源。短期而言，中電增加在香港以外的地方投資和收入，在本港的「准許利潤」可降低，減低電費；中長期而言，因區域性的經濟整合的需要，本港的電力市場加快與廣東省電力市場融合，增加供電的多元性和選擇，既可降低供電成本，亦可一起緩和區域的「電荒」和環境問題。

建議的機制內容

9. 政府內設立一個專責電力和能源發展的部門 – 這個部門可從有關的政策局和署方抽調人手，制定新的決策和執行機制，考慮經濟發展、環境保護、區域性合作、能源效益、可再生能源和可持續發展等各方面，以解決現時由經濟局主導能源政策的不足。

10. Renewables Portfolio Standard（RPS） - 英國、澳洲、美國個別州份，在推動可再生能源發展的初期，政府都會採取 RPS 的機制，即規定電力供應商，必須保證電力來源有相當的比例來自可再生能源，爲市場和消費者提供可再生能源的選擇。供應商可自行發展可再生能源，也可由別的可再生能源供應商購買，以達政府定下的 RPS。根據 2002 年機電工程署發表的顧問報告，香港最大的可再生能源發展潛力是「離岸風場」和區域性的風力發展項目。政府定下 RPS，可顯示其發展可再生能源的決心、啓動政府相關的支援（如與牽頭廣東省政府相討兩地電力市場融合的情況、技術開發、相關產業的發展等），給市場和投資者大力發展的信心。

11. 控制污染和排放的機制 – 面對電力工業對空氣質量和氣候的影響，政府應先向發電廠定下各種的氣體排放上限，要求發電廠達到該要求。首先，鼓勵電力公司採用可再生能源，或二氧化硫排放量比燃煤低的「天然氣」；其次，是鼓勵電力公司和大型用電客戶，積極推行「需求管理」（demand side management），包括安裝節能裝置、避過用電高峰時間等；第三，是加快「排放交易計劃」（emission trading scheme），推動區域性減少排放二氧化碳等層面的合作。此外，有些學者亦有建議實施「碳稅」（carbon tax），以懲罰排放過量空氣污染物的發電廠。

總結

12. 在《香港電力市場未來的發展 第一階段》諮詢文件內，政府已列舉了現時《管制協議計劃》的不足，包括「准許利潤」過高、鼓勵過份投資、十五年的協議缺乏彈性和檢討電費與核數過程透明度不足。明顯地，《管制協議計劃》是不能回應現時的社會要求，和長遠區域整合的需要，改革是事在必行。

13. 綠色和平強烈要求政府把握 2008 年《管制協議計劃》完結的機會，定下「全方位」的「電力和能源政策」，從規管架構、政策與執行步驟各方面，積極而全面的回應國際社會在解決全球暖化、氣候變遷問題上所作出的努力和成果，市民對可再生能源的需求，並加快與廣東省電力體制上的全面配合，保證區內真正得到可再生能源的供應。面對全球危機，政府責無旁貸，必須立即採取行動，刻不容緩。

28 April 2005

Secretary for Economic Development and Labour Bureau

Economic Development and Labour Bureau

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Dear Sir

Consultation Paper on Future Development of the Electricity Market in Hong Kong (Stage I Consultation)

Proponents of open market competition used to compare the two industries: telecommunications versus power supply. While the opening of the telecommunications market has resulted in some savings for consumers, this may not be the case for the power market as the two industries are very different in terms of scale of operation and market size and potential. Hence the government should not look to the telecommunications market as a successful example to judge the opening of the electricity market. A reference to the overseas market, however, is not too encouraging either. So far, the results have only been something of a mixed blessing at best, if not a recipe for disaster.

To be fair, if anyone takes a hard look at the performance of the two power companies, one must give credit to them for providing an adequate and reliable supply of electricity. The only complaint from the public so far is the electricity price, which has not gone down in accordance with the economic slowdown in recent years. If this point is clear and well taken, then the government should focus on improving the existing regime of Control rather than developing any far-fetched market system that has little relevance to Hong Kong. By the end of the day, any changes introduced for improvement of the electricity market must be an art of the possible.

Gregory Ch...

Gregory Ch...

24 April 2005

Economic Development and Labour Bureau
2/F Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sir,

Future Development of the Electricity Market in Hong Kong
Stage I Consultation

I have read the Consultation Paper and my comments are listed below.

I think high reliability of the electricity supply is the most important issue to Hong Kong as an international financial centre. This will also enable us to enjoy our comfort life.

I suggest keeping the SCA as it is now, otherwise, massive blackouts may also happen to us.

Yours faithfully,

HW Li

Heady Lee

To: electricitycomments@edlb.gov.hk
cc:
Subject: comment on HK Electricity Market Consultation Paper
☐ Urgent ☐ Return Receipt

2005/04/29 11:20 PM

Dear Sirs,

I have read the Consultation Paper on Future Development of the Electricity Market in Hong Kong Stage I Consultation.

The electricity supply in HK is very reliable. There are no cases of power blackout like those in US/Australia before. The electricity supply in HK is also sufficient, unlike the case in PRC where there is frequent power shutdown. These factors are very important to the prosperity of HK and as a leading international, economical and financial city in the world.

As for the SCA, it is a simple and effective regulatory arrangement and also for monitoring the 2 local power companies. It should be maintained after 2008. Deregulation is not "perfect" for every market. Personally, I do agree that the current tariff is a bit high. However, I believe the Government can have a better control when she renews the SCA with the 2 local power companies in 2008.

Regards,

"H.M.M. Chu"

2005/04/29 03:36 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Future Development of Electricity Market - Consultation
☐ Urgent ☐ Return Receipt

Dear Officials,

Attached please find the submission of my view on the Future Development of Electricity Market in HK for your consideration.

Regards,
Henry

ElectricityConsultationPaper-HCview.doc

29 April, 2005

Dear Officers of EDLB (electricitycomments@edlb.gov.hk)

Re : Consultation Paper on the Future Development of the Electricity Market

I would like to express my view, in relation to the above-mentioned matter, that some form of control is better than none at all.

Requirement of Control

The main objective of any control mechanism on utility sector is to ensure that stable and reliable utility service is provided to all consumers. This is of utmost importance, for the benefit of the consumers, in providing them with a steady and continuous electricity supply for maintaining an appropriate environment, let it be an effective business environment, an expedient working environment or a comfortable living environment, without which, the society would surely run into a mess, as can be seen in situation like the blackouts in US and Canada. Not only do local consumers rely on a steady source of electricity supply, foreign investors would also rank this as one of the top priorities in their list of infrastructures required to exist inside the region where they are going to invest. As such, a reliable electricity supply will certainly help to attract potential investors.

In the past, the electric companies in Hong Kong have been playing a very important role to provide a stable and reliable electricity supply. There are proven track records for what they have done.

Privately Owned Business

The electric companies in Hong Kong are privately owned enterprises like most of the business enterprises. There is no government subsidy of any form in order to run the business. It has been a global trend to go for privatization of utility companies. This has proved to bring in more benefits to the consumers. Hence Hong Kong is really ahead of others and has already been on the right track for years. However, privatization is not without cost. Investor would only be willing to invest if there is a reasonable expected return on their investment. In particular, the investment outlay in electricity business is of a huge magnitude and the time involved is very long. If there is not an attractive rate of return, investors may not be willing to bear the long-term risk. Hence, an achievable and sustainable return, with some certainty, needs to come into play. In return, the investment from the investors, when invested in the relevant plant and equipments, will ultimately benefit the customers at large.

Looking from another angle, competition is often regarded as preferable, as opposed to other forms of business enterprise such as monopoly and oligopoly, as it is always perceived that the latter will assert significant influence on the price of the product. However, this might be the case for some business, but not always applicable to other cases. Different consideration should be given under different circumstances. As electricity is a long-term capital intensive business, it is not cost effective if there are too many investors. It would create a waste of investment. The opportunity cost is very high. In particular, Hong Kong is only a small market for electricity supply, in terms of the number of customers and consumption demand. That means, when the number of investors grow to a certain level, the profit share may not be so attractive to keep them in the market. At that time, a reliable electricity supply may not be achievable. Definitely, no one wants to run this risk. Therefore a long-term prudent approach is essential to avoid future risk.

Furthermore, the capital investment in the electricity business is expected to be a long-term one, thus long payback period. On top of this, it also requires large maintenance costs associated with the long life of the plant and equipments. Funding is 'locked-up' once investment is committed.

Conclusion

In view of the arguments discussed above in this paper, coupled with the immense benefits to the customers and the utmost importance to securing a stable and flourishing society, some forms of control is not unnecessary. The existing scheme of control is not unsuccessful so far. Changes are good but only if they can bring forth more economic benefits and are not at the 'expense' of customers, ending up with less reliable electricity supply and diminishing service quality. We should not change for the sake of change. We should change for the better, not for the worst.

Henry Chu

敬啟者:

我們作為香港的市民及中華電力的電力客戶,對於香港未來電力市場的發展欲提供以下意見:

1. 電力行業涉及長遠和龐大資金的投資,要引導投資,必須提供足夠吸引力的回報,而回報亦必須反映電力投資長遠及資金龐大的特質,不應與短期經濟的波動掛,總而言之,設立了合理的回報機制才能確保私人資金的持續不斷;

2. 香港的經濟及社會發展有賴安全及可靠的電力供應,故此必須清楚界定系統的權責及有關機構負責投資,若一旦電力系統出現問題時,誰要向政府及公眾負責;

3. 行之已久的制度使香港擁有國際水平的電力供應,無須刻意為改變而改變;

4. 從客戶利益出發,電價當然愈低愈好,但如果低價是犧牲市民的服務來換取,相信香港市民與本人一樣寧願維持現狀。

以上數點乃我們對香港電力市場未來的發展而提供的意見,祈望政府有關機構慎重考慮。謝謝!

此致

經濟發展及勞工局

中華電力公司客戶
For and on behalf of
HIGH YEAR ENTERPRISES LIMITED
興年企業有限公司

----------上

Authorized Signature(s)

HIGHLANDER
CONCRETE CONSTRUCTIONS PTY LTD
Builders Lic. No. BLD 171912
A B N. 30 099 354 597

4th April, 2005.

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings,
Lower Albert Road, Central
Hong Kong

Dear Sir/Madam,

Comments on Consultation Paper on
Future Development of the Electricity Market in Hong Kong
Stage I Consultation

I am a resident of Adelaide, an incorporated engineer and a small business operator. My particular interest is on the progress of deregulation of the electricity markets in various places of the world and would like to see how it will affect the daily operation of our business and most of all our daily lives. Since Hong Kong is my place of birth and I still have a lot of connection with, such that, its development of the electricity market after the expiry of the Scheme of Control agreements in 2008 will bring in more interest and concern.

As triggered by the recent widespread blackouts in South Australia on 14 March 2005 in which I am one of the victims (please refer to attached news reports), I wish to comment on one particular issue raised in the Stage I Consultation Paper, viz. Increased Interconnection. My comment will be illustrated by a real example – the 14 March 2005 South Australia Blackout.

For some historical reasons, South Australia is not self-sufficient in generation and has to rely on import of electricity from Victoria, the neighbouring state, via an interconnector between the states. The blackout on 14 March 2005 was initiated by a flashover on an insulator of a transmission line within South Australia, but this failure was propagated to a power station and the interconnector, causing both a number of generating units and the interconnector to trip. What happened afterwards are:

(1) 460,000 customers were cut off from electricity supply, i.e. 60% of total number of customers or 40% of the total load;
(2) time taken to restore supply to all customers was around 2 hours;
(3) no market players, viz. the network operators, network owners, and generators, came out to identify the problem (finger pointing);
(4) electricity pool price shot up to AUS$6500 per MWh (HK$40 per kWh) during the power shortage period. This is 464 times the pool price of AUS$14 per MWh (HK cents 8.6 per kWh) when supply was restored to normal a few hours later;
(5) this kind of incident happened 4 times in 10 years, of which 3 times occurred after deregulation of the South Australian market in 1999.

From the above real-life example, I wish to give my observations as follows:

(a) it is risky to rely on import of electricity via interconnectors to meet the demand for electricity;

(b) even if only 10% of the demand is imported, disconnection of the interconnector will not confine the loss of supply to 10% customers, but the impact can be cascaded to many folds of the imported capacity or even a total blackout;

(c) in a deregulated market with many players, such blackout incidents can happen many times without knowing the exact reasons while no one will claim responsibility;

(d) a more reliable supply system can be achieved by utilizing the interconnector for emergency backup only and be self-sufficient in generation capacity, just like the case of Hong Kong;

(e) increased interconnection is thus not needed if the interconnection is to be used for emergency backup only.

Yours faithfully,
Highlander Concrete Constructions Pty Ltd

Henry Chow
IEng, AMICE, AMIStructE, AMHKIE

Power Industry News to Monday, 14 March 2005

SA ISLANDED - BLACKOUTS WIDESPREAD

ADELAIDE, Mar - Widespread blackouts were occurring in South Australia this morning affecting households, businesses and commuters following the failure of the Vic-SA interconnector.

The interconnector failed just after 7am (CDT) and power was still to be restored to most of the affected areas an hour later.

NEM spot prices in SA shot to over $6,500MWh and supply was put at just 999MW on NEMCA's market snapshot then rising to 1623MW at about 9.30 eastern summer time when prices fell to $14MWh. Interconnector flows had been restored to over 400MW.

NEMMCO advised that the VoLL override was applied in the SA Region from 07:10 to 07:25 due to load shedding. At about 06:42AM separation occurred between VIC and SA Regions with the cause unknown.

AAP said the blackouts hit many Adelaide suburbs although the Central Business District appeared unaffected.

Power was also cut to areas east of the city including Murray Bridge as well as regional centres in the mid-north and the south-east of the state.

ETSA Utilities spokesman Craig Cock said it was unclear at that stage what had caused the problem.

"The fact that it happened so suddenly, to restore everything to normal is going to take some time," Mr Cock told ABC radio. "My estimate would be at least a couple of hours."

Police said the power failures also caused major traffic problems throughout Adelaide with traffic lights out and the Glenelg to city tram also out of action.

Statewide power failures hit SA

NEWS.com.au
BREAKING NEWS 24/7

14-03-2005

From: AAP

HOMES, businesses and commuters were thrown into chaos today as widespread power failures hit Adelaide and other areas across South Australia.

An electricity interconnector between Victoria and South Australia failed just after 7am (CDT), with power still to be restored to most of the affected areas an hour later.

The blackouts hit many Adelaide suburbs, although the central business district appeared unaffected.

Power was also cut to areas east of the city, including Murray Bridge, as well as regional centres in the midnorth and the southeast of the state.

Earlier today, ETSA Utilities spokesman Craig Cock said it was unclear what had caused the problem.

"I don't know whether it's the power line or a power station that has fallen off," he said.

Mr Cock said the issue would be managed by the national electricity authority.

He was unsure how long the disruptions would continue.

"The fact that it happened so suddenly, to restore everything to normal is going to take some time," he said on ABC radio.

"My estimate would be at least a couple of hours."

He said it was likely power would be restored to areas progressively as supplies became available.

Police said the power failures also caused major traffic problems throughout Adelaide, with traffic lights out and the Glenelg to city tram also out of action.

"Motorists are advised to use extreme caution with widespread blackouts throughout the state," said spokesman Mick Abbott.

"Traffic lights at most major intersections are out and police patrols will be performing traffic control."

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The Advertiser

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ONE DUSTY INSULATOR BRINGS STATE TO ITS KNEES

By PAUL STARICK and CRAIG BILDSTIEN
15mar05

ELECTRICITY authorities are struggling to explain how a routine fault at Port Augusta yesterday triggered widespread blackouts - for the fourth time.

Almost all of Adelaide and large parts of eastern South Australia were blacked out after a chain reaction shut down 650 megawatts of power - about 40 per cent of the state's consumption.

The cascade of electricity failures started with a flashover, or violent short-circuit, at a switching station near Port Augusta. Authorities cannot guarantee it will not happen again.

The flashover is believed to have been caused by a dirty insulator which, ironically, was due for cleaning yesterday. Arcing then caused segments of the insulator to crack.

ETSA utilities contractors yesterday worked to replace the insulator - which is within ElectraNet SA's Playford substation near Port Augusta.

It is the fourth time in a decade - and the third since late 1999 - that a fault in the Port Augusta to Adelaide high-voltage line has resulted in major blackouts.

About 460,000 of the state's 760,000 electricity users - or about 60 per cent - were affected, with power going out at 7.09am and the last users brought back on-line about 9.30am. Most were blacked out for about 50 minutes.

Peak-hour traffic was severely disrupted when about 80 per cent of the city's traffic lights blacked out.

An angry Energy Minister Patrick Conlon later threatened electricity companies with fines of up to $1 million if they were found to be negligent.

"It's simply not acceptable for them to come back with some other lame excuse like fog or possums or deceased estates or something ... it's just out of the question," he said. "I don't think the public accept that on a perfectly normal Monday morning with no stress on the system that the system could close down without somebody having done something wrong."

Mr Conlon said there was "no excuse" for the "major part of the system" shutting down after the fault.

"What makes me very angry is that it isn't the first time we've had trouble on this line (from Port Augusta)," he said. "It looks suspicious when all of those factors are taken into account and it happens again out of the same place - it's very, very worrying."

The State Government, the National Electricity Market Management Company and ElectraNetSA - which owns, operates and manages SA's high-voltage transmission system - cannot explain how the Port Augusta flashover resulted in a widespread system shutdown.

This will be the focus of the NEMMCO investigation.

Faults on the same line resulted in blackouts in March last year, 1999 and in 1995.

Yesterday's blackout was a repeat of 1999 when a chain reaction triggered by a flashover at the Playford switching station near Port Augusta caused the Victorian interconnector to fail in unexplained circumstances.

In yesterday's incident, a 2.5 metre insulator failed at Playford, activating protective mechanisms at the nearby NRG Flinders power station, automatically reducing its output.

One theory is that the sudden loss of power generated from NRG overloaded the Victorian-South Australian interconnector, which went off-line – simultaneously causing the shutdown of generators at Pelican Point and Ladbroke Grove, in the South-East.

In other developments:

NEMMCO said weather conditions probably caused the flashover but admitted it should not have caused the interconnector to shut down.

ELECTRANET said flashovers were "fairly routine events" and the interconnector failure must have been triggered by something else.

INDEPENDENT electricity consultant Rob Booth said the blackout "should never have happened".

The State Government and NEMMCO are conducting separate inquiries, with the power companies expected to take several days to produce submissions.

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THE AUSTRALIAN

Print this page

Energy firms face blackout fines

Andrew McCarry
15mar05

POWER companies in South Australia could face fines of up to $1 million if they are found responsible for a system failure that cut electricity to 40 per cent of the state yesterday and severed a key supply link to Victoria.

However, transmission company ElectraNet denied the initial fault near Port Augusta – 300km north of Adelaide – could have caused the wider loss of supply through the interconnector with Victoria.

Energy Minister Pat Conlon warned the state Government's patience was running out. "We're extremely unhappy about what happened this morning," he said.

"Straight out of the blue, weather conditions fine, no great demand, (the) power system goes down. Completely unacceptable."

A number of inquiries have been ordered into the blackout, which came almost a year to the day after a similar incident, which also cut supply from the interconnector.

It followed problems last week in Perth when 70,000 residents and businesses lost power for several hours after a series of pole-top fires.

A short-circuit near the Playford substation outside Port Augusta was the first sign of problems at 7.10am yesterday. The outage "tripped" the interconnector, which then took two other South Australian power plants – Pelican Point and Ladbroke Grove – offline. This cut a total of 600MW of supply, or about 40per cent of demand at that time in the morning.

Most of metropolitan Adelaide was affected, with cuts to domestic consumers and businesses and nearly 80 per cent of the city's traffic lights being hit.

There were also cuts to parts of the Riverland, the mid-north and southeast of the state.

Supply from the interconnector was restored in less than half an hour, but most customers went without supply for about 50 minutes.

Mr Conlon said companies could be fined up to $1million if they were found to be responsible.

He added that they could also face customers suing them for damages.

"If I was those companies today, I'd be very nervous," Mr Conlon said.

Both the Government and the National Electricity Market Management Company have moved to start inquiries into the system failure, but final reports could take some weeks.

NEMMCO managing director Leslie Hosking said the investigation would show whether there was any link between the blackout and the events of March 8 last year, when bushfires caused a system failure that cut supply from the interconnector, resulting in similar power losses.

ElectraNet chief executive Ian Stirling said the type of outage at the Playford station was a reasonably common occurrence, and that the system was designed to cope with them.

"The fault that was on our network would not have caused the interconnector to trip," Mr Stirling said.

"So there must have been some other extraneous event (that caused the trip)."

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2005/04/30 10:58 AM
Please respond to
hkms3-re

To: electricitycomments@edlb.gov.hk
cc:
Subject: Views on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Enclosed is my views on the capioned.



Views on E-Market.doc

Below are my views:

1. Reliability is Utmost Important

   Reliability always seems not important when we got it. However, nobody wants to have power cut when it is in need.

   I doubt the reliability of power supplied by other power company especially those from China. As we all know, China has been facing serious power shortage and sudden power cut is usual rather than an exception. Getting electricity supply from our mother country is just like squeezing electricity from our fellow-countryman while they don't have enough. I am sure that's not what HK citizen want to see.

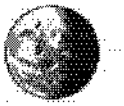
   For those appealing for open electricity market and introducing competition, are they prepared for a major power cut in HK like the North America Black Out? The economic loss of weaken reliability is something we can't imagine. Not to mention that the reputation of HK as a major financial center could be impaired.

2. Current price are acceptable

   Electricity only cost 2% of our general household monthly expenses. It is only a minimal portion compared with other expenses like transport, gas, water & misc. services. As a user, of course, I welcome price reduction. However, I don't see any reason to save only a few dollars a month but jeopardize reliability. More important, there is no guarantee on price reduction after opening the market. The only thing we can assure is that we will have a more volatile price.

3. "If It's Not Broken, Don't Fix It"

   The current electricity market runs well. We enjoy a very secured and reliable electricity supply, excellent customer services, price is minimal, and the two power companies care about the society. They always send their volunteer teams to help the needy groups and grant special rate to those needed. Why intervene and bring in uncertainty? Nobody wants another "85,000 Plan".



ho ck

2005/04/30 02:15 AM
Please respond to ho ck

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on future development of electricity market in Hong Kong Stage 1 consultation
☐ Urgent ☐ Return Receipt

After reading the Consultation paper, I support the approach of keeping the SCA and modify the terms if necessary since our electricity supply is very reliable with price quite reasonable under the present SCA. There is actually not much drive for any drastic changes and we all don't want to trade the reliability of electricity supply with a only a few cents of savings, which may not be realizable finally.

"Ho King Ngar"

21/04/05 11:57 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

Please find below my comments after reading the "Consultation Paper on Future Development of the Electricity Market in Hong Kong - Stage I Consultation":

If the electricity market is opened, the present power companies (CLP Power and HEC) are advantaged to have sufficient market power to drive out any new entrants. There can hardly be any real competition unless the government is to force the present two power companies into buying electricity from the newcomers. However, any such action taken by the government shall be seen as some sort of heavy-handed interference with the market and will set a very bad precedent for Hong Kong. Let's be realistic and forget about open market and competition. Let's roll our sleeves up and start working with the existing regulatory framework.

Ho King Ngar

HKAEE 香港能源工程師學會
Hong Kong Association of Energy Engineers

30 April 2005 Fax: 2868 4679

Ref: HKAEE/KLC/05/004L

Economic Development and Labour Bureau
2/F Central Government Offices
Main & East Wings
Lower Albert Road
Central Hong Kong

Dear Sirs,

Re: Consultation Paper on Future Development of the Electricity Market in Hong Kong Stage I (Consultation)

Enclosed herewith please find our views and comments on the captioned subject for your consideration.

Should you have any queries, we are pleased to discuss with you at any times.

Yours faithfully,

K L Chan
Hon. Secretary
Hong Kong Association of Energy Engineers Ltd

/mt

1) PREAMBLE

In response to the invitation of views and comments for Consultation Paper on Future Development of the Electricity Market in Hong Kong (Stage I Consultation) issued by the Economic Development and Labour Bureau (EDLB) on January 2005, we the Hong Kong Association of Energy Engineers (HKAEE) would like to render our views and comments (not exhaustive) for reference and consideration. We hope our inputs, which can help the Government to formulate proposals on the framework for the future development of the electricity market.

As this document may touch on some sensitive information, we appreciate that the EDLB shall write to HKAEE for seeking our agreement if this document will be opened as public information.

2) VIEWS AND COMMENTS

2.1 Policy Objective

We agree with the Government's policy objective is to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimising environmental impact caused by the generation and use of electricity. Among the numerous mentioned key elements, we opine that reliability and safety of supply shall be put on the outmost priority target to meet, as Hong Kong is not affordable to bear the loss arising from blackout.

2.2 Regulatory Roles

It is noticed from the Consultation Paper that the safety, environmental and economic aspects of electricity supply are governed by various Government Bureaux and Departments. If current institutional setup will not be altered significantly, we suggest that a inter-departmental regulator office shall be set up and responsible for coordinating and tackling issues if any, which might need to be compromised among the above three aspects.

2.3 Future Scale of Electricity Supply

Hong Kong is a well-developed urban city, the land remaining for large-scale commercial and residential developments, which leading to a very high demand of electricity in future might be not substantial according to current situation.

In the consultation process, it is better to let public have the information on (i) existing power stations capacity, (ii) forecast on future growth on electricity demand, (iii) planning on future development of new power stations and its infrastructure on electricity supply together with associated costs to be incurred and (iv) the necessary reserved generation capacity and required installations to meet the high reliability standard(s). The disclosure of above baseline information can help the public to assess the appropriateness of required continuous investments requiring for meeting the demand growth and the future pricing is whether reasonable or not. In other words, whether the electricity price is at its lowest possible cost without jeopardizing the current service level.

2.4 Permitted Rate of Return on Fixed Assets

According to the current Scheme of Control Agreement (SCA), the power companies are entitled to receive a 13.5% permitted rate of return on their fixed assets plus an additional 1.5% for assets financed by shareholders' funds. This comes to a controversial question that whether the current SCA leading to the electricity price is reasonable or not in respect of current economic climate but without compromising the reliability and serviceability of electricity supply?

According to information published from a professor in Finance and Economic Department in a local university, the average annual rate of return on investment of local electricity market is around 20% over the past 10 years as a result of implementation of SCA. We consider that this rate is on the high side in view of current economic climate and the nature of current electricity supply market is a monopoly by virtue. Despite the current price is affordable as revealed from some local surveys, we consider that there shall be a room for the electricity price to be reduced. The Government perhaps can consider an option to use rate of return on investment rather than rate of return on fixed asset to discourage any over-investment.

We suggest that the Government shall formulate the future framework in such a way that the lowest possible cost can be demonstrated to the public.

For determining the rate of return, we prefer to link the rate of return to the cost of capital because of its more objectively determined and more transparent.

2.5 Commercial Tariff

According to Figure 2.1 in the Consultation Paper, the electricity consumption by commercial constitutes 38% and 72% to the total electricity consumption for CLP Power's and HEC's network respectively. Whereas, the electricity consumption for air-conditioning in commercial development can be up to 40–50% of total, it is worthwhile to investigate the potential to enlarge the differential between the on- and off-peak tariff in order to attract the building developers to install thermal storage system. The application of this type of system is commonly found in countries such as PRC and US where there is a great differential between the on- and off-peak tariff. The large differential gap provides an incentive to the developers to derive the electricity cost saving in long run by shifting the peak electricity demand for air-conditioning from day (on-peak period) to night time (off-peak period), which is necessary to pay back the intensive capital investment on thermal storage system.

To the power companies, operation of thermal storage system might help to level off the peak electricity demand and hence to optimize the usage of current power plant installed capacity and also to reduce the required reserve generation capacity. By the end, this might help to defer the new power plant installation.

2.6 Demand Side Management Program

We suggest the two power companies to review the past demand side management program as necessary and to continue its implementation so as to promote the energy efficiency operation. The ultimate result can help to reduce the peak and total electricity demand.

2.7 Third Party Access to Power Grid

As one of the major benefits arising from third party access to power grid is to make the electricity market more competitive and hence the electricity price can be lowered. We would like to offer our opinions on above subject matter as follows:-

(i) Whatever arrangement to be made for access to power grid, the Government's policy objective as mentioned in Item (2.1) should not be compromised.

(ii) It should be crucial and careful to balance between the benefit and the potential risk of interruption or disturbance on electricity supply.

(iii) The demarcation of responsibility between different stakeholders and penalty shall be well defined in order to protect the public interest. If there are other ways with relatively less risk to result in the same effect of lowering the electricity price, such approach or methodology shall be preferably pursued.

(iv) Partially open the power grid system as a pilot implementation can be considered and the consequential technical performance shall be closely monitored and reviewed.

(v) The future framework and electricity supply regulatory arrangement shall enable the regulator to have the authority to suspend or terminate the access right to the power grid if non-performance is happened.

2.8 Application of Renewable Energy

HKAEE has provided our responses to the Document On Renewable Energy for Sustainable Development. We summarize below our major viewpoints for easy reference.

(i) It is suggested to incorporate a minimum Renewable Energy (RE) target or a requirement of RE development plan in electricity generation into the future SCA in the post-2008 electricity market.

(ii) The Government should implement measures to facilitate access for RE suppliers to the main electricity power grid.

(iii) We opine that the power companies shall have the social responsibility to conserve our environment. It may not be a fixed percentage target. Nevertheless, a RE development plan in power generation shall be required from the electricity suppliers.

2.9 Environmental Conservation

Similar to RE development plan, the power companies shall incorporate a plan of increasing the usage of clean fuel such as LNG whilst decreasing the consumption of coal for power generation into the future SCA. The associated technical, financial and other details shall be further studied.

2.10 Future Regulatory Regime – A Modified Type SCA Regime

Generally, the future regulatory regime shall be formulated to achieve the Government's policy objective with a high transparency. The accountability and responsibility of the power companies and the regulator shall be clear to the public.

It appears that the economy cycle will be changed more rapidly, for sake of fairness to both customers and power companies, we suggest the reviewing period of future SCA shall be once in every five years.

In principle, we agree to maintain the development fund to act as a cushion to stabilize the tariff. However, we notice that the current development fund of CLP Power and HEC has a very big difference. For HEC, their development fund is close to zero in recent years. Whilst the CLP's development fund has been built up to a order of several thousand of millions dollars. We suggest the Government shall investigate this situation and shall set out a minimum and a ceiling limit of development fund. These settings shall be reviewed periodically together with the reviewing and auditing the tariff in future.

Initially, we prefer regulating the power companies' return through combination of Return on Investment, Return Based on Performance and Regulating Tariff. More details together with pros and cons of these combined approaches shall be more elaborated in the coming consultation process.

2.11 Future Regulatory Regime – A Regime with New Features

The immediate or short-term impact on electricity price and other essential issues to customers on increased interconnection shall be addressed in coming consultation.

We concur the findings on "Choice of Suppliers" as presented in the Consultation Paper.

For optimizing system resources, the Consultation Paper addressed the central planning concept in developing the overall system plans. Owing to different percentage distribution of various natures of developments of total electricity consumption for CLP Power and HEC, the time of occurrence of peak demand in CLP Power's and HEC's supply networks may not be on the same time. This fosters an opportunity for sharing use of generation plant through the increased network

interconnection. The superposition of loading profiles from two power companies are expected to be known from the coming consultation and further technical study and cost benefit analysis shall be undertaken to assess the overall feasibility.

The two power companies shall undertake the funding and operation of the new interconnector. This can upkeep their responsibility on maintaining the current level of reliability.

For the new supply sources, i.e. importing electricity from the Mainland China, the Consultation Paper addressed that current situation of tight power supply in Guangdong and expressed that there are still uncertainties to result in a balanced supply and demand situation in medium to long term. We would share the other viewpoint for consideration. The tight power supply situation might not be only attributed to imbalance between supply and demand. Such situation can also be affected artificially, driven by political consideration and structural barrier. Investors may not really keen to invest on generation plants, which is the only element in the whole power chain allowed for non-national capital. The reason is due to moderate return (if everything goes fine) and substantial risk (practically one single dominating customer only). Given a choice to sell the electricity to multiple customers across the border, who are paying a relatively higher rate, this provides the motive to these investors to line up eagerly to serve the HK market primarily while taking the China sector as a secondary cushion to absorb excess capacity if any.

The future regime can allow flexibility to the power companies to make use of new supply sources in long-term future but such adoption has to meet the policy objective.

Please refer to Item 2.7 for our views on Third Party Access to Grid for details. In order to facilitate long term development of alternative supply sources and renewable energy application, we suggest to adopt mandatory rather than voluntary approach for implementing this issue provided that the grid connection requirements are well stipulated to protect the customer interests and to assure the current level of supply reliability.

2.12 Future Regulatory Arrangement

As comparing to regulatory framework supported by legislation, we prefer bilateral agreement in view of its proven result in meeting the policy objective. Nevertheless, shorter agreement period of 5 years duration shall be introduced to provide flexibility for amendments as circumstances require.

2.13 Institutional Set-up

We have no particular comment and special preference on the three options of institutional set-up, namely Current Approach, Rationalisation within the Government and Separate Regulatory Authority as detailed in the Consultation Paper.

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●SOCIAL SERVICE IS OUR BUSINESS●

香港基督教服務處
HONG KONG CHRISTIAN SERVICE

敬啓者：

對「香港電力市場的未來發展」諮詢文件的意見

本服務處認爲，由於香港的電力供應是一種公共服務，所以任何改變和發展，都應以公眾利益作爲最優先考慮，而不是單純以商業或企業的角度去尋求最大利益。

因此，政府有責任確保任何電力提供者，都履行企業的社會責任，包括在技術層面採用最環保的方法，以及按一些國際標準（例如：採用全球報告倡議組織 GRI 的可持續發展報告指南）落實可持續發展的做法。

此外，電力的價格水平會直接影響到廣大市民，包括普羅市民及工商業。因此，長遠可透過開放市場，引入競爭。但這種競爭必須能讓市民有真正的選擇，而不是局限電力提供者在劃定的地域範圍內（例如將整個香港分爲若干區域）提供專利的服務。

在利潤管制方面，政府應將其投資回報率的上限降低（可參考外國同類型公司的回報率），並引入可加可減機制，參考剔除非核心項目後的消費物價指數作爲批准加價或減價的申請。

此致

經濟發展及勞工局

行政總裁吳水麗

2005 年 4 月 30 日

中區香港特區九龍加連威老道三十三號　電話：二七三一 六三一六（總機）　電文傳真：二七三一 六二二三
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HKGCC

Hong Kong General Chamber of Commerce
香港總商會 (1861)

香港總商會
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Helping Business since 1861

May 6, 2005

Mr Stephen Ip, GBS, JP
Secretary for Economic Development and Labour
Economic Development and Labour Bureau
Room 815, West Wing
Central Government Offices
Lower Albert Road, Central
Hong Kong

Dear Stephen,

Future Development of the Electricity Market in Hong Kong

The Hong Kong General Chamber of Commerce has decided not to submit views on the Future Development of the Electricity Market in Hong Kong Stage I Consultation Document.

While we strongly support maintaining a reliable and stable electricity supply in Hong Kong, we shall await the detailed proposals, in the Stage II consultation document, before taking a position on whether, or how the current Scheme of Control Agreements might be improved.

Best regards,

Eden Woon,
CEO

香港太陽能聯盟
H K P V C

27 April 2005

By post and e-mail to electricitycomments@edlb.gov.hk

The Secretary
Economic Development & Lands Bureau
2F Central government Offices, Main & East Wings
Lower Albert Road,
Central
Hong Kong

Dear Secretary,

Consultation paper: Hong Kong's Future Electricity Market

I am pleased to forward on behalf of the Hong Kong Photovoltaic consortium (HKPVC) our considered response to the Consultation Paper

Yours faithfully,

Dr Josie Close
Chair of the HK PV Consortium

Enclosure: HKPVC Response (7 pages)

The Secretariat, Hong Kong PV Consortium c/o Dept of Architecture 3F Knowles Building HKU HK SAR
Tel: (852) 2859 2282 fax: (852) 2559 6484 e-mail: info@hkpvc.org.hk website: www.hkpvc.org.hk

香港太陽能聯盟

H K P V C

Response: Final Document 27 April 2005

Consultation Paper on Future Development of the Electricity Market in HK

Introduction:

The Consultation Paper summarises the key findings of the Government and advises that the public consultation is a 2-stage process and the views from this consultation (Consultation ends 30 April 2005) "will be considered for the future development of electricity market".

The stated primary aims of the future structure are to

- Ensure reliable, safe and efficient electrical supply will continue to be delivered to consumers at reasonable prices
- Address major criticisms and perceived shortcomings of current regulatory regime
- Have regard to environmental concerns

And states the intention to continue regulation of

a) return on investment
b) incentives to encourage energy efficiency, and performance
c) tariff regulation- annually or fixed term (related to projected sales, operating expenses + agreed return)
d) reasonable pricing

The Consultation Paper considers

- how the existing regime might be improved and what new features might be introduced
- whether the future regulatory arrangement is based on bilateral agreements or a regulatory framework backed by legislation and
- whether the Gov should remain the regulator or an independent regulatory authority should be set-up?

1.0 Hong Kong PhotoVoltaic Consortium (HKPVC)

1.1 Environment and health costs

The HKPVC is a non-profit-making registered society set-up to promote the application of photovoltaic technology in HK and the region. The Consortium supports the wider use of all renewable energy technologies and all means to reduce greenhouse gas emissions by the avoidance of carbon-based electricity generation. Reduction of air pollution and long-term climate change is a priority for the HKPVC and **"reasonable pricing"** is judged in the broader terms of the living environment and health impacts as much as the tariff per kilowatt-hour

1.2 Public support for renewable energy generated electricity

The HKPVC is exceptionally keen for measures to be introduced into the future HK Electricity Market that support and encourage renewable energy generation. The HKPVC reminds the government and public of the appropriateness and potential of building integrated photovoltaics (BIPV), the conclusion reached by the Government commissioned study on RE applications to HK (December 2002). Furthermore, surveys carried out on behalf of the Advisory Committee on Energy (2003) have highlighted public support (63.6%) for electricity generation from renewable energy resources.

1.3 Renewable Energy Technologies (RET) & grid-connection

In HK, the full range of PV applications – let alone all the other renewable energy technologies - is not yet fully explored. Until relatively recently, there has been considerable utility resistance through technical supply rules, lengthy administrative procedures and prohibitive charges that were the real barriers to renewable energy applications. Indeed it is only with the impending review of the Scheme of Control has there been greater flexibility, consideration and support.

The Technical Guidelines on the Grid-connection of Small-scale Renewable Energy Systems are due to be formally issued after the end of this consultation period. The Guidelines will limit grid-connection to installations of 200kW and below. Thus it appears that the power of the existing utilities is still curbing the real exploration of far more commercially-challenging installations.

However, there is no reason why those same utilities should not be setting-up, operating and maintaining RET installations.

It has been demonstrated that there is innate resistance to new technologies, procedures and ideas, perhaps symptomatic of a long-established organizations, and that the organizations do not need the impact of carbon-based emissions and so are resistant to varying their present procedures and set-up – at least so long as protected by the present financial agreement.

The leverage offered by this pending review process has made a lot more possible. It is therefore imperative that the ensuing structure and market does not lose the flexibility to explore and integrate - within a much wider resource pool - the full range of present and future electricity generation options, and also safeguard against protectionist practices whilst providing an appropriate supply network that meets the community's needs.

1.4 Choice of alternative supply through building-integrated generation

The present utilities have benefited from very many years of public subsidy – at least 40 - under the present Scheme of Control. Though competition is desirable, it will not be easy for newcomers to enter the market. This has been highlighted by the lack of available land. However building integrated electricity generation is also a possibility through a variety of technologies. The process for its integration needs to be linked to land-use and building planning applications, with energy generation studied and resolved in an overall master plan. Approval for new and rehabilitated development should be dependent on proposals for energy generation, efficient building energy use and services together with waste and water recycling schemes. As stated in the HKPVC's response to the public consultation on sustainability, Hong Kong should be holistic in its approach and link energy generation with waste disposal and urban planning into the environmental, economic and social parameters of sustainability.

2.0 No review of electricity generation trends

2.1 **Alternatives and choice**

The focus of this Consultation Paper is almost completely on economic issues without consideration of the continuing developments in alternative electricity generation and thus how HK might need to take account of those changes in the future market structure – short or longer-term. There is no concept of a structure other than big centralised plants just like the present companies or the role of demandside management in promoting energy efficiency that can thus reduce electricity generation needs and outlay on additional plant.

2.2 Evolving process

The HKPVC supports the Paper's statement "Market Reform is not a one-off exercise, but continuous process necessitating adjustments to suit changing circumstances. The outcome of some of the market reforms points to the need for an evolutionary and progressive process in market development and market readiness is the key to the process."
In order to comply with that statement the future HK Electricity Market structure must be capable of including a variety of generation from a range of generators.

2.3 **Independent regulatory authority - transparency**

The HKPVC favours a regulatory framework run by an independent regulatory authority separate from the HK Government to provide protection for consumers' interests and to oversee the new, and flexible, power generation regime. The independent regulatory authority needs to include those with knowledge and experience of a wider generation set-up than is presently experienced or conceived in HK and needs to be mandated through legislation. This is favoured because it will have greater transparency, flexibility and knowledge than the present system. It is appreciated there are cost implications but the present Scheme of Control has also had its cost burdens on the taxpayer.

Response Final Document 27 April 2005

Consultation Paper on Future Development of the Electricity Market in HK

2.4 Decentralised power

Established researchers of international repute**(see footnote) acknowledge the advantages of decentralised power generation (or electricity generation at place of use) in terms of

- cost reductions for transmission and distribution,
- diversity of supply provides security against market volatility(for primary fuels) as well as terrorist attacks
- increased production efficiency approaching 80% through employing combined heat and power and also tri-generation including cooling
- application of clean technologies that do not emit damaging greenhouse emissions nor add to global warming nor emit pollutants damaging to health and impacting on economic well-being
- development of locally produced electricity from new and renewable technologies frees administrations from politically unwise actions/repercussions in their international relations
- development of a local industry in clean electricity technologies that provides new jobs and boosts the economy
- complies with the objective of sustainability

Such decentralised services can be offered by the existing utilities but can also be the basis for setting-up new companies **ie the wider market choice**

"There are compelling reasons to believe that the traditional system of large, conventional plants connected to customers by hundreds or thousands of miles of transmission lines will likely be supplemented with cleaner, smaller plants located closer to their loads. Not only do such distributed generation systems reduce transmission line losses and costs but the potential to capture and utilize waste heat can also increase the overall efficiency and economic advantages"

GM Masters "Renewable and Energy Efficient Power Systems" (Wiley-Interscience [illegible])

2.5 Renewable Energy Technologies

The 2002 (released 2003) HK Government commissioned study of renewable energy applications to HK was very limited in its scope, neither projecting very far into the future nor considering the broader and future range of renewables nor new related technologies such as:

- marine energy, (water has 2-4 times the power density of wind)
- biogas from anaerobic digestion of organic waste (domestic solid waste is one of our major disposal problems) that can be used in fuel cells or micro-turbines
- manufacture of biofuels from farmed plants
- electrolysis powered by solar energy to provide hydrogen (ie the on-site production and storage of hydrogen to enable a renewable but intermittent supply to become a constant)
- commercialisation of modular micro-turbines (permits gradual growth of generation equipment matching demand, with shorter lead-in times and reduced investment.)
- solar thermal + adsorption chillers for space cooling (supporting tri-generation)
- progressive advancement in existing technologies (concentrator techniques, hybrid versions etc)

The general consensus elicited from the Public Response ([illegible]) was that the potential from Renewable Energy Technologies (RETs) merited much greater impetus in their integration with other electricity generating resources than the Study recommended.

Footnote:

"(Rocky Mountain Institute, Gilbert M Masters of Stanford University, Tom Casten[illegible] Energy plus [illegible] organizations and companies members of WADE)"

Response: Final Document 27 April 2005
Consultation Paper on Future Development of the Electricity Market in HK

2.6 Choice of supply

Little consideration is given to the choice of supply in the Consultation Paper yet for those who are committed to improving the environment there is no opportunity to select an electricity generation process that is environmentally acceptable. (ACE organized surveys (2003) have indicated a surprisingly high response to willingness-to-pay for so-called "green electricity") Presently, environmentalists are denied the ability even to pay more for the electricity generation of their choice. As a free-market economy in other respects this is an obvious failure of the HK electricity market. It is not possible to show displeasure with the prevailing service because there is no alternative to choose!

2.7 Incentive

Electricity is likely to be expensive in the future. (The cost of oil US$50+ per barrel, gasification of brown coal to eliminate harmful emissions, fuel cell technologies and RETs require investment to mass production applications, development of hydrogen production and storage facilities.)

We should not shy away from this pronouncement.

In-built into the new market must be appropriate remuneration for setting-up, operating and maintaining RET installations, clean energy, making them greater financial attractions than "dirty" electricity-generation. The cost of pollution on health, environment and the economy must be factored into the sums.
However, the higher cost should be the incentive for greater energy efficiency and thus a reduced electricity bill because consumers will use considerably less through advanced systems design.

2.8 Reducing the cost : Energy Efficiency and Demand-Side Management (DSM)

Hong Kong utilities have never wholeheartedly supported DSM because energy efficiency goes against their interests in that the financial basis of the Scheme of Control is asset-based ie generation plant. Hence the existing SoC leads to the need to continually forecast greater electricity demand to promote the need for more plant.

Other studies*(see footnote) have highlighted that stringent promotion of energy efficiency though application of the most advanced materials and technologies result in substantial savings without sacrificing comfort or contemporary standards.

- The remuneration of power generation companies therefore needs to include strategies supporting energy efficiency by consumers in Demand Side Management (DSM) policies.
- There should be emphasis on energy efficiency in the building design and envelope construction, building services installations including business equipment and domestic appliances and thus reduced energy demand. (These need to be supported through HK's planning and building legislation, Codes of Practice and Standards.)
- Hong Kong's present Codes for OTTV, air-conditioning, lighting and lifts are not very demanding and it is accepted that a 15-20% increase in efficiency could be achieved through more stringent application
- Linking very low energy-use buildings to the cost of construction and mortgage availability (ie financing capital) must be included in the overall strategy that have their own market-related forces for acceptance

Footnote:
*" A Costed Strategy and Action Plan ... Improvement All Municipal Services in the City of Melb ... Energy Supply" prepared for the Melbourne City Council ref EWG SF01/2001

香港太陽能聯盟
HONG KONG PHOTOVOLTAIC ALLIANCE
H K P V C

Response: Final Document 27 April 2005
Consultation Paper on Future Development of the Electricity Market in HK

3.0 Independent regulatory authority

It is only with the approach of the negotiations for the post-2008 market that the HK Government has had leverage and the present power generation companies have indicated much interest in addressing alternatives to the present generation set-up. Additional criticisms of the present Scheme of Control include the perception that

- shareholders' interests are more important than those of consumers
- environmental issues are not as important as maintaining high share price
- power companies are large, conservative and resistant to change, and exercise the power of monopoly
- the companies are reluctant to consider RETs until forced to acknowledge their environmental value
- the present utilities are hostile to small-scale power production and blind to an appreciation of their potential role within it. In that respect note the quote from GM Masters overleaf.

"While the power ratings of some of the distributed generation options may be [illegible] the potential [illegible] numbers of replicated small units that will make their contribution significant. [illegible] builds about [illegible] million cars each year. If half of those were 60kW fired fuel-cell vehicles, the [illegible] capacity of the [illegible] worth of automobile production would be greater than the total installed capacity of all [illegible] plants." [illegible]

3.1 Since there is no analysis in the Consultation Paper of the new forms of energy generation, there is no concept of how such generation needs might be fitted into the post-2008 electricity market. Land availability is seen as a key issue to opening the market without appreciating that distributed generation is frequently building integrated so additional land is not required. The present Government Departments therefore appear to lack the appropriate expertise, independence and far-sightedness and remain locked into the present concept.

3.2 As the Consultation Paper cites the constantly changing status of the electricity market (fuels and resources as much as demand) there is need for flexibility in the future regime. Experience of the existing Scheme of Control has highlighted its very lack of flexibility.

3.3 So the new structure needs to be more than bi-lateral economic agreements overseen by the HK Government's Economic Service Bureau. There is need for a regulatory framework run by an independent regulatory authority separate from the HK Government to provide protection for consumers' interests and to oversee the new, and flexible, power generation regime.

3.4 The independent regulatory authority needs to include those with knowledge and experience of a wider generation set-up than is presently experienced or conceived in HK and will be mandated through legislation in its operation.

3.5 Such an authority will have greater transparency, flexibility and knowledge than the present system. It is appreciated there are cost implications but the present SoC has already proved extremely costly.

3.6 The existing power generation companies have very different corporate cultures. It will therefore be easier to set-up a new distribution network rather than requiring the two companies' distribution networks to integrate

3.7 Advanced technologies (RET's) part of Hong Kong's future economy

The HKPVC envisages the future HK Electricity Market will also be part of HK's economic development in promoting the design, development and manufacture of related components of the emerging renewable energy technologies. In the HKPVC response to the RE study (April 2003) it was stated:

"We draw attention to the importance of legislation to create a "level playing field". The [illegible] 1978 Public [illegible] Regulatory Policies Act (PURPA) legislation ensured that independent power producers [illegible] supplied with [illegible] power and their excess power bought at reasonable rates. Subsequently PURPA [illegible] duplicated in other countries such as the German 1991 "Stromeinspeisungsgesetz" European experience, [illegible] namely the German Law of April 2000, indicates the effect that strong legislation has on confirming the [illegible] to provide the [illegible] industry expansion, security for investment and local commercialization." HKPVC Ap[illegible]

香港太陽能聯盟
HONG KONG SOLAR POWER CONSORTIUM
H K P V C

Response: Final Document 27 April 2005
Consultation Paper on Future Development of the Electricity Market in HK

4.0 Interconnection and Third Party Access

4.1 HK is described as a relatively small electricity market. Though it is certainly, geographically, a small area its population is bigger than Singapore, or New Zealand, each of the Scandinavian countries as well as some European countries of much larger geographic area. A fully integrated network seems technically desirable to allow for future, though as yet unknown, developments. The cost will always be perceived as "heavy", and the timing never perfect, but this should be progressed and the costs rationalized against past generous funding.

4.2 The independent regulatory authority would be instrumental in separating generation from transmission and overseeing the connection of the presently separate networks. The HK Government commissioned Technical Study in 2003 recommended the network interconnector cable though it is understood this was envisaged as an emergency back-up measure.

4.3 Interconnection also has the value of requiring the existing companies to work together at the engineering level, planning and forecasting load as well as infrastructure, leading to optimization of resources. It is recognised that the two existing companies have very different corporate cultures though associated problems would be more easily overcome if the overall distribution network were to be a new organization.

4.4 Importantly interconnection of the distribution network will facilitate the development of RETs and third party grid access.

"The traditional, vertically integrated utility incorporating generation, transmission, distribution and retail marketing services is in the beginning stages of what could prove to be quite revolutionary change. [illegible] Generation at central power stations seems to have ended. The opening of the transmission and distribution grid to independent power producers who offer cheaper, more efficient smaller-scale plants is well [illegible]" M. Masters

4.5 With a separate distribution network, the independent regulatory authority will have the ability to relate to Mainland and other resources as and when those are available.

4.6 **Legal rights for RE generation**
HKPVC recommends the protection of the legal rights and interests of the (users) of Renewable Energy. This would imply the establishment of Renewable Energy Law for Hong Kong SAR, to echo the passing of Renewable Energy Law by the National People's Congress to be enforced on the 1st January 2006. The legal rights of using RE in parallel to utility grid must be distinguished from the "third-party access to the power grid" because the size of such RE systems will, for the present, be limited to 200kW and below, and connected to the 220/380V low-voltage electricity supply network according to the EMSD Technical Guidelines on Grid Connection of Small-scale Renewable Energy Power Systems. It is likely that additional supply must be derived from the grid – in contravention of present Supply Rules common to both the existing utilities that state *"A customer shall take from the Company all the electricity that may be required by him or at his premises ..."*)

In concluding, the HKPV Consortium acknowledges that

- The Consultation Paper is an admirably clear and concise document that is accessible to everyone, not just the specialist. That is a highly commendable achievement in itself.
- The focus on environmental concerns as a primary objective is a very important acknowledgement and again is applauded together with the proposed Capping of Emissions
- The up-to-date analysis of issues (reliability, comparative cost of electricity, and utilities' rate of return/remuneration) are valuable in setting straight some widely-quoted misconceptions.

香港太陽能聯盟
HONG KONG PV ...
H K P V C

Response: Final Document 27 April 2005

Consultation Paper on Future Development of the Electricity Market in HK

We offer this contribution to the public debate to highlight the need to look to the future rather the past in our approach to the post-2008 HK Electricity Market.

The HK PV Consortium is the initiative of individuals from business, industry, ... academia to promote applications in HK and the region. Through our work on PV in demonstration and education projects, we are raising the community awareness and contributing to the increased ... development of local PV applications.

If you would like to know more about the HK PV Consortium and our work, e-mail info@hkpvc.org.hk

End

Chair and Officers of the HK PV Consortium, on behalf of the membership, 27 April 2005.

HONG KONG RETAIL MANAGEMENT ASSOCIATION
香 港 零 售 管 理 協 會

6 May 2005

Ms Miranda Chiu
Economic Development and Labour Bureau
Central Government Offices
Lower Albert Road
Hong Kong

Dear Ms Chiu

CONSULTATION PAPER ON FUTURE DEVELOPMENT OF THE ELECTRICITY MARKET REVIEW -- Stage 1 Public Consultation

Thank you for your letter dated 8 March 2005 and in inviting our comments to the captioned subject.

Please find our views as below:

Permitted Return Based on Fixed Assets

It is considered that this arrangement encourages over-investment and there is no regime to control over it. Therefore, it is suggested that the rate of return shall be based on forecasted electricity consumption in a period of time, say 5 years, and review annually. Adequate investment can be ensured by relating the forecasted electricity production and the peak electricity consumption. Spare electricity production will also be ensured.

Annual Tariff Review

It is agreed to link the tariff to economic indicators, such as consumer price index or retail price index. It is considered that selling electricity is also a kind of business, power companies shall also face business risks.

Fuel Cost Adjustment

It is agreed to maintain the existing fuel clause account mechanism, it is expected that the fuel price will fluctuate from time to time. However, it is suggested that the calculation of the fuel cost adjustment shall be more transparent. A third party, established by professionals, retail representatives, and other representatives from different trades and levels can be formed. This third party can then monitor whether the power companies reflect the fluctuation of fuel cost in the tariff accurately and on time.

Unit B 22/F, United Centre, 95 Queensway, Hong Kong. 香港金鐘道 95 號統一中心二十二樓 B 室
Tel / 電話 : 2866 8311 Fax / 傳真 : 2866 8380 Website / 網址 : www.hkrma.org

Interconnection

Interconnection between existing two power companies and interconnection between the Mainland are highly encouraged. This interconnection shall then enhance the flexibility that new suppliers or new power sources, such as renewable energy, can be hooked up with the system. It is considered that tariff rate offered by the power companies will then be more reasonable due to competition. It is suggested that the existing power grid shall be used even when third party power companies join in so as to reduce the disturbance to the public.

Liability to Power Failure

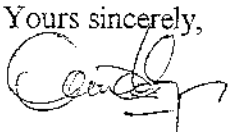
Apart from the discussions in the paper, it is suggested to review the existing limitation of liability undertaken by the power companies. According to existing supply rules, power companies shall not be liable to the consumers for loss or damage due to interruption of supply or a fluctuation in its frequency or voltage. It is considered that these rules are not fair to the consumers.

Implementation

When the current agreements expire in 2008, it is suggested to extend the current SCA with modifications of new features as stated above by 3-5 years so that adequate time can be allowed for exploring the feasibility of various options and resolving related technical and legislative issues, whilst maintaining the existing service level of electricity supply. We doubt the remaining 3 years would be good enough for the government and the potential parties to establish everything properly. For long-term consideration, a regulatory framework supported by legislation is welcomed. The set up of regulatory framework will be more important if the existing power distribution grid is shared by the existing power companies and new suppliers / new power sources.

I hope the above comments will be useful in assisting the Government's review on the subject. In the meantime, should you have any queries, please do not hesitate to contact the undersigned at 2866 8311.

Yours sincerely,



Anita Bagaman (Miss)
Executive Director

c.c. Mr Vincent Fang, Legislative Councillor, Wholesale & Retail.

醫院管理局
HOSPITAL AUTHORITY

群策群力為病人 優質醫療滿香林
Quality Patient-Centred Care Through Teamwor

29 April, 2005

Our ref : HA/EM/881/1/3/3

The Secretary for Economic Development and Labour
Economic Development and Labour Bureau
Government Secretariat
(Attn: Ms Miranda Chiu)

Dear Ms Chiu,

Consultation Paper on Future Development
Of the Electricity Market Review
Stage I Public Consultation

I would like to thank you for inviting us to provide views on this important subject area for Hong Kong.

I believe this meaningful review would not only benefit the further development of Hong Kong as a metropolitan city but could also put the Hospital Authority in a better position to provide improved healthcare services delivery to our citizens and visitors.

As a responsible public body and one of the high electricity consumption organizations we certainly have great interest to share our thinking with you. The Hospital Authority has prepared with pleasure the enclosed summary of our views for your consideration. This summary is focused on the environmental, economical and reliability perspectives. Also, I would like to nominate Dr M Y Cheng (Deputy Director) and Mr P L Yuen (Executive Manager) to represent Hospital Authority to liaise with your office and probably the two utility companies.

/ pg 2 ..

Room 501S, Hospital Authority Building, 147B, Argyle Street, Kowloon.
[Tel : 2300 6769 Fax : 2881 8058]

I look forward to providing further support to this review and contributing to the development of a better electricity supply in Hong Kong.

Yours sincerely,

(Dr William Ho)
Chief Executive
Hospital Authority

Room 501S, Hospital Authority Building, 147B, Argyle Street, Kowloon.
[Tel : 2300 6769 Fax : 2881 8058]

29 April, 2005

Summary of Hospital Authority views on Future Development of the Electricity Market in Hong Kong

Environmental Consideration

HA welcomes the adoption of environmental friendly and higher energy efficiency systems in electricity generation and distribution.

Air pollution has always been a major public health issue. Local studies have shown that air pollutants have clearly linked to increase in hospital admissions and cardiopulmonary diseases. The cost of illness due to air pollution may amount to 0.35% of Hong Kong's GDP (Reference: "Study of Economic Aspects of Ambient Air Pollution on Health Effects" commissioned by the Environmental Protection Department released in 1998). This speaks for the specification of the emission reduction target. Gradual moves from the current coal burning electricity generation system to renewable forms or systems with higher generating efficiency and burning less fossil fuel could be considered.

The installation of higher efficiency and environmental friendly Combined Heat and Power System (CHP), which has been adopted widely in Europe, is a possible mean. In fact CHP suits the consumption pattern of hospitals which use electricity, cooling and heating energies simultaneously. If CHP can be installed locally it will alleviate the peak demand of the utility companies and the electricity transmission losses can also be reduced.

In promoting the use of environmental friendly renewable energy, consideration can be given to launch incentive schemes for those who employ renewable energy. In general, gaining more use of alternative renewable energy can drive down the associated equipment cost and make it more viable in the long run.

Economical Consideration

HA appreciates the possibilities of bringing in electricity market competition. HA also shares that there are potentials for enhancing electricity supply efficiency to derive economic benefits for utility companies and users.

HA agrees that the net benefits achievable from the increasing electricity market competition, the electricity supply interconnection between the two utility companies in Hong Kong or with supply from Mainland China should all be closely examined.

Consideration could also be given to provide lower night-time tariff to facilitate better demand-side management by using innovative energy efficient technologies like ice-storage system. Allowing summation of meters within a single site could also make demand-side management more feasible to reduce peak demand and enable the utility companies to achieve better balanced supply and demand condition, and at the same time users could pay less electricity costs.

Reliability Consideration

HA is also much aware of the need to have contingency measures to tackle electricity blackouts in Hong Kong. The utility companies should work closely with hospitals to strengthen the contingent electricity supply system for hospitals.

Utility companies are expected to clearly specify their commitment for providing priority electricity supply to critical hospital services. There should be sufficient mobile generating sets made available throughout the territory to cater for electricity blackout incidents.

The potential on increase in electricity supply reliability can also be explored with respect to opening of the electricity market as well as the interconnection among utility companies.

"Joyce Ip"

28/04/05 11:10 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Stage 1 Consultation Report on Future Development of Hong Kong's Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sirs,

I feel comfortable with the current electricity supply arrangement in Hong Kong because it is safe and reliable. It is different from the Mainland. My relative who lives in Guangdong Province told me that there were always blackouts in her city, particularly in Summer. It will become terrible if it happens in Hong Kong. My grandmother is too old to walk to the tenth floor of the building if there is failure in electricity supply. I will be trapped in a lift. I cannot sleep without air conditioning in a hot and humid summer. I cannot read at night.

I am now fourteen year old. To me, I have never experienced any blackouts in Hong Kong because the power companies in Hong Kong have done a good job for us.

As a secondary school student, I spend nearly four hundred dollars every month on school bus for the single trip only. The tariff is quite reasonable in Hong Kong. Thanks to the reliable electricity supply, I can use computer to do my homework. I can study at night. Without it, life will become dull.

I sincerely hope that the Hong Kong government will not change the current electricity market. The present situation is the best.

Yours Sincerely,
Ip Chui Yan

"Ip Tat Yan"

2005/04/29 11:27 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on First Stage Consultation Paper on Future Development of Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sirs,

With reference to the captioned consultant paper, I would like to provide you with my comments as follows:

1. It is the Government's policy objective on electricity supply to ensure that customers receive reliable, safe and efficient electricity supply at reasonable prices while minimizing the environmental impact. The excellent and reliable services provided by the two power companies in Hong Kong governed under the existing scheme of control agreement (SCA) meet this objective. The corresponding Bureaus and Department have taken their responsibilities to monitor the operation of the two power companies in the most cost-effective manner over the past thirty years, which is why Hong Kong can become one of the important international financial centers. The existing regulation mode is simple and should not be changed.

2. Unlike other forms of energy, electricity cannot be stored. In view of the fact that there are so many high rise buildings in Hong Kong (as one of densely populated cities), electricity is particularly vital to people who have no choice but to make use of lifts to get access to the living/working place. Unreliable electricity supply will cause inconvenience to people. The results can be unexpectedly disastrous and the economic loss cannot be easily estimated. As a matter of fact, the cost of electricity is relatively reasonable and affordable compared with other expenditures in food and transportation. To avoid the inconveniences in my lives, I would rather pay for highly reliable electricity in return. A number of blackout incidents in the highly developed cities around the world due to the market reform terrified me.

3. Importing electricity from the Mainland may take away customers with large consumption from the two power companies in Hong Kong, shrinking their business. This would lead to downsizing. Hong Kong is in fact exporting its jobs to China. I anticipate the standards of electricity supply to drop and the cost to ordinary customers to increase. This is not what the general public in Hong Kong wants.

4. As shown in the consultation paper, Guangdong Province is still suffering from the power shortage. It is not feasible to import surplus electricity from the existing supply sources. Considering the fact that the additional costs are unavoidably required to upgrade the existing transmission capacity or to rent the transmission network, I believe that importing electricity from other suppliers in Guangdong Province will not lower the electricity tariff. Further, the environmental performances of power stations in Guangdong Province are not as good as those in Hong Kong. It is unreasonable that we should choose a more polluting generating source.

5. I noted from EPD's web site that the total emissions of SO2 and NOx from the power sector in Hong Kong have been decreasing over the years up to 2002. SO2 in 2003 was higher than 2002 but still only half of that in 1993. Yet the air quality in Hong Kong is getting worse because of high pollution in Pearl River Delta (PRD) region. The HKSAR senior officials responsible for environmental protection stated, on many occasions, that air pollution problems in PRD region could not be solved within one or two years. Targets for emission reduction have been proposed in a study report prepared by EPD (cf. Study of Air Quality in the Pearl River Delta Region) to facilitate the relevant sectors of both China and HKSAR for formulating long-term solutions. If we request the power companies to further improve their environmental performance from this already high emission standard, only the SCA can give them incentive to invest. Change in the existing electricity market will only add many uncertainties to the approach taken by China and HKSAR in abating the air pollution problems, resulting in the persisting poor air quality. This is not what Hong Kong people expect.

In view of the above reasons, I support to retain the current SCA regulation. Any change to the electricity market is not beneficial to Hong Kong as an international financial center.

Yours sincerely,

Ip Tat Yan

"TaiTakhim"

2005/04/30 02:45 PM
Please respond to
"TaiTakhim"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views on the consultation paper on future development in the electricity market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir,

Pls find my inputs to the subject.

Regards

Ir TAI Tak-him Response to the future electricity market Consultation Paper.doc

Response to the Consultation Paper
on Future Development of the Electricity Market in Hong Kong

Policy Objective

1. It is important to ensure consumers and the community to continue receiving the existing high standard of reliable, safe and efficient electricity supply at reasonable prices in the future electricity market. Yet the policy objective should have the future electricity market to **promote environmental protection**, instead of just minimizing the environmental impact. The Government should have a clear understanding the importance and impact of electricity generation and usage on economics and environment, and the three Es are closely linked with equal weights. The government should take a visionary approach in this opportunity to incorporate 'Sustainable Development' policy and strategy into the new regulatory framework of the future electricity market. This will set a right path for Hong Kong as one of the world-class cities.

New features to be introduced in the future electricity market

2. Protecting Environment through efficient use of energy

While the existing agreement framework has sufficient incentive for the utilities to install pollution control device at the generating sites, there is insufficient regulatory framework and incentive in the present electricity market for either the utilities or the consumers to promote and adopt the efficient use of electricity. Proper demand side management should have great contribution in protecting the environment by minimize the usage of electricity. The experience under the present SCA environment in promoting energy efficiency reveals the following constraints:

(i) Power utilities' core business is to sell electricity as revenue/profit for their shareholder. Promoting energy efficiency is directly against the utilities' shareholder interest.

(ii) The tariff structure is not designed sufficiently to promote electricity efficiency and conservation, if we take a similar look in water tariff. There is insufficient differentiation and classification in the tariff system to promote better usage of electricity from different consumers.

The new regulatory framework in the future electricity market should address this issue – how to get power utilities to take a proactive role in implementation of efficient use of energy as their business revenue. In other words, they will be allowed to collect revenue and earn profit in playing a role to implement energy efficiency in addition to electricity sale.

3. New Supply sources and Grid access for third party

The future electricity market must allow different types of renewable energy sources present, so to reduce the pollution from the traditional fuel generation. In other words, it must allow independent new supply sources from third parties connected to the grid. The utilities, under the new regulatory framework, should take such energy at a reasonable price to allow and promote such investments. This is a fundamental for promoting renewable energy (RE) investment and application in the future electricity market. This approach will fit in the trend of any new generating innovations in future, which would be more environmental friendly and distributed. In other works, the future electricity market will not just rely on power utilities to provide environmental friendly generation at specific sites, but to take up the trend of distributed generation and RE innovation ad application. This will allow a scenario of pooling all efforts from the community for environmental friendly generation in future.

4. The community should be aware that the present tariff, or cost of using the electricity has not taken into account the cost on environment and the sustainable future. If the future electricity market is designed on a sustainable development base, the consumers should pay extra for such purpose. It requires innovative approach to set up specific funds from the tariff structure, and involving all stakeholders with the appropriate regulatory framework to work out the sustainable development paths in the generation and usage of electricity

5. The mechanism in tariff structures design and the rate setting should be more transparent with full involvement from stakeholders under a new regulatory framework.

6. The new regulatory regime should provide government sufficient authority and power to ask the utilities to meet environmental and other policy needs of the community (like special tariff for low income groups), and allow government to comply the obligation under international agreements when they arise. Examples like reduction of green gas emission, right mix of fuel generation or certain proportion from RE etc.

7. Bilateral agreement may not be sufficient to mange such complex issue. A regulatory framework backed up by legislation with Government as regulator is supported.

Prepared by
Ir TAI TAK HIM
FHKIE, C Eng, MIEE, MIMechE, MCIWEM 30 April 2005

ikjc chan

2005/04/29 05:13 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity stage I consultation paper - voice from a hk citizen
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

Regarding the Stage I Consultation Paper, I would like to express some of my views.

As a Hong Kong citizen, I can't see any strong reasons to replace the SCA with another system.

First of all, deregulation does not guarantee tariff reduction. It may in fact impair supply reliability as it can be noted in many of the deregulated markets. How much benefit it will bring to Hong Kong ? No one knows. I don't want to have higher tariff and worsen supply reliability due to deregulation. I believe the existing system works pretty good. So, please consider prudently.

Voice from a Hong Kong citizen.
-Iris

"Fabio De Rosa"
<faderosa@bancaintesa.com.hk>

29/04/05 12:32 PM

To: <electricitycomments@edlb.gov.hk>
cc: "Italian Chamber of Commerce in Hong Kong" <icc@icc.org.hk>
Subject: Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sirs,
It is of great importance for the Italian community leaving in Hong Kong to be part of this debate.
We do believe the scheme of control should be scrapped and progressive competition introduced in Hong Kong along with a pricing mechanism linked to cost of delivery – not return on assets installed.
The changes, again, should be progressive, and pollution control should be also taken into account.
Best regards
Fabio De Rosa
President, Italian Chamber of Commerce

Jack Chiu

24/04/05 09:12 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Commment on Stage I Consultation Paper on the Future Development of Electricity Market for Hong Kong
☐ Urgent ☐ Return Receipt

There is a lot of comments that Hong Kong should be interconnected with the Mainland network to bring down the electricity network by importing cheaper electricity. I do not agree with this view.

While the current electricity price in the Mainland is lower than that of Hong Kong, there is a high possibility that the price there will catch up. Just look at the trend of the consumer price index of the Mainland which is very much higher than that of Hong Kong these years. There is a high possibility that the Mainland's will catch up. How about the pressure on the exchange rate of Renminbi? And, with the very strong economic growth of Mainland, there is a possibility that Renminbi will ultimately be stronger than Hong Kong dollar. It will certain help bring the tariffs between the two places closer and at that moment, the local tariff will solely be determined by someone we cannot influence.

Moreover, when we talk about environmental performance, shall be sacrifice the better work done by the local power companies to those heavy polluters in the Pearl River Delta just because we can save a little money? If we agree to this kind of trade, we are just encouraging the polluters, who are totally out of our control, to pollute more in short term as they will know that when Hong Kong is about to import electricity from the Mainland, it is the time they can enjoy the biggest subsidy from Hong Kong.

My view is that the future development of Hong Kong's electricity market should keep the present mode. The existing control mechanism is simple and effective. I cannot see the necessity of changing the current SCA after 2008.

Jack CM Chiu

"Jack, Wing Ping So"

2005/04/30 12:13 AM
Please respond to "Jack, Wing Ping So"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Consultation Paper on Future Development of the Electricity Market in Hong Kong - Stage I consultation
☐ Urgent ☐ Return Receipt

Dear Sir,

In response to the subject consultation paper, I have written few words expressing my view in the attached file.

Regards,
Jack, Wing-ping SO



CommentHKElectMarket-WPSO.DOC

The major objectives of the electricity liberalization are to introduce competitive electricity market structure in order to enhance economic efficiency. It is commonly expected that competitive behaviour in the deregulated electricity market would gain benefits on the economic aspects. Some people worry about the electricity market restructuring will compromise on the lower reliability and performance. However, in contrast, a true deregulation means fully open market and free to competition, resulting on more alternative electricity supplier including new, cleaner and more efficient power supply for customer's choice.

From an economist's view, perfect competition in all market corners is the most desirable market structure to maximise the social welfare. However, in real market, generation level competition is generally introduced in most deregulated market. Many countries are opening up their electricity industry at the generation wholesale level and then progressively moving towards retail level competition. As stated in [1], a considerable approach to introduce (generation) competition for Hong Kong electricity market is to import electricity from Mainland China.

In fact, rapid increase in demand for energy grows in line with China's strong economic growth. Energy demand in South China such as Guangdong is expected to be stronger, especially in the electricity consumption, and has recently experienced tight electricity supply. Fortunately, South China provinces are not short of electricity potential capacity or generation options. For example, indigenous hydroelectricity resources have been exploited in Guangxi with relatively cheap cost. Enormous hydroelectricity would be provided in the near future after the completion of the Three Gorges Project. It is quite attractive to import electricity from Mainland China due to the more expensive generation cost and geographical constraint in Hong Kong. Electricity will increasingly be seen as a potential commodity to optimize resources allocation and cost reduction.

However, it may also lead to some technical problems regarding the security and stability of a large interconnected electricity system. The shift to a liberalized electricity market is definitely to affect the power system operation and may cause substantial risk. [3] shows the new environment of competition will form a new generation allocation, loading demand aspect, interregional power flow pattern and consequently affect the technical performance of electrical power system.

References

1. Economic Development and Labour Bureau, Consultation Paper on "Future Development of the Electricity Market in Hong Kong - Stage I consultation", HKSAR Government, November 1999.
2. Stephen Bronstein, "Restructuring the Power Sector: Options for Reform", Civic Exchange. May 2003.
3. W.P. So, T.S. Chung, C.T. Tse, "Study of the Potential Technical Impacts of Electric Liberalization", Conference Proceedings of International Conference on Electrical Engineering 2004.
4. World Energy Council, "Electricity Market Design and Creation in Asia Pacific", May 2001.

jackyho

25/04/05 08:29 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Submission of electricity comments
☐ Urgent ☐ Return Receipt

你好，當我閱讀過香港電力市場未來的發展第一階段諮詢文件後，我有以下的意見：

我認爲香港兩間電力公司都能提供極可靠的服務，而且收費合理。作爲消費者，我當然希望可以減省電費開支，但是我認爲可靠性比價錢更爲重要，況且現時電力公司能以合理的收費來提供極可靠的服務，故此我認爲二零零八年後的管制協議應與現在相同，維持不變。

Jacobus Ngai

23/04/05 08:27 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Opinion on Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sirs,

Plase find attached a copy of my opinion on the Stage 1 Consultation Paper on Future Electricity Market in Hong Kong for your reference. I can be reached at this email address for further clarification of my opinion.

Best Regards,
Jacobus Ngai



Opinion on Consultation Paper on.pdf

Opinion on Consultation Paper on
Future Development of the Electricity Market in Hong Kong
By Jacobus Ngai

Existing Regime

Scheme of Control Agreement has its advantage during high electricity demand growth, reasonable tariff and return to both consumers and investors respectively. The forecast demand growth rate is 2~3 % in the coming ten years as shown in the Stage 1 Consultation paper, that means the addition of new generation asset shall take four to five years for both utilities and if the reserve margin can be revised to around 30%, the addition of generation capacity shall be extended to six or seven years. The increase in the new generation asset value shall be well covered by the depreciation in net asset value by then. As the permitted return in SCA is calculated based on average net asset value, if there is no new expansion in asset to cover the depreciation of asset, the permitted return should be less and less year over year. The tariff shall be reduced accordingly, based on this fact we shall keep the existing regime.

However, if the existing regime shall be retained, bench marking/performance index shall be put instead of just words. Consumers do not mind to pay high price if they know what service they are going to get (take look at the brand name consumer product).

Rate of Return

The permitted return of 13.5% on average net asset is a bit higher now in a stable economy. The percentage of the permitted shall be calculated by the weighted average cost of capital method.

Supply and Demand Change

If we take a look on the future energy market in Hong Kong, the story may be different from what the consultation paper said. There shall be LNG available in year 2007 or 2008. Natural gas is more environmental friendly as less carbon dioxide emission because of high calorific value than coal, less sulphur dioxide emission and sometime NO_x emission. Distribution Generation with small diesel or micro turbine within a building shall be viable due to the following reasons.

1) Modification of existing standby diesel generator to burn natural gas is cheap; consumers can modify their standby generator to supply electricity during day time using supply from both power companies as standby.

2) Saving on the profit of both utilities and the transmission and distribution cost.

3) Selling electricity within a building using the existing LV network does not violate Electricity Ordinance; emission from LNG generation shall be within environmental limit. LNG generation shall be classified environmental friendly as it displaces the emission from coal in most part of the world.

4) 70% of electricity demand in Hong Kong in commercial sector is air conditioning load, with the availability of LNG, absorption chillers become viable in Hong Kong as it is more efficient on fuel efficiency, absorption chillers combined with electricity generation increase the fuel efficiency more and highly praised as environmental friendly. The forecast demand in electric energy shall be lower than expected.

5) The space used can be applied for exemption from the land ratio as it is environmental friendly, the cost of land shall be minimal in the capital expenditure of Distribution Generation.

6) The distribution generation using LNG may solve the problem of unit retirement around 2010 for both utilities (around 1200 MW shall be retired due to end of service life). Retrofit of the 1200 MW can be made to extend the service life, but the distribution generation can delay this investment.

7) Gas industry does not have a SCA right now.

The increase in demand shall be less than expected. The existing tariff structure shall be revised as more consumers may ask for standby service from both utilities; there shall be tariff increase pressure on those not switch to gas because of the permitted return in SCA.

Power companies may face competition from gas companies unless the gas company charge a very high price, which is the existing situation because of the source of gas.

Interconnection for Cross Supply

The interconnector between two utilities shall be fully depreciated at 2010; new interconnector can be constructed after 2010 with larger transfer capacity.

Reliability Issue

Both power companies in Hong Kong offered a very reliable power supply to the consumers, however, can the security of supply to residential consumer be reduced in order to have less investment? Most of the residential buildings have standby generator which can supply power for essential service for at least two hour, it is redundant to have 99.999% reliability in supply from both utilities, and it is a waste of resources.

Time of Use Tariff

Time of use tariff meter shall be installed if time of use tariff shall be exercised. The cost of time of use tariff meter cost around USD280 at most, can it be paid by consumers those who want to switch to TOU tariff. In China, residential consumers are eager to pay for the new TOU meter by themselves. If paid by consumers, it shall not affect the capital asset of both utilities. The advantages of TOU are as follows:

1) Shorten the payback of energy saving product (conversion of air cool to water cool in air conditioning units) and renewable energy sources (photovoltaic generation and sea water pump storage).

2) Better utilization of generation units in both utilities.

3) More energy conservation measure being carried out by consumer especially commercial setter.

Regulatory Body

A regulatory body either within HKSAR government units or separate entity funded by HKSAR government shall be set to regulate the power supply industry in Hong Kong. Right now the Energy Advisory Committee does not have actual power or authority to monitor both utilities. A regulatory body with licensing power shall be set up to monitor the development of power business in Hong Kong irrespective the continuation of SCA or not. The existing Chinese SERC does not have the approval power on the any generation project until the 1995 Electricity Law amended. Therefore the regulatory body being set in Hong Kong shall be backed by legislation so that it can do its job effectively.

With the introduction of LNG, there shall be a lot of legislation issue and policy to be set to provide level playing field in electricity supply, a regulatory body shall be set up to deal with all the issue being come up. Both power companies may enter the gas business also in order to have level playing field.

Summary

Regulatory body shall be set to monitor the change in the future in energy market. Continuation of SCA largely depends upon the change in Gas supply to Hong Kong, as both utilities may ask to abolish the SCA if the demand in electricity lower than expected significantly.

Jacobus Ngai

28/04/05 11:09 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage 1 Consultation Paper on Electricity Market
☐ Urgent ☐ Return Receipt

Dear sirs,

Attached power point is to enhance my opinion on the future electricity market in Hong Kong submitted on 23 April 2005.

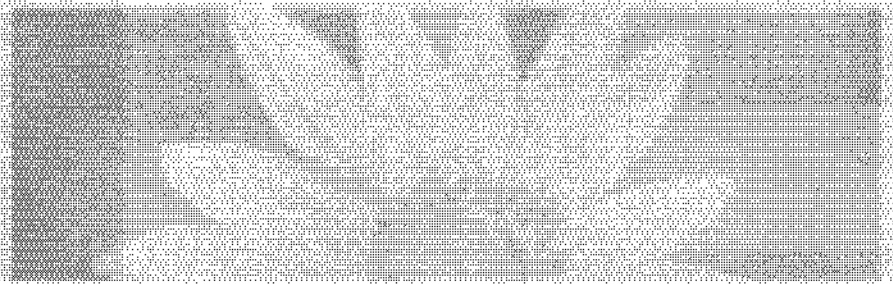
Best Regards,
Jacobus Ngai



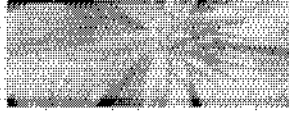
Vision on Hong Kong Electricity Market.ppt

Vision on Hong Kong Electricity Market

By Jacobus Ngai

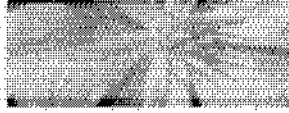


Existing Condition



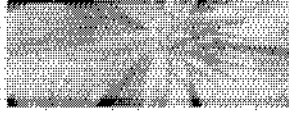
- Supply from both power companies governed by mutual agreed SCA with HKSAR Government.
- Not monopoly, can be self generation and can be sell through its own network, however cheap and continue fuel supply shall be major issue.
- Difference between marginal cost of generation of both utilities is not much, most likely cannot cover the transmission and distribution loss.
- High Reliability in both adequacy and security aspect,

Existing Condition



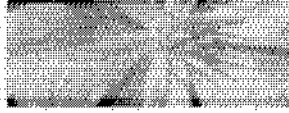
- Both utilities operate very efficient, almost the best in the world for a totally vertical integrated power utilities.
- Very high demand growth in the past.
- High Profit Margin in the tariff due to permitted return on the huge capital asset.
- Demand charges, TOU apply occasionally to large customers.
- Distribution supply to consumer at HV side are dual feed (closed or open ring) with SCADA.
- Market size is relatively small compare other countries or even Guangdong Province.
- Air cooled chiller are encouraged to change to water cooled chiller, reduction in demand.

Future Condition



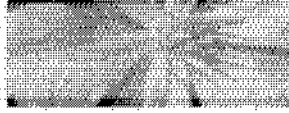
- SCA expired on 2008.
- Slow growth rate, around 2~3% for the coming ten years as stated in the Stage 1 Consultation Paper.
- Natural Gas supply shall be available in 2007 to 2008.
- Future demand growth shall be mainly commercial and residential unless CEPA can trigger some manufacturing industry move back to Hong Kong.

Electricity Market if SCA continue



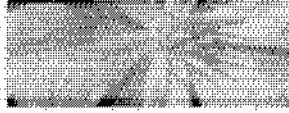
- Slow growth in demand, 2~3% as stated in Stage 1 Consultation Paper, capital depreciation large than capital growth in generation asset, tariff reduction pressure.
- Large profit margin (apparent) attract self generation as SCA does not have exclusive right on electricity supply within a building when natural gas is available, further demand reduction.
- 70% of the load demand in Hong Kong is air conditioning load in commercial sector, Switch to gas fired or absorption chiller is viable due to gas available, further reduction in demand growth. This may lead to increase in tariff on those not switch supply.

Entry Barrier of Distributed Generation



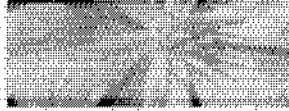
- Fuel supply problem – solved by piped LNG
- High land cost premium – solved by environmental friendly project, does not affect the land ratio
- No violation to Electricity Ordinance if supply within its own network (within a building) and supply from power companies used as back-up.
- Capital investment is relatively small compared with large units and also the necessary transmission and distribution facilities.
- Marginal cost of both utilities are gas fired unit in future, the only difference is the energy efficiency, i.e. combined cooling and power.

Natural Gas



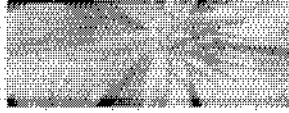
- Natural gas is more environmental friendly than coal.
- Supply shall be available in year 2007 and 2008 with the LNG terminal in Shenzhen and piped to Hong Kong.
- Distributed Generation shall be viable because of continuation in LNG supply, utilities supply become standby services. The modification cost to bi-fuel is minimal.
- Absorption Chillers to generate cooling air and hot water or combined Cooling and power shall be viable, environmental friendly project can be exempted from land ratio.

Electricity Market if SCA discontinue



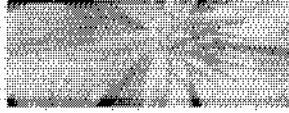
- Power companies may require a shorter depreciation life of the asset, tariff increase pressure.
- Reliability especially distribution side of both utilities increase to ensure the revenue income.
- Power companies may switch to sell natural gas to compete with gas company on distributed generation.
- Renewable, environmental friendly project may be viable as shortened payback period, further slow down in demand growth.
- Power supply from mainland China, viable but not until the transmission network has been upgraded to cater for the additional load flow to Hong Kong.

Supply from Guangdong Province



- In 1991, maximum demand of Guangdong Province was around 3100 MW, maximum demand in 2004 was around 30,000 MW, growth in demand of 10 times within 13 years. A 1% growth in maximum demand is already a 300 MW unit, market size is more attractive than in Hong Kong.
- Fuel used shall be either coal or LNG, almost same marginal cost as in Hong Kong if import duty tax is exempted,
- Reliability is the main issue unless a Regional Transmission Operator is set-up, otherwise, Electricity supply company face legal cost in supply interruption due to failure in transmission network.

Cross Supply Territories

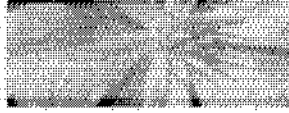


- The difference of marginal cost in generation between two power companies is not much, it can easily overturned by transmission and distribution loss together with the difference in transmission and distribution delivery charges.
- Interconnector to strengthen the support to reduced operating reserve is OK but not for cross supply between two territories.
- A Super System control center shall be set-up to monitor the scheduled flow, who pay for the cost?
- Contractual issue on interruption of supply not due to generation but delivery (marginal cost of difference cannot cover).

Regulatory Body

- Natural gas supply shall disturb the electricity market in Hong Kong whether SCA continue or not.
- Basic market rules such as license, accounting method etc, shall be set up to ensure level playing field to all power suppliers if SCA discontinue.
- The planning of the future supply and demand shall be carried out by the regulatory body if SCA discontinue.
- The regulatory body shall be back up by legislation to equip the necessary power to them, otherwise it is no difference to existing Energy Advisory Committee.

Regulatory Body



- The regulatory body is needed to close monitor the capital expenditure in both utilities if SCA shall be continued in slow growth scenarios.
- The regulatory body shall also monitor closely the future change in energy market in the world to make the necessary adjustment in the policy.

To:Economic Development and Labour Bureau
Fax no. 2868 4679

Stage I Consultation Paper

Having read the Government's Stage I Consultation Paper regarding the existing SCA for electricity supply which is now subject to review, I would like to submit the following views and comments for consideration.

Views

We, in Hong Kong, have enjoyed a high standard of power supply service by two responsible and well-managed public utilities companies, namely Hong Kong Electric Co. Ltd. and China Light & Power Co. Ltd. I think stable and reliable power supply is of paramount importance in an international city like Hong Kong. Power failure , even if it were a blackout for just a few minutes, will cause a great deal of damage to the whole community in Hong Kong. Our industries and businesses, including banks stock exchange and its brokers, hotels, rails, restaurants, etc., will suffer tremendously if there were any blackouts during business hours. On the other hand, we do treasure a stable business environment where a high standard of power supply service can be provided at reasonable prices, which are subject to the Government's control. In the Mainland, the authority exercises good control over prices of power supply, but the power supply companies are unable to gaurantee a constant and reliable supply. That leads to many teething problems for factories .

I support the Government's policy objective on the question of good service and a reasonable and affordable price level.

Conclusions

If the current SCA were abolished, I do not think there is any other system or mechanism which will ensure a reliable power supply at reasonable price levels. If the control is exercised like that in the mainland provinces and cities, the situation will likely be similar to that in the mainland. If it were by agreement or legistration, it would be too rigid and the consequence could be astonishing. A case in point is the Eastern Cross Harbour. The Government has accepted that the hugh increase in price level is lawful. I do think the SCA should be, on balance, a good way of maintaining a good service at reasonable price levels. It will be fair to both the suppliers and consumers at large. The rate of return is, of course, subject to further negotiation.

Date: 30 April 2005

"JJ"

25/04/05 10:14 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments to "Consultation Paper on Future Development of The Electricity Market in Hong Kong"
☐ Urgent ☐ Return Receipt

After reviewing the consultation paper, I prefer to maintain the existing electricity system due to the following 4 reasons:

1. Existing electricity system is reliable, safe and efficient as compared with other systems in the World.

2. The price of electricity is reasonable for the living standard in Hong Kong.

3. Environmental impact caused by the generation and us of electricity is minimal. On the other hand, wider use of renewable energy (e.g. wind power and solar power) has already been implemented.

4. Open market and deregulation are not feasible in a small market in Hong Kong. However, the unpredictable risk for an open system will be finally shared by all citizens in Hong Kong.

James Poan.

Jasmine Chui

To: electricitycomments@edlb.gov.hk
cc:
Subject: 有關香港電力市場未來發展
☐ Urgent ☐ Return Receipt

2005/04/30 01:41 AM

致經濟發展及勞工局：

你好，本人希望就電力市場未來發展提交意見。本人只是一普通市民，但有見本港空氣污染越來越嚴重，實在希望在2008年和電力公司訂立新協議時，要求現有電力公司及新加入之電力投資者，減少使用污染度高、排放大量溫室氣體的煤作爲發電燃料。另外，本人深信要長遠解決問題，必需加快使用可再生能源，如風力及太陽能。事實上，香港使用可再生能源的比例極低，十分落後。

本人建議應合理但進取地和電力公司訂立本港發電之可再生能源比例，本人認爲在2015年達到20%是合理的水平，希望貴局可以切實考慮，爲保護地球，維護本港空氣質素而努力。

市民
Jasmine Chui

"jasonchung"

20/04/05 10:30 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

Referring to the Stage I Consultation Paper on the Future Electricity Market, I support to maintain control scheme agreement similar to the existing one. My views are:-

1. The services and the reliability provided by the existing power companies are at a high standard in the world. This standard is vital for a international financial city.
2. Hong Kong is already suffering from the air pollution raised by China mainland. The situation will get worse if the "POOR" electricity is imported from Guangdong since the environmental performance of the power plants in mainland is poor.

Therefore, we should keep the control scheme agreement and work for the improvement on it.

Regards,

Jason Chung

"jfwhl"

2005/04/29 12:20 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments On The Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

To: The Economic Development and Labour Bureau

Comments On The Stage I Consultation Paper

I opine that open market and competition are not feasible in a small market like Hong Kong. Increased interconnection with Mainland China shall mean importing problems of lower reliability, power shortage and pollution etc. Also, increased interconnection will create immediate pressure on tariffs but it would not have any benefits in the future. I therefore strongly object to the increased interconnection and deregulation.

Jessica Fung Po Chu

"Jimmy Leung"

24/04/05 11:39 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views and Comments on Stage I Consultation Paper on Future Development of the Electricity Markets of Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sirs/Madams,

I have the following views and comments on your Stage I Consultation Paper.

I consider electricity in Hong Kong is fairly affordable. According to your consultation paper, expenditure on electricity represents only 2% of general household monthly expenditure and the residential tariff in Hong Kong is in the mid range amongst other international cities. Over the past 10 to 20 years, we saw only modest tariff increases which are lower than the inflation rates. Compared with the increases in costs of other daily necessities such as transport and housing, electricity tariff increase has much less impact on our economic being. This in a way reflects the effectiveness of the present regulatory system. In contrast, the impending increase of East Harbour Tunnel fee for private cars from $15 to $25 demonstrates that there is much for the government to do to regulate the cost of transport.

In recent years, we saw a lot of blackouts around the world, even in developed areas where the electricity industry is deregulated such as North America and Europe. Investigation reports revealed that one of the causes of these blackouts was under-investment in the electricity supply system. In comparison, the reliability of electricity supply is very high in Hong Kong. As an international financial centre, Hong Kong relies very much on reliable electricity supply. The present Scheme of Control Agreement has induced the power companies to make sufficient investment to ensure the supply reliability. Changing the SCA in 2008 would risk a drop in the supply reliability and in turn impact the economic development of Hong Kong.

All in all, I prefer to keep the SCA although there may be some improvements on it. I don't want to see massive blackouts like the ones in North America and Europe happen in Hong Kong one day.

Jimmy Leung



winmail.dat

jimmy mak

2005/04/30 10:00 AM
Please respond to jimmy mak

To: electricitycomments@edlb.gov.hk
cc:
Subject: Suggestions on Control of Electricity Supply
☐ Urgent ☐ Return Receipt

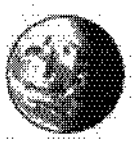
My concerns on the captioned subject are as follows:-

1. Hong Kong being an international business centre should be assured of the uninterrupted power supply and so the reliability is the most critical factor.

2. I welcome competition but that should be carefully planned and reference should be made to the blackout incidents happened elsewhere where deregulation has taken place.

3. A system should be devised to set a benchmark price as the ceiling for control and not the inputs such as capital. The system allows the supply companies to earn more thru productivity improvement.

Jimmy Mak



"Jimmy"

22/04/05 10:35 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comment on Future Development of Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sir,

I am writing to express my view on the development of electricity market after 2008.

As a proprietor of a SME, a stable supply of electricity constitutes to one of the critical factors in running my business in
Hong Kong. As read from newspaper, frequent blackout did occur in Europe, North America and Australia after the open of electricity market and deregulation, together with the experience on the unstable electricity supply in Mainland China, all these have certainly made me doubt on the benefit that could be obtained from opening the market and deregulation.

My experience on running SME in Mainland China indicates that the electricity expenses in Hong Kong is not significant as compared with the loss that I have encountered during the frequent suspension of electricity in Mainland China. This is the major reason that I decided to move my business back to Hong Kong. I have been enjoying the highly reliable and stable supply of electricity in Hong Kong so that the production lines have never been stopped due to electricity suspension. In fact, as compared to other expenditures, the electricity expenses only constitutes to a very small portion of the total expenditure.

I have also heard from my relatives in Australia that their electricity tariff has been increasing significantly and blackout occurred frequently since the introduction of deregulation and interconnection. So will the same problem occur in Hong Kong once market is opened and deregulated? As a businessman, I absolutely prefer to have a stable business environment unless the Government can guarantee that there will not be any deterioration of the reliability of electricity supply as well as increase in tariff if the market is going to be opened and deregulated. We are not willing to face the risk that may encounter arising from such change!

Your consideration of my personal comment on this matter is appreciated.

Regards,

Jimmy P. W. Woo

Proprietor of a SME

Your Ref.

Our Ref. L203/E/540/2005

13th April 2005

香港中環下亞厘畢道
中區政府合署中及東座二樓
經濟發展及勞工局

敬啓者：

香港電力市場未來的發展

本人乃中華電力公司客戶諮詢委員會的其中一名委員。作爲香港的市民及中電的電力用戶對於香港的電力市場未來的發展欲提供以下意見：

1. 充足及可靠的電力系統
   我們期望電力供應能隨時滿足我們的需求，而且要電壓穩定，避免中斷。香港享有世界級供電服務，將來亦應如此。

2. 環保責任
   環保表現是香港電力供應商要承擔的重要責任之一，電力公司要採取開放的態度，履行對社會的承諾，以環保的原則營運，並將相關資料公開。

3. 私人投資
   電力行業涉及長遠和龐大資金的投資，要引入投資，必須提供足夠吸引力的回報並要設立合理的回報機制確保私人投資的利益。

4. 成本效益
   香港市民要求一間營運效率高而運用資金得宜的電力公司。通過提升生產力及節約成本，保證客戶享有最符合成本效益的供電服務。

5. 清晰的問責制及權責範圍
   香港的經濟及社會發展有賴安全及可靠的電力供應，故此必須清楚界定系統的權責及有關機構負責投資，否則一旦電力系統出現問題時，不知誰向政府及公眾負責。

JUNEFAIR ENGINEERING CO. LTD.
5, Yim Po Fong Street, Ground Floor, Mongkok, Kowloon, Hong Kong.
Tel: 2332 2662 Fax: 2388 8059
香港九龍旺角染布房街五號地下

6. 服務水準
部分客戶從個人利益着想，要求電價愈低愈好，不同客戶當然有不同的觀點，但首要條件，一定要維持充足及可靠的電力系統和不低於現在的服務水準及承諾。

以上數點乃本人對香港的電力市場未來的發展因而提供的意見，祈望政府有關機構謹慎考慮。

謝謝！

中華電力公司客戶

方宏浩(Martin Fong)上

JUNEFAIR ENGINEERING CO. LTD.
5, Yim Po Fong Street. Ground Floor. Mongkok. Kowloon. Hong Kong.
Tel: 2332 2662 Fax: 2388 8059
香港九龍旺角炎布房街五號地下

"kwan kam chuen"

2005/04/30 10:20 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Stage I Consultation on Future Development of the Electricity Market in HK
☐ Urgent ☐ Return Receipt

Economic Development and Labour Bureau

After reviewing the above consultation paper, I have the following points of view:

(1) Electricity market in Hong Kong is small, therefore open market for competition is not feasible.

(2) There will be more risks and uncertainties than benefits for increased interconnection.

(3) Since investments in electricity business are long term, a regulatory period around 15 years is justified. The existing regulation and scheme of control are acceptable. Reliable electricity supply is important

Regards

KC Kwan

30/4/2005

"Man, Kai Chung"

28/04/05 06:46 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場未來的發展第一階段諮詢
☐ Urgent ☒ Return Receipt

<<電費釐定1.doc>>
Regards
KC Man

電費釐定1.doc

電費釐定

Dear Sirs

電費是每個家庭及商界必須的開支之一。作為電力用戶之一，我完全理解廣大市民期望電費愈低愈好，但市民關注的，不應該只是電費的水平，還有電力供應是否足夠和可靠，因為停電會帶來很多不便和經濟損失。電力是現代生活不可或缺的一部分。從整體消費者利益來說，可靠電力供應和合理的電費，兩者兼顧才是符合市民的最佳利益。

為確保本港社會能以合理價格獲得足夠和可靠的電力供應，政府和兩間電力公司簽署了《管制計劃協議》。當年在這《管制計劃協議》簽署時，政府有兩個目的，第一，大家都希望有合理的價格，但同時亦獲得可靠及有效的電力供應。但為了得到可靠及有效的電力供應，這個協議便要有一個誘因，要使電力公司的股東，在作出龐大而長遠的投資時，要能夠了解到他們也有「准許利潤」這個條款。這就是「准許利潤」條款產生的目的及背景。

准許利潤為下列兩數的總和：

一. 各公司的固定資產平均淨值總額的13.5%；

二. 一九七八年九月三十日以後為購置固定資產的股東投資的1.5%。

在協議中除了有「准許利潤」這個條款外，其實亦有其他的條款，這些條款是由政府批准或者作定期的監管。兩家電力公司的財務計劃，包括業務發展與投資，需獲批准；而每年收費的調整，須預先提交政府。而且兩家電力公司在每年年底對未來一年的用電需求及營業情況作出預測。經濟局根據兩間電力公司的預測及政府經濟顧問以同樣的模式綜合作出一個數據的預測。

有人提議改變電費釐定的過程：1）每年與政府進行檢討並公開相關資料；2）組成公衆聽證會進行年度電費檢討；或 3）採用較頻密的電費檢討過程。

第一個方案，香港的兩家電力公司都是上市公司，為投資者所有，在向公衆提供某些商業敏感資料方面會有相當的困難。另外由於在釐定最終電費時需允許一個相當的咨詢期，讓公衆有足夠時間表達意見以至公衆意見反映在電費上。這樣的檢討過程極爲複雜而費時，可行性不大。第二個方案需要由電力公司、政府及公衆代表組成一個檢討小組就電力公司提供的成本數據與資料進行討論。並且需要制定一個決議程序限制電費釐定期。這樣的檢討過程同樣極爲複雜而費時，可行性不大。如果採用第三個方案“較頻密的電費檢討過程”，必將大大增加電力公司與政府的行政負擔，而增加之行政費用最終將轉嫁在市民身上，實非廣大市民之福。

其實現行的電費檢討，過程簡單，易管理，行政成本低，同時又有政府合理、全面、有效率的有力監管，實在無需為改變而改變。

有些人以為反對電力公司增加投資，就是為市民謀福祉。事實上，如果電力需求因人口增加或新項目發展而增長，而在電力設施上不增加投資以配合，亦非市民之福，因為如果發電設施不足夠滿足高峰期的需求，或輸電配電的電纜不更新、加強或擴展，電力可靠性會下降，停電風險亦相對增加，新發展亦得不到供電。三藩市和矽谷的停電和需要輪流供電就是因為加州電力系統不能配合需求。

香港供電量的穩定性可以說是全球最高的，有百分之九十九點九九的穩定性。這個得之不易的成果是政府的有效監管及兩家電力公司龐大的戰略性投資的共同結晶。以香港一個這麼高密度的社區，工商業這麼繁忙，穩定的供電量是一定不可以降低的，相信整個社會都不會接受持續或間歇性的停電。

"Packey Chan"

2005/04/29 11:17 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear sir,

I am a domestic customer. Like other ordinary people in Hong Kong, I live in a multi-storey building. Many of you should have experience on yearly electricity routine maintenance – shut down of electricity supply for one or a half day. It is quite inconvenient when there is no electricity supply. It would be even worst if there is a blackout in the summer's time.

Hong Kong's pollution index is quite high. As far as I know, one of the reasons is the pollutants moved from Guangdong Province of China. Import electricity supply from Mainland China that means they will increase their electricity generation capacity by erecting more power plants. I doubt that Hong Kong SAR Government is able to control the emission of pollutants during electricity generation in Mainland China. But we can control our electricity companies in Hong Kong. Import of electricity supply from Mainland China may lead to the electricity tariff going down. On the other hands, we may spend higher medical expenses due to air pollution. It is not cost effective and unhealthy. I am sure saving of electricity expenses cannot compensate the increase in medical expenses.

Comparing to other expenses such as transportation fees, rent and rates, the electricity expense is only a small amount in my household expenditure and is affordable. I am willing to pay a little bit more for electricity charges if the electricity supply is more reliable and it makes our environment cleaner.

Thank you for giving me a chance to express my comments.

Best Regards,
K.K. Chan
29th April 2005

KK

2005/04/29 06:40 AM
Please respond to KK

To: electricitycomments@edlb.gov.hk
cc:
Subject: Government's Consultation Paper on Electricity Market
☐ Urgent ☐ Return Receipt

I refer to the subject consultation paper and would like to express my views as follows:

Hong Kong is a densely populated city with most people living in high rise blocks. They all rely on the lifts to get to their own homes; electric pumps for water supply to the household; and electrical appliances to provide the daily convenience. While in our daily life, electricity comes at the flick of a switch; it is hard to imagine how life is affected for a day without electricity.

Furthermore, Hong Kong is one of the most important financial centre in the world and its image will be heavily hampered if affected by frequent blackouts/outages. These make the reliability of electricity more important than any other places in the world.

With Hongkong Electric and China Light supplying electricity to Hong Kong Island and Kowloon & New Territories, we have been enjoying extremely reliable electricity supply at an affordable tariff. These could not have been the case if the investment in power industry is not sufficient.

The blackout in 2003 in America and Canada and other overseas blackouts further demonstrate the importance of reliable electricity supply relies on sufficient investment and efficient, simple regulatory framework. The current SOC has been successful in meeting these objectives through a fair and appropriate return to investors while the tariff remains reasonable and affordable to consumers.

To conclude, reliability of electricity supply is of utmost importance. The present Scheme of Control is an effective regulatory system, which had performed successfully all along to ensure our electricity supply reliability is one of the best among major cities. It meets all the Government's policy objectives set out in the consultation paper. If the system works, why change? The SOC should be maintained after 2008 and improve it if required.

K K Yeung



22/04/2005 21:40

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: K.Leung

subject: Electricity market Consultation paper

Enquiry: Over the last 4 decades, we are enjoying very high supply reliability and people would take it for granted. Not many people care what\'s working behind, both the utilities and the governement,to achieve such a high goal. The impiementation of SCA enabie the power company to replace its ageing generation/ transmission equipment, in particular, the computerised control system that could fade out within years. Without this benefit, the capital investment to ensure reliability could trim down to the bone and it is unlikely to maintain its current performance.
I wish the general public to close their eyes and imagine what would happen if our living place is shutout from electricity for just a short period of time during the day in a hot summer. No need to mention the volatinity of the media.
The permitted return of 13.5% may be high in some senses, however, if we taking into account of the emission cap which will be introduced in year 2010. That little extra is something we pay at present for the green power in return to our next generation enjoying a greener environment.

"i km"

2005/04/30 01:56 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultation Paper on Future Development of The Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

To: The Chief Executive,
Economic Development and Labour Bureau

Dear Sir,

After studying your Consultation Paper on Future Development of The Electricity Market in Hong Kong - Stage I Consultant, I would like to make the following views and comments: -

1. In paragraph 1.1 --- I agree that Government policy objective is to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact.

2. In paragraph 2.6 --- I agree that Hong Kong's residential tariffs in not the highest one among those other major cities.

3. In paragraph 3.1 --- I disagree that our electricity market should encourage competition because the existing power companies have already established reliable, safe and efficient electricity supply network. For example, Hong Kong Electric Co. Ltd. has established cable tunnels instead of overhead line towers to provide efficient power transmission and minimizing environment impact. To introduce new competitors will lead to very large-scale excavation for laying new distribution network. Hence it will cause seriously traffic jams and environmental pollution. More excavation works to be carried out will lead to more cable damages and greatly affect the supply security/safety.

4. In paragraph 3.46 to 3.54 --- I agree that the economy in Mainland is developing rapidly and there is shortage of electricity supplies. Therefore I don't think Mainland can provide reliable, safe and efficient electricity supply to Hong Kong at reasonable prices while minimizing environmental impact.

5. In view of the above, I support that the Scheme of Control Agreements (SCAs) between the Government and the two power companies should be extended after 2008 such that we will continue to receive reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact.

Thank you for your kind attention.

From: A Hong Kong resident, Mr. K.M. Im

"KM Li"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場的未來發展
☐ Urgent ☐ Return Receipt

2005/04/30 01:57 AM

開放電力市場後的第一浪 – 失業大軍激增

由於大眾首要只著眼於電費的平貴，而降低成本最直接最見效的方法就是裁員：一個員工做幾份工作，取消與直接生產（賺錢）無關的部門，大部份工作可以外判就外判（當然是價低者得）。在就業市場上又多一批待業人員，而那些老闆組織又有藉口進一步降低工資。到時電費可能比現時稍低，但你也會認爲很貴，因爲你的收入可能比電費降得更低。

開放電力市場後的第二浪 – 服務質素下降

面對價格競爭，成本的控制就更加嚴緊，所有服務只能維持在最低的水平，服務自然不能期望有好的質素，很多現有的服務站就要關閉以減少開支，住在新界的市民就有可能須要往返九龍新界以獲取有關服務。甚或關閉所有服務站，市民只能透過電話或上網方式所提供的即食麵式服務。

開放電力市場後的第三浪 – 電力供應不穩

在以削減成本來求取利潤的環境下，供電商就不能投資太多在設備上，很多高質素的設備（一分錢一分貨，價錢當然會貴些）就用不上了，從較低質素、低效率的設備所發出的噪音和產生的熱量便會不斷地影響著我們的環境。而只能僅僅足夠應付需求的設備所提供的電力當然不能與現時的供電穩定性相比。現在，只在一秒內的電力驟降便在各大報張上了頭條新文，如電力市場開放後，停電很可能已成生活的一部份。

開放電力市場後的浪接浪 – 結論

很多城市基建如集體運輸、能源等項目都須要很大的投資及很長的回本期（如回本期設得太短就會影響到市民生活），所以就算在歐美很多先進國家，這些基建項目在早期都是由政府營運。直到一個成熟時期，才轉由民間（大財團）經營。後來這些先進國家因政治或期他因素而要將部份經營如電力、能源市場開放。這些開放市場後所帶

來的惡果已一一出現（大停電，其主因如上所述）。

當我們將焦點放回本港，我們的集體運輸系統包括地鐵、九鐵及輕鐵，他們行走的路線，其他的巴士、小巴都受到限制，以保障他們有足夠收入，來維持高水準運作。在港島的電車，因有其他的公共交通工具行走同一路線，所以他就只能以懷舊型式的交通工具供遊客慢慢地懷緬香港歷史一番。

如果香港的電力市場真的開放，就很大機會做就“劣幣驅逐良幣”的效果而出現上述情形。

能源短缺將會是這個世紀要面對兩問題，就算是香港的電力市場開放了，電費也因能源短缺而不會下調。想降低電費，政府現在就須要認真地尋找新的能源以漸漸取代石油，煤等石化燃料。

KM Li

"KM"

2005/04/29 12:07 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Prefer SCAs
☐ Urgent ☐ Return Receipt

Dear Sirs of EDLB,

I have met a few times of electricity supply failures at my house for a few hours each time at Kowloon side since 1966 to 1980s, while such failures were diminishing to almost zero till now. I suppose this has been contributed by the SCAs (partly, if not all). We are enjoying a stable electricity supply nowadays, as found in the yearly figures 99.99xx% of supply reliability which were declared by both local power companies.

On the contrary, the open electricity markets in Western countries were not all a success and countries are still 'experimenting' such a theory, which involves a lot of human factors and is market driven. However, the outcomes are noted: Lower electricity charges (but some becomes higher!); More stable electricity (but recent black-out case in California US!). In other words, the outcomes are all possible.

The idea of introducing competition is good, provided that the outcomes are surely at the desirable side, especially on the public concerned issues. If not, why force HK to play (and possibly suffer) under the new electricity supply rules?

Conclusively, I prefer extending the SCAs from 2008 to becoming an open market style for electricity supply.

Best regards,

K.M. Wong

30 April 2005,
Hong Kong.

"KOFAN"

25/04/05 11:41 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Stage I Consultation Paper on Future Development of H.K. Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sir,

I have the following view and comment after reading the Stage I Consultation Paper on Future Development of H.K. Electricity Market :

View :

The blackouts in US and Canada in 2003 remind me of the importance of reliabe electricity. I cannot imagine the impact to H.K. as an international financial centre and the inconvenience to my family if there is no electricity, no MTR, no light, no water and lift etc.

Comment :

As reliable electricity is extremely important to H.K., and SCA can encourage adequate investment in power infrastructure and quality service, I think it is logical and a reasonable choice for H.K. to continue the current SCA.

K. O. Fan

Contact email address :

kam sau wong

19/03/05 08:38 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comment on electricity supplier review
☐ Urgent ☐ Return Receipt

Dear Responsible Team,

I do not agree to open the market to suit the request of pressure group when the suitable competitor is not yet ready.

The most important consideration is to keep stable electricity supply for Hong Kong citizen.

Nobody would like to see that out of electricity supply as what happened in USA big Cities sometimes ago.

To balance both consumers and the investors expectation may be discussed

Regards,
KS

24/04/05 10:53 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views and Comments on Stage 1 Consultation Paper
☐ Urgent ☐ Return Receipt

To : Economic Development and Labour Bureau

After reading the Consultation Paper on "Future Development of the Electricity Market in Hong Kong : Stage 1 Consultation", I would like to send in my views and comments in the attached file in Word format.

K. Shum



(24/4/2005) KS_Submission.doc

Views and Comments on the Consultation Paper entitled "Future Development of the Electricity Market in Hong Kong: Stage I Consultation"

1. Interconnection

No interconnected system can be completely free from the risks and damages of unanticipated large-scale blackouts. The massive blackouts in North America and Europe in 2003 as mentioned in the Consultation Paper reference materials have fully illustrated the severe consequences of blackouts arising from interconnected networks. If such a large-scale blackout occurs here, Hong Kong will be paralysed and suffers great economic loss.

I do not agree with some opportunistic politicians, who always promote that increased interconnection could bring customer choice. According to the consultation paper, customer choice is a means rather than an end in itself, and having a choice of suppliers is not necessarily the only means to achieving the objective of providing a reliable electricity supply at reasonable prices. High reliability and reasonable price of electricity supply are the top considerations for the Hong Kong consumers and they really do not care about the choices as long as their basic requirements of electricity supply are fulfilled. Interconnection seems to have more risks and uncertainties than benefits. I do not support that interconnection is the correct direction to go in the future development of the electricity market in Hong Kong.

Huge investment will be required to build the new interconnection and reinforce the existing network. If even the government is not sure about the benefits that may be derived from increased interconnection, I cannot see why consumers should pay more for increased interconnection that may bring little or no benefit. Interconnections have more risks and uncertainties than benefits. The massive blackouts in Northern America and Europe in 2003 have demonstrated the magnitude of costs that result from a major supply interruption and breakdown in a country' s electricity industry. Interconnection is considered as the main offender causing the massive blackouts in 2003. Therefore, increased interconnection should not be done in the first place. Our electricity supply system has been operated satisfactorily with high world-class reliability. There is no problem for our electricity supply system and we do not need an interconnection solution to fix it.

2. Not feasible to import electricity from Mainland China

According to the consultation paper, the recent rapid electricity demand growth in Guangdong, driven by the robust economy has led to severe electric power shortages in Guangdong and a high level of power import was required from neighbouring provinces/areas. This situation will likely continue for many years. To cope with the tight electricity supply situations in Guangdong, there are a lot of highly polluting small thermal power plants with low efficiency, which are now still generating electric power in Guangdong. From the newspapers, I have learned that the vast majority of emissions affecting Hong Kong air quality originate in Guangdong. These small thermal power plants are the severe polluting sources in Guangdong and their emissions are one of major

contributing factors for the deteriorating air quality in the Pearl River Delta region. To improve our environment, these polluting power plants should be phased out rather than using them to supply to Hong Kong and polluting the Pearl River Delta region. In an environmentally responsible way, we should not choose to buy the polluting electricity from China even if the electricity price across the border may be cheaper.

The system of Hong Kong has been developed independently of Guangdong. The power companies in Hong Kong and Guangdong are under two completely different jurisdictions. If Hong Kong imports electricity from Mainland China, I really cannot imagine what would happen in case of operating problems or disputes. Are the lines of responsibility and accountability clear? Would one jurisdiction have overriding control over the other under these circumstances? Hong Kong should not risk this happening. We should not rely on the import of electricity from Mainland China as we may also import the environmental and reliability problem as well.

3. Conclusions

Hong Kong has a world-class electricity system and the present electricity regime is well established and successful. Any change to the present form of SCA in Hong Kong is not necessary or appropriate. It is extremely important to continue maintaining a secure and reliable supply of electricity to Hong Kong, which is very critical to our economy and society. Therefore, I fully support that the current form of SCA should be maintained after 2008.

K. Shum
(24/4/2005)

KT Hong

To: electricitycomments@edlb.gov.hk
cc:
Subject: 電力市場諮詢文件(第一期)
☐ Urgent ☐ Return Receipt

2005/04/29 10:11 PM

本人對電力市場諮詢文件有以下意見:

目前的利潤管制協議，使香港有充足，穩定及可靠的電力供應，電費與GDP及生活水平比較亦算合理.開放電力市場不能保證本港電價必會下調.

最近有投資者表示有意參與本港電力市場,但不能提供具體供電方案，及未能保證不會影響本港供電系統的穩定性．另一方面，電力公司有可能會因開放電力市場而減少投資,導致電力可靠性大減，最壞情況可能像一些已開放市場的地區一般，經常發生電力事故，甚至大停電.

我認爲目前的利潤管制協議本身沒有問題,開放電力市場只會引起不明朗因素,因此協議應該儘量保留,作最少改變.

K.T.HONG
29/4/2005

"Mr Tsang"

24/04/05 12:24 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Stage I consultation paper on future development of the electricity market in Hong Kong
☐ Urgent ☐ Return Receipt

Referring to the above consultation paper, please find below some comments:

1. According to the experiences of European countries and USA, open the electricity market would lower the reliability of the electricity supply which would affect the operation of the society, then who pay the reimbursement?

2. Setting up an independent regulatory authority would only create one more stop for processing and might lower the efficiency of the operation as there are a lot of consultation required from Government departments.

K. T. Tsang
One Hong Kong Citizen.



2005/04/27 03:41 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views and Comments on Future Development of The Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sirs,

In response to the Consultation Paper on the above subject, I would express my views and comments as follows:

1. I concur that maintaining a reliable, safe and efficient electricity supply for Hong Kong, as a major commercial city with highest numbers of high-rise buildings, is the most important policy objective.

2. The present bilateral agreements arrangement with government as the regulator has proven performance and is considered an effective system to achieve item 1 above.

3. Forming a single agency within the government to centralize regulatory oversight could be more effective and efficient while maintaining low-cost.

4. Open electricity market and deregulation is not recommended as the oversea experiences had demonstrated that would lead to frequent and large blackout as well as high capital/operating costs due to redundant set up of plants and facilities.

5. Regulatory policy to encourage investments to minimize environmental impact caused by electricity generation and development of renewal energy should be introduced with a longer regulatory period and reasonable rate of return.

KW Kwan

KY Chung

26/04/05 12:46 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultation Paper on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Referring to the
Stage I Consultation Paper, I would like to send in my views as follows:

Hong Kong is a highly populated small city with only a geographical area of about 1,000 square km. Open market of electricity is not feasible in a small market with limited land resources like Hong Kong. It is very difficult to find suitable sites and long lead time is required for new entrants to build generation plants in Hong Kong. Hence, I don't think meaningful competition can be introduced into Hong Kong. To avoid unscrupulous competitors manipulating the electricity market, the Government should keep regulating the electricity industry based on the existing workable regulatory structure.

K.Y. Chung

"Connie & KY"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Stage 1 Consultation on Future Development of the Electricity Market in Hong Kong

2005/04/27 11:17 PM

☐ Urgent ☐ Return Receipt

Dear Sir,

My comments on the above consultation are that throughout the recent few years, there were blackouts incidents occurred at many developed countries. The causes are mainly come from complex regulatory structure and extensive interconnections.

In Hong Kong, we enjoy high reliable supply of electricity through one of the two power companies without any blackout incidents for more than 20 years. One of the reasons will be the present regulatory policy ensuring a stable development of the local electricity industry which is vital in providing a reliable electricity supply. Nowadays, many people are demanding cheaper price for any commodity for irrational personal or political reasons.

We all know that Hong Kong is too small to allow for further power companies to compete. Although recently there are new "Players" claiming that they can import electricity from Mainland China, this idea will not be feasible in the foreseeable future due to deficiency of electricity in China and other technical and environmental considerations.

As a result, while we believe there may be some improvements in the existing regulatory structure, the present scheme of control is considered as an adequate mean to ensure a reliable electricity supply to the Hong Kong citizens at an affordable price.

Regards
KY Lam

ka hin choi

To: electricitycomments@edlb.gov.hk
cc:
Subject: 香港電力市場未來的發展
☐ Urgent ☐ Return Receipt

2005/04/26 09:29 PM

香港要繁榮，可靠和穩定的電力供應是必需的。香港在近數十年間，沒有像世界其它大城市發生過大停電事故和像鄰近發展中城市出現缺電情況。從過往的紀錄，香港的電力供應穩定性和可靠性可算是世界頂級。

在電費方面的支出，一般住宅用戶電費只佔每月總開支的２％，而交通費的支出則佔９％，相比下，香港電費支出可算是合理和可接受。

從以上兩點，足以證明現有的管制協議是有效的，一個用了四十多年的有效協議，爲本港消費者提供了可靠及穩定的電力供應，而電費支出亦相對其它的家庭開支爲少。我認爲保持現有的管制協議，對香港未來發展有一定的幫助。

Kai Shing Li

2005/04/08 07:53 PM

To: edb@edlb.gov.hk
cc:
Subject: Re: The opinion on HK electric power supply
Urgent Return Receipt

Dear Mr. Lau,

Thank you for your e-mail.

I would like to send my opinion as an attachment file in this e-mail.

Should you still have any problems in reading it please don--t hesitate to contact me. I would also appreciate if you could send me a mail once you could read it.



Opinion on HK power supply.doc

Best regards,

Kai Shing LI

--- edb@edlb.gov.hk wrote:

> Dear Sir/Madam,
>
> Thank you for your e-mail of 7.4.05. Due to possible software
> problem, we
> cannot read the full content of your mail. We would like to suggest
> you
> to send your opinion to us again as an attachment file to your
> e-mail, or
> send it to us by fax (no. 2523 1973).
>
> Regards,
>
> William LAU
> for Secretary for Economic Development and Labour

香港特别行政区政府
经济发展科
经济发展及劳工局

我是一名香港永久居民。退休前在內地電力部門工作多年。退休以後在香港的時間多了，但是仍然經常在北京居住。日前看到報載“香港慧峰集團與中國電力國際有限公司宣佈，在香港成立「中港電力發展有限公司」合營企業，經營香港電力事業，爲香港電力用戶供應電力。”的消息。我有一些想法，願意提供特區政府參考。

香港是一個國際性的社會，金融和物流等服務行業是主要支柱。供電的可靠性是非常重要的。要保證供電可靠，據我多年從事電力工作的體會，是一項綜合和複雜的管理和技術工作。多年來，香港兩個電力公司經過不斷改進工作，達致較高的供電可靠性。不僅在本地區，在世界上都是有名的。與內地相比較，其可靠性就更高得多。這當然一方面是內地近年的發展很快，電力供不應求。但是另一方面也要看到，內地供電部門的管理水平與香港比，相差較大。近年來雖然有了不少的進步，但是停電還是常有發生。即使在北京這個政治中心，仍是不能避免。因此，作爲一個香港居民，我是以香港的供電高度可靠引以爲傲的。這也是香港這個優秀的營商環境的重要保證。引進內地電力企業與香港公司合營，爲香港電力用戶供應電力，在目前內地電力供求尚不能平衡，企業管理水平與香港相差較多時，是否能夠保證電力供應的充裕和可靠，實在是個問題。

有的意見認爲，香港的電價太貴，如果引入內地企業競爭，可能可以降低電價，對香港居民有利。我個人認爲，在某一個特定地方衡量一件商品是不是貴，是應該與當地的生活水平相比較的。香港的電價是港幣 8 角多一度（0.8 元/千瓦時）,當然比北京的 0.48 元人民幣一度（0.48 元/千瓦時）貴了將近一倍。但是如

果以香港與北京的生活水平和北京比，則香港的電價就不見得貴了。

北京政府 2005 年 3 月公佈的 2004 年北京職工最低工資是 545 元/月，2003 年平均工資是 2,004 元/月〔2004 年還沒有統計數〕，居民最低保障標準〔類似於香港的綜合援助〕是 290 元/月，以這些數字和香港比，恐怕是香港的 1/6～1/5，而電價是香港的 1/2，則相對還比香港貴 3 倍了。

可能存在一個疑問，內地的勞動力費用遠低於香港，爲何相對電費還會比香港貴？以下數字可能說明一定問題：北京的供電由北京供電公司負責（只包括輸電和配電），供電面積比香港九龍的中華電力公司大一些，但是供電負荷（千瓦數）小於九龍。供電線路總長度比九龍長，但是變電站數目和配電線路長度又比九龍小。總體來說，兩者的工作量差不多。北京供電公司在網上公佈的職工數字是 10394 人。九龍的中華電力公司的職工數字據說是不到 4000 人（包括發電、輸電和配電），其中服務於輸電和配電的人數不清楚，但是，最少可以認爲，只是輸電和配電比較，北京供電公司的職工人數爲九龍的中華電力公司兩倍半以上。也可以認爲，香港在效率和管理上的優勢，補償了內地在勞動力上的優勢。更何況電力工業並不是勞動力密集的工業，而是具有較高科學技術含量的工業。

據我瞭解，內地電力工業從 2003 年開始進行電力市場改造工作，最主要的內容是發電和輸配電分開，全國成立 5 個大發電集團公司，將全國主要的發電廠整合入這五大集團。輸配電方面，則集中成立南方電網公司（包括廣東、廣西、雲南和貴州四省）和國家電網公司（包括除了南方四省以外的主要省份）。電網公司對發電廠採取“競價上網”，即哪個發電廠的電價低就優先採用哪個發電廠發的電。對電網公司，則由國家成立電監會監管。由於這是涉及各方面關係和利益的改革，所以，估計需要好幾年的時間。如果在內地這一改革還沒有什麼經驗

的時候，我們就考慮引入內地發電公司到本港電網中，恐怕不是一個明智之舉。

另外，電力供應是一個安全可靠性要求很高的工業，對香港就更重要。不能想象，在頻繁停電或停電時間較長的情況下，對香港的金融業，物流業，以至香港絕大多數居住在高層大廈中的居民，會發生怎樣的影響。因此，電價當然重要，但是安全可靠性更加重要。再從資本運營的社會來說，電力工業是投資高，回報時間長的工業，如果不保證一定的利潤，投資者將望而卻步，對電力工業將是致命的打擊，美國西部、東部的幾次大停電，已經是前車之鑒。

總之，主要考慮電價，而引入了一些不安全的因素，恐怕不是香港社會發展之福，更難是港人之福了。願政府考慮這個問題時慎之又慎。

李啓盛 LI, KAI SHING

shun kan

26/04/05 09:11 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultation Paper
☐ Urgent ☐ Return Receipt



! consultation paper.doc

Base on the consultation paper, I think that the existing electricity system should not be changed. The reasons are as follows:

1. In Hong Kong, the existing electricity supply is very stable, reliable, safe and efficient. Almost close 100% reliability. Economy point of view, Confidence of investment is depending on stable electricity supply.

2. The expense of electricity is cheaper than Towngas, transportation such as MTR, KCRC and bus company.

3. Open market and deregulation are not feasible in a small market in Hong Kong, and the risk will be finally shared by all citizens in Hong Kong.

4. 13.5% rate of return is reasonable and is well justified because general salary and land property of Hong Kong are still maintained highly level and should not be decreased.

Kan Kar Shun

electricitycomments@edlb.gov.hk

Karm Ning Tam

To: electricitycomments@edlb.gov.hk
cc:
Subject: Response to Consultation Paper on future development of Electricity Market
☐ Urgent ☐ Return Receipt

2005/04/29 02:11 AM
Please respond to Karm Ning Tam

In response to the Stage 1 consultation paper posted in EDLB web site, I wish to provide my comments as follows:

1. In considering the future mode of regulating the electricity business, we must take into account the unique infrastructure of Hong Kong SAR. More than 90% of the population lived in high rise buildings which require electricity to operate the vertical transportation system (lifts). The MTR and Railway people used for commuting are operated by electricity. Office buildings rely heavily on mechanical ventilation system that would not function without electricity. The impact and economic losses of a prolong widespread outage in Hong Kong like the one that occurred in North America on 14th August, 2003 would be beyond anyone's imagination. Hence Hong Kong needs a very reliable electricity supply.

2. There had been few successful cases of workable open competition in
electricity market. There are more cases of failures in electricity market reform. In March 1998, acute power shortage in the Central Business District in Auckland New Zealand was caused by cascaded failure of 4 transmission circuits that feed the CBD area, causing power cut for several weeks. Businesses were disrupted for several weeks. The contributing factor being no incentive for the power company to invest into reinforcing the aged network. California suffered rolling backout in 2001 and the two major power utilities almost bankrupted. The Ontario electricity market reform has only last for several months.

3. Increased interconnection would not lower the electricity tariff.
Because of the similarity of load characteristics, including daily load curve and seasonal change in electricity demand, there is little to be gained by installing a stronger transmission system as reserve capacity cannot be shared between China Light & Power and Hongkong Electric. If the purpose of the stronger interconnector is to enable China Light & Power or Hongkong Electric to purchase power in large quantities from China (provided China has the reserve capacity for selling to Hong Kong SAR), then we risk getting into the situation of California where the power companies relied too much on imported electricity to meet their own load. The result is that Hong Kong SAR may end up having to purchase high price electricity to support its economic activities.

4. Opening up the network for third party access is risky. Electricity is different from Telecommunication. People often quoted reduced telecommunication fees as proof that open competition had been successful. However, one should consider the increase in telecommunication usage (especially mobile phone usages) which has caused unit cost to drop. While the cost effectiveness of the increase in telecommunication volume is yet to be established, we do not expect increase in utilization of electricity as a consequence of open competition. This is against energy conservation, or sustainable development principle. Without sufficient number of players, opening up the transmission network would only benefit a few large consumers at the expense of ordinary customers. This had been pointed out by the Chairman of Energy Advisory Committee in commenting the Vertex

Communications & Technology Group proposal to supply electricity to Hong Kong from Chinese power station.

5. The two power companies has provided very reliable electricity supply to Hong Kong SAR for the past three to four decades, enabling Hong Kong to develop into what it is today. This could not have happened if the power companies were not allowed to earn a reasonable return through some sort of agreement. There had been examples of bad legislation or regulatory rules that led the power industry to develop into a dangerous state. California is a lesson we must remember and not to follow its track. Changing the Schemes of Control to a control framework backed by Legislation is the worst choice among all.

6. The whole public consultation exercise is a big joke. The electric
power industry is a highly technical business, being monitored by two government bureaux. It is doubtful if the general public is knowledgeable to make decisions for the future direction of regulating the power business. Public opinion should not be given a heavy weight in this exercise.

Karm Tam
29th April, 2005

keishun cheung

24/04/05 11:23 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Keep the SCA in its current form
☐ Urgent ☐ Return Receipt



Keep the SCA in its current form.doc

After careful considering your stage I Consultation Paper, I prefer to express my opinions and comments as follows:

Opinions:

Refer to dependable electricity supply, some well developed countries like US, Canada and Australia and developing countries such as China and India are suffering from blackouts because of market reform or worse planning. Fortunately, I haven't any blackouts experience in Hong Kong. The stable electricity supply which is based on an infrastructure with sufficient capacity is definitely important. Adequate investment in power infrastructure and quality service has been successfully encouraged of the SCA. With reference to the daily life and business operation, I have no doubt about any problem of electricity supply.

Comments:

In consequence of the importance of electricity supply to Hong Kong, I absolutely agree to reserve the current SCA regulation after 2008.

"John Herbert"

01/05/05 12:12 AM
Please respond to
john.herbert

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Electricity Reform Stage I
☐ Urgent ☐ Return Receipt

The Future Development of the Electricity Market in Hong Kong
Stage I Consultation
by Mr John A. Herbert - Kelcroft Consulting Engineers
30th April 2005
==========

1.0 Introduction

The launch of the consultation paper titled The Future Development of the Electricity Market in Hong Kong Stage I Consultation broadly seeks answers to three questions, namely:

1. How the existing regime might be improved and what new features might be introduced?
2. Whether the future regulatory arrangement should be based on bilateral agreements or a regulatory framework backed by legislation? and
3. Whether the Government should remain the regulator or an independent regulatory authority should be set up?

2.0 Response

2.1 Question 1 - How the existing regime might be improved and what new features might be introduced?

The regime demands a complete overhaul, presently utilities are rewarded for inefficiency. Consumers are forced to support inefficiency through the fuel cost recovery mechanism, which incidentally also provides the utilities with a measure of currency security.

The regime needs to charge - provide an environment where utilities are rewarded for doing things right. For example provide financial incentives for continuous improvement in the areas of reliability, energy efficiency, fuel consumption and reduction of pollution discharges, penalise when objectives are not met. This carrot and stick approach is commonly employed by government in others areas, the utilities should be no different.

Note the usage of the word "continuous" herein. Utilities should not be permitted to mislead the public quoting facts with using a 1992 baseline. Incentives shall be structured to drive year on year improvements.

2.2 Question 2 - Whether the future regulatory arrangement should be based on bilateral agreements or a regulatory framework backed by legislation?

Bilateral agreements held behind closed doors is not satisfy. An independent regulatory authority is required. With term membership, and free from political interference.

2.3 Question 3 - covered under 2.2 herein.

3.0 Other Issues

3.1 Environmental Issues

Climate change is real, and glacier's are already receding. As mentioned herein, continuous improvement needs to be the gold standard. Although EPD is responsible for environmental discharge, the low standard allows power generators to pollute the air we breathe, and their environment reports indicate license conditions achieved.

This mediocrity needs to be challenged and halted. One utility (CLP) provides power to the Shekou and other areas of the PRC. Therefore, the Hong Kong residents suffer the damaging pollution, and the shareholders enjoy the profit. Therefore it is clear that generation externalities require immediate review, and where necessary taxation. Once again provide incentives that reward performance and penalties for failure to meet objectives.

3.2 Renewable Energy

Black and brown coal burning is a serious environmental problem causing excessive healthcare costs. In the 2004 consultation conducted by the Council for sustainable Development, showed the wide spread community support for energy production from renewable sources, it was clear and unequivocal.

Government policies must now reflect this demand, requiring generators to source at least 10% of the total electricity from renewable energy sources. This requirement would also further encourage generators to act efficiently, because when the total power is decreases, the scale of RE required reduces.

The primary problem facing RE is that the benefits are not costed directly. Charging utilities for externalities, to be deducted from profits, would provide an even playing field. However, utilities faced with the possibly of dealing stranded costs seem to constantly ignore this pressing need. More than seven per day die, everyday from illness directly related to air pollution, a proportion of which is generated by the utilities. These externalities must be fully considered, taking a holistic view RE sources are superior, yet first cost, and existing infrastructure are given priority.

3.3 Grid Connection

The new Code of Practice for grid connection titled "Technical Guidelines on Grid Connection of Small-scale Renewable Energy Power Systems" published March 2005 is the beginning, a positive step. However, its limitation < 200Kw is a clear indicator that the utilities are still using their position to restrict development, this is disappointing and encourages energy waste.

Like PRC, Hong Kong regulations should provide mandatory grid access, subject to the normal safety considerations.

3.4 Multiple Policy Drivers

The IEA reports that a mixture of policy initiatives is the important driver for development. Simply change the regulatory regime is not sufficient. Building thermal insulation standards and regulations, EPD pollution license conditions, and the like need to be reviewed or re-organised to ensure the mix of policies encourage utilities to improve.

=======END=========

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sirs,

CONSULTATION PAPER ON FUTURE DEVELOPMENT
THE ELECTRICITY MARKET IN HONG KONG
STAGE I CONSULTATION

I am responding to the "Consultation Paper on Future Development the Electricity Market in Hong Kong – Stage I Consultation" published by your Department in January 2005.

As recognized in your consultation paper, the application of renewable energy is becoming an important topic for the purpose of sustainable development.

I agree that renewable energy is the only long-term solution to avert climate change. Hong Kong has the social responsibility to introduce renewable energy. China's ratification of the 1997 Kyoto Protocol serves as a reminder of Hong Kong's global responsibility.

Among all other renewable energy resources, wind power is a much more mature technology that is ready for application in Hong Kong. In fact, the growth of wind power is much faster than any other forms of renewable energy. Wind power should therefore be given higher priority since other renewable energy resources/ technologies in Hong Kong are either limited (e.g. small hydro, geothermal) or too expensive (e.g. solar).

If HKSAR Government is to require the two local power companies to provide fixed percentage of renewable energy in their energy supply, the two power companies will have strong incentives to look for investment opportunities in Guangdong wind projects as wind energy has strong potential to be a mainstream energy source in both technological and financial aspects.

To date, the Guangdong Province has launched a series of financial incentives to promote wide-scale development of wind energy:

- **Guaranteed purchase**: the Guangdong grid company has to purchase all wind energy generated.
- **Land cost:** only the area actually occupied by the turbine foundation and other infrastructure facilities will be counted.
- **Tax concession**: there are TWO tax concessions for wind projects in Guangdong:
  1) **Value-added tax** has been reduced from 17% to 8.5% for wind projects.
  2) **Profit tax** has been reduced: the 33% profit tax is 100% waived in the first two years; reduced to 7.5% from the 3rd to 5th years, reduced to 15% for the 6th year and onwards.

It is preferable for Hong Kong to develop on its own local application of renewable energy instead of introducing from the Mainland. The well known reliability problem of electricity supply in the Mainland makes the option of import of renewable energy electricity from Mainland worrisome.

HKSAR Government should bear the responsibility to establish the necessary market condition for the development of renewable energy in Hong Kong.

On the other hand, deregulation of the power market for open competition can destroy the goals of renewable energy and rational energy use (e.g., California). New profit incentives for the power companies to develop clean power sources will benefit Hong Kong far more than a simple competition policy. I also whish to emphasize that renewable energy policy must be carefully developed so as not to compromise the supply reliability.

Yours Faithfully,
Ken Hui

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sirs,

CONSULTATION PAPER ON FUTURE DEVELOPMENT
THE ELECTRICITY MARKET IN HONG KONG
STAGE I CONSULTATION

I am responding to the "Consultation Paper on Future Development the Electricity Market in Hong Kong – Stage I Consultation" published by your Department in January 2005.

As recognized in your consultation paper, availability of import supply from Mainland China may be a possible option

I would like to point out that an adequate, secure and reliable supply of electricity is critical to Hong Kong's economy and society.

The recent blackouts in North America and Italy were a dramatic and expensive demonstration of ineffective co-ordination between different jurisdictions. Italy and parts of the US such as Manhattan and Ohio rely heavily on imported electricity from areas outside their jurisdiction and, in some cases, outside of their own country. This meant that their operators were unaware of problems in other systems and powerless to prevent catastrophic loss of imported power, leading to blackouts in their area. It has been difficult to identify the underlying causes of these blackouts and how to stop similar problems from happening again. One point can be sure is economic loss can be very huge.

According to recent media estimates, power shortages will cost China around RMB200 billion in GDP of 2004. The frequent power outages have seriously affected the 60,000 businesspeople from Hong Kong who make their living from their offices and factories in Guangdong.

Recent rapid electricity demand growth in Guangdong, driven by the robust economy, has led to difficulties in balancing supply and demand. These supply shortages are expected to persist for several more years. Even if current difficulties are resolved, it does not mean that a sustainable mechanism to balance supply and demand for the future has been achieved.

One of the mainland government's strategies to alleviate power shortages in Guangdong has been to build more generation in the Southwest of the country, and to transmit this extra capacity to Guangdong – the "West-East" project. Guangdong is expected to import around 10,000 MW of power by 2005, up from around 5,000 MW in 2003. This raises issues of reliability of supply, especially given that the power will be transmitted over thousands of miles of high-voltage transmission lines, which are more vulnerable to factors such as weather.

With the rapid development of Guangdong, the power generation in Guangdong will be more difficult to meet its ever growing power demand. If there is energy source developed in the Mainland, naturally it would be used first to meet the growing demand of Guangdong. Given this and the potential problem in maintaining grid operation to the same standard. Hong Kong should not rely on the import supply from Mainland.

Yours Faithfully,
Ken Hui

2005/04/29 02:44 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on the stage 1 consultation paper
☐ Urgent ☐ Return Receipt

To: EDLB

To me the present electricity tariff is at a reasonable level as compared to other daily expenses such as transportation.

The quality and reliability of electricity supply is a more important concern, especially when we always want Hong Kong to be an international financial center and shopping center.

SCA may not be the best choice for the electricity market but it works fine for so many years as reflected by the reliable electricity supply we enjoy so far.

I would like to see the SCA to be continued in its present form.

Ken Leung

"Ken Yu"

24/04/05 03:45 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 回應電力市場諮詢文件
☐ Urgent ☐ Return Receipt

本人有以下意見:

1. 不應以電費的高低作優先考慮,應以環保和穩定的供應作優先考慮.
2. 13.5%的准許利潤太高,應該按投資的重要性/環保性/非必要等下調至分別12/10%左右,並增加透明度,讓大眾知道電費價錢合理.
3. 現有小投資的退休人士可能以投資電力公司養老.請顧及他們的生活, 電力公司賺到的錢都是香港人賺到的, 向內地買電則將利益轉送內地.
4. 電力行業養活了大量香港人,亦是香港剩下並未北移的工業之一,不應讓這些人失業.
5. 給與特別利潤或優惠,-勵再生能源發電.
6. 如香港的發電規模擴大,可供應內地及澳門等,也許可令成本下降,從而減低電費.
7. 相信現有的監管機制是有效的,電力公司對大-是忠誠的,另立監管只會浪費公帑,除非日後發電和輸電變得複雜、或電力公司失去誠信,否則不用另立監管機構.

謝謝!

"Kenneth Fung"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 就電力市場第一階段諮詢文件的意見
☐ Urgent ☐ Return Receipt

2005/04/29 12:13 AM

敬啓者：

就第一階段諮詢文件我有以下意見。

電力市場有別於電訊市場，需要大量金錢投資以確保其可靠性。從外國的經驗所得，當電力市場開放後，往往因缺乏投資在電力工業上而導致電力可靠性的下降，構成停電。美加及意大利較早時的大停電正是一個實例。在香港我從未親身體驗大停電，這不是正好說明現時電力市場的監管制度是效的嗎？更何況我覺得現時電費的價格也在合理水平之內，其加幅遠低於同期通脹 。所以我希望電力管制協議保留在現時形式。否則大型的停電很可能發生在我們身上。

"Chiu's Family"

28/04/05 10:56 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Development of the Electricity Market in HK - Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

Every time when I recall what I saw on the news about the electricity blackout in major

Canadian cities in 2003, I am so glad that I am living in Hong Kong, a place where I do not have to worry about the stability and reliability of electricity supply. I can remember seeing people walking miles home because public transportation was all down. Therefore, I am sure that I am more than willing to pay more to safeguard make sure that we can have a reliable supply of electricity. I dare to dream walking all the way home from Admiralty to Tsuen Wan.

Moreover, the stock market and airport in New York were shut down for hours during that blackout in 2003. Imagine the same thing happening to Hong Kong. How much money will be lost in these few hours? How will this affect Hong Kong' s image in foreigners' eyes? We cannot afford to take this risk.

Well, it' s time for me to enjoy myself in the comfortable leisure room with air conditioning and television. Without reliable electricity, I will not be able to enjoy all these, so maintaining the current form of SCA is definitely the best choice.

Kenny

kevin wong

2005/04/30 11:03 PM

To: electricitycomments@edlb.gov.hk
cc:

Subject: electricitycomments
☐ Urgent ☐ Return Receipt



electricity comment stage I.doc

1. 開放市場

兩電是上市公司，爲了照顧股東利益，追求利潤,引致削減人手，減少機器維修，使設備老化， 因而換來經常停電。如果正值香港舉辦一些國際活動時停電 ，那國際地位便有所影響，是得不償失的. 我想在商人的角度， 停電在生意上的損失，是不可接受的， 在市民的角度， 停電使各項活動不便。

由報章上得知， 第三者只對佔用電最大的工商業有興趣 ，那市民由誰照顧呢? 如果由一家電廠供應給市民 ，我想到時電費會比現在更貴。

2 .檢討期

我認爲三到五年檢討一次是不實際 ，浪費人力的 ，更給與政客大吹大擂的機會。

3. 環保

環保是一項對市民的承擔 ，投資環保是花費十分巨大的 ，如果沒有吸引的回報 ，誰去投資呢 ？ 由政府補貼 ，等於加電費 。



30/04/2005 01:06

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
Urgent Return Receipt

realname: kfl

subject: Open Market vs Supply Reliability

Enquiry: Several major blackout incidents in America and Europe occurred in past few years provide evidence on the reducing Supply Reliability after the opening up the electricity markets. Similarly, these blackouts are mainly caused by an initial failure on electrical apparatus that it led to overloading of remaining heavy circuits and causing cascade tripping of major circuit finally. The question is why this situation occurs. I would like to voice out my opinion to this aspect.
The new market player(s) will try to reduce the costs on the essential construction, maintenance and operation on their electrical apparatus and associated auxiliary equipments in order to sustain their market share.
They intend to install any electrical apparatus and equipments with lowest cost neglecting the poor quality in production, the non-secure installation policy or procedures, the higher constraint in operation. Moreover, they will not consider to upgrade/ replace the retired apparatus. Everyone can imagine that apparatus under the above situation may have extremely high opportunity to go failure.
Apparently, They will also try to reduce the cost on maintenance works on apparatus and equipment by insufficient maintenance policy, employing less competent person and pros phoning the period of maintenance. You will quite worry about if a non-competent staff fail to set the protection relay for apparatus correctly after his maintenance works.
On the other hand, they will intend to operate their apparatus that may reach theirs allowable capacity. This is the answer why the blackout incidents are mainly caused by an initial failure on electrical apparatus that it led to overloading of remaining heavy circuits and causing cascade tripping of major circuit.



"skkung"

2005/04/26 09:25 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments for the consultation paper on future development of the electricity market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sirs,

After going through the consultation paper on the future development of the electricity market in Hong Kong, I am given to understand that under the current scheme of control, the local electricity supply companies are obliged to fully meet the Government' s policy objectives to ensure consumers to receive reliable and safe electricity at reasonable prices with minimum impact on the environment. In my opinion, the electricity supply companies have done even better than the Government demands for and I am very satisfied with the outstanding supply reliability and excellent services rendered to me. Furthermore, the electricity charges are reasonable and affordable when compared with other basic costs of living like rental charges, transportation charges, etc.

Reliability of electricity supply is most vital to Hong Kong as an international financial center. No one can imagine that massive electricity supply outages and blackout could happen in those highly developed countries in Europe, North America and Australia. Nevertheless, these disasters did happen not long time ago as a result of the electricity market reforms. To avoid the occurrence of similar disasters to Hong Kong, there is definitely no point for us to pursue any drastic reform to the local electricity market.

In conclusion, I trust that the future development of the electricity market should more or less follow the present mode of operation and I highly support to maintain the current scheme of control after 2008.

Regards
Kung Sin Kwong

KW Chan

2005/04/29 12:37 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Personnal Comments on the Future Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

Attached please find my personnal comments on the future electricity market for your consideration.

Thanks

KW Chan Consultation on Electricity Market.doc

開放電力市場的個人觀點

投資一門生意，需動用數十億資金而回報期爲十年、二十年或更長。試問沒有合理回報並存在高風險，你會否參與？當然沒有一項投資可以保證賺錢，但是如開放電力市場會帶來長期不明朗的因素，影響商界在港投資的信心，本人確實有點保留。何況每個月三四百元電費，對一般小市民並非沉重負擔。請問閣下星期天一家大細出外用? 消費多少？爲何沒有人要求開放供水市場，開放煤氣市場？況且電力公司已爲長者／殘疾人士／單親家庭／失業人士提供電費優惠，盡了社會責任 (Social Responsibility)。

本人個多月前，在國內電視廣播得知現時電力錯? 導致國內工廠間歇性停工。假如供電商不能提供隱定的電力供應，什麼金融中心、美食天堂，通通也辦不成。現時國內每度電約爲六毫子，與香港的電費相比，無疑是很便宜。但不要忘記現時國內一般市民工資約一仟元，當國內生活水平迫近香港時，閣下會否相信國內的供電商能以六毫子一度電賣給香港？那時候，香港的供電商因沒有專營權而放棄擴建發電廠及供電設施，在供不應求下，市民可能需付出較現時更高昂的電費。

以一個打工仔的身分來說，做好一百件工作，上司不會表揚你。但一件工作你做不好，上司就責備你，忘記你過往的功勞。我本人在香港土生土長，見証不少大事。今天的香港是一個國際金融中心，比較富裕的地方。但是，你是否已忘記電燈公司過往爲香港提供隱定而可靠的電力供應？如果電燈公司不是經常更新並擴建發電廠及供電設施，閣下是否能不斷添加電器產品，改善生活質素？

多一些供電商是否代表電價能大幅調低？我舉一例子給大家思考：
現時香港有數間汽油供應商，爲何汽油價格沒有大幅調低？答案很明顯，石油價格不是完全取決於多小間汽油供應商，最重要取決於國際油價。國內的汽油供應商已在香港建立油站，但汽油價格並沒有調低，你同意嗎？

發電、供電所需的儀器、設施、電纜、燃料，全都是從外國入口，價錢不菲。沒有合理回報，你是否願意投資？而且多一間供電商，安裝的設施必然重複，浪費資源。何況一間供電商的事故能產生骨牌效應，拖累其他供電商。越多供電商，風險越大。在一些已開放電力市場的先進國家如美國、英國、加拿大、意大利，閣下是否記起當地的大停電？我建議保持現有的管制制度，但可以鼓勵發展再生能源，例如風力，太陽。

香港特別行政區市民
陳家縈先生

"kwmok"

To: <electricitycomments@edlb.gov.hk>
cc:

2005/04/30 02:17 AM

Subject: Comments on Stage I Consultation on Future Development of the Electricity Market in Hong Kong

☐ Urgent ☐ Return Receipt

I agree to maintain the existing Scheme of Control for the reasons below:

1. Reasonable tariff – The rise of electricity price in the past 20 years was below the increase of CPI and other service charges. The local residential tariff on HK is in the mid range when comparing with other major cities. The cost of electricity to residential consumers only accounts for less than 2% of household expenditure. Therefore, the electricity price is reasonable and affordable for such a reliable supply.

2. Reliable electricity supply – The power companies in HK supply electricity with outstanding reliability when comparing with other power companies in the world. No large-scale blackouts occur so far in HK. Such reliable electricity supply is essential to the economy of HK.

3. Pollution to Environment – The power companies in HK had already made huge investment to protect the environment in order to minimize the environment impact caused by the generation and use of electricity. But it may not be the case for the potential entry such as the power companies in Mainland. As a result of less incentive on environment protection, the pollutant generated may serious affect our environment.

4. No potential entry - Capital intensive industry and economies of scale. From technical and economic point of view, it is difficult to accommodate more energy suppliers for competition as HK is a small market.

5. Deregulation – Overseas experiences indicated that deregulation can have more harmful effects such as high and volatile electricity prices, frequent blackouts and high cost for setting up and operating a deregulated system.

KW Mok



2005/04/26 03:07 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Stage I Consultation on Future Development of the Electric Market in
☐ Urgent ☐ Return Receipt

To: Economic Development and Labour Bureau
[electricitycomments@edlb.gov.hk]

From: KWAN Wing Fan

Date: 26 April 2005

Subject: Stage I Consultation on Future Development of the Electric Market in Hong Kong

Dear Sirs,

Having read your Stage I Consultation Paper, I would like to express my views and comments as follows:

- Hong Kong is an international financial centre, reliable electricity supply, which is supported by an infrastructure with sufficient capacity, is extremely important. The SCA has successfully encouraged adequate investment in power infrastructure and quality service to achieve a reliable power source.

- Overseas experience shows that lack of sufficient investment in power industry, which may result in deterioration of supply reliability. One of the remarkable examples is the massive U.S.-Canada blackout in 2003.

Based on the above, I consider that the SCA should be kept in its current form to the greatest extent possible.

Regards,

KWAN Wing Fan

"Wilson Kwok"

2005/04/30 06:27 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on electricity supply in Hong Kong
☐ Urgent ☐ Return Receipt

To Whom It May Concern:

Please find attached for your careful consideration.

Best regards,

KWOK Wai Shun SOC 2008.doc

Hong Kong is a business centre and a gateway to China. Many international companies and conglomerates set up their asia's headquarters in Hong Kong.

According to a study conducted by a group of economists, it was found that reliable electricity supply is a major criterion for an international companies to select the city to set up their offices. In order to maintain our competitive advantages as a business centre and a hub for China's business, it is indispensable to maintain our high standard in electricity reliability in Hong Kong.

Hong Kong has a very good reputation in the history, especially in providing highly reliable electricity supply. I therefore hope the HKSAR Government could think carefully before making the decision to open the electricity market. People can live without a telephone (opening the fixed network market in late 90s), but people cannot live without electricity. On one hand, it is undoubtedly that we could introduce competitors and provide more choices for the public to select from. On the other hand, it could seriously affect the whole electricity network in Hong Kong, or even in China. We could learn from the recent bitter experiences in US, Italy, United Kingdom, where total blackout of the cities or countries was simply due to underestimating the impact of internetworking of different electricity network maintained by different operators. It will be too late to say sorry to the public when the blackout one day happens.

I am very satisfied with the services provided by the two electricity companies in Hong Kong and I hope that you could take my advices into consideration in preparing your final report.

Best regards,

KWOK Wai Shun

"Norman Chan"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comment on Stage 1 Consultation - Future Development of the Electricity Market in HK
☐ Urgent ☐ Return Receipt

2005/04/30 08:23 PM

I believe the current scheme of control system works quite well in Hong Kong and my feeling is that the stability and realiability of power supply we have enjoyed in Hong Kong for the past decades are very much contributed by the existence of the Scheme of Control System - which provides incentive for the power companies to invest and improve their power generation and distribution factilities. I accept that there is no free lunch in the world. We need to pay in order to enjoy a realiable electricity supply system.

I live in a private estate and pay around several hundred HK dollars per month for electricity bill on average. This cost less than 1.5% of my monthly income. I think that the current level of electricity tariff is quite "comfortably affordable" taking into consideration the quality of electricity I am enjoying. If there is other things that I prefer to have tariff reduction, I would think of transportation rather than electricity.

The power plants in Hong Kong I beleive are more environmntal friendly compared with those in China. Forget about Vortex who wants to supply electricity to Hong Kong by means of power stations in China. That will put on additional burden to the air quality problem in the peral river delta. This is not to mention that no one will believe that South China itself has surplus power to export given the fact that they are now surffering from serious power shortage problem.

I don't really care much whether there is any competition in the electricity industry in Hong Kong. What I care is that there will be no deterioation in power supply quality and no deterioation in air quality compared with the present. Should introducing competition to power industry in Hong Kong will only reduce tariff but at the expense of uncertainty in power realiability, quality and deterioated environment, I rather stay with the current Scheme of Control System.

LM Chan

"L.T. Wong"

2005/04/26 09:03 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: FW: Comment on Consultation Paper on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir,

While the consultation paper has provided a good account on the background, current problems and possible roadmap for the electricity supply industry in Hong Kong, I do have particular comments on a few areas as follow.

Scheme of Control Agreement

The people of Hong Kong have enjoyed reliable electricity supply for so long that they have taken it for granted. In fact, it is the result of adequate and appropriate investment over the past 30 years under the current regulatory control regime, along with the efforts to improve the electricity supply systems by the power companies. As the current bilateral agreements have worked well for decades, there must be compelling reason before the arrangement is overhauled. As rightly pointed out in the paper, " Interested parties are at liberty to enter the electricity market". The reason no other investors have entered the market is that very few of them like to have their capitals tied up for so long. When the economy was good, who would envy the permitted return of mere 15%? It's only when the economy is not good that the same 15% is considered too high. Economic cycle is not something anyone can predict over a 15-year period. In order to maintain the incentive for the power companies, and even new entrants, to have long-term investment, the present arrangement of bilateral agreement should be maintained. Potential new entrants can still negotiate with the government if they can show their long-term commitment to provide a safe, reliable and efficient electricity supply to the people of Hong Kong.

I support the government to consider alternative means to control the permitted return of the power companies. I cannot emphasize more that any new measures have to be thoroughly discussed with the stakeholders and must not induce the power companies to shift their focus on long-term benefits to short-term financial performance.

Competition

As mentioned in the paper, competition is not prohibited by the current regulatory control regime. However, I do have great reservation whether the government should encourage competition in the electricity market. Some people always quote the example of telecommunication industry and claim that competition has brought bring about reduction in price. In fact, the reduction in unit price (e.g. a minute of air time) of telecommunication is mainly the result of advancement in technology rather than competition. The increase in service providers has actually brought about an overall wastage in resources due to duplication of networks, increase in road works and all the associated inconvenience caused to the general public etc. Not only will the bringing in of new competition be against the principle of environmental protection, it

has also reduced the room for further overall price reduction. In reality, any new entrants will need to recover their investment in a definite time frame. It is unlikely to have significant price reduction without compromising the level of service including supply reliability.

Reliability

Many people, especially the business sectors, will not like to sacrifice the reliable electricity supply they enjoy for a modest reduction in price that may not materialize at all. Unlike other services such as communications, there is practically no alternative service for electricity supply and there is no turning back even if something goes seriously wrong. The government should educate the general public more on this point to relieve the pressure from them. After all, the electricity costs represent only a small percentage of the monthly expenditure of the domestic sector.

I look forward to the government's proposal in the next stage consultation.

Best regards,

L.T. Wong

28th April, 2005

Economic Development & labour Bureau
2/F., Central Government Offices, Main & East Wings,
Lower Albert Road, Central
Hong Kong.

Dear Sir,

In the Stage I Consulation Paper, I would like to send my views and comments as follows:

1) My view on electricity tariff is that I will be happy if the electricity rate can come down a little bit, but if it is at the expense of a less reliable supply, it is definitely a price that I don't want to pay I find the present tariff very affordable while reliability of supply & customer services of the power company that is serving me now are excellent.

2) About **HIGHLY RELIABLE ELECTRICITY SUPPLY** In the past, I have never experienced any blackouts in Hong Kong. The SCA has ensured that we always have adequate & reliable electricity supply. The SCA has successfully encouraged adequate investment in power infrastructure & quality service. My parents, friends and I who lives in Hong Kong Island agree that we have been receiving excellent & reliable services from Hongkong Electric and fully satisfied. We can enjoy the comfortable life we are living now because of the reliable electricity. And I think the electricity price is very reasonable because most of us are paying an affordable tariff as compared with income & enjoying an excellent quality of electricity supply.

3) **KEEP SCA IN ITS CURRENT FORM** keep SCA in its current form as I am sure any possible alternatives without downside risks I can't see any compelling reasons to replace the SCA with a brand new regime. Besides this, I cannot think of any reason for changing the current form of regulation in any way

That is why I suggest to keep the SCA and build on it for improvements. A practical approach is to extend the SCA , in its entirety, after 2008. Also, H.K. is going to have its first wind turbine in 2006 I think two power companies have done a good job for our environment & next generation. In consideration of the importance of electricity to Hong Kong, I am in full support of the current SCA regulation.

Yours sincerely,

Lai Kwok Keung, Thomas

26th April 2005

Economic Development and Labour Bureau,
2/F, Central Government Offices,
Main & East Wings,
Lower Albert Road,
Central,
Hong Kong.

To Whom It May Concern,

Comments regarding the consultation for the Future Development of the Electricity Market in Hong Kong

As a general citizen of Hong Kong, I seldom express my view regarding any consultation issue of government. However, after I noticed that there are some irresponsible company/organisation claimed to join the Hong Kong electricity market, I felt that I have voice out this time.

As an international financial centre, reliable electricity supply, which is the basic and essential infrastructure of any metropolitan city, is vital important to Hong Kong. To anybody who has travelled/worked around the world, they will certainly agree that the electricity in Hong Kong is very reliable. The present power shortage situation in China is very obvious. It will be surprising to everyone if it will have surplus electricity to supply to Hong Kong in the near future. Opportunistic merchant in China will definitely want to share the profit in Hong Kong electricity market, however, overseas experience show that lack of sufficient investment in power industry, which results in deterioration of supply reliability, is not uncommon in opening the electricity market, eg, the massive blackout at U.S.A/Canada in 2003. I can't imagine the impact to Hongkong if the stock market experience similar blackout scenario.

Environmental protection is one of the key issue for the development of Hong Kong's tourism. I have read from the newspaper that the power company in Hong Kong is now developing wind turbine in Lamma Island. "Green" power should be the future direction of the world. Hence, we should provide incentive to the power company to develop in such direction..

For the development of future Hong Kong, stable environment is vital important. The existing "scheme of control" arrangement might not be perfect, but it ensured that the reliable electricity supply in Hong Kong & it introduces less changes to our unstable society. Everybody will definitely happy if the electricity rate can come down a little bit, but if it is at the expense of a less reliable supply, it is definitely a price that we don't want to pay.

Yours faithfully,

Lam Chi Ming

26/4/05

To: Economic Devclopment of Labour Bureau

After finished reading your Stage I Consulation Paper, I would like to send in my views and comments as follow:

Views:-

Hong Kong is an international financial center, stable and reliable electricity supply, which is supported by an infrastructure with sufficient capacity, is extremely important. Among the many issues in the Stage I Consulation Paper, the one worries me most is how to maintain the highly reliable supply of electricity at affordable price in H.K. And we can not accept any lost which is suffering from blackouts and outages due to market reform or pour planning. As an electricity user, I am satisfied with the present price, services and supply reliability. I cannot see any point in pursuing electricity market reform. The new "market players" do not have any practical plans. I do not believe that it is practical and economical to import electricity from the Mainland in the foreseeable future. A practical approach is to extend the SCA, in its entirely, after 2008.

Comments:

In consideration of the importance of electricity to Hong Kong, I am in full support of the current SCA regulations. Keep the SCA! Open market is not a game for us to play.

Yours faithfully,

Lam Fung Ming

"Sam Lam"

2005/04/29 06:46 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Response to Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

I'm from the University of Hong Kong and would like to respond to the consultation paper. Please find attached my letter.

Regards,

Sam



Samresponse.pdf

LAM King Hang
Department of Architecture
The University of Hong Kong
Pokfulam Road
Hong Kong

28 April 2005

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sirs,

Consultation paper on FUTURE DEVELOPMENT OF THE ELECTRICITY MARKET IN HONG KONG

I'm a Ph. D. Candidate at the University of Hong Kong researching on the applications of Building Integrated Photovoltaic Systems in Hong Kong. I've started working on Photovoltaic (PV) systems since August 1998 at HKU and I would like to response to the captioned document, in particular to the part on Renewable Energy.

First of all, I highly appreciate the consultation paper to have stated clearly the objectives including "ensure that reliable, safe and efficient electricity supply will continue to be delivered to consumers at reasonable prices", which I think is of crucial importance to Hong Kong. To attain such a difficult goal in the post-911 world order, I am sure that many aspects have to be considered carefully. A very useful reference can be found from the European commissioned Green Paper titled 'TOWARDS A EUROPEAN STRATEGY FOR ENERGY SUPPLY SECURITY'. In its conclusion to part two, it stated clearly considering a legislative framework for the priorities of future policies on energy efficiency and renewable energy.

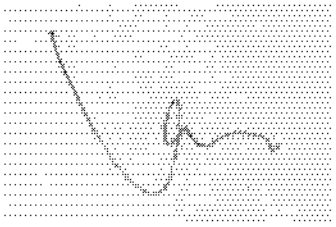
In fact, the Central Government of China is ways ahead of us in that aspect. The National People's Congress passed the Law of Renewable Energy which will be enforced on the 1st January 2006. I strongly recommend the protection of the legal rights of the users of Renewable Energy by the establishment of Renewable Energy Law for Hong Kong SAR in echo to the Central Government. A copy of that Renewable Energy Law is attached for your reference.

The legal rights of using RE in parallel to utility grid must be distinguished from the "third-party access to the power grid" because the size of such RE systems will, for the present, be limited to 200kW and below, and connected only to the 220/380V low-voltage electricity supply network according to the EMSD Technical Guidelines on Grid Connection of Small-scale Renewable Energy Power Systems. I myself represented the Hong Kong PV Consortium sitting in the EMSD's working group for

drafting the above Guidelines. These types of grid-connected renewable systems are operating in parallel to the utility supply and must be protected in contravention of present Supply Rules common to both the existing utilities that state "A customer shall take from the Company all the electricity that may be required by him or at his premises ..."

Please note that I have confined this response to the aspect concerning Renewable Energy to make it concise. All in all, the legal rights of Renewable Energy users are being infringed by both utilities and that situation does not have to be alleviated after 2008. Legislation to protect legal rights of Renewable Energy users must be passed like that in mainland China, which is going to take effect on 1st January 2006!

Yours faithfully,



LAM King Hang

Encl.

Authorized Release: The Renewable Energy Law
The People's Republic of China (Full Text)

Table of Contents

Chapter 1	General
Chapter 2	Resource Survey and Development Plan
Chapter 3	Industry Guidance and Technology Support
Chapter 4	Promotion and Application
Chapter 5	Price Management and Fee Sharing
Chapter 6	Economic Incentives and Supervisory Measures
Chapter 7	Legal Responsibilities
Chapter 8	Miscellaneous

Chapter 1. General

Article 1—In order to promote the development and utilization of renewable energy, improve the energy structure, diversify energy supplies, safeguard energy security, protect the environment, and realize the sustainable development of the economy and society, this Law is hereby prepared.

Article 2—Renewable energy in this law refers to non-fossil energy of wind energy, solar energy, water energy, biomass energy, geothermal energy, and ocean energy, etc.

Application of this Law in hydropower shall be regulated by energy authorities of the State Council and approved by the State Council.
This Law does not apply to the direct burning of straw, firewood and rejecta, etc. on low-efficiency stove.

Article 3—This Law applies to territory and other sea area of the People's Republic of China.

Article 4—The Government lists the development of utilization of renewable energy as the preferential area for energy development and promotes the construction and development of the renewable energy market by establishing total volume for the development of renewable energy and taking corresponding measures.

The Government encourages economic entities of all ownerships to participate in the development and utilization of renewable energy and protects legal rights and interests of the developers and users of renewable energy on the basis of law.

Article 5—Energy authorities of the State Council implement management for the development and utilization of renewable energy at the national level. Relevant departments of the State Council are responsible for the management of relevant development and utilization of renewable energy within their authorities.

Energy authorities of local people's governments above the county level are responsible for the management of the development and utilization of renewable energy within their own jurisdiction. Relevant departments of local people's governments above the county level are responsible for the management of relevant development and utilization of renewable energy within their authorities.

Chapter 2 Resource Survey and Development Plan

Article 6—Energy authorities of the State Council are responsible for organizing and coordinating national surveys and management of renewable energy resources, and work with related departments to establish technical regulations for resource surveys.

Relevant departments of the State Council, within their respective authorities, are responsible for related renewable energy resource surveys. The survey results will be summarized by the energy authorities in the State Council.

The result of the survey of renewable energy shall be released to the public, with the exception of confidential contents as stipulated by the Government.

Article 7—Energy authorities of the State Council sets middle and long-term target of the total volume for the development and utilization of renewable energy at the national level, which shall be implemented and released to the pubic after being approved by the State Council.

Energy authorities of the State Council shall, on the basis of the target of total volume in the previous paragraph, as well as the economic development and actual situation of renewable energy resources of all provinces, autonomous regions and municipalities, cooperate with people's governments of provinces, autonomous regions and municipalities in establishing middle and long-term target and release it to the public.

Article 8—Energy authorities of the State Council shall, on the basis of the middle and long-term total volume target of renewable energy throughout the country, prepare national renewable energy development and utilization plan, which is to be implemented after being approved by the State Council.

Energy authorities of the people's governments at the level of province, autonomous region and municipality shall, on the basis of the middle and long-term target for the development and utilization of renewable energy, cooperate with relevant authorities of the people's governments at their own level in preparing national renewable energy development and utilization plan for their own administrative regions, which shall be implemented after being approved by people's governments at their own level.

The approved plan shall be released to the public, with the exception of confidential content as stipulated by the government.

In case that the approved plan needs to be modified, approval of the original approving authorities shall be obtained.

Article 9—In preparing the plan for the development and utilization of renewable energy, opinions of relevant units, experts and the public shall be solicited and the scientific reasoning shall be done.

Chapter 3 Industry Guidance and Technology Support

Article 10—Energy authorities in the State Council shall, in accordance with the national renewable energy development plan, prepare and promulgate development guidance catalogs for renewable energy industries.

Article 11—Standardization authorities of the State Council shall set and publicize technical standard for renewable energy electric power and the technical standards for relevant renewable technology and products for which technical requirements need to be standardized at the national level.

For those technical requirements not dealt with in the national standard in the previous paragraph, relevant authorities of the State Council may establish relevant industrial standard, which shall be reported to the standardization authorities of the State Council for filing.

Article 12—The government lists scientific and technical research in the development and utilization of, and the industrialized development of, renewable energy, as the preferential area for hi-tech development and hi-tech industrial development in the national program, and allocates funding for the scientific and technical research, application demonstration and industrialized development of the development and utilization of renewable energy so as to promote technical advancement in the development and utilization of renewable energy, reduce the production cost of renewable energy products and improve the quality of products.

Education authorities of the State Council shall incorporate the knowledge and technology on renewable energy into general and occupational education curricula.

Chapter 4 Promotion and Application.

Article 13—The Government encourages and supports various types of grid-connected renewable power generation.

For the construction of renewable energy power generation projects, administrative permits shall be obtained or filing shall be made in accordance with the law and regulations of the State Council.

In the construction of renewable power generation projects, if there is more than one applicant for project license, the licensee shall be determined through a tender.

Article 14—Grid enterprises shall enter into grid connection agreement with renewable power generation enterprises that have legally obtained administrative license or for which filing has been made, and buy the grid-connected power produced with renewable energy within the coverage of their power grid, and provide grid-connection service for the generation of power with renewable energy.

Article 15—The Government supports the construction of independent renewable power systems in areas not covered by the power grid to provide power service for local production and living.

Article 16—The Government encourages clean and efficient development and utilization of biological fuel and encourages the development of energy crops.

If the gas and heat produced with biological resources conform to urban fuel gas pipeline networks and heat pipeline networks, enterprises operating gas pipeline networks and heat pipeline networks shall accept them into the networks.

The Government encourages the production and utilization of biological liquid fuel. Gas-selling enterprises shall, on the basis of the regulations of energy authorities of the State Council or people's government at the provincial level, include biological liquid fuel conforming to the national standard into its fuel-selling system.

Article 17—The Government encourages workplaces and individuals in the installation and use of solar energy utilization systems of solar energy water-heating system, solar energy heating and cooling system and solar photovoltaic system, etc.

Construction authorities of the State Council shall cooperate with relevant authorities of the State Council in establishing technical economic policies and technical standards with regard to the combination of solar energy utilization system and construction.

Real estate development enterprises shall, on the basis of the technical standards in the previous paragraph, provide necessary conditions for the

utilization of solar energy in the design and construction of buildings.

For buildings already built, residents may, on the condition that its quality and safety is not affected, install solar energy utilization system that conform to technical standards and product standards, unless agreement has been otherwise reached between relevant parties.

Article 18—The Government encourages and supports the development and utilization of renewable energy in rural areas.

Energy authorities of local people's governments above the county level shall, on the basis of local economic and social development, ecological protection and health need, etc., prepare renewable energy development plan for the rural area and promote biomass energy like the marsh gas, etc. conversion, household solar energy, small-scale wind energy and small-scale hydraulic energy, etc.

People's government above the county level shall provide financial support for the renewable energy utilization projects in the rural areas.

Chapter 5 Price Management and Fee Sharing

Article 19—Grid power price of renewable energy power generation projects shall be determined by the price authorities of the State Council in the principle of being beneficial to the development and utilization of renewable energy and being economic and reasonable, where timely adjustment shall be made on the basis of the development of technology for the development and utilization of renewable energy. The price for grid-connected power shall be publicized.

For the price of grid-connected power of renewable power generation projects determined through tender as stipulated in the 3rd paragraph of Article 13 hereof, the bid-winning price shall be implemented; however, such a price shall not exceed the level of grid-connected power of similar renewable power generation projects.

Article 20—The excess between the expenses that power grid enterprises purchase renewable power on the basis of the price determined in Article 19 hereof and the expenses incurred in the purchase of average power price generated with conventional energy shall be shared in the selling price. Price authorities of the State Council shall prepare specific methods.

Article 21—Grid connection expenses paid by grid enterprises for the purchase of renewable power and other reasonable expenses may be included into the grid enterprise power transmission cost and retrieved from the selling price.

Article 22—For the selling price of power generated from independent renewable energy power system invested or subsidized by the Government, classified selling price of the same area shall be adopted, and the excess between its reasonable operation, management expenses and the selling price shall be shared on the basis of the method as specified in Article 20 hereof.

Article 23—The price of renewable heat and natural gas that enters the urban pipeline shall be determined on the basis of price management authorities in the principle of being beneficial to the development and utilization of renewable energy and being economic and reasonable.

Chapter 6 Economic Incentives and supervisory measures

Article 24—The Government budget establishes renewable energy development fund to support the following:

1. Scientific and technological research, standard establishment and pilot project for the development and utilization of renewable energy;
2. Construction of renewable energy projects for domestic use in rural and pasturing areas;
3. Construction of independent renewable power systems in remote areas and islands;
4. Surveys, assessments of renewable energy resources, and the construction of relevant information systems;
5. Localized production of the equipment for the development and utilization of renewable energy.

Article 25—Financial institutions may offer preferential loan with financial interest subsidy to renewable energy development and utilization projects that are listed in the national renewable energy industrial development guidance catalogue and conform to the conditions for granting loans.

Article 26—The Government grants tax benefits to projects listed in the renewable energy industrial development guidance catalogue, and specific methods are to be prepared by the State Council.

Article 27—Power enterprises shall authentically and completely record and store relevant materials of renewable energy power generation, and shall accept the inspection and supervision of power supervisory institutions.
Power supervisory institutions shall do the inspection in accordance with stipulated procedures, and shall keep commercial secret and other secret for inspected units.

Chapter 7 Legal Responsibilities

Article 28—If energy authorities of the State Council and the people's governments above the county level as well as other relevant authorities breach this Law and have one of the following, people's government of their own level or relevant authorities of the superior people's governments may order them to make correction, and impose administrative penalty for competent personnel that are liable and other personnel directly liable; in case that such breaches constitute crime, criminal liabilities shall be legally pursued.

1. Failure to make administrative licensing decision in accordance with law;
2. Failure to make an investigation when illegal activities are discovered;
3. Other acts of not legally performing supervision and management responsibilities.

Article 29—If the power grid enterprises breach Article 14 hereof and fail to purchase renewable power in full, which results in economic loss to the renewable power generation enterprises, such power grid enterprises shall be liable for compensation, and the national power supervisory institutions shall order them to make correction within a stipulated period of time; in case of refusal to make correction, a fine of less than the economic loss of the renewable power generation enterprises shall be imposed.

Article 30—In case that enterprises of natural gas pipeline network and heat pipeline network breach paragraph 2 of Article 16 hereof and do not permit the connection of natural gas and heat that conform to the grid connection technical standard into the network, which results in economic loss to the gas and heat production enterprises, relevant enterprises shall be liable for compensation, and energy authorities of the people's government at the provincial level shall order them to make correction within a stipulated period of time; in case of refusal to make correction, a fine of less than said economic loss shall be imposed against them.

Article 31—If gas-selling enterprises breach paragraph 3 of Article 16 hereof and fail to include biological liquid fuel that conforms to the national standard into its fuel-selling system, which results in economic loss to the biological liquid fuel production enterprises, relevant enterprises shall be liable for compensation, and energy authorities of the State Council or people's government at the provincial level shall order them to make correction within a stipulated period of time; in case of refusal to make correction, a fine of less than said economic loss shall be imposed against them.

Chapter 8 Miscellaneous

Article 32—Terms used herein shall have the following meanings:

1. Biomass energy: means energy converted from natural plants, rejecta as well as urban and rural organic waste.
2. Renewable energy independent power system: means independent renewable power system not connected to the power grid.
3. Energy crop: means herbage and wood plants specially planted and used as raw materials of energy.
4. Biological liquid fuels: means methanol, ethanol, bio-diesel and other liquid fuels derived from biomass resources.

Article 33—This Law shall become effective on Jan 1st, 2006.

Shui Wing Lam

28/04/05 09:36 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage I Consultation Paper on HK Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sir,

I enjoy the high reliability of electricity supply provided by the two power companies in HK at a reasonable price. Being as one of the important global financial centres, Hong Kong should have a very reliable electricity supply system even though we pay a little bit more to maintain the high reliability. I feel quite comfortable with the current electricity tariff level while the two power companies can provide us a very high reliable electricity supply. I think HKSAR shall keep the current SCA even after 2008.

Regards,

LAM Shui Wing

Economic Development and Labour Bureau
2/F., Central Government Offices,
Main & East Wings,
Lower Albert Road, Central, Hong Kong

23rd April, 2005

Dear Sir/Madam,

RE: Support the continuation of SCA

I think it is advisable to continue SCA after 2008 due to the following obvious reasons.

As you know, Hong Kong is one of the prominent commercial and financial centres in Asia. Even a black-out lasting for a few minutes will severely damage the international image of Hong Kong and lead to tremendous loss in GDP. The reliability of electrical supply has attained to about 99.999% in recent years. It is not affordable for Hong Kong to take any risk of less reliability in power supply during the early stage of recovery from recession. From the recent black-out records in the States and European countries, deregulation in electricity supply is still in immature stage and has plenty of room for improvement regarding reliability, tariff control and cost-effective monitoring. It is irreversible once Hong Kong has started off the journey of deregulation.

It is not wise to go for deregulation on the stake of less reliability just for the possibility of tariff reduction due to competition. There is no guarantee of tariff reduction from the experience of other cities with deregulated power supply. Instead, the government should negotiate with the two power companies for improvement in the terms of SCA, such as the mechanism of determining the reasonable rate of return and stringent measures on reducing air pollution.

Thank you for your kind attention.

Yours faithfully,

Lam Wai Sum



yim mou lam

23/04/05 11:54 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage I Consultation on future development of the electricity market.
☐ Urgent ☐ Return Receipt

Dear Sirs,

I would like to express my following comments for the above:-

1. The existing Scheme of Control arrangement of two electricity suppliers in Hong Kong should be maintained since it provides a proved mechanism to balance the electricity price and reliability of supply.

2. The existing mechanism protects the interests of majority of customers, especially the low income domestic customers. According to experiences in the opened markets of other countries, the electricity prices will fluctuate drastically and surge to a high level for low consumption customers. This may cause some social problems in Hong Kong.

3. Cancellation of Scheme of Control will deterrent the investments by the electricity suppliers. They will stop investment in their facilities and utilise their equipment/plants without surplus/contingency in order to maximise their profits. Blackout incidents in other opened markets have proved the above. The consequential loss of a blackout incident will out weight all benefits from opened market.

4. Investment in electricity market is a long term business and cannot obtain profits in short term. Scheme of Control provides incentive for the electricity suppliers to upgrade their plants and ensures a high reliability of electricity supply in Hong Kong, which is a very important infrastructure for an international financial city.

Regards,

Lam Yim Mou

"Larry CHOW"

2005/04/30 03:46 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Submissions to EDLB
☐ Urgent ☐ Return Receipt

Dear Sir,
Hereby I make my submission in relation to the first stage consultation of the future power market in Hong Kong. Please refer to attached file. Thanks.

Sincerely,
Larry Chow, Chuen-ho
Senior Lecturer, Dept of Geography
Director, Hong Kong Energy Studies Centre

Hong Kong Baptist University Submissions to EDLB.doc

Sumissions to EDLB on First-stage Consultation of Power Market

I Regarding the future regulatory framework, the most important objective is to maintain a stable and secure supply of electricity in Hong Kong. Given that many people live in high-rise buildings, when power supply is suddenly cut off, many people will get trapped in lifts. Walking up and down the high-rise buildings will make life extremely miserable. Our transportation system is also heavily dependent upon a stable supply of electricity : Imagine what the city will look like if the MTR and the KCR are not running. Further, outages will entail heavy damages to the business sector : Think about the costs if the stock market and financial markets have to stop running because of power shortages.

II. Hong Kong does not possess the conditions for deregulating the electricity market : (1). The market is small and there are two very efficient players in the field already. (2). It is unimaginable that a new company will enter the power generation business in Hong Kong and could produce power at a lower cost than the two incumbent companies since 80% of generation costs including the purchasing of the power plants and transmission equipment plus the fuels are competitively priced, i.e. set by international prices. Could the new company out-compete CLP and HEC based on the other 20% of the generation costs ? (3). Interconnecting the Hong Kong grid with the South China grid and importing power from China is not a solution, at least not in the foreseeable future. Guangdong suffers from power shortages, and it is unlikely to have surplus power for export to Hong Kong in the next 7 to 10 years. Next, even if we can get the cheap HEP from Guangxi and/or Guizhou to Hong Kong, when all the additional costs are added in, one wonders if the final electricity bill could be reduced by 10-15%. But then that might jeopardize the security of power supply in Hong Kong inasmuch as any interruption in the transmission network of Guangdong could hit the Hong Kong network. The Hong Kong citizens will have to decide whether it is worth it to have slightly cheaper power, but at reduced security of supply. (4). If a company should build a new power plant at the Pearl River Delta to supply the Hong Kong market, we should be sure that it operates at the same environmental standard as our Hong Kong power plants. We do not want to get cheaper power by polluting our compatriots across the border. Of course, if we choose this option, as in (3) above, we have to weigh carefully the benefits and costs.

III. A more practical solution is to maintain the present framework, i.e. the Scheme of Control, but amending it to close loopholes and taking into account criticisms levelled at it. For one thing, the power companies will get

penalized if it is discovered that they expand their facilities unnecessarily and wilfully. Next, the rate of return could be lowered or maintained at the present level after careful analysis of the rate of return of similar companies in Hong Kong and abroad. Impartial analysis has to be carried out in order to arrive at an objective rate which is fair to the consumers and the power companies. Some kind of mechanism has to be built in so that the companies would not be seen to be making excessive profits in periods of deflation, as witnessed in the post-1997 years, which is an eye sore for everybody.

IV. The present relatively simple regulatory structure should be maintained. The setting up of a super regulatory czar does not serve any useful purpose. Stemming from the practical approach suggested above, i.e. the keeping of the SOC but with revisions, it is natural that no new czar is needed.

V. Do not legislate in order to make the revisions to the SOC. Certain Legco members are sitting out there to stir up trouble for the SAR Government whenever and on wharever occasion they can. And then of course revisions to the SOC do not need new legislation.

VI. It is important that the SAR Government plays the role of the arbiter by balancing the interests of the small consumer and large consumer on the one hand, and the power companies on the other. It would be unseemly and inappropriate if the Government is seen to protect the interests of any one group over the others.

VII. Negotiate with the power companies in earnest next year, but note the time-frame : What would be the fall back option if the two sides could not reach agreement by the end of 2006 ? Do not “play chicken” with the power supply system of Hong Kong : We do need some kind of structure for the post-2008 electricity market. A free-for-all is simply not an option !



Lau ChiHei

2005/05/03 11:56 AM
Please respond to Lau ChiHei

To: electricitycomments@edlb.gov.hk
cc:
Subject: Energy market consultation
☐ Urgent ☐ Return Receipt

Dear Sir,

I would like to express my view on the energy market consultation.

The recent blackout incidents in US, Canada and Australia has indicated the drawback on the present deregulation trend. Of course I will be happy if the electricity rate can come down, but I am not going to sacrifice the supply reliability for it.

Besides, according to the Consultation Paper, the residential tariffs in Hong Kong are in the mid range among other international cities. I think we should carefully plan rather than rush into the risky deregulation train.

Lau ChiHei

28 April 2005

Economic Development and Labour Bureau
2/F Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sir,

Stage 1 Consultation
Future Development of The Electricity Market in Hong Kong

I write to express my personal view[1] on the current Scheme Of Control and the Electricity Market in Hong Kong.

I believe there are three distinct reasons why the Scheme Of Control should be continued in the current form. I refer them to 3 (Y)s:

- The first (Y) is simplicit(Y)
- The second (Y) is efficienc(Y)
- The third (Y) is transparenc(Y)

These attributes are material in any regulation that affects practically everyone in the society, and experience elsewhere at different points in time has found these to be the real concerns.

Simplicity in government regulation is what Hong Kong has always been proud of and guarded cautiously in past decades of its enviable growth when countries or governments elsewhere were (and some still are) looking for ways to trim down or de-regulate. How can complex regulations be reconciled with small government? How much more taxpayers or consumers have to pay for building an electricity market with a promised but not always materialized hope for a better future?

Efficiency eventually translates into customer satisfaction while lower cost alone would not. The idea is simple as quality could be at stake when goods or services are sold at suppressed pricing. In electricity supply the efficient firm that provides reliable supply at reasonable cost is what matters as the social cost of power supply failure is too dear from economic, convenience or safety perspectives. One of the power companies has earned external recognition as the top local company in regards to management systems & practices and corporate governance. One can hardly reconcile the accusation that the SOC is bad with the fact that a company operating under it has earned such high regard and prestige.

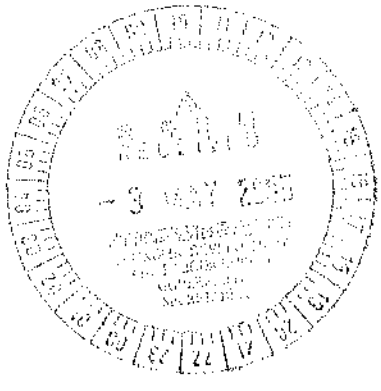
Transparency in corporate and public governance is a challenging goal for many societies. A large volume of corporate data is disclosed under the current SOC regulatory regime by both power companies in Hong Kong in their annual company reports. In addition the level of disclosure of environment performance information by CLP Power is also ranked high among international companies. It is most likely that market development and competition could only provide incentive for keeping the public and competitors away from corporate information to the maximum allowable extent.

It is agreed that from time to time there should be a policy review to see if better model of regulation is available elsewhere and that is the objective of the current review. But we should also be frank with ourselves and be pragmatic enough to acknowledge that the virtues others desired have already existed here and the mistakes others have made are those we do not wish to repeat. As a continuous improvement process, there will be some areas in the existing regulatory regime where fine-tuning is possible but it would be unwise to think that radical change is the one and only solution.

Yours sincerely,

LAU Chi-sing

Note[1]: the writer of this letter is an employee of one of the power companies but all opinions expressed here is his own.



Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road,
Central,
Hong Kong.

Dear Sirs,

Consultation Paper on Future Development of the Electricity Market in Hong Kong - Stage I Consultation

As a citizen of Hong Kong, I would like to provide my views on future development of the electricity market in Hong Kong as below:

1. Scheme of Control (SoC) and 15% Permitted Return should be maintained

My parents live in a rural village of Mui Wo. They got electricity supply about 20 years ago. Without SoC, they would never be able to have electricity supply as no electricity company would be willing to do such non-profit business.

A recent Government's survey found that electricity accounts for only 1.7% of monthly household expenditure in Hong Kong. It is much lower than in many countries including China. The tariff is affordable and very reasonable.

In recent years, Hong Kong has suffered from serious economic downturn. My parents and me could still enjoy 6 tariff rebates from CLP Power even though the fuel cost has been increasing significantly. In fact, the average cost of electricity has fallen 37% in real terms since 1983. It is not only the effective cost control by the power company but also the success of SoC.

Under SoC, 100% of electricity investments in Hong Kong are funded privately. Neither the Government nor the taxpayers are required to fund the two power companies. Electricity investments are costly and have long asset lives of several decades. Returns need to reflect the long-term and substantial nature of electricity, and should not be linked by short-term economic fluctuations such as inflation rate or deflation rate. Without a reasonable return, it is impossible to attract private investments. Moreover, the capital investments by the power companies are carefully monitored by EMSD and EDLB both technically and financially. SoC has a very tight control to avoid over investment.

Therefore, the existing SoC should be maintained and the 15% permitted return is reasonable in order to attract continuous investments.

2. *Not support open market or power import from China as supply reliability is the prime concern*

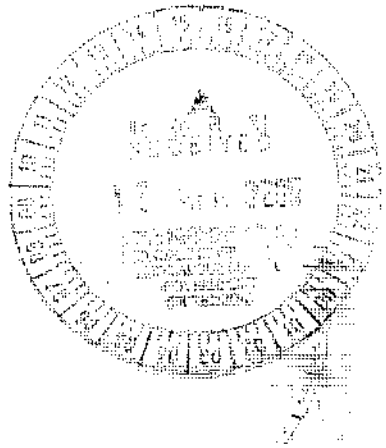
Open market can bring a short-term tariff reduction in some cities but it is in doubt in a small city like Hong Kong. However, we have already seen the harms of open market from the recent serious blackouts in North America and Italy. It is difficult to identify the underlying causes of these blackouts, and even harder to prevent them from happening again.

Power import from China is undesirable. Their lack of sufficient power generation and poorer grid reliability cannot meet our high reliability requirement.

The supply reliability of Hong Kong is over 99.99%. Over the past 40 years, the electricity demand of Hong Kong increased over 20 times but there was no deficiency of electricity. Hong Kong is a densely populated city. World-class supply reliability is critically important to each citizen. The experience in open market is painful in many countries. Hong Kong should not risk this happening, as the possible benefits (if any) are not worth the probable cost.

Yours faithfully,

Lau Chor Man



Example 3

To *EDLB*

Everyone said that we could have cheaper electricity from China. But can China supply us the electricity? I don't think so. On the other hand, we may suffer high risk of blackout because of the insufficient power when the power grid links up with China. As the existing power companies can supply us a reliable electricity at a reasonable price, I support not changing the existing Scheme of Control arrangement.

(Name) LAU KAM WING

"ngai yau ki"

05/03/05 09:59 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Views and Comments on the "Future Development of the Electricity Market in Ho
☐ Urgent ☐ Return Receipt

My views and comments on the "Future Development of the Electricity Market in Hong Kong" are:

(1) Incentives should be provided to local electricity companies to generate part of electricity (even in small amount) with environmental friendly means such as solar cell and refuse burning.

(2) It is not necessary to change the present control scheme between government and local electricity companies. Comparing the high cost of living in Hong Kong, local electricity bill is low and not high. A modern society such as Hong Kong relies very much on high reliability of electricity supply so that there is no disruption in our daily operation (e.g. computer keep running and escalator keep running in offices, hotels).

Law Yuk Chun

2005/04/30 07:42 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場未來的發展 - 第一階段諮詢文件
☐ Urgent ☐ Return Receipt

香港電力市場未來的發展
第一階段諮詢文件

本人就上述諮詢的意見如下:

1. 正如第一階段諮詢文件所說，可靠的電力供應對本港的經濟及財經商業活動甚爲重要。 本港現時的供電可靠性極高亦是香港作爲國際金融中心的重要支柱。

2. 本人認爲本港的電力收費合理。 若能衡量"高度供電可靠性"對香港經濟的貢獻，相信電費可算是便宜。

3. 現行的規管機制已從實踐中證明是一個能在合理收費下，確保高度供電可靠性的良好機制，因此應予以保留。

4. 再者，若開放電力市場引入多個供電商，供電可靠性必然會降低。其理如下：

供電可靠性是供電各個環節的設計、運作、管理及緊急應變的"綜合結果"。 這即是說某一年度的供電可靠性是所有市場參與者在這年度的綜合成績。 因此一間對整體供電可靠性貢獻大的優良供電商是不會爲市場賞識而獲得任何額外回報；反而會因其貢獻大令其成本較高，最終會被市場其它貢獻小而成本小的供電商所淘汰。 這亦是典型"劣幣驅逐良幣"的例子。 因此電力市場留下的只會是對供電可靠性貢獻小的供電商而令供電可靠性降低。

近年外國不少停電事故亦能引證開放市場會降低供電可靠性的事實。

5. 總括而言，維持現有的規管機制最能符合香港的整體利益。

Lawrence Tsang

"Siu Sing Lawrence Lam"

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments to the Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

2005/04/30 02:32 PM

Dear sirs/madams,

Regarding the Stage I Consultation Paper, my view is that the existing SCA should be maintained. Though it 'seems' that the electricity tariff is 'high', it has been proved to be a good scheme to ensure the required high availability and service level.

Indeed, both the electricity companies and the Government do not need to pay a lot of money as the overheads for the existing SCA, therefore, most of what we paid go to the establishment of the electricity infra-structure and of course go to the profit of the electricity companies.

If we consider that the profit margin of the electricity companies is too high, we can negotiate with them to come up with an acceptable profit cap. On the other hand, we as well as HKSAR, can become one of the shareholders of the electricity companies to enjoy the profit they earned.

Lowering the tariff is good but the increase in the overheads for the monitoring or if it is at the expense of the reliability, availability and overall level of services are not of any attraction to me.

Hong Kong is a typical commercial city, we should keep the city running under the standard rules of game for a commercial world, it is not sensible for us to wish business men to run their business like a welfare organisation but rather we should keep a balance of interest among all parties.

Indeed, as the existing SCA is running healthily, I can see no point to introduce great change to it especially the fundamental of the systems.

I hope the Government can carefully evaluate the interest of the community before doing anything great to introduce changes that may only benefit a small portion of the community while all of us need to pay for it.

Thanks,

Lawrence

香港电力市場的未来发展第一階段諮詢文件

本人不希望香港电力市場有所变動。本人不想香港变成那些出名的大城市，需有高科技但卻有嚴重的电力危机，像幾年前有大停电。在現今的香港是不能承受這麼嚴重的經濟打擊。

雖然有新競爭者的加入，有可能減價，但那是「有可能」不是「一定」，而且本人覺得电力的穩定可靠性最為重要。因此，新的競爭者和新的技術未必適合香港。本人總結不要作任何改变。

此致

LEE SIU KIEN

李燒堅

To: The Economic Development and Labour Bureau
By Facsimile, Fax No. 2868 4679

Comments On The Stage I Consultation Paper

In Hong Kong many people think that they will enjoy a lower electricity price if open market in electricity industry and increased interconnection between the two supply companies are introduced in Hong Kong. Is it is the truth?? I think the Government would fully know that it is simply not.

Learning lessons from the recent major blackouts in North America and Europe, we all know that deregulation has more risks and uncertainties than benefits. Following the deregulation, incentive for investment will definitely be sacrificed. Cascading effect and dynamic instability within the interconnected network increase risks to supply reliability. Many states in the US, Ontario, Korea, Taiwan, Malaysia, etc. have suspended or reviewed their deregulation processes.

I opine that the current SCA with the two power companies should be continued. Also I strongly urge that Hong Kong Government should proactively educate people and let them know the facts for avoidance of disastrous result due to misleading information and politicized activities.

Lee

Lee Siu Chun

"tclee11f"

28/04/05 10:11 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views and Commets on Stage 1 Consultation Paper
☐ Urgent ☐ Return Receipt

To: Economic Development and Labour Bureau

Views

Hong Kong is an international financial centre, the success of which is attributable to having safe, reliable and adequate supply systems while the tariffs are reasonable and affordable to customers. The SCA encouraged power company to invest in power industry to provide reliable and quality services.

Comments

The current SCA has proved to be working very well and also met all the policy objectives mentioned in the consulation paper. I strongly request Government to maintain the current SCA regulation after 2008.

LEE TAK CHUNG

Lee WP

25/04/05 04:04 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage 1 Consultation on Future Development of Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

To EDLB

There were blackouts in US, Canada and Europe in the recent years. It is lucky that Hong Kong has a highly reliable electricity supply under the recent SCA and never experience such blackout. I hope that there will be no blackout in Hong Kong forever since it will damage the Hong Kong's image as a first class international metropolitan city. Besides, the electricity price is found reasonable in comparison with the big cities in the world. As the recent SCA works well, I opine that the current form of SCA shall be maintained after 2008

Lee Wang Pok

"jfwhl"

28/04/05 11:53 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments On The Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

To: The Economic Development and Labour Bureau

Comments On The Stage I Consultation Paper

People in Hong Kong are enjoying a very reliable electricity supply and the current regulatory arrangement in electricity market in Hong Kong has proved its value for many years. For meeting the ever growing demand, maintaining supply reliability and improving environmental performance, continuous investments are of most importance.

The objectives for open market and deregulation are for a lower price electricity supply. But lessons from other economies have indicated that introducing more players into the electricity market can do more harm than good. Lower supply reliability and price fluctuations could be the outcome.

In considering that the cost of electricity to households accounts for less than 2% of the household expenditure, to further lower the price of electricity will definitely not improve the quality of our life. Abandoning the current regulatory arrangement shall mean "a little gain for a big- big pain". I therefore opine that the current regulatory arrangement must be maintained.

Lee Wing Ho

Mr. Stephen Ip
Secretary for Economic Development and Labour
Hong Kong SAR Government
Central Government Office
Lower Albert Road, Central
Hong Kong

Dear Mr. Ip,

Response to Public Consultation
Electricity Supply for Hong Kong

I am writing to respond to the consultation document which outlines the options and issues for discussion on the subject of future regulatory regime for Hong Kong's electricity supply industry.

I live on the Hong Kong Island and work in Kowloon. As such I am receiving electricity services from both the 2 power companies. I am now paying electricity charge to Hong Kong Electric. Through newspapers I come to realize that HKE's charge is about 20% more than China Light. I found it is not reasonable but my friends in the States and Europe told me that this is not uncommon because consumers residing in different regions or districts may have to pay different tariffs.

Of course being a consumer I very much would like to get lower tariff so that I could save money. But I would have great concern about getting lower electricity bill at the expense of having poor reliability of supply. So far I am quite satisfied with the quality of service provided by the 2 power companies.

My job requires me quite often traveling across the border and meeting our business partners who own and operate production factories in Dongguan and Shenzhen. Over the last couple of months they have been complaining about severe shortage of supply there, and that have caused them a lot of problems. Production schedules have been seriously delayed and therefore not meeting delivery deadlines. In order not to lose business orders they have to install diesel generators to make up electricity supply shortfall (but sometimes have to totally rely on these generators). They told me that the cost of producing one unit of electricity with this method was about one dollar fifty fens. Even worst was that they were very desperate to see that black smokes

coming from the chimneys of the generators but they have no choice.

I know the tariff in Hong Kong is not cheap, but I doubt we could rely on power supply from Guangdong. The recent news about plans to import power from the Chinese generation companies made me feel nervous. I would rather prefer to pay a bit more so that I could feel rest assured that I could get the reliable electricity supply with cleaner air quality in this Pearl River Delta Region.

I would suggest that the government should not take a short term view on the subject. We in Hong Kong cannot compete with PRD with cheap costs because we are in a world class city. Our competitive advantage is our quality of services and talented people. I am sure the government can find ways to improve the current scheme, but please do not change it for the sake of changing it.

Your sincerely,

LEUNG CHAN LIN TAI
April 23, 2005

RECEIVED
28 APR 2005
BY:

Economic Development and Labour Bureau
2/F., Central Government Offices,
Main & East Wings,
Lower Albert Road,
Central,
Hong Kong

22nd April 2005

To who may concern

VIEWS ON STAGE 1 CONSULTATION PAPER

Having read your Stage 1 Consultation Paper, I would like to express my views on the post-2008 regulatory framework of the electricity market in Hong Kong.

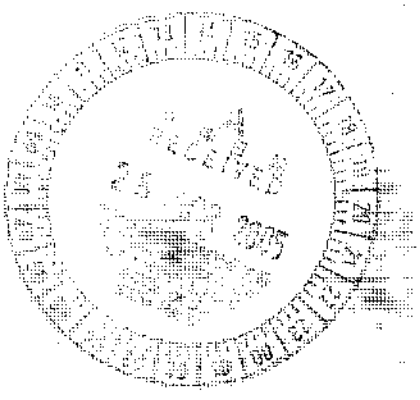
Hong Kong is an international cultural and financial center, reliable electricity supply is important. As I know, there are a lot of countries suffered from blackouts and outages due to poor planning. So, we are lucky in Hong Kong as we enjoy secured electricity supply provided by both Hongkong Electric and CLP Power.

We want reliable electricity supply with an affordable price. In accordance with the Consultation Paper, the residential tariffs in Hong Kong are in the mid range among other international cities. I think we are paying a reasonable and acceptable price.

In conclusion, I think the SCA should be kept in its current form to the greatest extent possible.

Yours faithfully,

Leung Chi Wai



"Samuel Leung"

2005/04/30 11:39 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Recommendations to the future development of electricity market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir/Madam

I would like to submit my recommendations to the future development of electricity market in Hong Kong as attached in the word document "HKFutureElectricityMarket.doc". Please acknowledge the receipt of my document if you can do so.

Yours faithfully

Leung Wai Cheong Samuel
BEng(Hons) MSc MIEE



HKFutureElectricityMarket.doc

Economic Development and Labour Bureau
2F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong
Email: electricitycomments@edlb.gov.hk

30 April 2005

Dear Sir/Madam

Being an electrical and electronic engineering professional, I would like to express my viewpoints on the future development of the electricity market in Hong Kong. My opinions will be arranged in a question and answer format as below.

What would be the consequences if Hong Kong faces with a major electricity blackout?

Hong Kong is a modern densely populated financial city and possesses of numerous high-rises, which rely very much on the stability of electricity power supply. Any unexpected disturbance of electricity supply would cause catastrophic incidents such as lifts malfunction with passengers trapped, loss of water supply, communication, fire fighting system, air ventilation, lightings and lives supporting equipment. Facilities rely on electricity will run out of control and come to a standstill, such as traffic lights, highway lights, railways, tramways, peak trams, sky/sea traffic control and MTR. The situation would be even worse in hazardous coincidence such as fire or bad weather. Not just mentioning economic losses but most importantly, many lives will be under risks. This scenario is talking about tens of hundreds of skyscraper buildings and facilities around the city. Therefore reliability and stability of electricity power supply is utmost important for a modern and densely populated city like Hong Kong. We cannot afford such a risk of electricity blackout no matter it is minor or just once.

From this reliable electricity supplies point of view, I would like to express my view points towards this consultation paper on future development of the electricity market. This consultation will not just affect my household but many lives and economic operations for the future of Hong Kong deep and far.

Can interconnected electricity suppliers and networks increase reliability?

As an honest citizen of Hong Kong I do not believe an open electricity market will improve the stability and reliability of electricity supply. Recent major incidents of electricity blackout in North America (14-Aug-2003 Canada-US Border), Australia (14-Dec-2004 Brisbane) and Europe (28-Oct-2003 Italy as well as parts of Switzerland and Austria) have given us important insights into the consequence of complex interconnected electrical networks from multiple electricity suppliers. Electricity is a very specialised topic, unlike telephone lines, and its dynamic behaviour must be studied, verified and controlled carefully before connections can be made. Once a disturbance occurred in an electricity network, no matter it was small or big, it could develop into an uncontrollable dynamic energy which could propagate, damage equipments along, causing fire/explosion and finally leading a massive blackout within a short time. Very specialised computer simulation of electricity networks with dynamic input from multiple interconnections is a possible way for verifying the conditions under major incidents such as power surge, equipment disruption, cables fault, sub-station malfunction or power plant failure. Before additional electricity suppliers make any changes into the existing network, these suppliers must provide such strong support evidence. Not just theoretical statements or consultancy reports but also

physical data, they would not inject instability factors into the existing power networks, although they might claim their ability of cheaper electricity supply.

On Sunday 28th October 2003, 57 million people across Italy as well as parts of Switzerland and Austria were plunged into darkness for several hours. As night fell, residents in major cities in Southern Italy were still without electricity. In Scandinavia, five million residents in Denmark and Sweden were without electricity on 23rd September for over four hours. The rush hour blackouts, which affected four million people in London on 28th August and 50 million people on the East coast of America on 14th August exactly two weeks earlier, were presumed to be isolated incidents.

What environmental issues that we have to consider?

Everyone in Hong Kong is asking for a cheaper electricity tariff. No pain makes no gain, some form of costs we have to pay if they are justified. The existing and future market players must satisfy a set of operation rules which regulate their operations to meet the environmental standard as set out by the Environment Department of the HKSAR Government. These requirements should be imposed even the suppliers operate inside or outside the border of Hong Kong. To be fair for the local market players as well as the residents in the Mainland, we should not encourage the use of dirty power coming into Hong Kong even it is much cheaper. Pollutants such as gas, solid, liquid or heat discharges are very much concerned by everyone in everywhere, the government has the obligation to understand as well as regulate the electricity supplier in these aspects. The market players should commit themselves for meeting the acceptable pollution level no matter who or where they are when their electricity is consumed in the Hong Kong territories.

Can additional electricity cables, equipments or even power stations be built in a densely populated city like Hong Kong?

Unlike other countries, Hong Kong is a tiny place. The capacity of land resources for additional cables, equipments and substations will be very difficult to be allocated to the new market players. A new power station built in the territories of Hong Kong will cause very much concerns and criticism in environmental deterioration and resources wastage. The only power sources option may be imported from the nearby Mainland China. The main problem goes back to power transmission. No one will welcome traffic congestion, noise or dust everywhere because of prolonged road works for laying electricity cables. We had suffered enough from railway construction for years. If we opt for the mode of open grid access, however, the power networks were not designed for open grid access in legal and technical terms. Disputes among market players for their rights of ownership as well as technical risk of cables damage will arise when power exchange introduces the third player. As a citizen of Hong Kong, I may suffer from higher risk of power supply and uncertain tariff. For every power interruption, I may worry about my children whether they may have trapped in the lift or had a road accident because of traffic lights blackout. A few weeks ago, a CEO of a potential company claimed that they could supply power from the Mainland through the power system within KCR. I think they had assumed an ideal case of no technical fault anywhere because the requirements of a genuine power supply network is much more sophisticated than a railway power network system needs.

Will a newly established electricity supplier be reliable?
How can the reliability of those new electricity companies be guaranteed?
How can we judge their abilities and commitments by qualifications, experiences?
What basis of criteria will be used to accept the new electricity companies?
Can these companies provide their operational data from their reliability, cost control and environment control records?

Personally I have many doubts about the reliability of the new market player if they have not been operating in the electricity markets for at least last three years. Talking about million lives of peoples in Hong Kong and being an international financial hub with tens of billions dollars worth of economic activities, we have to be prudent in making such a decision. The HKSAR Government and the faulty market player will be the ones to face with tremendous criticism if a mistake is made in this regard. No one can guarantee a newly established power station can provide at least 99.99% or even 99.999% reliable electricity supply unless they have tested and run satisfactorily at an international acceptable level of reliability records. This principle applies exactly the same to new cables, equipments, transformers or substations.

How can we solve the disputes and liability among market players if accident happens and causes damages?

The only ways to resolve these kinds of disputes are through legal agreements among market players and compensations as required. Preparation for these legal documents should be proceeded well before new market players exist in the future.

Will the prices drop if new electricity companies operate in Hong Kong?

From the experiences of most western companies that they have opened their electricity market, the prices would fluctuate and did not appear a cheaper tariff.

Will job opportunities appear if new electricity companies supply electricity to Hong Kong?

I noted a report from the *Guardian* newspaper, which might give you some insights.

28-Aug-2003 London UK, according to the *Guardian* newspaper, National Grid Transco (NGT) was accused by an unnamed professor who acted as an adviser to the company of "smugly" putting profits before investment and sacking 60 percent of its engineering staff to satisfy demands from shareholders.

What will be the major criticisms if things go wrong?

a) Damage to the environment in Hong Kong because of unnecessary construction works, pollutions from additional power plants and laying cables.
b) Lack of fairness to every market player and affect jobs opportunities to their employees.
c) Shortsighted for short-term benefits unable to fight for long-term benefits for the Hong Kong peoples.
d) Any incidents occur, all arrowheads will point to the HKSAR Government by the public, media, and market players because she overlooks holes in the regulatory control.
e) Level of electricity tariff is still known if additional market players are introduction. Risk of fluctuating electricity prices will cause even acute criticism to the Government.

Conclusion: my personal recommendations.

Every household and business in Hong Kong would expect a stable electricity supply and reasonable tariff. A cheaper tariff would be welcomed provided that it would not sacrifice our environment, electricity stability, business activities and economic reputation of Hong Kong.

I think the electricity market is not mature enough for the introduction of new market players. Highly potential and qualified new market players are not around. Our facilities, infrastructure and legal preparations are not ready for such a change.

We should not trust without physical evidence and operational data the new market player can fulfill their commitments. Hong Kong should not take such a risk.

Hong Kong is a tiny and highly populated city. Open grid access may be a suitable option but good preparations must be ready first. Instead of enforcing the grid access in 2008 or thereafter, ten years future planning for open grid access at legal and technical levels should commence.

Instead of introducing any new market players and bearing more risks, the Government should negotiate with the existing players and achieve a balance situation, which is beneficial to the peoples, investors, players and Government in Hong Kong as a whole.

Finally I thank the HKSAR Government for giving me this opportunity to express my views. Should you have any queries, I would be available for providing further information.

Yours faithfully

Samuel Leung

Leung Wai Cheong Samuel
BEng(Hons) MSc MIEE

"W.H.Leung"

28/04/05 11:19 PM

To: <electricitycomments@edlb.gov.hk>
cc: "W.H. Leung"
Subject: Stage I Consultation On Future Development Of The Electricity Market In HK
☐ Urgent ☐ Return Receipt

Dear Sirs,

After studying on the above subject, I would like to comment as follows :

The SCA should be maintained after 2008 to provide good reliability of Electricity Supply. Reliable Electricity Supply is the most important not only to the business operation but as well as to our daily life. Imagine the consequency if the BLACKOUT occured in HK--- no lift, no lights, no water, no A/C, no TV.....etc.

Based on the past history in HK, the SCA will avoid the BLACKOUT as occured overseas. One of the example is the US-Canada blackout in 2003 as a result of deregulated market due to insufficient investment in power industry.

On the other hand, new supply source is not feasible. Even if we can get the electricity supply from China, it will involve high cost of investment on the power plant and distribution net work that will certainly cannot reduce the tariff. According to the consultation paper, the residential tariff in HK are in the mid-range among other international cities. To pay for a little bit more to ensure the reliability is totally acceptable.

Based on the above, I think we should extend the SCA after 2008 until we can find a better way to reduce the tariff and maintain the high reliability supply.

Thanks for your attention.

Leung Wai Hung

yf Leung

19/04/05 02:48 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage I Consultation on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

To: Economic Development and Labour Bureau,
Hong Kong SAR Government

Comments on Stage I Consultation on Future Development of the Electricity Market in Hong Kong

I opine that the current Scheme of Control Agreement with the two power companies should be continued after 2008. The new agreement should also be 15 years but the details such as maximum percentage of permitted return and the interim reviews should be agreed according to the current economic and social circumstances in Hong Kong. More flexibility should be built in the new agreement as circumstances may vary greatly in the period of 15 years.

I also consider there should be provisions in the new agreement that electricity tariff could be adjusted either up or down according to the economic situations in Hong Kong. The reliability of electricity supply should be maintained at world class level around 99.997% to cope with the need of Hong Kong as a world finance centre.

LEUNG Yiu Fai
Phone

Yun Cheung Leung

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage I Consultation Paper for Scheme of Control in Hong Kong
☐ Urgent ☐ Return Receipt

2005/04/30 10:49 AM

Dear Sir,

In Hong Kong, the occurrence of blackouts is very rare. The Scheme of Control Agreement (SCA) is certainly ensured a reliable electricity supply in Hong Kong.

Being as an international financial center in Hong Kong, stable and reliable electricity supply is very important. The SCA is a good way to maintain the electricity supply stability in Hong Kong. Past experience revealed that deregulation in electricity market not only cannot bring us advantages to customers but also it brings us lots of serious blackouts, like California and U.S. -Canada blackout in 2003.

Summing up from the above, I think the present SCA is the most appropriate way to maintain the stability of electricity supply in Hong Kong. I don't see any other method is better than the current SCA.

Thank you for your attention,

Leung Yun Cheung
30/4/2005

Economic Development and Labour Bureau,
2/F., Central Government Offices,
Main & East Wing,
Lower Albert Road,
Central,
Hong Kong.

Dear Sir,

Stage 1 Consultation
Consultation Paper on Future Development
of The Electricity Market in Hong Kong

I have read the above Consultation Paper and wish to express my following views for your serious consideration.

1. Importance of Having a Reliable and Stable Electricity Supply For Hong Kong

Being an international city and a financial centre in the world, every activity in Hong Kong, no matter financial, economic and social, relies heavily on reliable and stable electricity supply. The first class electricity supply has been the prime supporter to the economic growth and improvement of quality of life of people in Hong Kong.

Blackout incidents overseas gave alarming lessons that fully de-regulated electricity market would sooner or later lead to disasters in which the economy of the country or city was greatly impaired, in particular for cities heavily relied on import of electricity. This is the thing that Hong Kong cannot afford to have, otherwise it could not maintain its competitiveness with neighbouring cities.

/..... 2

2. Reasonableness of The Price of Electricity in Hong Kong

As indicated on the table of Residential Tariff of Major Cities in the Consultation Paper, the current two market players, namely CLP Power and Hongkong Electric, provide not only reliable supply but at a cheaper prices than those in some international cities. Again the quality services provided by the current 2 market players are excellent. They are offering quality supply and quality services at no premium at all to people of Hong Kong. Afterall, the percentage outlay on electricity charge is very low on all sectors, in particular for domestic.

3. Responsibility Towards Environmental Protection of Hong Kong

Due to power shortage in the Pearl River Delta, generators at lower efficiency but higher pollution level are run continuously, being one of the reasons that Hong Kong cannot have a blue sky. The current 2 market players have been improving their machines to give less and less pollutants. If electricity is imported from mainland, large scale pollution will also be imported as a by-product. The additional social costs incurred by higher pollution are tremendous. At the end, people of Hong Kong will bear a higher total cost.

4. Regulatory Arrangement For Market Players in Hong Kong

The current arrangement – namely Scheme of Control Arrangement, with the 2 market players has been proved every successful in providing customers in Hong Kong a reliable and stable supply and quality services at a reasonable price. Electricity supply industry needs vast and long term investment. The Scheme of Control Arrangement provides an incentive to the market players to install necessary equipment to cater for the community need. The reliability and stability of electricity supply cannot be achieved without proper investment on the generation and transmission and distribution networks. The current government regulator body has done an excellent job in making sure that the 2 market players do not over-invest. Legislative regulation makes things worse as the issue will be politicalized and the whole Hong Kong community will suffer at the end.

/..... 3

5. Conclusion

It is concluded that in Hong Kong:

5.1 a reliable and stable supply is very important;

5.2 the current 2 market players offer reliable and stable supply as well as quality services at a reasonable price;

5.3 reliance on import from external electricity suppliers, in particular from areas with power shortage, can lead to blackout disasters sooner or later, with more pollution to Hong Kong at all time;

5.4 the current Scheme of Control Arrangement has provided a balance for all parties in Hong Kong; and

5.5 the current regulatory mechanism is most effective in balancing the needs of all parties in Hong Kong.

6. Recommendation

It is recommended to keep the same Scheme of Control Arrangement with the same regulatory mechanism.

Yours sincerely,

LI KWONG WING

Sau Fan Luk

22/04/05 12:05 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: 穩定和可靠的電力供應最爲重要
☐ Urgent ☐ Return Receipt

星期日港島區的短暫斷電，已爲很多市民帶來不便。所以，電力供應的可靠和穩定性是十分重要，與我們日常生活息息相關。我想普羅大眾都希望日常生活和工作如常，不受停電影響。

現時兩間電力公司的運作相當可靠，因此，我認爲現時的 “管制計劃協議” 在2008年屆滿後，應繼續執行。

Lily Luk.



26/04/2005 00:11

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
Urgent Return Receipt

realname: Linus Fu

subject: Future Development of Electricity Market

Enquiry: A reliable electricity supply is vital to the success of an economy, in particular, for Hong Kong which is an international financial city. In fact, we are enjoying a reliable supply over the years which I cannot see the reason to change.

The incidents in Canada and California well illustrated the disadvantage of an open electriciy market. It is really risky to open the electricity makret. Could any decision maker shoulder the consequences of unstable electricity supply after opening the market? I enjoy the good services from the electricity companies. The lower the price after opening the market, the poorer the services we can enjoy. That\'s our experience from the open telecommunication market!

All in all, the electricity expenditure only costs 2% of the household income which is very insignificant. I believe that the cost of changing to an open electricity market is high and unmeasurable. With so many bad examples of an open electricity market and the good services and stability we currently enjoy, I strongly suggest to maintain the running of electricity market by the two electricity companies.

By Fax

To: The Economic Development and Labour Bureau
Hong Kong SAR Government

Comments on the Stage 1 Consultation Paper

Hong Kong' success as an international financial centre is by no means just pure luck but by the efforts put in through various essential sectors of the community. The electricity supply industry under the SCA is definitely one of them. The SCA has proved to be an effective means to encourage adequate investment in the electricity supply industry without which their high supply reliability figures would not have been achieved.

In consideration of the importance of a reliable and yet affordable electricity supply to allow Hong Kong to continue to prosper, I strongly urge the Government to keep the current SCA. Never give up the good framework that we now possess and is serving the best interest of Hong Kong.

Lo Bo Wai

29 April 2005

To: Economic Development & Labour Bureau
The HKSAR Government
(Fax. No. 28684679)

Dear Sirs,

Comment on Government's Consultation
on Post-2008 Electricity Regulation

In my opinion, the existing Scheme of Control arrangement for both CLP and HEC are operating quite smoothly with a high reliability of power supply to the customers. I consider that the electricity tariff charged by CLP/HEC are affordable. If the rate of return for the power companies are reduced, they will definitely reduce their capital investment on equipment renewal/maintenance and reliability of our power supply will be jeopardized. Therefore, I fully support the extension of the existing Scheme of Control for post-2008.

Yours faithfully

Lo Chi Hang Joseph

20th April 2005

Economic Development and Labour Bureau,
2/F., Central Government Offices, Main & East Wings,
Lower Albert Road,
Central,
Hong Kong.

Dear Sir,

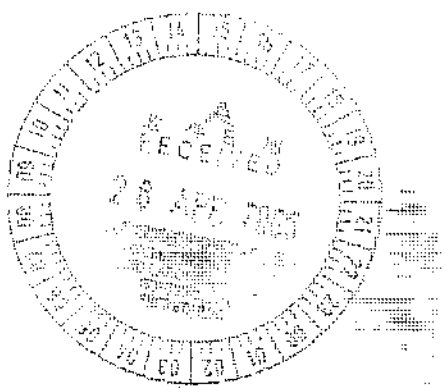
I would like to maintain the status quo of HK electricity market and the existing form of SCA after 2008.

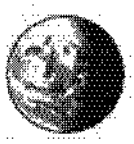
Both Hongkong Electric & CLP provide excellent customer services. I am happy with their existing price and services.

I would like to keep SCA whatever it is now.

Your faithfully,

LO CHING OI





"kho"

26/04/05 06:27 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: To Express My Views & Comments On Stage I Consultation On Future Development Of The Electricity Market In Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir,

After finished reading the Stage I Consultation Paper, I would like to send in my comments listed below:-

My family and I, living in Hong Kong Island for more than thirty years, being a part-time investor in the shares market in Hong Kong, rely on good and reliable electricity supply just as all the others living in HK. As you know, Hong Kong is the most famous international financial city in the world, best services provided and reliability supply from each utility companies will be most important to us for maintaining and upgrading our present living standard.

Further to the Stage I Consultation on Future Development of the Electricity Market in Hong Kong, it comes to my notice from the HKSAR' s Consultation Paper, the residential tariffs in Hong Kong is the middle range among other international cities and we pay around HK$12 a day for electricity, (my family size is 5 persons include me and living in a 880 sq feet unit) compared with other expenses which is much less than transportation fee or even a breakfast, so I think we are paying an acceptable and reasonable price.

In my personal view on electricity tariff, if it is NOT at the expense of a less reliable supply, it will be welcomed if the electricity rate can go down a little bit, whereas, I can' t imagine if there is suddenly no electricity supply and there will be no lift (especially Hong Kong is a famous place to have the most largest numbers of tall buildings in the world!!!), no lights, no water, no air-conditioning, no refrigerator, no TV, no internet, it' s so terrible, especially how can I put my lovely children to bed without air-conditioning!

I would like to maintain the present regulatory system as the present tariff is affordable to us while reliability of supply and customer services of electricity supply serves me quite good.

Yours faithfully,

Luk Ivy

SH Luk

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage 1 Consulation Paper
☐ Urgent ☐ Return Receipt

2005/04/30 10:28 PM

The electricity supply in Hong Kong is highly reliable. I have never experienced an unplanned disruption of electricity supply. The electricity bill is far below the transportation expenses of my family and is totally affordable. All the above merits should be contributed by the current SCA between the Hong Kong Government and the two power companies.

The two power companies are privately owned. If there is no SCA, the power companies will not continuously invest on the power system in order to maintain the highly reliable and safe electricity supply and improvement on the environment.

Legislation on the electricity market in Hong Kong will be a nightmare. The SCA has been running successfully for years and shall be maintained in future.

Luk Sau Hoi

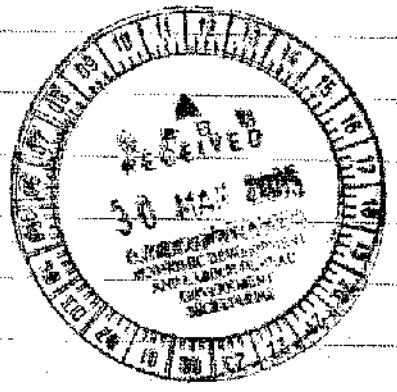
電力市場未來發展

以專家之意見，開放電力市場方一定好，但將有多家電力公司，一遇有颱風時，就像電話通訊系統發生故障時，連一間承擔問題之公司亦沒有。

如此，即在電力市場越改越走下坡。

此致

葉局長



請 三思！

LUM CHI TAK

敬啓者:

我們乃中華電力公司的電力客戶,對於香港未來電力市場的發展欲提供以下意見:

1. 作爲香港市民,我們雖然期望能享用低廉的電價,但首要的條件一定是要能維持充足及可靠的電力系統、好的服務水準及承諾;

2. 香港的經濟及社會發展有賴於安全及可靠的電力供應,清晰的權責至關重要,若一旦電力系統出現問題時,必須要有肯承擔的機構來向政府及公眾負責;

3. 香港擁有國際水平的電力供應,有賴於現行行之有效的制度,本人認爲無須刻意爲改變而改變;

4. 一間營運效率高而且將資金運用得宜的電力公司,是香港市民所願意接受的,而中華電力所提供的,正是此種通過提升生產力及節約成本,保証客戶享有最符合成本效益的供電服務;

5. 作爲用電客戶,我們期望的是能有源源不絕、穩定的電力供應,並隨時滿足我們的需求,香港目前享有世界級的供電力服務,將有亦應如此。

以上是我們對香港電力市場的發展提出的意見,望起參考作用。

此致

經濟發展及勞工局

For and on behalf of
龍山業權發展有限公司
LUNG HILL REALTY RESOURCE COMPANY LIMITED
中華電力公司客戶
Authorized Signature(s)

敬啓者:

我們是中華電力的用戶,對於香港電力市場未來的發展欲提供以下意見:

1. 現行的電力供應制度行之已久且有效,符合香港市民的需求,我們覺得無需刻意爲改變而改變,若然要改變現行的制度,必須維持現有的供電質素及清楚界定不同參與者的責任及釐定他們的問責角色;

2. 部份客戶從個人利益出發,要求電價愈低愈好,不過,不同的客戶有不同的觀點,但如果不能維持充足、可靠的電力系統及現有的服務水準及承諾,相信更低的價格也不能取代主流市民的意願;

3. 香港的經濟及社會發展有賴安全及可靠的電力供應,我們期望的電力供應不僅要源源不絕,避免中斷,還要隨時能滿足我們的需求,香港一直享有世界級的供電服務,將來亦應如此;

4. 環保是香港電力供應商要承擔的重要責任之一,以環保的原則營運,採取開放的態度,履行對社會的承諾,以客戶爲先,並將相關資料公開。

5. 電力行業涉及長遠及龐大的資金投資,只有提供了足夠吸引力的回報,才能反映電力投資的特質,這樣才能確保私人資金持續不斷的投入;

6. 中電的電價自1998年以來已維持不變，期間更爲客戶提供了6次的電費回扣，香港市民以合理及可負擔的電價享用可靠程度甚高的電力供應，價格較世界上一些大城市更便宜；

7. 一間營運效率高而且將資金運用得宜的電力公司，是香港市民所願意接受的，而中華電力所提供的，正是此種通過提升生產力及節約成本，保証客戶享有最符合成本效益的供電服務。

以上數點乃我們對香港電力市場未來的發展而提供的意見，祈望政府有關機構慎重考慮。謝謝！

此致

經濟發展及勞工局

For and on behalf of 代表公司客戶
龍開實業發展有限公司
LUNG KAI MASS DEVELOPMENT LIMITED

.....
Authorized Signature(s)

敬啓者:

我們乃中華電力公司的電力客戶,對於香港未來電力市場的發展欲提供以下意見:

1. 作爲香港市民,我們雖然期望能享用低廉的電價,但首要的條件一定是要能維持充足及可靠的電力系統、好的服務水準及承諾;

2. 香港的經濟及社會發展有賴於安全及可靠的電力供應,清晰的權責至關重要,若一旦電力系統出現問題時,必須要有肯承擔的機構來向政府及公眾負責;

3. 香港擁有國際水平的電力供應,有賴於現行行之有效的制度,本人認爲無須刻意爲改變而改變;

4. 一間營運效率高而且將資金運用得宜的電力公司,是香港市民所願意接受的,而中華電力所提供的,正是此種通過提升生產力及節約成本,保証客戶享有最符合成本效益的供電服務;

5. 作爲用電客戶,我們期望的是能有源源不絕、穩定的電力供應,並隨時滿足我們的需求,香港目前享有世界級的供電力服務,將有亦應如此。

以上是我們對香港電力市場的發展提出的意見,望起參考作用。

此致

經濟發展及勞工局

For and on behalf of
龍漢置業有限公司
LUNG KAI REALTY AND LAND COMPANY LIMITED

.....中華電力公司客戶.....
Authorized Signature(s)

敬啓者:

我們是中華電力的用戶,對於香港電力市場未來的發展欲提供以下意見:

1. 現行的電力供應制度行之已久且有效,符合香港市民的需求,我們覺得無需刻意爲改變而改變,若然要改變現行的制度,必須維持現有的供電質素及清楚界定不同參與者的責任及釐定他們的問責角色;

2. 部份客戶從個人利益出發,要求電價愈低愈好,不過,不同的客戶有不同的觀點,但如果不能維持充足、可靠的電力系統及現有的服務水準及承諾,相信更低的價格也不能取代主流市民的意願;

3. 香港的經濟及社會發展有賴安全及可靠的電力供應,我們期望的電力供應不僅要源源不絕,避免中斷,還要隨時能滿足我們的需求,香港一直享有世界級的供電服務,將來亦應如此;

4. 環保是香港電力供應商要承擔的重要責任之一,以環保的原則營運,採取開放的態度,履行對社會的承諾,以客戶爲先,並將相關資料公開。

5. 電力行業涉及長遠及龐大的資金投資,只有提供了足夠吸引力的回報,才能反映電力投資的特質,這樣才能確保私人資金持續不斷的投入;

6. 中電的電價自1998年以來已維持不變，期間更爲客戶提供了6次的電費回扣，香港市民以合理及可負擔的電價享用可靠程度甚高的電力供應，價格較世界上一些大城市更便宜；

7. 一間營運效率高而且將資金運用得宜的電力公司，是香港市民所願意接受的，而中華電力所提供的，正是此種通過提升生產力及節約成本，保証客戶享有最符合成本效益的供電服務。

以上數點乃我們對香港電力市場未來的發展而提供的意見，祈望政府有關機構慎重考慮。謝謝！

此致

經濟發展及勞工局

For and on behalf of
龍溪拓展有限公司
LUNG KAI RESOURCES COMPANY LIMITED
中華電力公司客戶

.....
Authorized Signature

龍 山 寺 有 限 公 司
LUNG SHAN (TEMPLE) LTD.
NO.36,SUN UK TSUEN,LUNG YORK TAU,FANLING N.T.
電話:26691191　傳真:26766122

香港中環下亞厘畢道
中區政府合署中及東座式樓
經濟發展及勞工局

敬啓者:

香港電力市場未來的發展

本人/會仝人 龍山寺有限公司 作爲香港的市民及中電的電力用戶對於香港電力市場未來的發展欲提供以下意見:

一、清晰的問責制及權責範圍

香港的經濟及社會發展有賴安全及可靠的電力供應,故此必須清楚界定系統的權責及有關機構負責投資,若一旦電力系統出現問題時,誰要向政府及公眾負責。

二、保持現狀

行之已久的制度使香港擁有國際水平的電力供應,無須刻意爲改變已改變。若然要改變現行的制度,必須維持現有的供電質素及清楚界定不同參與者的責任及釐定他們的問責角色。

以上數點乃本人對香港電力市場未來的發展因而提供的意見,祈望政府有關機構慎謹考慮。

謝謝!

For and on behalf of
LUNG SHAN (TEMPLE) LIMITED
龍 山 寺 有 限 公 司

.....
Authorized Signature(s)

2005 年 4 月 9 日

龍山管理有限公司
LUNG SHAN MANAGEMENT CONSULTANCY LTD.
通訊地址:粉嶺郵政信箱 302 號
電話:26742661　傳真:26595127

香港中環下亞厘畢道
中區政府合署中及東座式樓
經濟發展及勞工局

敬啟者:

香港電力市場未來的發展

本人/會仝人 龍山管理有限公司 作為香港的市民及中電的電力用戶對於香港電力市場未來的發展欲提供以下意見:

1. 環保責任

環保表現是香港電力供應商要承擔的重要責任之一，電力公司要採取開放的態度。履行對社會的承諾，以環保的原則營運，力求臻善，為客戶提供電力服務，並將相關資料公開。

2. 服務水準

部分客戶從個人利益著想，要求電價愈低愈好。不同客戶當然有不同的觀點，姑勿論任何個人的意見及要求，首要條件一定要維持充足及可靠的電力系統，現在的服務水準及承諾。

3. 成本效益

香港市民要求一間營運效率高而運用資金得宜的電力公司。通過提升生產力及節約成本，保證客戶享有最符合成本效益的供電服務。

4. 合理和可負責的電價

中電電價自 1998 年起維持不變，期間更為客戶提供了 6 次電費回扣。以中等水平的電價享用可靠程序甚高的電力供應，電價較紐約、倫敦、巴黎和東京等大城市便宜。

以上意見，祈望政府有關機構可慎謹考慮。謝謝！

For and on behalf of
LUNG SHAN MANAGEMENT CONSULTANCY LIMITED
龍山管理有限公司

Authorized Signature(s)

2005 年 4 月 8 日

Amanda Chan
24/04/2005 20:19

To: edb@edlb.gov.hk
cc:
Subject: 電力市場未來的發展咨詢文件
☐ Urgent ☐ Return Receipt

有關香港電力市場未來的發展, 咨詢文件-作爲香港市民的一分子-我有以下的意見。

1. 電力是香港繁榮的重要因素-現行的管制協議-提供足夠誘因要兩電在全港每個角落提供足夠設施應付現時及未來的電力需求,
使工商住戶不用考慮因地區性的電力多寡而作出不同的投資,居住決定-使市場可以有效運作。

2. 香港現正面對經濟轉形-及舊區重建-香港的每一角落-都可能瞬息萬間改變用途-而香港每一角落都可以得到充足的供電-使任何計劃都能在不受電力供應的約束下進行,
是成功的一個重要因素-過去如是, 將來更形重要。

3. 在香港這個以第三工業爲主的經濟體系-電力價格的長期穩定-透明及可預性比絕對價格水平更爲重要。

綜觀以上各點-目前的管制協議-的確可以使電力的供應及定價格模式符合香港過去的經濟發展。面對未來更多的未知數-同樣的電力供應及定價模式更爲重要。電力市場的未來發展-不應爲改變而改變-而大大阻礙香港經濟的發展。

MS Chan

21/4/2005

致：經濟發展及勞工局

<u>香港電力未來發展</u>

本人對香港電力未來發展提出一些個人意見. 香港兩電多年來供電真是十分之穩定,尤其是香港電燈更於去年供電可靠性更達到99.999%. 至於提出兩電合併聯網,是有機會造成於多年前美國加洲大停電. 於當日美國報導指,其中一個原因是歸因於聯網所致. 所以本人支持香港兩電保持現狀分開供電.

M. Shek



"Ma Alvin"

25/04/05 08:58 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage I Consultation Paper : Individual Comment
☐ Urgent ☐ Return Receipt

In view of the small electricity market in Hong Kong and the unlikely infrastructure expansion for generation, transmission and distribution of electricity, I have the following comment to the Stage I Consultant Paper.

1. New comer(s) needs great & long term investment and they will focus on large account customers only and the general public (those small accounts) may not enjoy the advantage of competition.
2. Open market covers the generation and retail of electricity but the transmission and distribution system, if base on the existing network, has to be regulated with a lot of supply reliability requirements. As such, more complex and complicated arrangements among various parties will required than the existing system.

Based on the above, if a better system on the calculation of electricity tarrif and the return on investment, I have no objection to keep the present simple form of Scheme of Control Agreement after 2008.

Best Regards,

Ma Kin Wai
25/4/2005

"Stephen Mak"

22/04/05 07:26 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Stage 1 Consultation on Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sirs,

1. Most criticism on the existing electricity market fall on the electrcity price not on the service provided by CLP and HKE. The Government should concentrate on negotiating a lower rate of return with CLP and HKE without jeopardizing their intention of investment in providing reliable supply of electricity to Hong Kong as a whole. If they accept a lower rate than 13.5%, the tariff will go down.

2. The rate of return should commensurate with the risk involved. The risk in electricity market is low and therefore a lower rate of return than in other business is acceptable to the existing and potential investors. The rate of return may be linked to market interest rate plus a premium.

3. Reliability of supply is too crucial to Hong Kong. CLP and HKE have overall proved themselves to satisfy this primary requirement. We welcome new investors but they should prove the same thing. Like the high price charged on fresh water supply from Guangdong to Hong Kong, we are pleased to pay a lower price from other sources only when they are clean and supply is reliable.

4. Environmental impact is another important concern. Air pollution becomes more acute in Hong Kong in recent years whether it comes from Pearl River delta area or the local power stations. More stringent conditons should be imposed on all power stations (within Hong Kong or located in Mainland)supplying electricity to Hong Kong. Licensing system may be introduced. Natural gas is a cleaner source of energy than coal which should be encouraged although a higher price has to be paid for.

5. In Hong Kong, the electricity industry is privately owned. The assets include the power stations and transmission network. We are not expecting the Government to buy these things out in order to open the market after considering the case of harbour crossing tunnels. Therefore let the businessmen make their own decision to enter the market or open up their network to others. However the Government should allow any investor to enter the market if they wish. If their power stations satisfy the environmental protection conditions and prove reliable, let them supply electricity to Hong Kong. If they want to lay their own network to customers, let them do so. The Government should just keep an eye on the market.

Mak Hoi Fung
22nd April 2005

10/2/xx

Consultation for electricity Work

Dear Sir,

Please do valuable change

Sathe

Magnificent Scenes in the castle,

to sacrifice reliable effect Lifts etc 9

line on 31st floor.

Yours Sincerely,

[illegible]

Prof. Kirti Thorat

"WMMR"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Future Development of the Electricity Market in Hong Kong

2005/04/26 10:27 PM

☐ Urgent ☐ Return Receipt

Dear Sir / Madam,

My views on this subject are:

1. HK's power market is small. It is very difficult to introduce new market players locally. The current supply situation in the Mainland and Guangdong is very tight due to continued growth in economic activities in the next few years. Surplus electricity in the Mainland for supplying to HK would unlikely be available in the short to mid term. Besides, reliability of power supply from the Mainland is also a main concern.

2. The market reform models in other countries like Toronto/Canada, California/USA, UK, Australia cannot be applicable to HK. In fact, there were many examples of failure in electricity market reform around the world. The present proven scheme of control on electricity market operation is considered appropriate and most beneficial to HK. Continuation of the present scheme would secure the economic development of HKSAR.

3. The cost of electricity in HK is affordable to the customers. It compares favourably with other international cities, e.g. Tokyo, London, San Francisco etc.

4. The ultimate target of any regulatory regime is to ensure that the electricity supply is reliable, safe, efficient, at reasonable prices and with minimum impact on the environment. The present scheme oversees these requirements well and fits in with the constraints of HK.

Thank you for your attention.

Mak Wai Man

MAN LEE

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity market consultation paper
☐ Urgent ☐ Return Receipt

2005/04/29 05:28 AM

Dear Sirs,

We are enjoying a very reliable and safe electricity supply over the past years, two power ultities (CLP and HEC) and HK governement play an important role. HK government allows both power ultities to get fix return (13.5%) of their investment, and these companies willing to keep good maintenance, to replace the ageing generation machines, transmission equipments and the computerised control system to suit system requirement. Although most of people realise the electricity price in HK is higher, they do not realise what is the drawback to HK if short of power supply, such as economic loss, international goodwill, people life, media and general public's criticism .... In the recent blackout cases in the world, happened in the electric open market.

I would like to give my comments:
1. HK is a very small market in selling electricity, power geneartion and transmission involves a great investment;
2. Maintains a high reliabilty power supply in HK is very important;
3. Reveiw the root causes of the past blackout cases, and HK not fall to the trap
4. Not only consider the electric price, but also consider the environment impact.
5. Control the growth of electric price is the responsibility of HK government, such as fix return after 2008, how to control capital investment of power ultities.

Best regards.

"iris"

28/04/05 11:07 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Development of Hong Kong's Electricity Market after 2008
☐ Urgent ☐ Return Receipt

Dear Sirs,

Future regulation of the electricity industry in Hong Kong is a matter of great importance to all our citizens. I fully support the existing system with my views as follows :-

- For the past 40 years under the Scheme of Control ("SoC"), reliability stands at 99.99% amongst the world's best. Hong Kong has never been hampered by a lack of electricity;
- The existing electricity price is reasonable - median electricity bill is $220 per month; and
- Modern power systems are complex and require considerable investment and maintenance.

As a stable and reliable supply, at reasonable tariffs, is a prerequisite for economic progress, we should adopt the same approach in developing our views on the way ahead for Hong Kong's electricity supply industry after 2008.

Yours faithfully,
Man Yee Lai, Elite

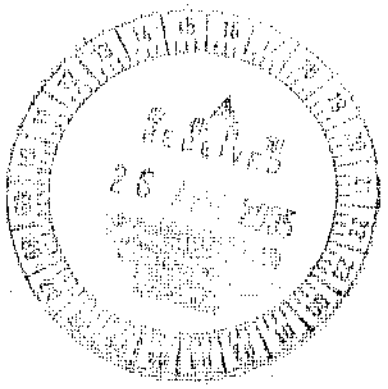
就政府剛發表的《香港電力市場未來的發展》第一階段諮詢文件，本人意見如下：

對於生活在大城市的人，供電的可靠性和穩定性尤為重要。即使是片刻停電亦會對我們生活造成廣泛影響，經濟上的損失（包括有型的損失如金錢上和無型的損失如投資信心方面）更是難以估計。在我們這個差不多每分每秒都不能無電的城市，確保電力供應的可靠性和穩定性根本無容置疑。如果要我們經常為有可能突然停電而擔心，那麼就算電費再低亦沒有意思。且況本人認為本港的電費亦算是一個合理且可負擔水平。雖然表面上本港電費較內地高，但本港的家庭平均月入亦較內地高。如把環保要求、供電可靠性等因素一併考慮，兩地電費根本難作公平比較。

誠然，現行的規管機制運作良好，亦能在電費、供電可靠性、環保及投資者利益等各方面取得平衡。以目前本港環境來看，任何大規模改變並不適合，亦為社會帶來不必要風險； 倒是保留現行的規管機制，對香港整體社會發展更為有利。

總括而言，現時的《管制協議》完全能符合諮詢文件所列明的政策目標，所以本人贊成沿用現時《管制協議》模式作為日後電力市場的規管機制。

Mandy Kwok
21 April 2005



"Maggie Brooke"

29/03/05 08:48 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Response to Stage 1 Consultation on the Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Please see the attached Response.

Margaret Brooke
CEO, Professional Property Services Limited

Response to Stage I Consultation on the Future Development of the Electricity Market in Hong Kong.doc

Response to Stage I Consultation onthe Future Development of the Electricity Market in Hong Kong

Submitted by e-mail: electricitycomments@edlb.gov.hk by Margaret and Nicholas Brooke, Professional Property Services Limited, on 29 March 2005

1. The current objective of ensuring that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact caused by generation and use of electricity is key to any development of the market going forward.

2. It would appear that there is no perfect solution available and, as found in other jurisdictions, an approach needs to be identified which is optimum given the particular circumstances pertaining in Hong Kong

3. Whilst the Scheme of Control Agreements (SCA) have generally served Hong Kong quite well and have resulted in the delivery of reliable, safe and efficient supplies of electricity, they have also resulted in fixed and elevated levels of return to the two power companies which are out of line with those available to similar utilities companies internationally, while it is by no means clear that they have led to the minimization of charges to consumers. Both Singapore and Taiwan, also small populations, benefit from cheaper electricity than Hong Kong.

4. Although Government probably should continue to play a role in ensuring the delivery of a satisfactory electricity supply to Hong Kong, this does not mean that it has to do so by directly monitoring the performance of the two power companies. A separate authority, supported by a regulatory framework established by legislation, which licences approved suppliers would be equally if not better equipped to undertake such monitoring and would also fulfill Government' s expressed intention to act as an "enabler" rather than adopting the current hands on approach.

5. Having said that, there is expertise in Government in this area and, given all the circumstances, the optimum solution to the institutional structure would appear to be the rationalisation of the present multi-departmental involvement into a single independent agency, funded by Government, which would take over the responsibility for all electricity supply and electricity-related environmental policies and the execution of existing and new regulatory and monitoring functions. The costs associated with such reorganization should not be excessive and funding required for such an agency should not be any greater than that involved in running the various sections of the various departments currently undertaking the same work.

6. There is a fairly widespread public perception that SCA' s have permitted returns to CLP and HEC that are too high, that their fixed nature is over-generous and too inflexible, particularly in times of economic downturn, that their structure has encouraged over-investment (presumably CLP' s power exports to Guangdong and profits from power investments elsewhere are used to off-set costs in Hong Kong?) and the annual tariff and

auditing reviews do not provide sufficient transparency. The terms granted under the SCA' s are also too long at 15 years although some certainty is required if adequate investment is to be secured. This being the case, it would be advisable to amend the existing approach in order to address these concerns.

7. Whilst further competition, by attracting new entrants to the marketplace, could be beneficial, it is appreciated that Hong Kong is a relatively small market with two long established suppliers and that new entrants may not be that easy to attract, no matter how the market is regulated. The only exceptions may be in the area of renewable energy where newcomers to the power industry may have technologies and expertise that they consider to be competitive with those available through HEC or CLP. Any new regulatory system should encourage, not impede, new entrants to the industry.

8. Whatever regulatory system is adopted, steps must be taken to encourage the power suppliers to produce as much of their supply as possible via non-polluting technologies and from renewable energy sources. It is understood that some of these may be more expensive but given the percentage of total supply and the potential to secure lower tariff charges by reducing the level of permitted return, this should not impact overall charges too significantly.

In addition, efforts should be made to facilitate the use of Liquefied Natural Gas in production rather than coal as this could materially assist in the reduction of polluting emissions. Government or a new regulatory agency/authority should take the opportunity to insist that action is taken by the power companies to reduce reliance on coal and/or the installation of technologies to ameliorate the impact of coal burning production. Potentially there could be provision for allowing a slightly higher return on investment in these areas to encourage the introduction of innovative and tailored Hong Kong solutions through research and development and to escalate the necessary transition to renewable energy provision and emissions reduction.

9. Although the Consultation Paper argues that there are some benefits to the current SCA approach, it would be preferable to grasp the nettle now and put in place legislation which governs all the regulatory aspects currently covered by the bi-lateral agreements. This would avoid any accusations of collusion with the companies concerned on each occasion that the agreements come up for review or renegotiation and leave any and all future suppliers to operate on the same basis.

10. The issues to be governed by the regulatory framework should include returns and tariffs (see below) with regulatory review every three to five years. In so far as performance is concerned, under a licencing system there would be penalties for non-performance rather than incentives to perform and the carrot and stick approach may well be seen by the public as being more equitable – at present there appears to be all carrot and no stick.

11. The Consultation Paper states that Government intends to continue with economic regulation of tariffs – it would appear whether those consulted agree or otherwise. Whilst

there should be parameters to ensure an affordable tariff regime, the level of charges should be as much as possible a function of the market and the economic environment within which the power companies operate. Commercial sensitivity should not be used as an excuse to keep the public in the dark as to the make-up and setting of electricity charges. Fuel cost adjustments, so long as they can be shown to be justified, should be retained.

12. In so far as overall returns are concerned, profit and loss should so far as is possible be a factor of market conditions and the efficiency of the company concerned; however it is recognised that the supply of reliable and affordable electricity is of strategic importance to Hong Kong and not just a matter for the power generation companies themselves. This being the case, perhaps a maximum return should be agreed at a level which ensures that adequate investment is made (supplies must not lag demand) but at tariffs which are acceptable to the community. This would appear to be in the 3-6% range, based on experience elsewhere and this could be measured by deducting the weighted average cost of capital (WACC) from the return on invested capital (ROIC). Notwithstanding this cap, given the need to encourage production of as much electricity as possible from renewable resources, an additional return should be permitted on any investment in this type of production, over and above a level which results in an agreed minimum percentage of power coming from such resources.

It is acknowledged that this may lead to some increases in tariff but this needs to be considered in terms of the wider benefit to the community at large from the use of renewable resources. However, in order to ensure that the monopolistic aspects of the current supply situation are addressed to the extent which seems realistic in Hong Kong's rather unique circumstances, tariffs should be linked to other economic indicators or a range of appropriate prices in the consumer price index. These links will require to be carefully thought through so that power companies do not use them as an excuse not to invest in maintaining a safe and reliable supply but it is important to put in place a system that ensures that returns of 25-51% on post-tax earnings are no longer officially sanctioned or achievable.

13. There should be increased interconnectivity in so far as this would bring overall economic benefits to all electricity users in Hong Kong. Similarly, should the situation arise in the future where additional supplies can be bought more cheaply from the Mainland grid, provision should be made so that it is possible to tap into such supplies.

14. In so far as possible, the market should be open to new suppliers – consumers in the telecommunications sector have benefited greatly from such increased competition – and an independent authority and control structure established by statute rather than individual negotiations would establish a level playing field in this area.

15. Steps should be taken to optimize system resources – treating Hong Kong Island and Kowloon and New Territories as separate fiefdoms is probably not the optimum approach for consumers - and indeed in due course the objective should be to secure the

development of a network which transcends political boundaries and encompasses Shenzhen and eventually Guangdong Province and beyond.

"mcheung"

2005/04/30 02:46 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on the Consultation Paper on Future Development of the Electricity Market in HK
☐ Urgent ☐ Return Receipt

Dear Sir,

Today is the last day for submitting comments to the captioned Consultaion Paper and I can't help but voice out my concerns. Electricity is an essential utility crucial to the functioning of the modern corporation as well as an urban household. It is well known that the current electricity companies, namely, Hongkong Electric and CLP have fared remarkably well in the past to provide a highly reliable supply. One may argue that the prices charged by the companies are high. That I think is negotiable among the Government and the 2 companies. What I would like to point out is that major change in the current scheme of control, e.g. introduce extra power companies to supply to Hong Kong, the vast increase in interconnection capacity between the two local electricity companies, the break down of the utility into generation and transmission companies, is very likely to reduce the reliability of electricity supplied to Hong Kong residents. One could reference de-regulation situations in US and Australia in this respect. Since HK is a relatively small market, any economic gain or savings for users are at best doubtful.

If it ain't broke, don't fix it. Hong Kong is enjoying good service from its electricity utilities for years and when it's time to negotiate a new contract, we strongly believe that the successful model of the existing contract be remained.

Regards,
Michael Cheung



"millie"

29/04/05 04:14 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: electricity supply market
☐ Urgent ☐ Return Receipt

Dear Sir

Reliable electricity is very importance to me. Without reliable electricity, how can we enjoy the comfortable life we are living now? I cannot imagine how can I live if there is no electricity supply, which means no lift, no lights, no water, no air-conditioning, no refrigerator, no TV, no internet, no.....With the consideration of the risk of blackout as what happened in Canada, US, etc in the past because of the huge supply grids, I would like to keep the existing arrangement.

Best regrds,
Millie Sum

MK Wong

28/04/05 11:14 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Views/Comments on Stage I Consultaton on Future Development of the Electricity Market in HK (By MK Wong)
☐ Urgent ☐ Return Receipt

Dear Sirs,

Please find attached a Words file for my views/comments on Stage I Consultaton on Future Development of the Electricity Market in HK for your reference and consideration.

Regards,
M.K. Wong

Comment on Stage I Consultation (MK Wong).doc

From : M.K. Wong (HK Citizen)

E-mail address :

Date : 27 April 2005

Views/Comments on Stage I Consultation on Future Development of The Electricity Market In Hong Kong

Under the current regulatory regime of electricity market, we, as the citizen of Hong Kong, enjoy continuous, reliable, safe and stable electricity supply with reasonable electricity tariff for our good living for a long period of time. Please take note "THAT IS NOT A GIFT FROM THE GOD".

The hot topic now in the electricity supply industry in H.K. is to open up the market to introduce more new entrants (e.g. from South China) so as to lower the electricity tariff like the telecom industry. However, the structure, development, technologies and responsibilities in electricity supply industry is totally different from that in the telecom industry. There is no firm guarantee in price reduction after deregulation of electricity market.

From my points of view, I don't believe that open-up of the electricity market would cause large reduction in the electricity tariff. Instead, this would probably increase the electricity tariff due to poor management and lack of investment like the case in US California. Furthermore, this would lead to so much unforeseen risks which seriously affect the reliability and stability of the electricity supply, and thus affect the public safety and economic activities in H.K.

Recent voltage fluctuation incident in Hong Kong Island tell us that a reliable and safe electricity supply is extremely important. Without the prompt response and action by the power company, it may lead to a huge influence to the public safety and the economic operations in H.K.. Under the current regulation regime, we now enjoy from the HK power company a high level of electricity supply reliability as 99.999% which is the highest among the world. Such high reliability level is the effort of the HK power companies by investing more in their electricity facilities to improve the equipment technology and effectively monitoring the supply of electricity.

Introduction of new electricity market entrants or increased interconnection cannot further improve the reliability and stability of the electricity supply which we already have, but instead these would degrade the overall system reliability. So, why shall we change ? I believe that no one could withstand frequent electricity interruption in their daily life like our mainland China. However, this would probably occur when open-up of electricity market or increased interconnection is introduced. Don't forget the electricity blackout incident happened in US before which caused a dramatic financial damage to its local economy and also inconvenience to the public.

Hong Kong is a world-class commercial and financial centre that attracts a lot of foreign investment. One of the successful factors is that we have a continuous, reliable and stable electricity supply for commercial environment and business operation. We shall be proud of having such high reliable power supply in Hong Kong in lieu of seeking for any new market entrants.

Regarding the electricity tariff, according to the figure shown in the Consultation Paper, it only accounts for less than 2% of the general household monthly expenditure for residential customers. In addition, for non-residential customers, the electricity expense accounts only for less than 10% of the monthly operating costs. That means only very small portion of expenditure is spent in electricity tariff.

I don't think the current electricity tariff is expensive, only around 1-2% of my household expenditure. Compared with the expenditure on transportation (8% of my household expenditure), my expense in electricity tariff is very little. Taking into account its high supply reliability, good customer services and caring of environment protection from the power company, I consider that the present electricity tariff is very reasonable and worth to pay.

As I mentioned above, open-up of the electricity market is not equal to electricity price reduction. Importing electricity from the mainland China to increase competition for an attractive electricity price is not practicable in the next few years as shortage of electricity supply in most of the cities in China is occurred. We shall not just think of how to reduce the electricity tariff by introducing new market entrant from China, we also have to pay more attention on the quality and reliability of electricity supply and serious pollution problem from electricity generation in China. Eventually, we may have to pay much more in the future due to open-up of electricity market and increased interconnection.

Another critical issue is environmental impact caused by the electricity generation. As far as I know, the two power companies in Hong Kong had made every effort and invested on new advanced system technologies and equipment in their generation, transmission and distribution facilities so as to minimize the environmental impact and reduce the pollution levels to acceptable standards. Their improvements in environmental protection are kept on going. Without the SOC agreement, the two power companies will probably not invest more in their facilities and plants to improve the environmental protection.

Based on the above, I strongly regard that the existing Scheme of Control Agreement mechanism for Hong Kong electricity market should remain unchanged after 2008. I do not see there are any reasons why we have to change our present electricity regulatory regime. Nowadays, we receive reliable, continuous and stable electricity supply for our daily life. This proves the success of the current simple regulatory regime of electricity market in HK. Moreover, this can not only maintain Hong Kong as the top-class financial and commercial centers in the world because of supreme reliability of electricity supply, but it is also beneficial to the interests of the public and the shareholders.

- End -



2005/04/30 03:38 PM

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
Urgent Return Receipt

realname: Mo Kwok Wai

subject: Comments on consultation paper on Electricity market

Enquiry: To: EDLB

To me the present electricity tariff is at a reasonable level as compared to other daily expenses such as transportation.

The quality and reliability of electricity supply is a more important concern, especially when we always want Hong Kong to be an international financial center and shopping center.

SCA may not be the best choice for the electricity market but it works fine for so many years as reflected by the reliable electricity supply we enjoy so far.

I would like to see the SCA to be continued in its present form.

KW Mo

joachim Chan

To: electricitycomments@edlb.gov.hk
cc:
Subject: My Feedback - Stage I Consultation (HK Electricity Market)
☐ Urgent ☐ Return Receipt

2005/04/29 06:21 PM

In an open market, power companies concentrate in their profit mainly. They will sacrifice our reliability and our environment most likely. As we've seen, the likely new players in HK electricity market come from mainland China and their efficiency and the will to protect our environment (say, air, water, etc.) is questionable. We want clean air and blue sky. Our sky has been polluted by the mainland industries. If the HKSAR govt. fully open our electricity market and the mainland companies join the game, our air, our sky shall be even more polluted! I don't want this! Keep the situation as it is right now.

Mr. Chan

Mr.Fan

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

29 April 2005

Dear Sirs

The future development of Hongkong Electric market Stage 1 consultation paper.

After reading the Stage 1 consultation paper I would like to send you my view and comments as follows.

1. According to the Consultation Paper, I believed that the current electric price is acceptable and reasonable.

2. I enjoy the existing excellent customs service which provided by two electric company in Hongkong

3. The existing electric companies in Hongkong are able to provide all people to have a returnable and stable investment opportunity.

4. Up to this moment, I can't met a new "market player" which able to let me to have confident for develop by career like the current two electric companies in Hongkong.

For consultation paper stage 1, I would like to have follow comments.

1. I cannot find any reason for changing the current electric market in Hongkong.

2. The reliable & stable electricity supply is a most important element for Hongkong to upgrade their position in PRD region.

3. The current SCA is a " win win " situation for all parties.

Fan

KATE BUDGE

5 May 2005

The Economic & Labour Bureau
2/F Central Government Offices
Main & East Wings
Lower Albert Rd
Central, Hong Kong

Dear Sirs,

Re: Consultation Paper on Future Development of the Electricity Market in Hong Kong

I am shocked by the cost of electricity in Hong Kong compared to gas and having reviewed the Consultation Paper I have the following comments:

1. In the recent Annual Report of the Hong Kong Electric Holding Ltd, I note that in 2002 the profit attributable to shareholders- local activities was 50% of turnover and in 2003 the profit attributable to shareholders- local activities was 49.9%. This is unacceptably high.

2. The Scheme of Control was appropriate when companies may have been reluctant to invest in Hong Kong. This is no longer the situation.

3. Paragraph 2.6 of the Consultation Paper. In my view as Hong Kong is such a congested area it is incorrect to compare Hong Kong with London, Tokyo, San Francisco or Sydney. I note with interest that Singapore and Taipei have lower tarrif-ranges than Hong Kong.

4. I have lived in Hong Kong for 31 years and recall the high overseas telephone charges of the 1970's. Due to competition we now have some of the lowest world rates for international phone calls. Similarly it is vital that there is more competition in the electricity market in Hong Kong.

In conclusion the simple fact is the electricity charges in Hong Kong are outrageous and it is necessary to reduce these charges substantially.

Yours sincerely,

K.A.Budge (Mrs)

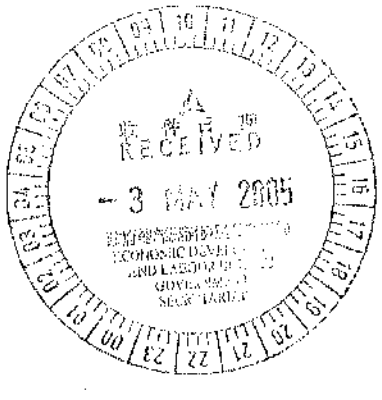
Economic Development + Labour Bureau,
2/F, Central Govt. Office,
Main + East Wings,
Lower Albert Road,
Central,
Hong Kong.

25th April 2005.

Views towards the future Electricity Market in H.K.

I do not support the option of setting up an independent authority within the Government to regulate the Power Companies. I think the two Power Companies have done a good job for our environment + their services have been reliable + excellent. Why bother to change if something is working well? I hope the future development of H.K's electricity market should remain the present status.

From:
Mrs. Lucilla Shum



To : Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings,
Lower Albert Road, Central, HK.

By Fax : 2868 4679

Date : 27 April 2005

Stage I Consultation on Future Development of the Electricity Market in Hong Kong

The captioned refers. I would like to give my views and comments as follows:

I have noticed that there were massive blackouts in Canada, US, Australia and Italy in the past few years, and learnt that the incidents were just caused by minor defects in the deregulated electricity system adopted in these countries. I agree with certain reports that deregulation, though brings a lower tariff in some conditions, does not provide adequate incentives to the power industry to continue their investments, which in turn deteriorates the reliability of electricity supply.

I shall not want to pay for reduced tariff at the expense of deteriorated reliability of electricity supply. I could not imagine the situation should blackouts really happen in Hong Kong. I think most of Hong Kong people are satisfied with the high quality of services provided by the two existing power supply companies. In view of importance of reliability of electricity supply in Hong Kong, I would opt to retain the current Scheme of Control for the electricity market of Hong Kong after 2008. Let us work for further improvements under the current regime.

Ms. Lena Chan

Mary Lee

24/04/05 10:36 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Views On Government's Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sir,

Please find attached a word document on my views on the government consultation paper.

Regards
Ms. T.F. NG



Views_TFN.doc

Views & Comments On Government's Consultation Paper

Reliability of supply and a stable electricity price are of paramount importance for Hong Kong. They are also common views stated in the Government s Consultation Paper. For Hong Kong continuing to be a World Financial Centre and a tourist city, it is no doubt that an adequate and reliable electricity supply supported by adequate power infrastructure investment is required. The present Scheme of Control Agreement (SCA) balances the interests of consum ers / shareholders and works well in Hong Kong in the past 2 decades.

For those countries had undergone market reform, some of them already tasted the blackouts and volatile electricity price due to poor planning and market reform. The social and economical costs on the blackout incidents are too high. In fact, both blackouts and volatile electricity price are totally unacceptable in Hong Kong. Hong Kong can ill afford any market structure that has no sure-fire guarantee of success. Since Hong Kong has just moved away from the economic downturns since 1997, any drastic and immature policy on electricity market reform will hurt both the businesses and citizens in Hong Kong.

Personally, I have never experienced any blackouts in Hong Kong and I do not have to worry about I will get stuck in the MTR station or unable to reach my 39th/F home due to no electricity supply. I cannot imagine what will be happened if we are living in the dark similar to those remarkable blackout incidents happened in other countries. Honestly, if you want my family living in the dark, just NO WAY!

The present SCA provides us with an excellent reliability of supply while the electricity price is affordable and stable in the past two decades. We always have adequate electricity supply and enjoy the reliable electricity supply, excellent customers service and at a reasonable tariff under the present regulatory system (SCA). Hence, why bother to change if something works? Why need us to take risks on the new regulatory frameworks? Why ..?

In consideration of the importance of electricity in Hong Kong, I would like to urge the Government to maintain the present SCA with the power companies.

Ms. T.F. Ng
24th April 2005

地鐵公司
MTR Corporation

28th April 2005

Our Ref : GOVT/L4/05

The Hon Stephen Ip GBS JP
Secretary for Economic Development and Labour
Room 815, Central Government Offices
West Wing
Lower Albert Road
Central
Hong Kong

Dear Stephen,

Response to Consultation Paper –
"Future Development of the Electricity Market in Hong Kong Stage I Consultation"

With reference to the captioned Consultation Paper issued in January 2005, we submit a response to the Paper detailing our view and comments.

In summary our general comments are :-

1. The SCA arrangement has worked well towards achieving the objectives of safety and reliability of supply in Hong Kong; however, our view is that there is significant scope for improving the economic efficiency of the utilities and for passing some of the cost savings to the consumer. There is no incentives in the current regulator to ensure the companies supply at lower cost; indeed the incentive tend to work the opposite way. As a result, industrial users in Hong Kong such as MTR bears one of the highest electricity cost in the world. This has caused damage to our economic structure, and reduced the competitiveness of Hong Kong as a whole.

2. The Consultation Paper indicates that the main drivers for market reform in other countries include privatisation and improving reliability and that these are not relevant to the Hong Kong context. Other key drivers for market reform in other countries have included improving economic efficiency of the industry and lowering prices by introducing competition and reducing market power. These are relevant to the Hong Kong situation.

3. The opening of utility markets has the ability to reduce the price to customers and improve quality by allowing market forces to work through competition. Our view is that Government can readily tighten control and introduce elements of competition without jeopardizing security supply and customer service.

...continued on next page 2

地鐵有限公司
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MTR Tower, Telford Plaza
33 Wai Yip Street
Kowloon Bay, Hong Kong
GPO Box 9916, Hong Kong
Telephone 2993 2111
Fax 2798 8822
Website www.mtr.com.hk

4. It is our view that Hong Kong Government should embark on a policy which would encourage competition into the electricity supply market commencing with new arrangements in 2008. To this aim we recommend that any new agreement should contain provisions to facilitate and actively encourage entry of competition.

5. We consider that the Government must link stated policy on the environment to future electricity supply agreements by obliging incumbent suppliers to accommodate on their networks eco-friendly self generation by third parties in addition to incentivizing all suppliers towards minimizing environmental impact.

6. The current regulatory arrangements bundle all elements of the electricity supply chain together and as a consequence there is little transparency and effective regulation may be impeded. We suggest that suppliers should be obliged to report in full on each sector of the supply chain (generation, transmission and distribution, and supply) with the aim to achieve separate regulations of the different elements of the business. Unbundling will also provide a framework to encourage competition.

7. To aid Government policy we consider that electricity supply affairs should be regulated by an independent professional body. The costs of this authority could be paid for through incentivize tax raising on Electricity Suppliers. The regulatory regime should be reviewed at five year intervals.

8. We have analysed the cost to consumer and financial returns to electricity suppliers in other countries (see attachment - Section 5). Our analysis shows that present arrangements provide a generous rate of return on assets with cost pass-through of overheads and fuel. As a result CLP and HKE have earned super-normal profits, Hong Kong has over invested and prices to end users are higher than they need be. Therefore we consider and new arrangement for suppliers must include incentives for providers to improve internal efficiency and service quality as well as being linked to the Hong Kong economy.

I believe our response should be of assistance and taken in consideration for stage II study. Should you have further query on our response, please contact our Deputy Operations Director, Andrew McCusker or the undersigned.

Yours sincerely,

C.K. Chow
Chief Executive Officer

Encl. MTRCL's Response to Consultation Paper - Stage I

Copy to MTRCL: Andrew McCusker, Deputy Operations Director

地鐵公司
MTR Corporation

Response to Consultation Paper

Future Development of the Electricity Marketing in Hong Kong - Stage I

April 2005

MTR Corporation Limited

MTR Tower, Telford Plaza
33 Wai Yip Street,
Kowloon Bay, Hong Kong
GPO Box 9916, Hong Kong
Telephone: (852) 2993 2111
Facsimile: (852) 2798 8822

List of Contents

Page

Chapters and Appendices

1 Introduction 1

1.1 Conclusion and Recommendations 1

1.2 Structure of this Paper 2

2 Point by Point Comment 3

3 Regulatory Best Practice 12

3.1 Need for Unbundling 12

3.2 Regulating Electricity Network Businesses 13

3.2.1 Principles of Regulation 13

3.2.2 Regulation in Practice 14

3.2.3 Regulating Generation and Supply 15

3.2.4 Efficient Fuel Procurement 16

4 Encouraging Competition in Generation and Supply 16

4.1 Required Rule Changes 16

4.2 Access to Wholesale Supply 16

4.3 Access to Customers and Incentives to Switch 17

4.4 Market Design Issues 18

5 Support Data 19

5.1 International Tariff Comparison 19

5.2 Return on Equity 20

6 References 21

Figure 3-1: How Electricity Tariffs are Built Up 12
Figure 3-2: Low Powered Regulation 13
Figure 3-3: High Powered Regulation 14
Figure 3-4: RPI-X Regulation 15
Figure 5-1: Return on Equity versus Return on Assets 20

Table 2-1: Point by Point Response 3
Table 5-1 Real and Nominal ROE for CLP and HKE 20

1 Introduction

This paper presents a brief review of the Stage 1 Consultation Paper on the Future Development of the Electricity Market in Hong Kong

1.1 Conclusion and Recommendations

Conclusions

- The current regulatory arrangements bundle all elements of the electricity supply chain together and as a consequence there is little transparency and effective regulation is impeded.
- The present arrangements provide a generous rate of return on assets with cost pass-through of overheads and fuel. As a result CLP and HKE have earned super-normal profits. Hong Kong has over invested and prices to end users are higher than they need be.
- There are many precedents that demonstrate that it would be easy to tighten regulatory control and introduce elements of competition, without jeopardising security of supply and customer service.

Recommendations

- To unbundle the different elements of electricity supply (supply, generation and distribution and transmission)
- To regulate separately the different elements of the business
- To regulate the industry on the basis of the costs of each component with a mixture of pass-through for uncontrollable costs and a RPI-X arrangement for controllable costs
- To introduce some performance regulation for quality of supply and customer service
- To issue a policy statement saying that measures will be taken to ensure that independent suppliers and generators will be able to compete on a level playing field
- To publish terms for Third Party Access
- To establish a balancing and settlement code for generators and suppliers trading in the market
- To introduce competition in generation by auctioning existing capacity on a lease basis
- To allow trade across the networks
- To encourage self generation with suitable exit arrangements

1.2 Structure of this Paper

This paper is structured as follows:

- Section 2 provides brief point by point comment on the sections and issues presented in the Consultation Paper.
- Section 3 discusses good practice in regulation
- Section 4 explains how competition may be encouraged
- Section 5 presents supporting data.

2 Point by Point Comment

We present below in tabular form a point by point response to the Consultation Paper. This follows the structure of the Consultation Paper and where further commentary is necessary this has been referenced in the text.

Table 2-1: Point by Point Response

Chapter	Summary of Consultation Paper	Mott MacDonald's Comments
1	**Introduction** The policy objective for the Government of Hong Kong is to ensure that customers receive safe and reliable supply of electricity at reasonable prices while regarding environmental concerns.	This is a sound policy principle but achieving it in its entirety will require establishing a balance between its elements. For example, minimising environmental impact can result in an increase in generation costs and potentially higher electricity prices. On the other hand, emphasising system reliability can result in over-investment and high electricity prices.
3	**Existing Market Structure in Hong Kong**	Assuming a capacity margin of 30%, there is significant excess capacity in the system and a further 925 MW under construction. This suggests that some of the plant may be under-utilised and that there is capacity to meet demand growth. In Hong Kong coal plants may not be run in base-load mode. Nuclear and gas plants come first in the merit order stack followed by coal plants. This may have an impact on the electricity price as the economics of coal plant may be more suitable to run base load but gas plants are constrained due to the existence of take or pay (ToP) terms in the gas supply agreements (GSAs)
	Regulatory Arrangement Safety and environmental regulations are enforced through legislative	EDLB is staffed by general administrators, who have limited knowledge of

provisions under the relevant ordinances and
Economic regulation is exercised through the Scheme of Control Agreements (SCAs) signed between the Government and the individual power companies. EMLB oversees all policy issues relating to economic regulation.

Scheme of Control Agreements (SCAs)
The SCAs are not franchises and they do not provide exclusive rights to the power companies to supply electricity. Interested parties are at liberty to enter the electricity market.

The SCAs place an obligation on the power companies to provide sufficient facilities to meet present and future electricity demand. For this obligation, the power companies are entitled to receive a 13.5% permitted rate of return on their fixed assets with an additional 1.5% for assets financed by shareholders' funds.

energy economics and regulation issues. They are also rotated on a periodic basis, so any expertise built up may be subsequently lost. The lack of energy policy and economic experts within government means that the policy is often driven by the utility companies.

Lack of market entry is partly due to investment and land availability constraints as mentioned in the Consultation Paper. More importantly, new entry is inhibited by the lack of Third Party Access to the networks, the lack of liquidity in the market due to the presence of only two strong incumbents and their ability to exercise market power and the lack of agreed terms for top-up and spill with the system operators.

The fact that the SCAs are not franchises in supply and generation would mean that opening the market to some competition would be made easier. The process for doing this and the implications are discussed in Section 4.

There are a number of concerns that relate to the use of rate of return regulation. These are discussed in Section 3 and summarised below:

- The process of setting an appropriate rate of return is difficult and open to regulatory capture due to the information asymmetry between the utility and the regulating authority. For the Hong Kong utilities, a permitted rate of return of 13.5 % on their fixed assets appears excessive in comparison to rates of return seen in other utilities world-wide.
- Rate of return regulation can provide incentives for overambitious capital expenditure plans leading to 'gold-plating'. This would appear to be happening in Hong Kong where there is significant excess capacity.
- Rate of return regulation provides weak incentives for costs efficiency, optimization of the capital structure and the cost of financing.

	Alternative regulatory structures are discussed in Section 3
The existing regulatory framework has provided a stable environment and incentives for continued investments in supply facilities to meet growth in electricity demand. The power companies have made substantial, long-term investments to provide reliable (99.99%) and safe electricity supply that supported Hong Kong's economic development over the years.	The same level of reliability and safety of supply could have been achieved by offering a lower permitted rate of return or by using performance based incentives (as in the case of the UK). The main impact of a high permitted rate of return on a fixed asset base is higher than normal returns to the utilities compared with other countries. There is no mechanism in the SCAs to correct this (up or down).
The SCAs place an obligation on the power companies to supply at the lowest possible cost.	There are incentives in the current regulatory arrangements to ensure the companies supply at lowest cost, indeed the incentive tend to work the opposite way. Neither are there any mechanisms to measure how well the companies are performing. International comparison tend to show that Hong Kong's prices are comparatively high. See Section 5 for comparisons with other countries.
The SCAs provide for periodic financial reviews and an annual tariff review, and for an annual audit of the technical and financial performances of the power companies.	These reviews are carried out in a non-transparent manner and no financial information is made available to the public. In a situation where there is serious information asymmetry and limited capability from the part of the regulating authority, financial and technical reviews are likely to result in little much advantage to the customer through lower costs and prices.
The SCA arrangement has been the instrument for making available reliable and safe supply of electricity to consumers in Hong Kong for some 60 years.	The SCA arrangement has worked well towards achieving the objectives of safety and reliability of supply in Hong Kong; however, there is scope for improving the economic efficiency of the utilities and for passing some of the cost savings to the consumer. The Consultation Paper accepts the major drawbacks of the existing SCAs: high permitted rate of return, over-investment, inflexibility and lack of transparency.

3 **The Future Electricity Market**

The Consultation Paper indicates that the main drivers for market reform in other countries include privatisation and improving reliability and that these are not relevant to the Hong Kong context.

Other key drivers for market reform in other countries have included improving economic efficiency of the industry and lowering prices by introducing competition and reducing market power. These are relevant to the Hong Kong situation.

Environmental protection

To achieve the required emission reduction targets, the Consultation Paper indicates that emissions from power generation in Hong Kong will be capped and that measures taken to achieve the emission reduction can lead to substantial costs.

It is important that any plans made by the utilities to reduce emissions are properly assessed by the government to ensure cost efficiency.

Possible Approaches to Future Regulatory Regime
(1) Modified SCAs

General comment

At present the SCAs apply to the whole integrated electricity business. To improve the cost efficiency of the system it is important that the businesses are unbundled into their elements: supply, generation, distribution and transmission. This would allow cost transparency for each of the functions and the flexibility to look into the optimal regulation of supply generation, transmission and distribution segments of the electricity sector individually.

a)Return on investment:

- Rate base
- Permitted rate of return
- Review period

Rate of return regulation

- The use of an equity base approach to determine the rate base would reduce the incentive of gold-plating which seems to be a significant problem in Hong Kong at the moment.
- Using the cost of capital approach to determine the permitted rate of return would be more appropriate for the Hong Kong situation than looking for comparisons with other utilities. The capital structure and the cost of capital can be derived through a consultative process. The regulator's main activity would then be to ascertain the reasonableness of

the investment. It could also be possible to benchmark the capital cost of different category of assets.

- The review period should be such that it provides sufficient stability for the companies with scope for flexibility. A 15 year period is good for stability but it does not offer any scope for modifying the existing regulation to reflect changes in the market or to correct errors in the existing regulation. For distribution and transmission utilities, a review period of 5 years is sufficient and is standard international practice. Five years could also be considered appropriate for generation as the system in Hong Kong is presently overbuilt.
- The development fund should be continued but monitored. Most of the interest earned on surpluses should be returned to consumers.

As discussion of the benefits and disadvantages of rate of return regulation is included in Section 3.

b)Performance -based regulation

See section 3.

c)Tariff regulation

- Existing method but with increased transparency
- Linking the tariff to economic indicators

Existing method

Increasing transparency will not be obtained by simply publishing information. It is of paramount importance that the elements that make-up the tariff are known and that the costs associated with each element are agreed/reviewed. The pass-through of fuel costs does not provide incentives for efficient/economic fuel procurement. A fuel related index is discussed in Section 3.

Economic indicators

This is price-cap regulation and it is discussed in Section 3.

(II) A Regime with New Features

a)Increased interconnection

Customer choice: The Consultation Paper indicates that to allow all

The interconnector is presently used for providing spinning reserve. It would be possible to make around 500MW of the interconnector capacity available for trade. This would not require any reinforcement of the

customers in one service area to have full access to supply sources in the other service area, the interconnection as well as the networks of the two power systems would have to be much enhanced. There would also be significant environmental and space requirement issues associated with the network enhancement; and secondly, the two power companies would need to develop substantial additional generation capacity to cater for supplying customers in both service areas.	networks and it would not require increasing generation capacity in the companies. On the contrary, trade across interconnectors within European countries is used to avoid building new generation capacity. For trade to be possible across the interconnector the key issues are commercial not technical. At present and with no new entrants in the market, the incentive to change suppliers and therefore to trade across the interconnector is minimal due to the similar costs structures of the two utilities. This situation would change if new suppliers offering electricity at lower prices were to enter the market. (See section 4).
The Consultation Paper states that lessons from other economies have indicated that introducing more players into the electricity market to provide customer choice is not without risks, and lower supply reliability and price fluctuations could be the outcome.	Price fluctuations are one of the characteristics of competitive markets and this is the case in competitive wholesale electricity markets. In such cases, exposure to price fluctuations can be reduced through the use of adequate financing tools by the market players involved. The pass-through of these fluctuations further down the electricity supply chain depends on the system's contractual structure. Supply reliability does not need to suffer as a result of increased competition in generation if the system is regulated adequately.
Optimising System Resources: The Consultation Paper explores greater coordination of planning	Joint and coordinated planning by the two utilities is one way to achieve optimisation but it is hard to see what the incentive structure is for such arrangement. If government wishes to undertake the role of system optimiser, it would have to change its role from a light touch regulator to a strong regulator as it would have to intervene into the non optimal aspects of the individual plans being implemented by the utilities.
Reliability Considerations: Major blackouts in North America and Europe in 2003.	Interconnectivity does not have to lead to black outs. On the contrary, if systems are well managed this improves the reliability and flexibility of individual systems.

B) New Supply Sources

(i) Supply from Mainland China

Importing electricity from the Mainland to meet part of the demand in Hong Kong could relieve dependency of and reduce emissions from local power generation, and introduce new suppliers to the local electricity market.

Import of electricity from Mainland China may be a cheaper option for the Hong Kong utilities than setting up their own generation plants. Similarly, under a regime of effective customer choice, customers and suppliers may choose to import from Mainland China, which would result in loss of sales for the Hong Kong utilities. This would put pressure on CLP/HKE to lower their prices. This of course would be limited to the extent that independents had access to interconnector capacity.

At present, about 7 % of electricity is exported from Hong Kong to mainland China at undisclosed tariffs. However, if the supply situation changes in Guangdong province in future when a proposed hydro project and a nuclear power plant come online, there may be a possibility of procuring cheap electricity from China although the reliability of the connection with China would need to be considered.

(ii) Supply from Other Local Sources despite local environmental and physical constraints such as lack of hydro resources, renewable energy has the potential to provide electricity supply to meet some of the electricity demand in Hong Kong Council for Sustainable Development sought the views of the public

Supply from renewable sources needs to be assessed looking at resources, costs and possible incentives. An important segment of new entrants may be self-generators, using renewables or conventional generation. To incentivise these, it will be necessary to provide a framework that does not unfairly penalise self generators for top-up and spill of supplies. This will require that the rules for handling balancing energy are codified in a balancing and settlement code.

c) Third Party Access (TPA)

TPA is essential to develop the system and should be mandatory otherwise it is open to discrimination and abuse by the incumbents. Good practice is a published set of tariffs and conditions that provide unambiguous, transparent and non discriminatory access. Without these, transaction costs are so high as to block access.

4 **Implementation**

Regulatory Arrangement

Option 1 – Bilateral agreement

As already discussed under Chapter 2, the present SAC's are inflexible, they do not allow for changes in the market conditions and for adjustments to be made. Reducing the time period does not need to undermine investment. Moreover, due to over investment patterns in the past, combined with low demand growth, the rate of investment required at present in the medium term future is not high.

Option 2- Regulatory framework supported by legislation

- It would be too intrusive into private business operation
- It would signify an overhaul of a regulatory framework that has generally operated satisfactorily for several decades.

CLP and HEK are private monopolies, therefore, the government of Hong Kong could justifiably argue that a degree of intrusion is required in order to ensure economic efficiency.

In the present regulatory framework there is already considerable interface between the government and the utilities. There are annual audits to monitor the technical and financial performance of the utilities besides the system of annual tariff reviews. Criticisms of this system are that it is inflexible, non-transparent, there is no system of public hearing and information is not made available to the public. Also, due to information asymmetries the regulating authority is captured by the utilities. A regulatory framework supported by legislation could address all these issues but it would rely on the regulating authority having the right capabilities to analyse the information provided by the utilities. This type of regulatory framework is standard practice in many countries around the world and it is not considered too intrusive.

It could be argued that the present regulatory framework has not operated satisfactorily because it has allowed the utilities to realise super normal profits without incentivising cost efficiency thus resulting in high electricity prices for the end consumers.

Institutional Set-up • Option 1 – Current Approach • Option 2 - Rationalisation within the Government • Option 3 - Separate Regulatory Authority	As the Consultation Paper recognises, Option 1 is open to coordination and interfacing problems between different bureaux and departments within government. This could be overcome by pooling together all government resources into one unit as suggested in Option 2. In both options 1 and 2, with the regulatory authority being part of government, it is possible that electricity issues may become entangled with other governmental policy objectives. This is less likely if the regulator is independent from government. Most markets overseas have an independent regulatory authority, being independent from government allows the regulator to be more objective and better represent the interests of all stakeholders, not just the utilities. For all three options, it is recommended that the capability of the regulatory authority is strengthen from present levels.
Implementation Schedule	To reduce uncertainty, it would be necessary to complete the consultation process and finalise arrangements as soon as practicably possible to enable any changes in legislation to be in place when the current SAC's expiry in 2008.

3 Regulatory Best Practice

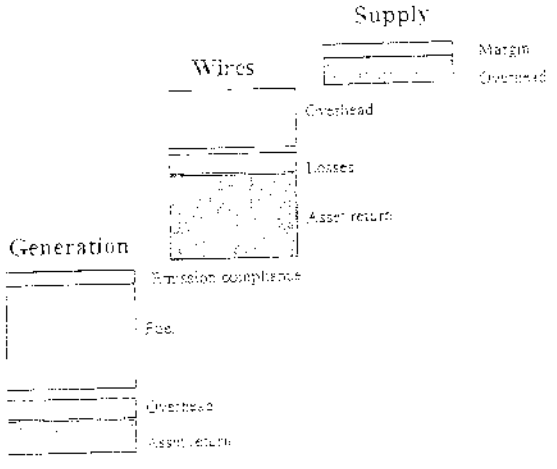
3.1 Need for Unbundling

Electricity tariffs are built up from a number of components that reflect very different underlying economic parameters. It is usual to separate out the making and selling electricity from its transport and delivery. The traditional Electricity Supply Industry (ESI) segmentation is: generation, transmission and distribution (T&D) and supply (or retailing).

The provision and operation of electricity network (T&D) is normally considered a natural monopoly because it is generally believed that there is little potential for "wire-to-wire" competition. In contrast, electricity generation can in principle be undertaken by any number of suitably accredited parties who may compete to offer energy and reserve. Similarly, electricity supply can in principle be undertaken by any number of suitably accredited parties.

Effective regulation requires that the separate businesses are identified. The second reason to unbundle the different businesses is to provide the appropriate framework for encouraging competition in contestable parts of the industry, namely generation and supply.

Figure 3-1: How Electricity Tariffs are Built Up



3.2 Regulating Electricity Network Businesses

3.2.1 Principles of Regulation

Networks are natural monopolies so price must therefore be regulated. Regulators will typically want to provide the lowest prices for final customers consistent with:

- incentives for private companies to continue operation
- safety, quality and (perhaps) social objectives

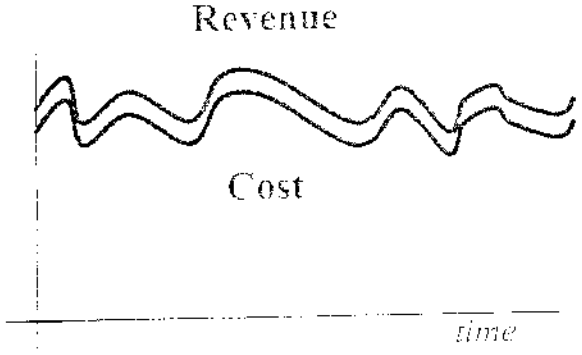
The fundamental regulatory problem is information asymmetry. The regulator does not know as much about the company's operations (especially costs) as the company and particularly does not know the potential for cost savings.

There are two broad ways of regulating wires businesses:

1) Low-powered regulation - set prices to reflect a firm's actual costs ("cost-plus" or "rate-of-return" regulation)

- regulated firm never makes "excess profits" or losses, consumers never pay more than cost-reflective charges
- but regulated firms have no incentive to reduce costs

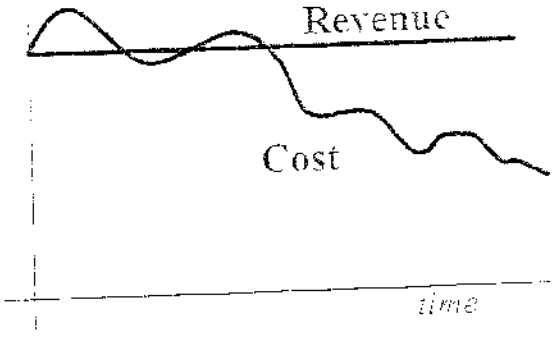
Figure 3-2: Low Powered Regulation



2) High-powered regulation - prices do not change as costs change. A revenue cap is set

- strong incentives to reduce costs
- consumers do not see benefits, charges not cost-reflective, profits could be high or company could make losses if cap set unreasonably tight.

Figure 3-3: High Powered Regulation



3.2.2 Regulation in Practice

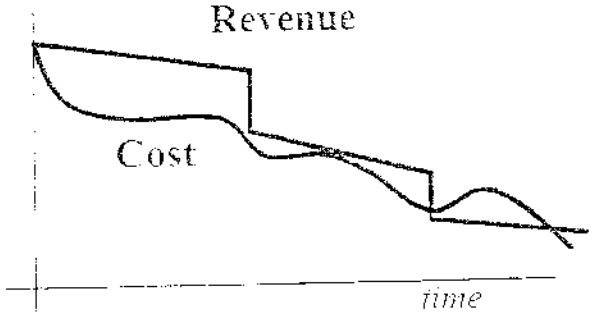
Good regulation consists of trying to:

- strike a reasonable balance between objectives of cost-reflective prices and incentives to reduce costs
- find ways of relieving the tension between these two objectives - high-powered regulation to set prices which move with target costs
- recognise that some activities are under the firms' control (and should be incentivised through high-powered regulation), while some costs are uncontrollable and low-powered regulation is more appropriate - use a mixture of approaches

RPI-X as initiated by the UK is considered best practice. This works as follows:

- set price so that prices are fixed (but not constant) over a defined period (typically 4 or 5 years)
- at price control review set:
  - P_0 cut - one-off reduction in prices to bring them into line with costs
  - X-factor - annual reduction in prices for expected productivity growth
- price at end year 1, $P_1 = P_0 * (1 - RPI\text{-}X)$. This means prices rise by less than inflation. The X-factor can be positive (where there is reasonable cause to believe costs are rising) in which case prices will rise.
- If companies achieve faster productivity growth than X, they make profits above the "allowed rate", for a limited period

Figure 3-4: RPI-X Regulation



(i) Refinements on RPI-X

An alternative way of balancing the objectives of consumer benefits and incentives to reduce costs is **sliding-scale regulation**. Instead of waiting to cut prices to reflect reduced costs, cut prices partially to reflect reduced costs immediately. The UK has used this arrangement, e.g. NGC transmission services scheme, Transco access charge auctions.

Another alternative is **Yardstick Competition**, whereby firms are set prices reflecting industry average costs (through P_0 and X) but their own cost reduction has little or no effect on the yardstick (e.g. Ofgem's use of efficiency measures in England & Wales). This probably is not applicable in Hong Kong because of the small number of regulated companies.

A number of regulators worldwide are also linking revenue recovery with performance measures, under what has been called **Performance Based Regulation** (PBR). Network companies are being set targets for quality of supply, environmental performance and customer service and are rewarded for achieving targets.

In summary, good regulatory practice involves using a mixture of high-powered and low-powered regulation, PBR indices and yardsticks for different activities. The selection of technique will depend on the sophistication of the regulator, number of comparators, investor attitudes, management practice and interests, consumer group monitoring and interest and so on.

3.2.3 Regulating Generation and Supply

In an ideal world there would be no need for regulating the generation and supply businesses, because competing parties would ensure that end-user customers got a fair deal and companies earned a reasonable return for them to stay in business. There are a several markets that now approximate this ideal. More common are markets with competition, but with continuing regulatory oversight in order to ensure that dominant parties do not abuse their market power. However many, including Hong Kong are a long way from this situation.

The current dual monopoly position in Hong Kong means that, barring a full scale dismantling of the current companies' generation and supply business, there will be a continuing requirement to regulate the prices charged by the dominant generators.

Many of the same principles as outlined above for network business can be applied to generation and supply businesses. As above, effective regulation requires breaking down the costs into the various components and applying simple pass for uncontrollable costs, but RPI-X targets for controllable overheads. Assets need to be independently valued and projected capital programmes agreed in advance. Rates of return would need to be consistent with those applied to the network businesses, although they may need to be adjusted for different risk factors.

3.2.4 Efficient Fuel Procurement

Fuel tends to be the largest element in life-cycle costs of generation, so ensuring efficient procurement is critical to cost control.

One way to incentivise generators to purchase efficiently is to use appropriate market indices to determine how much they can pass through to the wholesale price. These schemes have been widely used by private power generators for many years.

Appropriate indices would need to be selected for all the main fuels used: coal, gas, fuel oil and distillate. Given the existence of legacy fuel purchase agreements, particularly long term take-or-pay (ToP) agreements for gas, it may be necessary to apply these indices only once a minimum contract volume has been lifted. A more effective although complicated alternative, would be to transfer any ToP obligations to a regulated "special purpose entity" and recover these costs separately, through a surcharge on CLP/HKE customers.

4 Encouraging Competition in Generation and Supply

4.1 Required Rule Changes

In principle there is nothing to stop new entrants coming into the generation and supply markets in Hong Kong. In practice, there are two major obstacles that block independent entry:

1. Hong Kong lacks published terms of grid connection and access for third parties, so interested parties have to negotiate with the incumbent operators. These operators have no interest in offering cost reflective terms, and there is little recourse for aggrieved parties.

2. There are no agreed terms for top up and spill with the system operators, so securing terms which would make generation and supply commercially viable are problematic.

It would be comparatively simple to introduce rules for grid charging and for balancing and settlement to cover these issues. There are many markets where such codes have been established.

4.2 Access to Wholesale Supply

The problem for new entrants is that all the generation assets are owned and controlled by the two dominant companies, so gaining access to lower priced wholesale energy is in practice difficult.

There are three possible routes to gaining access to lower cost supplies:

- **From new generation plant located in the Hong Kong region**. This requires access to suitable sites which are limited due to the unavailability of land in Hong Kong, and it would entail considerable investment. There would also be a lengthy lead time (4-5 years) between committing to build and producing the energy

- **From imports**. This is possible right away, however, it would depend on the arrangements for interconnector access being freed up. The current incumbents have already contracted for imports and exports from Mainland China, so it would be difficult to get access, (without these parties being compensated for loss of income). Of course, new interconnector capacity could be added, but this would take considerable commitment in time and capital. As mentioned in section 2, the issue of reliability of supply from mainland China would also nee to be considered.

- **From a call upon existing generation assets**. This would involve the regulatory authorities forcing the incumbent generators to offer part of their capacity to third parties, through a lease or sale arrangement. A lease arrangement is easier to arrange and provides less of a direct challenge to the incumbent. There are three possible options:

  - The simplest approach is to require the incumbents to auction to third parties a certain amount of generation capacity. The incumbent would continue to operate the plant and is allowed to recover the investment costs, overheads on the capacity and an index based fuel charge. This effectively means that the third party has access to wholesale energy at the same cost as the incumbent does, if the latter's fuel purchase costs exactly tracking the index.

  - In markets where fuel derivatives trading is well established and appropriate indices exist it is possible to allow the third party operater the option to source fuel themselves, in which case they are paid/or pay the difference, depending on whether they bought below or above the index.

  - There is a third option of transferring the physical procurement responsibility for the nominated capacity to the third party operator. Given the need for logistics co-ordination and the ensuring quality of supply for operational and compliance purposes the procurement will need to be within defined guidelines

It is worth noting that all three of these techniques have been applied in other markets

4.3 Access to Customers and Incentives to Switch

Hong Kong does not operate protected franchises for supply, which means that in principle a customer can contract with any licensed supplier. This means that a supplier that can get access to wholesale energy can sell to all customers. All customers are eligible.

As far as we know, no Hong Kong customers have elected to take independent supply. While this almost certainly reflects the lack of independent generation/ imports, suppliers would probably be blocked by the lack of transparent rules for grid access and balancing and settlement. This effectively increases the transaction costs hugely, and also increases the penalties for non-delivery.

If the regulating authority were to impose new codes for both grid access and charging and for balancing and settlement this would substantially reduce the transaction costs and would also ensure that third party generators and suppliers were charged on a reasonable cost reflective non-discriminatory basis.

Typically, competitive supply arrangements entail more complex and sophisticated metering, data processing, communications and IT systems. These additional metering and settlement administration costs are typically recovered from the end customers. If these add-on costs were very low or smeared over the whole customer base, then there would be a considerable interest among customers to take competitive supply. However, if the costs were higher and/or a high proportion was born by switchers the incentive to switch would be less.

A well designed settlement system would keep these settlement administration costs to a minimum, even if the bulk of the costs were recovered over the switchers. Even so, these costs are likely to be comparatively large compared with the savings that the smaller residential customers would make from switching. This suggests that only a sub-set of customers would be prepared to desert their incumbent (host) supplier.

This is important, because if a large proportion of the customer base were to decide to compete for independent supplies then this would drive the price up, potentially to a point close to the prices offered by incumbents. In practice, none of the markets that have been fully liberalised have seen even half of the customer base switching, because of the high transaction costs versus the savings available. However in many markets, the switchers have seen very considerable gains versus their incumbent supplier.

Ultimately, the balance of demand and supply for third part supply would determine how much of a discount would be achieved versus the tariff offered by the incumbents.

4.4 Market Design Issues

If competition was to be introduced, it would require a system for clearing the price. The simplest way in a market with only a few participants is to have a market mechanism based on trading with imbalance settlements. This means that buyers and sellers contract with each other at their agreed price and that any differentials between out-turn and contracted volumes are cashed out according to some pre-agreed top-up and spill arrangement with the system operator (in this case the two incumbents).

The main alternative market mechanism is a wholesale Pool, whereby generation prices are set by a market clearing auction. Under this arrangement all generators get paid the same price and all suppliers buy from the Pool at the same price. Even so, a third party supplier could contract with a third party generator (probably an arm of the same company) at prices below the Pool price, in order to undercut the incumbent's tariff offers to end user customers. In other words financial contracts are used to bypass the Pool. Other than this the market would function as in the traded market arrangement described above. For this mechanism to work effectively, it is necessary to have players that can not easily exercise market power and game the pool.

5 Support Data

5.1 International Tariff Comparison

The two power companies in Hong Kong apply an increasing block tariff structure for residential customers to promote energy efficiency and conservation. For general non-residential customers, CLP applies a decreasing two-block tariff structure while HEK applies an increasing two-block tariff structure. For non-residential customers with high energy consumption and high power demand, both companies offer a tariff comprising an energy charge and a demand charge, both of which have two decreasing block tariff structures.

According to the Civic Exchange/ CLSA's 2003 report, the average tariffs in 2002 for CLP and HKE were HK$ 0.88/kWh (11 US cents/kWh) and HK$ 1.013/kWh (13 US cents/kWh), respectively. These are averages across all users.

Table 3.5: Retail prices of electricity in selected countries (4th quarter of 2001) (US$/KWh) [illegible]

Country	Electricity for industry	Electricity for households
Australia	0.0664	0.0961
Austria	0.0421	0.1214
Canada	0.0363	0.0801
Chinese Taipei	0.0562	0.0976
Denmark	0.0567	0.1968
Finland	0.0364	0.0762
France	0.0558	0.1317
Germany	0.0780	0.1808
Greece	0.0491	0.0971
Hong Kong (see note 1)		0.12-0.13
Iceland	0.0501	0.0559
Italy	0.0823	0.1343
Japan	0.1405	0.2144
Korea	0.0551	0.0883
Netherlands	0.0574	0.1810
New Zealand	0.0371	0.0668
Norway	0.0336	0.0716
Spain	0.0561	0.1482
Switzerland	0.0709	0.1112
United Kingdom	0.0469	0.1013
United States	0.0475	0.1067

Note 1: Hong Kong figures are not included in the IEA statistics. As CLP/HKE do not provide an average [illegible] for specific users, the range given here is the average of CLP/HKE average charges for 2001 (which [illegible] non-domestic users) and the average of CLP/HKE charges for domestic users for 2002 as shown in Table 2.3 and 2.4.

Comparing electricity prices in different countries is dangerous given different regulatory structures and subsidy policies, but the Civic Exchange's figures suggest that Hong Kong's tariffs are between 20% and 40% higher than equivalent domestic and industrial tariffs in Singapore. The report also notes that since the onset of deregulation and privatisation in the UK and Germany, end-user tariffs have fallen over 30%.

5.2 Return on Equity

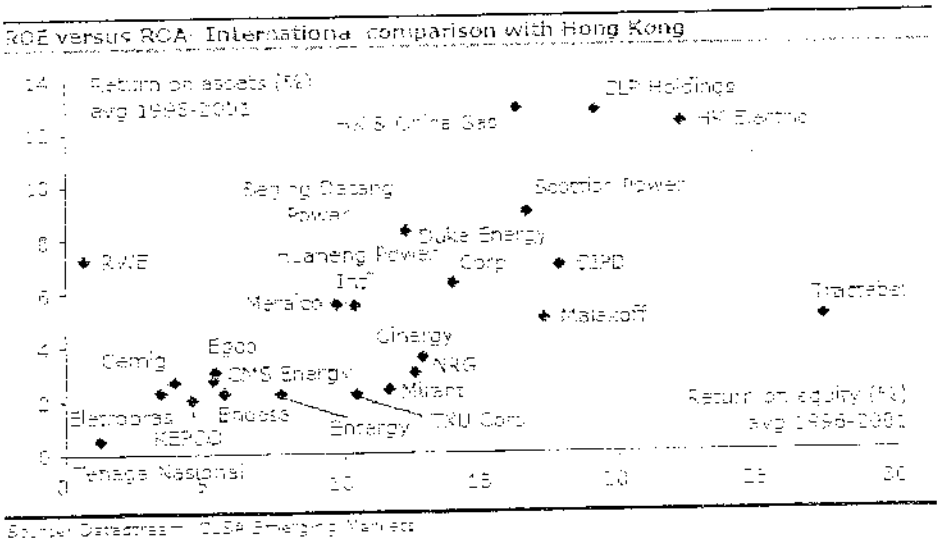
Civic Exchange CLSA's have also examined the returns on equity for CLP and HKE and these are shown to be very high by international standards – see Figure 5-1. However, the company's cost of capital is not especially high. According to Kim Eng Securities the WACC (weighted average costs of capital) for HKE and CLP was 7.9% and 7.73% respectively.

Table 5-1: Real and Nominal ROE for CLP and HKE

Real and nominal ROE for CLP and HKE			
Period		CLP (%)	HKE (%)
1946-58	Nominal ROE	25.7	23.7
pre SoC	Inflation rate	1.0	1.0
	Real ROE	24.7	22.7
1964-78	Nominal ROE	15.0	15.5
1st Scheme	Inflation rate	5.8	5.8
	Real ROE	9.2	9.7
1979-93	Nominal ROE	20.4	20.5
2nd Scheme	Inflation rate	9.4	9.4
	Real ROE	10.9	11.1
1994-2008	Nominal ROE	22.2	24.6
3rd Scheme	Inflation rate	2.8	2.8
	Real ROE	19.4	21.8

Source: Dr Rueilee Lam. *The Scheme of Control on Electricity Companies* - updated by CLSA Emerging Markets courtesy of CLP annual reports

Figure 5-1: Return on Equity versus Return on Assets



Source: Datastream, CLSA Emerging Markets

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"Electricity Market Review: Transmission Access", Energy Advisory Committee, EDLB, 2003

"Competition in the Power Sector, Restructuring the Power Sector: Options for Reform", Stephen Bronstein, Civic Exchange, May 2003

"nk cheung"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Development of the Electricity Market in Hong Kong Stage I Consultation.
☐ Urgent ☐ Return Receipt

2005/04/30 04:41 PM

Dear Sirs,

I refer to Stage I Consultation Paper on future development of the electricity market in Hong Kong and would like to express my views as follows:

Hong Kong is well developed city. A reliable electricity supply is very important to our daily life.

If we want to maintain our efficient operation and world class service in financial business, commercial activities, industrial production and transportation, we cannot afford to have any power shortage or blackout in Hong Kong .

Both CLP and HEC have been providing a good quality of electricity supply to us in the past decades. I do not expect to have any reform or changes in the local electricity market after 2008.

Best regards,

N K Cheung

董局長：

請不要放電力市場

美國加州电网被控，電費加

私多次大停電。

市民

NINA Kuo



2005/05/01 01:12 AM

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
Urgent Return Receipt

realname: Ng Kam Fai

subject: My Opinion on Future Development of Electricity Market

Enquiry: I would like to express my opinion that I\'m really satisfy with the current situation. Electric bill is reasonable and electricity supply is reliable.
Hence, I opine that the current scheme of control should be maintained.
Other options seems to be risky to Hong Kong and may harm Hong Kong\'s economy.

Eric Ng

25/04/05 04:59 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage I Electricity Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sir,

I live in Shatin for 6 years. I found that the electricity supplied by CLP is very reliable although sometimes the electricity is suspended for reinforcement work. I also found that electricity cost charged is affordable when comparing with current living standard.

Overall, I am satisfied with existing scheme of control signed between the Government and CLP and Hongkong Electric Co.Ltd. In particular, I think that a regulatory period of 15 years is appropriate in the electricity industry as the companies incurred billion dollars on their investments. The companies expect their return with much longer period rather than just 3-5 years. In such short period of time, the companies will have no intention to build large plant in order to maintain stability of electricity in Hong Kong.

I think that electricity investment may be as long as 50 years, otherwise they are not willing to invest. So in the current Scheme of Control agreement, the regulatory period is 15 years which is reasonable both to the controlling parties and the investors.

Therefore, my overall opinion is that in the next scheme of control i.e. after expiry of existing scheme of control in 2008, the new term in the scheme of control agreement should be same as the current one.

May I take this opportunity to thank you to consider my opinion in drafting the new terms in the scheme of control agreement with CLP and Hongkong Electric Co. Ltd after 2008.

Regards,
Ng Kwok Ping

YP

28/04/05 10:35 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: CONSULTATION PAPER ON FUTURE DEVELOPMENT OF THE ELECTRICITY MARKET IN HONG KONG
☐ Urgent ☐ Return Receipt

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sir,

I enjoy the present power supply quality and do not want it to be used as political tools or as white mouse.

Of course, I enjoy of paying less if the service can be maintained at the same level. However, if the proposal cannot guarantee a positive service improvement, it is not acceptable to make a big trial which might take very long time/high cost to implement and very difficult/ impossible to recover when prove not workable.

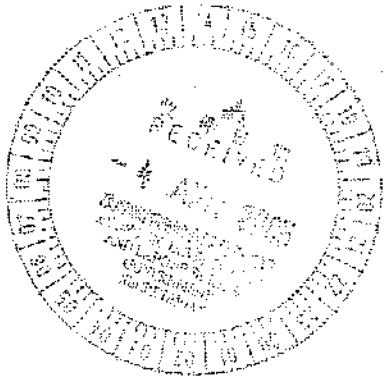
As the SCAs seems working satisfactory, it would be more comfortable to make fine tuning on the present scheme to compromise between the requirements of the general electricity users and the two power companies in Hong Kong

ROR on Asset would ensure the willingness of the investor to invest in the industry. The public/ Government can approve only suitable planning for the industry to acquire suitable type of asset which can offer long term benifit to Hong Kong as well as the afordability og the general public.

ROR can be agreed base on the performance of the industry like supply security/ quality performance, on contributions to the safety issues, to the environment issues and to other public interests like substainable energy issues and the most important one, on the balance of a resonable electircity tariff and attraction of long term investment.

Ng Yuen Por

香港是一個國際都會城市，每一個在香港居住的市民或投資者，都會希望香港能保持安定及舒適的環境，所以电力供應的穩定性，是十分重要，而確保供电的穩定性，必須要有充足的資源，所以市民須要有舒適的環境，就等同投資發电的投資者要有穩定的投資環境一樣，所以現行制度是良好的



AGNES YAN

woo ming yin

22/04/05 11:37 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultation Paper on Future Development of Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sir,

I have the following comment in response to the above subject.

1. As heard and discussed with my relatives and friends in US and

Australia, open and deregulate the electricity market have led to an increase in tariff as well as the frequency of blackout. The incident of electricity crisis occurred in California due to deregulation is a typical example.&nbs! p; Such incident has led to significant economic loss. As Hong Kong is a major financial center, any blackout or shortage of electricity will definitely cause significant economic loss. How will the Government to ensure that no such incident occur in Hong Kong if the market is to be opened and deregulated? And who will be responsible for such loss if it does occur?

2. Although the public commented that interconnection would bring to a decrease in tariff and the reliability will not be affected. I don't agree with this because of the followings:

- As learnt from books that cost of electricity is basically comprised of cost of generation and cost of transmission. The cost of generation for the two electric companies in Hong Kong should be similar since they use the similar fuel. However as the Hongkong Electric Co. use cable tunnel for transmission while the China Light and Power Co. use overhead cable, the cost of the latter should be much cheaper. So even interconnection is made, I don't think the people living in the Hong Kong Island can be benefit since the transmission cost in Hong Kong Island will probably higher than that of in Kowloon side.
- On the other hand, interconnection will create a problem of cascading damage if failure occur in one of the electricity suppliers. The major blackout in Europe occurred previously is a typical example of such tremendous cascading impact that resulted from interconnection.
- I personally reckoned that getting electricity supply from Mainland China is not quite possible since as far as it can be seen, shortage of electricity in China will persist for significant period of time due to her rapid economic growth. Moreover as the environmental protection work in China's power plants is inferior to that of Hong Kong's, obtaining electricity from China means encouraging pollution to the Pearl Delta Area.

Since there is no guarantee for reduction of electricity tariff and on the other hand, reliability of electricity supply may be affected and air quality will further be deteriorated, I do not see any reason for supporting the interconnection.

3. As far as I know, the electricity tariff for commercial users is higher than that of domestic users. In another words, the former is subsidizing the latter. If the market is opened and deregulated, there may be high chance that the tariff for the domestic users will increase since such subsidy may no longer exist. Under such circumstance, domestic users are forced to pay more for the same quantity of electricity received and

this is definitely unacceptable.

4. At present, I don't think the tariff for domestic users is too expensive. The expenditure on electricity only constitutes to ~1.6% of my total expenditure, which is much lower than that of traveling expenses (~10%). I reckon it is worthy in return of a stable and reliable electricity supply.

On the whole, as a citizen of Hong Kong, it is definitely glad to see a reduction of electricity tariff, however a stable and reliable supply of electricity is also important to us. We definitely do not want to have the same experience of overseas blackout due the wrong decision of opening and deregulating the market. Moreover, as the air quality of Hong Kong is deteriorating, I would rather to pay a bit more in exchange for fresher air and better health. I strongly believe the principle of 'Pay for Quality'.

Lastly, I would like to point out that should the change in electricity market results in drop in reliability, frequent blackout or suspension of electricity supply or increase in tariff, who will be responsible for compensating our citizen?

Yours faithfully,

Nicholas Woo
A Hong Kong Citizen

Dear Sir,

Re.: Electricity Supply Market

I should be happy,but I think not only me, all HK citizen will happy if the electricity rate can be lower. However,if it affects the reliability supply because of the cheaper rate, it is not worthwhile.

The reliability of electricity supply and services are very important and also key factors for the successful of HK to become a prosperous and financial center of the world.

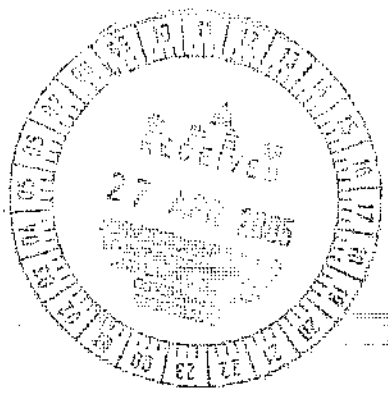
I don't think it is benefit to HK to have electricity supply from Mainland China due to the technical and economical aspects.

A more practical measure is to extend the present Control of Scheme even after 2008 but with revised terms and conditions, especially the percentage of the official allowed net gain profit under the negotiation and agreement between the both CLP, HKE and the Government of HKSAR.

Thank you for your attention.

One of the HK citizen

April 2005



"Ibrahim El-Mouelhy" <ibrahim@team.outblaze.com>

29/04/05 03:07 PM

To: <electricitycomments@edlb.gov.hk>
cc: <ysiu@outblaze.com>
Subject: electricity consultation response
☐ Urgent ☐ Return Receipt

To whom it may concern,

attached please find the Outblaze response to the consultation paper on future developments of the electricity market in Hong Kong.

best regards,
Ibrahim

Ibrahim El-Mouelhy
Director, Communications & Marketing
OUTBLAZE LTD.

http://www.outblaze.com



Outblaze energy response.doc

Outblaze Limited, Unit 1106-08, Cyberport 2,
100 Cyberport Road, Hong Kong
Tel: +852 2534 1222 Fax: +852 2832 7807 Web: www.outblaze.com

April 29, 2005

Subject: *Hong Kong Government consultation of Regulation of the Energy Industry*
http://www.edlb.gov.hk/edb/eng/papers/electricity/pdf/Consultation_paper.pdf

A preliminary evaluation of the Consultation on the new regulatory environment for the electricity supply industry.

1. The need to prevent the adverse health effects and premature death from air pollution among the people of Hong Kong is not mentioned in this document. "The environment" is not merely good air visibility that satisfies an emotional need. Safeguarding the environment must entail clean, healthy air for the people to breathe. A recent study from UST assigns an economic price on sickness and premature death caused by air pollution; these costs must be included in this document and in all consultations and considerations of this matter.

2. The concept of responsible energy use is not included in this document. Providing the framework on this key element could offer substantial improvements to the environment.

3. The security of the Hong Kong SAR is at risk if we do not have a fully integrated power grid both locally and with the mainland in order to protect us from unexpected disasters. This concept has not been addressed.

Outblaze would like the government to conduct further study into the matter.

Regards,

Ibrahim El-Mouelhy
Director, Corporate Communications
Outblaze ltd.

2005/04/30 06:01 PM

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: P Cheng

subject: Future Development of the Electricity Market in Hong Kong

Enquiry: I totally agree with the Government's policy objective with regard to the Electricity Market in Hong Kong and believe that the current SCA regime has successfully achieved the objective and should be continued.

The consultation paper raises the issues of increased interconnection, choice of suppliers, new supply sources, supply from Mainland China, etc for consideration for the future electricity market. In short, an open electricity market for Hong Kong.

As an electrical engineer with over 20 years experience in power system operations, I like to put forward my comments on this issue from the supply reliability point of view.

I am sure we all know the importance of reliable supply for a world-class metropolitan city like Hong Kong. It is even more so for Hong Kong because the majority of people in Hong Kong carried out their daily business and live in high-rises.

Introducing an open electricity market will definitely undermine the outstanding level of reliability that Hong Kong is enjoying for the following reasons.

High level of reliability requires thorough planning, quality construction and high standard of operations. This works best in a totally integrated utility company such as HEC. When generation, transmission and distribution are owned and operated by different parties, accountability and responsibility are liable to become biased and blurred.

An area's supply reliability will depend on the healthiness of other jurisdictions and their operating practices.

There may not be sufficient incentive for the owners and operators to make investments in quality equipment and in training of staff.

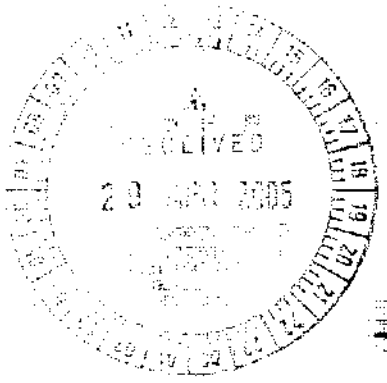
Numerous examples of the above could be identified from the incidents of major supply loss around the world in recent years.

局長先生

有見於貴局對兩電管制計劃作出諮詢,本人有以下想法

1 對於電灯公司之服務,本人非常滿意
2 本人覺得沒有任何的原因要更改現有的電力管制計劃

PF TAM
23-4-2005



Dear Sir or Madam,

For the Stage I Consultation Paper with regard to the Post-2008 electricity market in Hong Kong, I have the following comments:

1. No low-price electricity guarantee

Deregulation has no mean in "low-price" electricity. With no doubt, introduction of competition can lower the price selling, but the constraint is limited to base load only. According to the experience of other places, price for spinning reserve is an extreme. To avoid this problem, load forecasting plays an important role to the electricity market under deregulation. This is also introduced another problem: load forecasting.

2. Load forecasting

As above mentioned, accuracy in load forecasting can insure the end-users to enjoy cheap electricity price. In vertically integrated industry, utilities traditionally used regression analysis and historical trend projection for the load forecasting. The MAPE will not be widely deviated. However, there are more factors to be encountered when the market is deregulated. The adverse effect of more factors is to complicate the forecasting methodology. End-users will become the victims to suffer the under- or over-estimation of power demand.

3. Structural problem

Transmission Open Access (TOA) is the characteristic of deregulated structure because it is "natural monopoly" in order to achieve openness, fairness and justness to the IPPs. However, the transmission networks in Hong Kong are the assets of private sectors. How to implement TOA in Hong Kong is in question.

4. Tariff methodology

The existing tariff methodology in Hong Kong is "Postage Stamp". Deregulation will introduce the Cost of Reliability-benefit in order to achieve fairness. What is the ratio of Capacity-use and Reliability-benefit? Or is there any feasible tariff method to be considered (e.g. MW-Mile)?

5. Unemployment rate

Now, lets look at our telecommunication market. Like other places, telecommunication is one of the common industries to be deregulated. However, open telecommunication market caused serious unemployment effect in Hong Kong. How long and how much manpower has been used to recover this hurt, so far, is still unknown. Blindness deregulation may cause community chaos. Does HKSAR government have absorbed the past experience to propose any scheme to encounter the next enormous unemployment?

In conclusion, Hong Kong is now not suitable to open the electricity market due to immature environment, people and technology. The key problem is that the electricity market in Hong Kong is too small to have too many IPPs. Of course, no one will discard to enjoy cheap electricity. Yet, cheap electricity price is not a must under deregulation. Furthermore, we have to suffer a lot of the above-mentioned problems prior to the forthcoming benefit.

We can tell growing up unless absorption of past experience!

Regards,

PTMAW

Ping Kwong CHAN

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Consultation Paper
☐ Urgent ☐ Return Receipt

25/04/05 10:36 PM
Please respond to Ping Kwong CHAN

The Officer in charge,

It appears that from examples around the world there is no perfect system for regulating electricity suppliers. All regulated markets have certain shortfalls. The same applies to deregulated markets. But the objective of regulation/deregulation is quite clear: to ensure reliability of supply at affordable price to customers and when the society grows there is adequate supply to meet the demand.

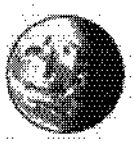
As a customer in Hong Kong, it seems to me all the pre-requisite of a good utility are present. We have been enjoying highly reliable, stable supply of electricity at a cost which is 1.7% or less of our average per capita income. That sounds perfectly reasonable. We also enjoy good customer service.

As most ordinary people are happy with the present system, why should there be any change. Change for the sake of change is dangerous. We will then be moving from what has been historically satisfactory to a grey uncertain area. We will not be able to predict our future. I guess self regulation is very important. If legislation is introduced, utilities will tend to comply with minimum standard rather than going for leader in reliability, customer service and stability. That is not what Hong Kong people would like to see.

In short I support to maintain the status quo for the Electricity Supply Industry.

Thanks for your consideration.

P.K. Chan



"pn ip"

25/04/05 08:57 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sir,

With reference to the consultation paper on the development of electricity market, I would like to say that the Scheme of Control Agreement has served Hong Kong very well in the past. The reliability of electricity supply in Hong Kong is one of the best in the world. The electricity tariff is well affordable - only 2% of household income. If something that has served us so well in the past , what is the point of changing it?

Hong Kong is a world class city. We need to have world class infrastructure. It is one of the crucial areas which we must maintain our competitive advantage.
Market reform has seen many bad experiences in the world. We must not change merely for the purpose of change. I hate to see any change that will undermine reliability of electricity supply which we rely so much for our business and day-to day life.

I support the continuation of the SOC, which meets the interest of Hong Kong.

Regards

PN Ip

28/04/05 10:06 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: electricity comments
☐ Urgent ☐ Return Receipt



comments.txt

開放電力市場在香港行不通

電力市場和電訊市場並不相同，因爲政府與兩電簽訂了利潤管制機制，容許賺取固定資產總值 13.5% 的利潤，所以兩電不斷投資興建和更新發電輸電設施，保證了供電充足和電力系統不斷更新，使發生故障的機會降低。

本港地方細小，電力需求不大，一旦開放電力市場，電力公司由於利潤下降，缺乏投資意慾，導致電力傳輸系統陳舊，負荷過重而出現故障，可能會引致發生大停電事件，在一些推行電力聯網的地區，例如北美、澳洲、中國及印度就時有所聞發生停電事故。本港作爲國際金融中心，高樓大廈林立，商業運作和市民上下出入都要求供電的可靠性和安全。

本人認爲現行 ＳＣＡ 成功地令電力公司不斷投資於供電設施，以提供可靠之電力。因此，如果電力市場開放，只是爲了電費的下調，卻換來本港電網不穩定之風險，這是十分不智的做法。

PANG Y C

10 March 2005

The Senior Officer
Economic Development and Labour Bureau
2/Flr Central Government Offices
Main & East Wings
Lower Albert Road, Central
HONG KONG SAR

Dear Officer

Future Development of Hong Kong's Electricity Market –
Scheme of Control Renewal

During my service with China Light & Power Co Ltd from 1959 until 1967, when I took up a Company Secretarial post in the UK, I was fortunate to have been involved in the early implementation of the first Scheme of Control in 1963, having been appointed as Assistant to the Manager, Cyril Wood, specifically on this matter. My wife and I have remained joint shareholders since those days.

The records of results over the years of the three Agreements show that the Scheme has worked admirably, recognition of this having been given world-wide. Hong Kong should be justifiably proud of this success.

The success can be built upon by renewal of the Scheme to the continued benefit of the Stakeholders, which clearly currently balances all their interests. In my view, the Stakeholders and the benefits they obtain comprise:

- **Investors** – a reasonable return on their invested capital
- **Consumers** – adequate and reliable supply and fair tariffs
- **Staff** – good employment through efficient Company management
- **Suppliers** – by having a reliable customer
- **Government** – gaining reassurance and admiration through monitoring and control.

The maxim "If it works, don't fix it" is a salutary one to follow, and the present Scheme of Control terms should not be amended unless this is needed because of changing market forces. However, any changes should be such that they would not cause an imbalance of benefits to the Stakeholders.

As Branko Terzic, the recognised regulatory expert on infrastructure industries has said, "(the Scheme) is an elegant solution that works in a unique environment... be very careful about doing much dramatic with it."

I should be grateful for kind acknowledgement of receipt of these views, perhaps by e-mail.

Yours sincerely

Patrick A H Baily

Response to Government's Consultation Paper on Future Development of the Electricity Market in Hong Kong – Stage 1 Consultation

15th April 2005

To: Economic Development and Labour Bureau

I read with interest your Consultation Paper on the electricity sector in Hong Kong. I would like to offer the following comments for your consideration:

1. We in Hong Kong have an excellent electricity supply system, characterised by high levels of reliability, reasonable tariffs and a fair degree of environmental responsibility. We should not take this for granted.

2. Talk of opening up the electricity market is only realistic if there is co-operation with suppliers in South China, and with the South China grid. We must accept that this is a very long term prospect – reliability standards in South China are appalling, as evidenced by the almost weekly shutdowns endured by our factory owners in Guangdong, environmental standards are very poor, and pricing remains strictly controlled by the authorities there. Please do not jeopardise the excellent reliability of supply we have in Hong Kong by attempting to set up a market with South China.

3. Given the above, the only sensible way forward is to renew the Scheme of Control agreements with CLP and Hongkong Electric.

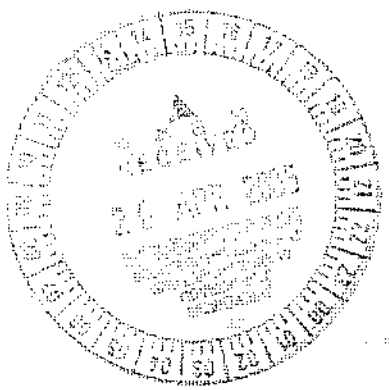
4. If we want these two companies to continue to invest in our system, and to improve their environmental performance, then simply put we have to offer them a fair, long term rate of return. In my opinion, the current rate of return is reasonable given the long term risks of the business.

5. It is better to err on the side of prudence in this matter. The consequences of misjudgment on Government's part are huge, as blackouts around the world have clearly illustrated; economic loss from the 2003 blackouts in the US alone were estimated at up to US$10 billion, not to mention the social inconvenience of citizens being without power for days.

I hope my submission has been of help to you.

Regards,

Patrick F. J. Brothers



HONG KONG

董局長

未來電力市場

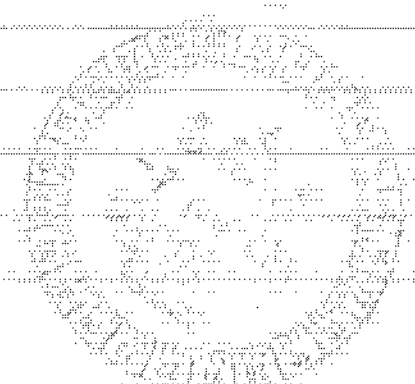
回應州經驗開放市場，設置運作，

引發大停電及政府補助，面臨失去

誰來掌握及負責

Betty Yuen

Grey Owen



"Peggy & Kirby"

25/04/05 11:26 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

I am writing to provide some comments on future development of electricity market in Hong Kong.

In my opinion, reliable and stable electricity supply is important provided that the price is not too high. Actually, current price of electricity is quite reasonable. The transportation expense is comparatively higher than that.

As my understanding, open electricity market may sacrifice reliability of electricity supply. We all know that little time of loss of electricity supply can cost much. If I pay less some money but I am in risk of loss of computer works in a sudden or trap in a lift, I will choose to pay more.

Further, I think that Scheme of Control is acceptable, but rate of return should be set to around 10% which is much reasonable.

"Perry Wong"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments
☐ Urgent ☐ Return Receipt

22/04/05 10:10 PM

I do not support deregulation in electricity market of Hong Kong. Deregulation is risky. The main fact is that, on deregulated market, many electricity supply providers will share a common electricity transmission network. Once blackout happens, the electric providers and electricity transmission companies will blame each other for the fault.This kind of total blackout was happened in U.S. and Canada in 2003. It is hard to find out the causes. It may take a long time to recover the power system. Hong Kong is a financial and commercial center, we are not afforded to this deregulated risk. We need highly reliable electricity supply.

Below is the news from CBC News on the event of total blackout of U.S. and Canada in 2003

****

INDEPTH: POWER OUTAGE
The blackout explained
CBC News Online | November 19, 2003

The massive power blackout on August 14, 2003, was caused by a series of failures that began with Ohio electricity provider FirstEnergy. This, according to a joint Canada-U.S. investigation into the outage that left 50 million people without power in Canada and the U.S. northeast.

On November 19, 2003, authorities released the findings of their three-month investigation in a 134-page interim report. They blame the outage on three main causes:

1. "Inadequate situational awareness" on the part of FirstEnergy and the Midwest Independent System Operator in realizing early enough there was a problem.

2. Inadequate tree trimming along key FirstEnergy transmission lines, allowing overloaded, sagging wires to short out on overgrown tree limbs.

3. A lack of real-time system monitoring on the part of MISO and an inability to determine the location or severity of problems. The report also cites a lack of co-ordination between MISO and adjacent operator PJM.

See below for a timeline of events leading to the blackout (all times EDT):

12:15
Midwest Independent System Operator's system monitoring tool is "rendered ineffective" after receiving "incorrect input data."

13:31
FirstEnergy's Eastlake 5 generation unit trips and shuts down automatically.

14:14
FirstEnergy's alarm and logging system fails and is not restored until after the blackout.

15:05
Some of FirstEnergy 345-kilovolt transmission lines begin tripping out after coming into contact with overgrown trees within right-of-way areas.

15:46

At this point, FirstEnergy and the Midwest Independent System Operator begin to realize there is a problem. The only possible way a blackout can be averted at this point is to drop at least 1,500 to 2,500 megawatts of load around Cleveland and Akron. No action is taken. 138-kilovolt lines start tripping out as a result of the loss of key 345-kilovolt transmission lines.

16:06

With the growing loss of transmission lines, FirstEnergy's Sammis-Star 345-kilovolt line goes down, wiping out the 345-kilovolt path between eastern and northern Ohio. Other parts of the grid are strained by the immediate increase in "unsustainable" demand.

16:06-16:13

With this critical link broken, electricity coming in from generators in Tennessee, Kentucky and Missouri, as well as northern Ohio, Michigan and Ontario, are automatically routed across alternative lines. These lines, already heavily loaded, began to trip and generators in Canada and the U.S. began to automatically take themselves offline to avoid damage.

16:13

By this point, more than 263 power plants (531 individual generating units) have tripped offline in Canada and the U.S., leaving 50 million people without power.

****
*****

peter chan

To: electricitycomments@edlb.gov.hk
cc:
Subject: Submission to consultation
☐ Urgent ☐ Return Receipt

2005/04/30 12:09 PM

TO WHOM IT MAY CONCERN

(a) Rate of Return Level

It is too high to be sustainable on a global scale, if as the 2 power companies repeatedly confirm HK is a world standard metropolitan.

It was claimed that the return level justisfies its risks. There is no credit risks in the local power business - as compared to say banks, or trading companies, there is high level of default risks i.e. customers do not pay. The 2 utilities request all customers to pay deposit and can cut supply when payment is not received. power companies claim that they cannot move their assets elsewhere easily, so are all manufacturers in every part of the world.

CLP claims that their return level is on par with HSI. This is a misleading statement. they are only camparing their holding company (002) with HSI, not the CLP Power who get the 13.5-15% from the assets they acquire. Difference ? the holding company is involved in other investment e.g. telelcom (which they make a big loss in the past 6 years), investment in China (making very low return in the level of less than 3%), investment in Australia (loss was made in previous years), all these eat into the profit made by CLP Power and get consolidated. the consolidated result - a much lower return expected because of the loss or low return made elsewhere allow them to make misleading statement as such !

(b) performance incentive

there should be concrete target on cost saving, emission performance improvement, investment scrutiny.

power companies do not have targets to meet except the obligation of supply which they would be very much more than happy to exceed the expectation of the government and the public. they get a return on assets - so more they build to meet and exceed by large margins, the more they would be reward. apart from this incentive, there is not much seen in the SCA.

so called productivity gained claimed by CLP is again an intentional misleading statement. they made use of manpower number to benchmark. it is an easy corporate trick - you without doing much, just contract out your staff, you can get your 'productivity' gain

28/04/05 07:30 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity SCA comments
☐ Urgent ☐ Return Receipt

Please find attached for your reference a Word document containing my comments on the Stage 1 Consultation Paper on the Future Development of the Electricity Market in Hong Kong (dated January 2005).

Sincerely,

Peter Gorer AIA, RIBA, LEED AP
Facility Asset Strategies



EDLB_SCA_Response.doc

CONSULTATION PAPER ON FUTURE DEVELOPMENT OF THE ELECTRICITY MARKET IN HONG KONG

STAGE 1 CONSULTATION

ECONOMIC DEVELOPMENT & LABOUR BUREAU (EDLB)
GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

PETER GORER AIA, RIBA, LEED AP

SUMMARY OF RESPONSE

My comments are concerned with energy conservation and environmental responsibility. They are grouped under three topic headings, as follows:

a) Reducing Consumer Demand for Energy in Buildings;
b) Carbon Emission Standards in Electricity Generation;
c) Promoting Renewable Energy Technologies.

Remarks relate both directly to the future structure of the electricity industry, and indirectly to Hong Kong Government policy, particularly as it relates to facilities.

HKSAR policymakers face a broad range of challenges in considering the environmental aspects of economic development, including:

- Conservation of fossil fuel stocks for future generations;
- Implementation of internationally recognized, independently verifiable energy consumption and GHG emission reduction targets;
- Development of policies for building design, construction and use that reward sustainability achievement, and penalize energy wastefulness and pollution;
- Support of decentralized 'Clean' Energy and Renewable Energy technologies, including those that have the potential to be connected to the electricity grid;
- Support of community energy efficiency and energy use reduction initiatives;
- Support for power station flyash and other waste recycling initiatives;
- Support of public awareness campaigns focusing on sustainability;
- Creation of Government 'Environmental Leadership by Example' campaigns;
- Sponsorship of research into energy conservation and sustainability issues, especially those specific to Hong Kong or the Pearl River Delta (PRD) region;
- Protection of the environmental air and water quality affecting populations, both in Hong Kong and the PRD region;
- Protection of forests, hillsides, marshes and other ecologically valuable areas, including some areas still recovering from damage caused by fuel foraging generations ago.

Recent world trends in global warming and competition for fossil fuels, together with regional increases in the demand for energy and pollution levels make it plain that the there is very little opportunity left for error in policymaking.

In restructuring the Hong Kong Special Administrative Region (HKSAR) electricity market The Economic Development and Labour Bureau (EDLB) must recognize the enormous environmental impact potential of its decisions.

The stakes are high. Future economic prosperity in Hong Kong and the population's wellbeing depend upon the Government getting it right in recognizing the linkages between electricity supply, transmission and consumption, and the environment.

LOOKING BEYOND NARROW INTERESTS

In establishing future agreements for the electricity industry, the EDLB has to look beyond the interests of those with stakes in the electricity supply chain to include the economic, social and environmental interests of the Hong Kong consumer, and the community-at-large, both within the HKSAR and the PRD region.

Plans for providing long-term energy security for the HKSAR will involve integrated effort by all branches of Government. Success also depends on the understanding and willing compliance of companies, institutions and ordinary people.

Most of Hong Kong's electricity is consumed within urban, high-rise buildings, both to make them livable, and to enable activities to be conducted within them. It is clear that Hong Kong could not survive economically or socially without reliable electrical power delivered to its buildings.

In addition to stating that reliable electricity is a 'Must', EDLB could clarify what scenarios in terms of probable future fluctuations in power station fuel prices and availability it intends to examine during Stage 2 deliberations, and produce an analysis of the probable consequences for the Hong Kong consumer.

Furthermore, since the Government is considering the integration of electricity grids with neighbors in the PRD region, EDLB needs to explain how both current and future environmental protection policies governing Hong Kong power stations compare with policies elsewhere in the PRD region. EDLB should also discuss what could be done to 'raise the bar' and ensure that other jurisdictions throughout the PRD region adopt more uniform GHG emission reduction policies.

It should also be recognized that the HKSAR Government now has a golden opportunity to forge an effective energy strategy to improve the economic, social and environmental wellbeing of the people and businesses, not only in Hong Kong, but throughout the PRD region.

The HKSAR Government's farsighted leadership in restructuring its electricity industry can become a beacon of enlightenment to guide others faced with similar challenges throughout China and beyond.

COMMITMENT AND URGENCY

Hong Kong's power suppliers will have to purchase fuels from an increasingly volatile and expensive marketplace. At the same time, it is likely that EDLB could face considerable difficulty in convincing people both within Government and the community that Hong Kong is entering a period of vulnerability because of world competition for oil, coal and gas.

First, EDLB itself has to admit to itself that whatever it does to restructure the electricity industry, Hong Kong will have little choice but to pay prevailing fuel prices, and thus it must turn its attention to what it can influence – the Hong Kong community and its natural environment.

Officials need to recognize that improving energy security needs immediate action, and that policymaking requires an integrative approach involving a wide mix of stakeholders including those with either direct or indirect financial interests, institutions, social representatives and champions of the environment.

The EDLB should also lay on the table what it expects the pattern of consumer demand to be over the next five, ten and twenty years to be.

EDLB should also be prepared to debate:

- The probable limits of fuel affordability in the short term;
- Should prolonged power outages as experienced recently in nearby cities occur in Hong Kong, what would that mean in terms of health, safety, public confidence and the economy;
- What the HKSAR Government can do between the present and the expiry of current Scheme of Control agreements in 2008 to shield households and businesses from the effects of prolonged price spikes or fuel shortages.

ENVIRONMENTAL QUESTIONS

The Consultation Paper mentions that minimizing pollution and greenhouse gas (GHG) emissions associated with the burning of fossil fuels are becoming increasingly important factors in power generation.

Questions that could be addressed during Stage 2:

- How current GHG emission controls in Hong Kong's power stations compare with international Best Practice standards. What would be the capital costs of closing the gap?
- How EDLB will quantify future emission control targets and independently measure Hong Kong power company achievements in reducing emissions;
- How the HKSAR Government aims to ensure that power generated elsewhere and transmitted to Hong Kong is generated under equivalent emissions control standards. It is essential that Hong Kong does not simply push pollution problems into other areas.
- In electricity industry negotiations, how EDLB will calculate the public health costs associated with air pollution-related respiratory diseases.

The Consultation Paper refers to the 2002 consultancy study "Potential Applications of Renewable Energy in Hong Kong", which indicated that the HKSAR Government needs to create the market to Renewable Energy (RE).

Questions that EDLB could address in Stage 2:

- How the HKSAR Government could "exercise a powerful and positive influence in the RE market by virtue of its position as Hong Kong's largest electricity purchaser and as the procuring agent for major waste management facilities that may feature energy recovery";

- How the Government intends for electricity companies and property interests to work together on a set of enabling actions to create a supportive and profitable business environment in which RE projects can operate;
- How the Government aims to secure third party access to the electricity grid, and establish governing operating conditions.

It is noteworthy that recent CLP and HEC Annual Reports to Investors give considerable prominence to sustainability concerns.

However, it is also evident that the HKSAR Government also needs to beam a clear "Green Light" signal to the Hong Kong electricity industry if environmental initiatives are to be influence in a substantial way in terms of energy security.

The HKSAR Government itself needs to be convinced that building energy reduction is a worthwhile policy to pursue. During Stage 2 deliberations, EDLB, together with Planning, Building and other Government Departments, should be sure to address:

- The need for more far-reaching building energy policies;
- Required implementation timeframes.

REDUCING CONSUMER DEMAND IN BUILDINGS

In outlining the Policy Objective (1.1), the Consultation Paper recognizes that reliable electricity supply is vital to the economic development of Hong Kong and the livelihood of its people. The document also states that policy intent is to ensure that consumers will receive reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impacts caused by the generation and use of electricity.

Practical suggestions on actions the Government could consider to contain or reduce the level of consumer demand for electricity are outlined below. They are grouped under three primary headings – Building Design and Construction; Government Stewardship; and Public Awareness about Energy in Buildings:

BUILDING DESIGN AND CONSTRUCTION

1) The Government could implement more effective energy conservation policies governing new property developments.

Currently, property developers have little incentive to reduce building energy costs since:

(a) Government building regulations demand little in terms of energy performance, and building permit application submissions do not include building energy consumption calculations;

(b) The developers often do not bear the energy consumption costs themselves since they can pass on electricity bills and other operational costs to unit owners and tenants.

2) The Government could provide incentives to property owners and developers by linking exceptional achievements in energy conservation and other

environmentally responsible actions to relaxations in floor area ratio requirements or other building control measures.

For example, the allowable extent of balconies, sun shading screens and other building envelope features could be determined based on proven effectiveness in maintaining comfort and reducing energy demand.

3) The Government could demonstrate its support for a Green Roofs initiative, perhaps along the lines of "Greening Gotham" in New York City.

4) The heat island effect – caused by buildings and open paved areas – raises summertime temperature in the city and increases people's dependence on air-conditioning systems to restore thermal comfort in buildings.

5) The Government could examine if temperature and relative humidity setting requirements in buildings could be revised in ways that would both maintain occupant health, comfort and productivity, and reduce energy consumption.

   Such an examination could influence the cooling load calculations made by air-conditioning engineers, with the result that buildings' mechanical system 'tonnage' requirements could be reduced.

   Such a policy might also require public education. "Do people need to run air conditioners at all times of the year, regardless of the outside climate?"

GOVERNMENT STEWARDSHIP

6) Since the HKSAR Government itself owns and occupies a large number of buildings, it could demonstrate leadership through the environmentally responsible stewardship of its own properties.

   For example, independent energy audits could be carried out in Government offices. Findings could be benchmarked and shared with the Finance Department and others aiming to control government expenditures.

   It might also be possible to implement energy conservation measures in HKHA Housing Estates: to take into account the solar exposure of different building facades; or to carry out research into using natural ventilation or other devices to maintain occupant comfort and different times of the year.

7) The Government could educate its own office staff about energy conservation measures in the workplace.

   For example, it has been demonstrated elsewhere that requiring employees to turn off their computers when they go home has a noticeable effect both on energy usage and the financial bottom line.

PUBLIC AWARENESS ABOUT ENERGY IN BUILDINGS

8) To promote consumer awareness, the Government could oversee energy labeling systems governing for household appliances.

It is understood that a Hong Kong utility company already advises customers on the energy efficiency of hot water heaters. Energy efficiency ratings could be extended to other household appliances such as washing machines and dryers, refrigerators, air-conditioning units and room heaters.

9) The Government could alert the public to "Peak Energy Days", and news media could include Peak Energy Days in weather forecasts alongside the UV Index and Pollution Index information given to the public.

   Arguably, the risk of a power shortage is greatest during the hottest summer days, especially if winds are light. People could be educated about simple actions they could take to reduce energy demand.

A NOTE ON COSTS AND BENEFITS

In considering environmentally oriented initiatives, it is always essential that proposals should be economically supportable. Otherwise, initiatives are unlikely to gain widespread support.

Some proposals can accrue substantial environmental benefits without incurring any substantial outlay costs. Others undoubtedly will involve additional capital investment.

Capital cost premiums aimed at energy reduction can often be quickly recovered through paybacks. The economic justification for other initiatives may be more difficult, particularly those that require long term operation to achieve savings, benefit the end-user rather than the developer, or only profit the community at large.

The Government has an important role to play in influencing the way that calculations on the economic viability of building energy reduction measures are made. EDLB has many tools it could recommend, including public education, incentives, regulatory standards, fees and taxation policies, as well as through its own behavior and the way it chooses to calculate the costs and benefits in future electricity industry contracts.

CARBON EMISSION STANDARDS IN POWER GENERATION

The Consultation Paper section "Protecting the Environment" indicates (Ref. 3.6) the intent to cap emissions from power generation by specifying the maximum allowable emission quantities in future licenses for power plants.

In support, the HKSAR Government:

1) Define carbon emission limits in terms of units of power generated for the consumer, i.e. - in terms of kT/Gwh;

2) Establish timeframes for reviewing carbon emission requirements to ensure they remain in line with current Best Practices standards for sustainability, energy conservation and power generation efficiency;

3) Ensure electricity delivered to the Hong Kong consumer from elsewhere in China is subjected to the same threshold standards in terms of carbon emission controls as if it were generated within the Hong Kong S.A.R.;

4) Balance public health costs with the costs of installing and operating power station emission control measures.

5) Review rate making mechanisms to ensure that power companies do not generate and sell more electricity to consumers than they reasonably need.

   By establishing a regulatory system based upon number of customers served instead of profits linked to electricity sales, it is possible that the Government could substantially improve operating efficiency and service performance.

RENEWABLE ENERGY OPPORTUNITIES

Although Hong Kong S.A.R. will rely heavily on imported fuels for the foreseeable future, energy sources are potentially available from within the HKSAR territory. They include power derived from sunlight, wind, water and geothermal conditions. Benefits may also be obtained domestically from energy gained from biomass fuels or heat recovery systems.

The HKSAR Government could improve energy security through the development of renewable energy generating technologies. Consideration should be given to:

1) Implementing measures that remove current disincentives and encourage property owners to install on-site renewable energy technologies along the lines suggested in Para. 3.61.

2) Ensuring that property owners in Hong Kong that produce electricity from renewable energy sources can sell back electricity to the grid through reverse metering at the same price that they would purchase electricity from the grid.

3) Providing greater Government support such as through planning assistance in identifying land or sea sites renewable energy technologies such as wind farms.

4) Affording Hong Kong consumers wishing to support renewable energy financially to purchase tradable renewable energy certificates (TRCs) through their electricity supply company.

THESE ARE THE OPINIONS OF

Peter Gorer AIA, RIBA, LEED AP

April 27, 2005

"Family Lam"

To: <electricitycomments@edlb.gov.hk>

cc:

20/04/2005 22:56

Subject: 香港電力市場未來的發展第一階段諮詢文件

經濟發展及勞工局人員：

在詳閱「香港電力市場未來的發展第一階段諮詢文件」後，令我感觸良多。香港奉行市場經濟，過去的經濟成就發展於一套自由的經濟政策，大家都認同合理的投資有合理的投資回報。在一九九七年回歸後，香港的政客就往往喋喋不休的爭論，政客爲了撈本錢，什麼事情都是只取片面之詞來取悅選民，限制各商業機購的利潤，只有大律師可以收取高昂而不合理的高利潤，港府政策爲了迎合這些政客就百般遷就，令香港衰足七年，險些變成一個派錢的社會。眼看一個行之有效的電力政策又將成爲政客的犧牲品，成爲另一件「領滙事件」，因此希望局方人員考慮本人之意見：

電力管制協議過去能逼使電力公司持續作出了龐大而長遠的投資供電設施及保護環境的設施來滿足電力需求的增長；提供位列於世界最高水平之可靠及安全的電力供應以配合香港的經濟發展。政府獨立調查顯示一般家庭每月電費開支少於 2%和 77%的機構每月的電費開支少於 10%。作爲消費者，我們當然希望有更多的新供電商，提供較低的電費，但目前所宣稱有興趣的投資公司，全部都未有完善的計劃和能力，予人一種只是在投資市場上抄作而不是一種長期的投資承諾。作爲消費者，我們當然希望以較低及最合理的價錢購買最好的產品，我們現在已享有最好的產品，但我們仍希望可以有較低的價錢。本人認爲港府政策不要再隨波逐流去迎合這些政客，應當沿用雙邊協議的規管安排，但要予以優化，徹勿胡亂更改成以法例爲基礎的規管架構，使政客及投機者有機可乘，取悅選民而阻礙電力市場的投資發展和運作，影響香港的經濟發展及作爲金融中心的地位。

謝謝!

Peter Lam

peter mak

To: electricitycomments@edlb.gov.hk
cc:
Subject: 電力市場
☐ Urgent ☐ Return Receipt

2005/04/29 08:33 PM

作爲一般市民，電費是否昂貴，見仁見知。但在香港的情況，有別於其他地區及城市。

(一)　香港的供電可靠性極高，達99.99%。這保障了所有用戶因停電而帶來的捐失。
(二)　利潤佔電費的百份比過高，現時的利潤是平均電費的５０%。

根據上述兩點，本人認爲，不應該開放電力市場或聯網，以免因競爭而令供電可靠性降低。 在新的管制計劃中，加入供電可靠性的因數在內；如電力公司可維持99.99%的供電可靠性，它可賺取最高利潤，但以某一百份點爲上限。

利潤以基本成本掛勾，不應用資產淨值來計算，這樣可避免電力公司過份投資。基本成本可包括燃料、一般營運開支，如行政及保養費、高級、中級管理人員和一般員工的工資，但要平行三者的工資百份比，以免做成肥上瘦下或令電力公司有值口裁員。

The Economic Development & Labour Bureau
2/F, Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

27 April 2005

Dear Sir/Madam,

Future Development of the Electricity Market in Hong Kong
Stage 1 Consultation

I am a local resident getting electricity supply from CLP Power Hong Kong Limited (CLP)

During the last 30 years, I have enjoyed very stable electricity supply from CLP at reasonable price. The customer service has been excellent. CLP is also very conscious of its role as a corporate citizen - in contributing to the community as well as caring for the environment.

In a highly populated city like Hong Kong, electricity supply reliability is very important to its citizens. We cannot afford to have prolonged supply interruptions such as those experienced by foreign countries in recent years as a result of market reforms which have brought more damages that benefits to consumers.

I am also afraid that opening the electricity market would result in lowering of electricity prices to big customers only, at the expense of smaller customers who do not have much bargaining power.

The government must think carefully before taking any drastic steps that will influence the conventionally well operating electricity supply systems in Hong Kong. Any change must have support of the bulk of Hong Kong citizens who rely much on a stable electricity supply for their livelihood and well being.

Regards,

Philip HO

Philip Lee
17/04/2005 20:24

To: edb@edb.gov.hk
cc:
Subject: 香港電力市場未來發展諮詢 - 個人意見
☐ Urgent ☐ Return Receipt

電力供應首要是穩定和可靠

可能香港大部份居民都未試過大停電，試想香港現在高樓大廈林立，停電要行樓梯都幾辛苦，可能連食水供應都有問題。回想孩童年代(約30多年前)，家住觀塘協和街某大廈，一次打風後停電多天，記憶中是觀塘道電站發生事故，每次上落樓梯都手持電筒，十分不便及危險，住高層的住戶及老人家都行得好辛苦。

另一次是數年前暑假往美國東部探望雙親，抵-當晚，雷暴引起局部地區停電，至電當地電力公司，電話錄音只叫我們留下客戶number和口訊，最後電力要第二天下午才回復正常，其停電復修效率及客戶服務水平，比起香港兩電，差天共地，真是一分錢一分貨。若說香港的電費水平，比起其它地方略高，我覺得是物有所值的。

因此，電力供應的可靠和穩定性是十分重要，與我們日常生活息息相關。現時兩電的運作非常可靠，我想普羅大眾都希望日常生活和工作如常，不受停電影響。故根據外地經驗，開放電力市場會帶來供電不穩定和可靠性下降等問題，是應該認真考慮。

Philip Lee.

10/2/25

Dear Sir

Opening Consultation on Electricity Market

Overseas experience like California results in bankruptcy of power company, higher tariff and blackouts. Please do not change.

Yours Sincerely,

Phoebe Chang

敬啟者:

本人作為香港的市民及中華電力的電力客戶,對於香港未來電力市場的發展欲提供以下意見:

1. 電力行業涉及長遠和龐大資金的投資,要引導投資,必須提供足夠吸引力的回報,而回報亦必須反映電力投資長遠及資金龐大的特質,不應與短期經濟的波動掛,總而言之,設立了合理的回報機制才能確保私人資金的持續不斷;

2. 香港的經濟及社會發展有賴安全及可靠的電力供應,故此必須清楚界定系統的權責及有關機構負責投資,若一旦電力系統出現問題時,誰要向政府及公眾負責;

3. 行之已久的制度使香港擁有國際水平的電力供應,無須刻意為改變而改變;

4. 從客戶利益出發,電價當然愈低愈好,但如果低價是犧牲市民的服務來換取,相信香港市民與本人一樣寧願維持現狀。

以上數點乃本人對香港電力市場未來的發展而提供的意見,祈望政府有關機構慎重考慮。謝謝!

此致

經濟發展及勞工局

中華電力公司客戶

----------上

李局長，

就政府發出的諮詢文件，本人有以下的意見：

(一) 如果使用開放傳電訊市場開放一樣，到時的電力供應穩定性可能將不明確的可能，因為新的公司未必會投資建立新的電網。

(二) 到時可能出現大量技術而新電力公司無可能互相推卸責任。

希望局長能考慮以上意見。

Po Wing Ki



KM Pong

2005/04/30 12:50 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Future Development of Electricity Market in Hong Kong Stage I Consultation
☐ Urgent ☐ Return Receipt

Dear Sirs,

Please find my comment & view in the attached.
For any clarification or follow-up, I'm pleased to be contacted.

Regards,

KM Pong E_Market_Stg1.doc

Comments on Consultation Paper on
Future Development of The Electricity Market in Hong Kong

After reading the Consultation Paper and the Reference Materials, I fully understand the Government's good intent to conduct a review of the electricity market so as to formulate a market model to the best interest of Hong Kong citizens, as I can see that the effort for putting together such huge amount of information is very substantial.

Therefore I am obliged to send my views and comments as follows. Basically I must say that the existing bilateral agreement in the form of Scheme of Control Agreement (SCA) is simple and efficient. The result of the past 30 years is the best evidence as we see the supply reliability of both power companies has been improving significantly to be among the highest in the world. Yet the electricity expenditure of normal households remains the lowest among other basic necessities such as food, transport, gas, etc.

Regarding the Government's policy objective to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact, basically the existing power companies have achieved all these under the current SCA. Being among the best performers of power companies, there is no reason to penalize the local power companies by introducing more restriction and regulations.

Among the many issues raised in the Stage I Consultation Paper, the one worries me most is the option of a post-2008 regulatory framework backed by legislation. I cannot help but associate it with the Link incident. I don't want the electricity market to be exploited by the politicians, who might make use of the proposed legislation to serve their own interests. I think we should keep our regulation as simple and non-intrusive as possible. The SCA in form of bilateral agreement should be extended after 2008. In addition, to keep the regulatory costs at a low level, no independent regulator should be established. If the SCA works, we should keep it.

Looking around other parts of the world, even very developed countries such as USA, UK, Australia, Italy, Sweden, many of them are suffering blackouts and outages due to market reform or poor planning. Hong Kong, being an international city and a financial centre of the region, we cannot afford to compromise to a market model, which will lead to less reliable electricity supply. And reliable electricity supply can only be supported by an infrastructure with sufficient capacity. The SCA has successfully encouraged

adequate investment in power infrastructure and quality service. There is no other market model with pure privately owned utilities, which have a better performance than those in Hong Kong.

In conclusion, the existing SCA has almost the best track record, when compared to any reformed electricity market. There will be a high probability of failure if there is any substantial change to it. The existing power companies have long history and strong commitment in Hong Kong. The permitted return is the maximum rate over a long period of time. We would prefer to maintain the existing power companies than to have new players seeking short term opportunities, which will surely lead to less reliable power supply and more fluctuations in electricity prices.

From: Pong Kim Ming

Date: 30 April 2005

"Prof. C C Chan"

2005/04/29 04:16 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Stage 1 Consultation on Future Development of Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sirs,

Stage 1 Consultation on Future Development of Electricity Market
Economic Development and Labour Bureau

I would like to offer my views and comments to the captioned consultation in the attached paper.

Prof. C.C. Chan
Fellow, Royal Academy of Engineering, U.K.
Academician, Chinese Academy of Engineering.
President, Asian Electric Vehicles Society.
Rotating President, World Electric Vehicles Association.
Honorary Professor, University of Hong Kong.
Honorary Director, International Research Center for Electric Vehicles.
Past President, Hong Kong Instituion of Engineers (1999/2000).
Former Vice President, Hong Kong Association for Advancement of Science and Technology.
Former Vice President, Hong Kong Academy of Engineering Sciences.
Former Head, Dept of Electrical & Electronic Engineering, University of Hong Kong.
Member of National Committee, Chinese People Politcal Consultative Conference (CPPCC).
Member, Selection Committee for CE.



Delivering Sustainable World Class Electricity Supply.doc

Delivering Sustainable World Class Electricity Supply

Prof. C.C. Chan, FHKIE, FIEEE, FIEE
Fellow, Royal Academy of Engineering UK
Academician, Chinese Academy of Engineering
Past President, Hong Kong Institution of Engineers
Honorary Professor, University of Hong Kong

The Scheme of Control (SoC) Agreement for electricity supply in Hong Kong is under review, as the existing term of the Scheme will expire in 2008. The Hong Kong SAR Government has recently issued a consultation paper to seek public opinion to the way forward on how the Electricity Supply Industry (ESI) should be regulated. This paper describes some observations and views the author would like to share with the readers.

Since 1964, the Hong Kong Government has regulated the ESI under the SoC, a "regulation of return on asset investment " system, which is a form of regulation also widely adopted overseas. In essence, under the SoC, the Hong Kong Government requires, and the utilities agree to invest, build, operate and maintain the power plant and equipment to ensure adequate and reliable supply of electricity to the community, and in return, the SoC allows the utilities to earn a permitted return. The Scheme has experienced ordeal during the last 4 decades, particularly during the 60's to 90's when Hong Kong experienced rapid growth of economy and also rapid demand of electricity. It was observed that electricity supply in Hong Kong has always been able to meet, and at high quality, all the demands despite its rapid growth and hence fuelled the fast developing economy. Based on such performance, the SoC is accomplishing a challenging mission and at the same time balancing the interests of all stakeholders, including the electricity supplier, the community, the shareholders and the government. In contrast, Mainland China is now facing fast economic growth, but in some places inadequate electricity supply has become a constraint.

The World Energy Council Statement 2005 pointed out:

- **Keep all energy options open** No technology should be idolized or demonized and energy efficiency must be increased.
- **Ensure the necessary investment in energy infrastructure** For this, cost-reflective energy prices are essential - systems which do not pay for themselves are ultimately unsustainable.
- **Adopt a pragmatic approach to market reform** This would accommodate specific

policy measures to achieve certain objectives, while allowing for the operation of the market to the maximum possible extent.

- **Place priority on the measures needed to ensure reliability of supply** Above all this depends on energy diversity, supported by sound market design and improved generating plant performance.
- **Promote regional integration of energy supply systems** This further supports reliability and calls for stronger regional collaboration.
- **Exploit the "win-win" opportunities of emerging climate change responses** The mechanisms, whether voluntary or regulated, should embrace least cost emissions reduction, encouraging transfer of clean technology from industrialised to developing countries.
- **Ensure technical innovation** It is vital to reconciling development with environmental protection and calls for strong, sustained support for R&D
- **Foster and sustain public understanding and trust** This in turn depends on energy sector transparency and better public information, starting in particular with young people.

No single player in the energy system can act alone: government policy, stable and clear regulation, industry investment, civil society and the final consumers of energy services all have their individual roles to play.

The overall challenge is, therefore, to deliver sufficient energy for equitable and secure social and economic development while avoiding environmental impacts that would compromise the capacity of future generations to enjoy the fruits of that development.

In this context, the following factors should be carefully taken into account:

1. Electricity supply must take environment and ecology into consideration.
2. There are short, medium and long terms benefits to be considered and balanced for an ESI regulatory scheme.
3. Technology is not yet advanced to a state that allows unlimited free transfer of electric power, e.g. until super-conductor can be massively and cheaply installed in the electric power network.
4. R & D is important to help the industry to progress. Sufficient funding is essential to promote the collaboration between academic institutions and utilities, and to enhance the R&D capability to meet the challenges in the rapid changing political, economic and technical forefronts in the ESI.

Sufficient investments to the ESI is crucial, because worldwide experience has shown that under-investment can lead to massive supply interruptions and blackouts, with inevitable detrimental and costly consequences.

We must maintain and further advance our world-class electricity supply for the sustainability of the growth of our economy, environment and ecology.

"Dr. HW Ngan"

30/04/2005 11:11
Please respond to "Dr. HW Ngan"

To: <edb@edlb.gov.hk>
cc:
Subject: Views on the Stage 1 Consultation Paper on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir,

Attached please find our views on the Stage 1 Consultation Paper regarding the Future Development of the Electricity Market in Hong Kong for your attention.

Best regards,
HW Ngan



Views on the Stage 1 Consultation (30Apr2005).pdf

Views on the Stage 1 Consultation Paper on
Future Development of the Electricity Market in Hong Kong

30 April 2005

1) Government Policy Objective	Government's policy objective is to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimising environmental impact caused by the generation and use of electricity.
Our views	The policy objective spells out the ends which are perfectly acceptable but the main concerns lie on the means of achieving the objective. For instance, the British Government stated in 1988 on its Government Policy Objective in reforming the electricity industry was to further the strategic aim of reforming the structure of the British economy by introducing competitive pressures, and by ensuring that capacity and investment decisions related to market conditions and not to the dictates of government. Subsidiary objectives included the improvement of safety conditions by separating plant and system operators from the safety regulator. Obviously, the British Government through its White Paper published at the first instant stated similar policy objective but the principles for achieving it were also set out clearly as listed in the following: • *Decisions about investment in power stations will be driven by the distribution companies and so will reflect the needs of customers.* • *Greater competition will create downward pressures on costs and prices, and ensure that the customer, not the producer or distributor, comes first.* • *Customers will be given new rights, not just safeguards.* • *Management will have more freedom to use their initiative within a clear regulatory framework.* • *The security and safety of electricity supply will be maintained.* • *Investment plans will be subject to commercial tests, and the industry will have access to private sector finance.* • *Employees will have the right to own shares in their industry, and customers will also have the opportunity.* Based on these principles, discussions would be able to focus on finding out possible ways to reform the electricity supply industry

	in England & Wales, and subsequently leading to the creation of the electricity pool, the plans for phased opening up of supply competition, the regulatory framework set out in the licences, and the overall development of the market from 1990 onwards. In fact, as a stated policy by the Economic Development and Labour Bureau, the HKSAR Government is committed to promoting competition to enhance economic efficiency and free trade. Similarly, the Environmental Protection Department with the merging of the Environment Branch, assumes a more clear-cut role in the policy formulation and through the various Environmental Protection Ordinances, the means of achieving the policy objective could well be outlined more specifically.

2) Safety and Environmental Regulation	Safety and environmental regulations are enforced through legislative provisions under the relevant ordinances.
Our Views	The current safety and environmental regulations are enforced by separate Government Departments, such as EMSD and EPD, under their functional jurisdictions. However, if the future development of electricity supply industry in Hong Kong becomes more complex and market oriented, it may be worthwhile to consider setting up a sort of Energy Safety Service as being adopted in New Zealand.. Over there, the Energy Safety Service is a government agency responsible for: safeguarding people and property from the dangers of gas and electricity ▪ the safety of gas and electrical appliances and installations, and the safety of electricity supply and generating systems ▪ the quality and measurement of gas and electricity ▪ the quality of petrol and diesel. Their Energy Safety Service's Mission is to: ▪ develop and maintain consistent and internationally acceptable standards for New Zealand's systems of electricity and gas safety, supply quality and measurement ▪ ensure the quality of petroleum fuels ▪ ensure the supply quality and measurement of electricity and gas ▪ inform consumers and business about energy safety, supply quality and measurement

	▪ investigate accidents and incidents, educate industry, and undertake enforcement where appropriate ▪ administer the legislation covering energy safety, supply quality and measurement ▪ provide advice to the Government and implement its decisions.

3) Prerequisites of future market structure	Ensuring Supply Reliability
Our Views	As we all know that the reliability of an electric system can be viewed as two interrelated elements: adequacy and security. Adequacy refers to the amount of capacity resources needed to meet peak demand and security refers to the ability of the system to withstand contingencies (or sudden changes) on a daily and hourly basis, such as the loss of a generating unit or transmission line. In Hong Kong, the generation capacity of both CLP and HEC have been planned, designed and operated for the delivery of electric energy to meet their geographically independent loads. There is no doubt that we want to retain the high degree of supply reliability; the main concern is whether we have alternatives. Apart from the current practice of ensuring adequate supply, a fundamental change of concept is to standardize the reliability assurance mechanism by setting up reliability standard and reliability councils like those in the North America and Australia. Through the Reliability Council, mandatory reliability policies, standards, principles and guidelines are established for its market participants. Ideally, separate groups would be responsible for establishing operating standards, implementing the required actions and monitoring compliance. • Establishment of Standards • Implementation of Reliability Standards and Procedures • Responsibility for Compliance Monitoring and Measurement • Regulation of Utility Processes <u>Reliability</u> Assuming the control and operation of the transmission system stays as it is today, the transmission access might decrease reliability in the following ways: • Electricity does not flow along a defined, predictable path

from the generator to the end-user. Instead, it flows along multiple paths Thus, a power transaction between two utilities will affect the transmission system of other utilities.

- The amount of power that can be transferred between parts of the network is subject to reliability constraints. Reliable system operation requires that there be some excess capacity in the system to handle contingencies.
- Unscheduled flows could cause loss of service because of changes in system conditions such as the line overloading or undervoltage.
- In order that reliability level will not be decreased due to an increase in transmission access, new equipment, new software, new training procedures might be needed.

Dispute Resolution

Transmission access can create a need for new or upgraded lines within and between geographic regions. As more entrants press for access, there will likely be disagreement about how much capacity might be available, for what timeframe, at what cost to the existing system, and at what prices. The result will be a need for ways to resolve disputes. The disputes could be resolved by regulators or groups whose qualification is technical knowledge about how the grid operates.

Pricing of Transmission Services

If the future electricity supply industry is to be operated under the deregulated system environment, the provision of transmission services imposes many different types of costs on the transmission utility, and has many associated terms and conditions which need to be considered. Exclusive reliance on embedded cost pricing does not reflect all of the true costs of providing transmission services, and introduces inefficiencies to competitive generation markets. While there is not one "best" alternative to embedded cost pricing, there are various options which are appropriate depending on the specific types of transmission services being offered. To ensure efficiency of power markets, policies with respect to the pricing of transmission services which provide the maximum flexibility for negotiating rates, terms and conditions appropriate to specific transmission services are recommended to be developed. Such flexible mechanisms should allow for terms and conditions that are consistent with efficient pricing and which prevent degradation of system reliability.

4) Prerequisites of future market structure	Ensuring Reasonable Prices
Our Views	Pattern of the electricity prices reflects the end results of the electricity market performance to a certain extend. It now comes to discussion on the mechanism rather than just some statistical results. Pricing is an economic issue and, by theory, optimal point is obtained by competition that will force producers to price services near marginal costs. In this respect, we have two different views on treating electricity as a competitive commodity or not: *Conventional View*: Electricity is essential for modern life and hence ESI must serve all its customers reliably and without discrimination. Electricity Supply cannot be put at risk; and in exchange for the obligation to serve, electric companies are given the right or provided with conditions to serve a specific region as what is happening in Hong Kong. *Open Market View*: Electricity should be treated like any commodity and be subject to competitive markets. Competition suppliers provide any other essentials and there are means to ensure system reliability and security of supply in competitive electricity markets. Hence, if we take competition as a prerequisite, the price is determined by competitive forces. The degree to which this is accomplished in practice depends on the number of service providers in the marketplace and the ability of new firms to enter the market. For regulated services, the reasonable rates should ensure the full societal costs of providing a service be paid by the transacting parties and they should encourage economic efficiency.

5) Prerequisites of future market structure	Protecting the Environment
Our Views	In the current form of regulation, traditional tools to ensure environmental compliance rely on the use of prescriptive approach, e.g., unit-specific emission limits, technology installation requirements, and dispatch limitations based on emissions. In the competitive market operation, environmental policy makers have been developing mechanisms that use market forces as motivators coupled with advancement of cleaner technologies for sustainable

	use of energy. Successful use of market-based environmental regulations will depend on adherence to several key economic principles like increasing opportunities for cost savings, faster attainment of air quality benefits, and stronger incentives for technological innovation. A framework to work out the new approach can be realized to including the following tasks: • To define economic and financial obstacles for introducing renewable electricity technologies • To develop a unified methodology for quantifying the environmental impacts and social cost associated with generation of electricity • To examine effect of institutional change and governance on the development and implementation of policy strategies and instruments of sustainable development

6) Future Electricity Market	
Our Views	We all agree, as a modern metro city, Hong Kong's economic activities and business operations rely heavily on secure and reliable electricity supply which has been proven to be viable under the current regulatory framework. Hence, a future model of operation has to be seen as one without compromise in meeting the objectives as outlined in the above prerequisites. We believe that an open competitive structure is feasible technically but it may not be an optimal solution to Hong Kong until we fulfill all the prerequisites to install a fully competitive environment in terms of the essential market constituents. Not only does it have to be more economically efficient, it has to be perceived within acceptable risk level. It needs a systematic approach to identify different kinds of risks and follow-up actions to find out measures to control the risk effectively.

Submitted by
Prof. K.P. Wong
Dr. H.W. Ngan
Dr. C.W. Yu
Prof. T.S. Chung
Dr. K.K. Li

Department of Electrical Engineering
The Hong Kong Polytechnic University

"Raymond Lee"

2005/04/29 10:33 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Submission to HKSAR on Future Electricity Market in HK
☐ Urgent ☒ Return Receipt

<<Submission_to_HKSAR.pdf>>

Dear Sir/Madam:

Re: Comments on the Future Electricity Market in HK

Attached please a submission of the subject matter. Should you have problems in receiving or questions in regards to this submission, please e-mail me anytime.

Thanks for your attention.

Your truly,

Raymond Lee

This message is intended only for the addressee and may contain personal, privileged or confidential information. If you have received this message in error, please notify the sender immediately and delete or destroy this message without making copies or opening any attachments. Any further distribution, duplication or disclosure is prohibited.



Submission_to_HKSAR.pdf

Submission to Stage I Consultation on the Future Development of the Electricity Market in Hong Kong

DATE: 28TH APRIL 2005

This document has been prepared by Raymond S. Lee, a Hong Kong permanent citizen as well as a utility worker, in response to the HKSAR's Stage I Consultation on the Future Development of the Electricity Market in Hong Kong. The views expressed hereto are solely author's personal opinions.

Table of Contents

1 PURPOSE 3

2 CURRENT ELECTRIC INDUSTRY STATUS 3

3 PRINCIPLES 4

4 RESPONSE TO KEY ISSUES 4

4.1 RESPONSE TO ISSUE #1: 4
4.2 RESPONSE TO ISSUE #2: 6
4.3 RESPONSE TO ISSUE #3: 7

5 RESPONSE SUMMARY 7

6 ULTIMATE MARKET STRUCTURES 7

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1 Purpose

In response of the Stage I Consultation paper, dated January 31st 2005, on the Future Development of the Electricity Market in Hong Kong, the author respectfully submits this written document to express his views on the issues. The intent of this response is to provide author's views on the nature of the dramatic restructuring of the electric industry that is underway in many parts of the world. In particular, the restructuring implications and processes to the electric industry in Hong Kong are tabled. The document is not intended to be the "be-all", "end-all" technical resource on the restructuring for the competitions. The views and opinions expressed in the document are solely personal views.

2 Current Electric Industry Status

The Hong Kong electric industry has been monopolized by two vertically integrated utilities: China Light and Power (CLP) and Hong Kong Electric (HKE). Vertical integration is defined in such a way so that each company owns all facilities and is responsible for generation, transmission distribution and retailing of power within defined service areas where they have an exclusive obligation to serve. In essence, consumers residing in Hong Kong Island must obtain services from HKE. Conversely, consumers residing in Kowloon must subscribe their services from CLP. Consumers literally have no choices to select their power supplier regardless of the services quality or tariffs that are provided. Ultimately, the costs of building new capacity and maintaining reserve capacity were borne by all consumers on area specific.

In regards to the current installed capacity, the consultation paper indicated that "*There is potential at the existing power plant sites for two power companies to develop generation facilities to meet forecast demand well into the next decade.*" Based on existing capacity, reliable generation supply certainly is not an issue. Unfortunately, most people and utilities are linking power outages to insufficient generation. In fact, most power outage problems are occurred at the transmission and distribution levels.

As sufficient generation[1] is a prerequisite achieving open access, recent announcement in regards to a potential participant[2] together with the current exceeded capacity are certainly broadening to meet the basic requirement of re-structuring. With the upcoming SCA expiry in 2008, it is a right window opportunity for government to map out a new direction of the electricity market.

[1] Current reserve margin is at around 30%, "HK Electricity Market after 2008" – By P.L. Lam
[2] Vertex has announced its intent to enter the market (Ming Pao, 03-30-05)

3 Principles

In the context of future development of the electricity market in Hong Kong, the author determined that the following principles are imperative and must be carefully considered by the HKSAR Government as restructuring[3] and/or re-alignment unfolds:

- To ensure safe and reliable power supply to Hong Kong
- To address fairness issue and protect all consumers – a non-discriminatory tariff regime with no disparity for consumers
- To address environmental concerns and consumer education
- To promote fair competition for all participants of the electric industry
- Not to jeopardize private industry investment

4 Response to Key Issues

First things first – to respond to the questions from the consultation paper. Three key issues specifically identified in the discussion paper are as follows:

1. *How the existing regime might be improved and what new features might be introduced?*
2. *Whether the future regulatory arrangement should be based on bilateral agreements or a regulatory framework backed by legislation?*
3. *Whether the Government should remain the regulator or an independent regulatory authority should be setup?*

4.1 Response to Issue #1:

The current Scheme of Control Agreement (SCA) between the HKSAR Government and two power companies will expire in 2008. In view of the high permitted return from SCA, power companies are reluctant to change and perhaps prefer to remain status quo. Since the Government is representing all Hong Kong citizens and is obligated to protect public interests, this is a window of opportunity for the Government to spearhead and align a right direction for the electric industry. A "wait and see" attitude will only delay the success of re-structuring.

To be fair, the SCA mechanism has served Hong Kong well in past 40 years; Hong Kong citizens should credit both CLP and HKE for their investment and significant contributions to Hong Kong's economy, despite unstable political factors in the 60's and early 80's.

However, as we moved into the 21st century, rapid changing technologies and economic environments alter both our daily lives and the ways we do business. The electric industry is no exception. As China's electric industry is moving toward the re-structuring, how can Hong Kong electric industry

[3] The author prefers to use the term "re-structuring" rather than "de-regulation" since the latter might mislead and confuse stakeholders that all regulations are lifted.

remains stagnated. It is a prudent time to replace the SCA. Industry re-structuring is not penalizing utilities. Rather, utilities should view this is an opportunity to demonstrate their ability to compete and to enhance their performance.

It is suggested that an aggressive or drastic approach for this change holds no benefits and interests to any stakeholders. Instead, a "phase-in" or perhaps a "piece-meal" approach in mapping out viable timelines for all stakeholders to prepare all these changes is recommended.

Phase-in Approach:

In the "Study of Interconnection and Competition in the Electricity Supply Sector in Hong Kong" report[4], consultants had recommended that the Single Wholesale Purchaser model offers a common starting point for different market paths. In view of that report, it is recommended that HKSAR to adopt a phase-in approach to re-structure the industry.

2008 - 2010

Given a tight timeline of the SCA expiry, to completely overhaul the current regulatory regime is almost impossible. Hence, a proposal of extending current SCA to 2010 will spare more time for all stakeholders. From now to 2010, it's suggested that:

1. Extend current SCA for an additional two years to 2010. This timeline should be sufficient for both existing power companies and any perspective "new players" for their preparation of open access.
2. Once the SCA expires in 2008, an existing tariff setting mechanism with increased transparency and the inclusion of economic factors such as inflation shall be adopted. Current permitted rate of return (13.5%) on fixed asset and additional 1.5% on assets financed by shareholders' equity should be reduced in line with the economic situation, preferably a single digit.
3. Current rate class structures (5 rates for CLP and 3 rates for HKE) are not sufficient to prevent potential cross-subsidization among customers. Power companies are encouraged to conduct in-depth cost of services allocation studies as well to offer more rate choices such as time-of-use[5] rate to their customers to ease system demand during on- and off-peak period. In other jurisdictions, pricing signal has been proven an effective way to manage system peak[6].

[4] Consultants are tasked to assess the potential for electricity competition and to identify the optimal market structure

[5] Interval meters have the capability to record consumption on an interval-by-interval basis. Equipped with a modem, meter data can be captured remotely. Interval meters are widely used in Automatic Meter Read (AMR) and load shedding/control in the Demand Side Management (DSM).

[6] Government and utilities should jointly assess and publish results on previously approved DSM program and compare if pricing response approach were feasible.

4. While paving a path for electricity market re-structuring, there is a need for power companies to have increased interconnection done by 2010. As indicated in 3.31 of the consultation paper, this will take "*some five years would be required for implementation*…". Obviously, joint ownership seems a viable and fair option for power companies.
5. Unlike the telecommunication industry, electricity needs wires to conduct the flow of electrons. In order to maintain equal footing for third parties such as independent power producers (IPP – either local or non-local) in accessing wires, a mandatory approach to interconnection is needed.

2010 - 2015

6. An introduction of competition will require segregation of vertically integrated companies into Generation, Transmission and Distribution business entities. All entities should have separated accounting books to track their costs. Other than generation, transmission and distribution business should remain regulated.
7. The market should be opened up at the wholesale level only by allowing sellers and buyers to "exchange" power through the power pool. Prices will be determined through a merit order of supply and demand at a specific time interval, so called the "pool price".
8. Through legislation, a formation of an Independent Electricity System Operator (IESO) in 2010 to carry out power exchange at the wholesale level, system and transmission operations as well as settlement functions.
9. Through legislation, a formation of the energy & utilities board in 2010 to carry out tariffs review, transmission and generation application functions as well as other energy related issues including gas.
10. Allow "large" industrial and/or commercial customers to select their supplier regardless their geographical location.
11. To protect smaller consumers, some form of regulated rate option is required until the market is well established.

After 2015

12. Gradually expand competitive retailer services to all customers

4.2 Response to Issue #2:

From a governance cost and timely investment perspective, a bi-lateral agreement certainly helps to expedite the negotiation process. However, it does not thorough enough to provide an even level playing field to all prospective market participants, such as distribution generation facility owners. Bi-lateral agreements alone will not provide a fair competitive and transparent environment in the market.

A regulatory framework supported by legislation is preferred and also imperative in the re-structuring process. In view of the process dynamics

and potential impacts to existing utilities, Government needs to take a leadership role to formulate legislation to empower regulator in mapping out restructuring plan as well as carrying out compliance monitoring function. Without legislation, it is very difficult to "break" the monopolistic industry for new market entrants.

4.3 Response to Issue #3:

The answer to issue #3 is dependent on the outcome of issue #2. Should the HKSAR Government decide that an existing tariff regime remain unchanged, obviously a bi-lateral agreement will stay. In addition to being redundant to form an independent regulatory body, it is also not cost-effective.

However, if new features such as interconnections are adopted in the process, a legislation to form independent regulatory bodies such as IESO and/or Energy & Utilities Board will help to execute their mandated functions. The Government's role in an energy market is setting out energy policies. To implement a policy, it is more effective to designate an independent entity[7] for a fair and independent execution.

5 Response Summary

The stakeholder consultation paper provides comprehensive perspectives and many options to the future market development. The following table summarizes the preferred options in charting out the new direction of electricity market in Hong Kong.

Issue	Proposed Options	Proposed Sub-options	Preferred Approach (2008 - 2010)	Preferred Approach (2010 – 2015)
Tariff	Modified SCA-Type	A - Return of Rate Base B - Return on performance C - Regulatory Tariff	Modified SCA with combination of sub-options A and C.	
	Regime with New Features	A - Increased Interconnection B - New Supply Sources C - Grid Access for third party		Regime with new features with combination of A, B and C
Regulatory Arrangement	Bi-lateral agreement		Bi-lateral agreement with an annual renewal term.	
	Regulatory Framework backed by Legislation			Must have legislation to empower regulators in mapping out the

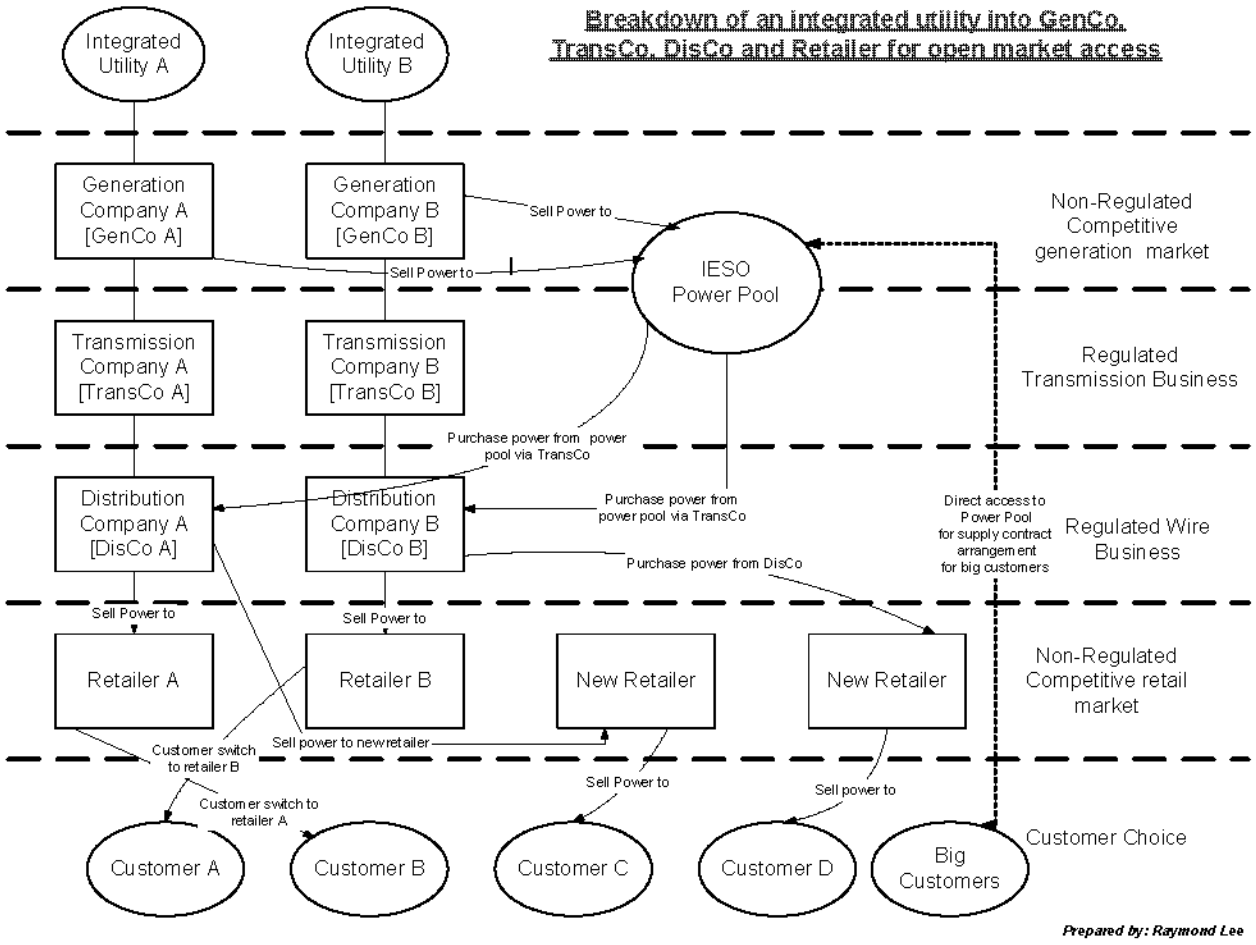
[7] Similar setup like the Office of Telecommunication Authority (OFTA)

				new direction of the industry.
Institutional Setup	Within Government		Within Government, but need to setup a competent team to deal with issues.	
	Separated independent Agencies			Empowered by legislation, independent agencies will effectively carry out their mandated functions, including compliance monitoring of the market.

6 Ultimate Market Structures

Electricity markets are very unique and there is no "cookie cutter" approach to re-structuring. Each jurisdiction has its own market characteristics. However, with many success and failure lessons learned from those markets that have undergone re-structuring, the HKSAR government is in an excellent position to avoid those mistakes and taking lead in moving the industry to a new era.

The following chart depicts a fifty-thousand foot view of the simplified ultimate market structures.


Breakdown of an integrated utility into GenCo, TransCo, DisCo and Retailer for open market access
Integrated Utility A
Integrated Utility B
Generation Company A [GenCo A]
Generation Company B [GenCo B]
Sell Power to
Sell Power to
IESO Power Pool
Non-Regulated Competitive generation market
Transmission Company A [TransCo A]
Transmission Company B [TransCo B]
Regulated Transmission Business
Purchase power from power pool via TransCo
Distribution Company A [DisCo A]
Distribution Company B [DisCo B]
Purchase power from power pool via TransCo
Direct access to Power Pool for supply contract arrangement for big customers
Regulated Wire Business
Purchase power from DisCo
Sell Power to
Sell Power to
Retailer A
Retailer B
New Retailer
New Retailer
Non-Regulated Competitive retail market
Customer switch to retailer B
Sell power to new retailer
Customer switch to retailer A
Sell Power to
Sell power to
Customer A
Customer B
Customer C
Customer D
Big Customers
Customer Choice
Prepared by: Raymond Lee

24/04/05 07:44 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 香港電力市場未來發展-諮詢
☐ Urgent ☐ Return Receipt

本人在2004年6月因所住的大廈某單位漏水引至停電三日兩夜，引來極大不便。停電當晚，天氣皓熱，因沒有電力供應，影響到全屋沒有燈光，漆黑一片，電腦、電視、電熱水爐、煮食爐通通不能使用，什麼也不能做，只好忍受著皓熱在滿頭大汗的情況下入睡。

這次停電並非電力公司供電的問題，而是本大廈漏水所引至。但這次痛苦的經驗使我深刻知到供電的隱定性和影響性相當重要。

因本人認爲現時本港兩大電力公司的供電隱定和服務良好，而不願因引入新的電力公司，減少許電費而影響供電的隱定性。

本人認爲應保持現時的供電情況，繼續維持與兩大電力公司現時的管制計劃協議。

Richard Wong

BY FAX (Fax No. 2868 4679)

The Government of the Hong Kong Special Administrative Region,
Economic Development and Labour Bureau

Re: Comments on the Consultation Paper on Future Development of the Electricity Market in Hong Kong – Stage I Consultation

1. To keep the current Scheme of Control Agreement mechanism between the 2 power companies and the Government unchanged after 2008 because:
   - SCA can effectively maintain the balance of interest between shareholders and customers;
   - With SCA, shareholders have motives to invest while customers have certainty supply of reliable electricity;
   - With sufficient investment from shareholders, power companies have resources and incentives to improve supply reliability, quality, environment protection. So, return on investment should continued to be applied for the permitted rate of return;
   - SCA provides a regulatory framework for the power companies to run effectively and efficiently;
   - The current SCA already has fulfilled the objectives of the consultation

2. Tariff is at an affordable and reasonable and acceptable level. From a general residential household point of view, I really do not think that electricity tariff is expansive. But I do think that Towngas and transportation tariff are expansive! Why seldom hear voices complaining these services? Although HK side electricity tariff is higher that that of Kowloon side, I think that it is worthy because HK side's reliability is much higher. I cannot imagine no air-conditioning, no refrigerator, no lift, no TV during summer, just because of the saving of twenty cents per day! Reliability can never be compromised.

3. There are tremendous risks on the matter of interconnection between the 2 power companies. In order to ensure supply reliability, the Government should not take the risk to try this, which has already been proofed causing many blackout disasters around the world. Besides, most important is that there is no drive to do this. No one will take risk with no reason.

4. Many painful lessons learnt from oversea deregulated electricity market, therefore HK's regulated mechanism should be maintained. Deregulation brings no benefit to HK.

5. The new market entrants have no actual practical plans. Competition is not feasible for this small HK electricity market. Someone may claim that price will be lower as a result of competition. But if with lower price, will you use more light? The answer is NO. The demand of electricity will not rise because the price falls, unlike the telecommunication industry. Therefore, why introduce new players who may have possible impact to contaminate the present highly reliable supply environment.

6. I do not support a regulatory framework backed by legislation because the existing bilateral agreement is simple and cost-effective.

7. If Guangdong has surplus electricity, why not ask them to get rid of those polluting generation plant first?

8. A regulatory period of 15 years is appropriate because investment in electricity infrastructure is very long term. It will not attract investment if it is to be shortened.

Conclusion

As an electricity user, I am satisfied with the present price, services and supply reliability. There is no justification for electricity market reform. Would the Government please carefully consider the serious consequences of possible power interruption before making any change, even if the interruption is one-hundredth second. RELIABLE ELECTRICITY IS VITAL TO EVERYONE.

Regards,
Rita LAM



20/03/2005 21:47

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: RLH

subject: Capital SOC amount with contract problem???

Enquiry: Unfair treatment among Hong Kong Electric Contractors includes different allowance in offering deviated mechanical major equipment in tender stage; different tightness in control site progress, site condition and different control attitude in judging time & variation to contractural scope.

These would lead to increase in project staff manhours; non-tender-aimed and unrelaible quality of machines, potential un-fairness culture to Contractors, ineffectiveness using reasonable amount of capital to obtain the project products, un-justified extension of time.

Conclusively, the project needs more money and this amount (which should be avioded) will be partial by means of SOC(15%) paid by potential increment of electricity bill. How is this justified if the SOC originally intend to encourage power business investemnt but have a \'back door\' to waste the capital in in-effectiveness and poor management on those machine contracts.

"Robert Mew"

2005/04/28 12:11 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultation Paper on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Economic Development and Labour Bureau
HONG KONG

Dear Sirs,

Re: Consultation Paper on Future Development of the Electricity Market in Hong Kong

I have the following views and comments on the above Consultation Paper:

- Reliable, safe and efficient electricity supply is of PARAMOUNT importance to Hong Kong's future. Without it, our economic prosperity would be severely undermined. I wouldn't want my overseas friends to think that I live in a third world country.

- We must avoid the recent overseas blackout situations (eg, California, New York, etc) which I understand was attributable to insufficient investment in new electricity facilities as well as insufficient maintenance. We must have a system that ensures our electricity networks and facilities are maintained properly and new networks and facilities are built in time to meet future demand.

- People always like to complain about something. It's human nature. If people can't fault the quality of a product, they then find fault with the price. Yes, I would like to pay less for my electricity but if it means that reliability, safety and efficiency would be compromised, I would think twice. Imagine if you owned an expensive Mercedes and your mechanic told you that he could save on service costs if he used cheap parts but he cannot guarantee the car's reliability.

- The existing system which expires in 2008 has worked very well for us. Hong Kong Government should only change it if it can guarantee that the new system will work even better (ie, deliver us even more reliable, safe and efficient electricity at a much cheaper price). To put it crudely, IF IT AIN"T BROKEN, WHY FIX IT?

Regards,
Robert Mew

28 April 2005
Hong Kong

致：香港经濟發展及勞工局

香港政府要開放電力市場，我個人認爲現今都不能，因兩大電力公司提供一個確保可靠供電網，而收費都不算很貴，提供一個非常好的服務，所以現今最好保持現狀，繼續由港燈及中電提供服務。

另一方面，我們向國內購買電力沒有可行性，因國內本身對電力需求很大，應沒有多餘電力可賣給我們，我本人在深圳住過兩年，每到夏天來，經常晚上都會停電，有時還會停接近一天左右。我有一個朋友在國內電力局工作，他告訴我國內電力生產有很多不完善地方，经常發生故障或停產，所以香港真靠國內提供電力，我相信每隔幾天便可能受停電之苦。

現今香港兩大電力公司提供接近100%供電服務，我們何需找第三間電力公司提供一些沒有保證的服務，只需保持現狀，監管兩電力公司運作，保持現在的服務和收費，相信比引入新公司還好呢！

最後我認爲政府應要兩大電力公司發展新的發電功能，如水力發電或風力發電，這樣希望可以減低電力收費，又可从開發新的能源。

一個香港小市民
（Rocky Chou）
2005年4月24日

"Ross Mitchell"

2005/04/26 01:39 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage 1 Consultation of the Future Development of Electricity Market
☐ Urgent ☐ Return Receipt

Having read the Consultation Paper on the Future Development of the Electricity Market in Hong Kong, I wish to submit my comments as below:

1) As a consumer, my principal concern is reliability. In Hong Kong we have enjoyed exceptional levels of reliability. This naturally comes at a price. The question is how much extra should the consumer have to pay for this reliability? Reliable energy must remain affordable and there should not be a significant difference in the prices charged by the two electricity companies.

2) A number of countries have tinkered with deregulation and discovered, to their chagrin, that the end result has been the complete opposite of what was originally intended. Instead of getting a better service, they have ended up with:

a. Electricity shortages;
b. High tariffs on the spot market;
c. Players manipulating the market;
d. Lack of investment in future equipment and infrastructure.

3) Whilst it can be argued that the present arrangements tend to encourage the power companies to over-invest; deregulation, by contrast, fosters under-investment in the search for quick profit. The existing Scheme of Control and regulations are supposed to provide safeguards to ensure that the Government monitors the power companies' investments to ensure that they are reasonable. The over investment by utility companies to take advantage of their permitted returns perhaps says more about the Government' s ability to effectively monitor the industry than it does anything else. It also raises the question that if the Government cannot effectively monitor these companies under the relatively simple conditions that exist at present, how will it fare under a more complex framework?

4) Finally, how realistic is competition in a naturally monopolistic environment like the Electricity Industry in Hong Kong, which requires enormous levels of capital investment and where the means of generation, transmission and distribution already lie securely in the hands of the existing two, privately-owned power companies?

In conclusion, consumers want a reliable source of affordable energy. There should not be a large disparity between the tariffs charged by the two power companies. Whilst our scheme of control in Hong Kong is fairly unique in the world, it works. We should learn from the mistakes made by other countries that have viewed deregulation as the " magic pill" to their energy problems. Deregulation may work exceedingly well in environments such as the travel industry, but it is not a simple panacea for Hong Kong's Electricity Industry.

Ross Mitchell



"Hin Long Ryan Lam"

To: electricitycomments@edlb.gov.hk
cc:
Subject: My view on the Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

2005/04/29 09:18 PM

Hi there,

For me, my total expenditure on electricity is around 1.5% of my total income. When compared with my travel expenses, it is much less. However, a stable and reliable supply of electricity is of immense importance to my daily life. Just like drafting this email and doing my office work, just an outage with very short duration may spoil my whole day work. In today's Hong Kong, without a stable supply of electricity, the pace and the efficiency of our society will be greatly impaired.

Therefore, if you ask me whether I want to lower my electricity bill, my reply is of course in affirmative. However, do tell me what is in return and what I need to pay off. I have a very firm beief that there is no free lunch in this world.

Regards,

Ryan

S H Lee

08/03/05 09:31 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Future Development of the Electricity Market in Hong Kong - Stage 1 Consultation
☐ Urgent ☐ Return Receipt

Dear Sirs

Please find attached my comments on the above subject.

S H Lee

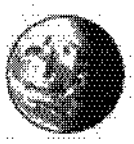
Development of the Electricity Market in Hong Kong.doc

Comments on Future Development of the Electricity Market in Hong Kong
Stage I Consultation

Referring to the Consultation Paper on Future Development of the Electricity Market in Hong Kong produced by the Economic Development and Labour Bureau in January 2005, I have the following comments:

1. Paragraph 2.7, agreed that the existing SCA arrangement has a lot of drawbacks and must be revised. In particular, the currently adopted 13.5 to 15% rate of return is exceptionally high nowadays.
2. Paragraph 3.13, the use of Equity Base approach seems more acceptable as the shareholders have to bear their own risk.
3. Paragraph 3.16, for determining the permitted rate of return, the approach with "Cost of Capital" sounds acceptable. But this should be benchmarked with other utilities as a means of checking.
4. Paragraph 3.19, 7-8% of return is reasonable, but this should be reviewed more often to be compatible with the prevailing inflation rate and cost of living. It should be noted that the risk for this type of monopoly business is very low. Therefore, a lower rate of return is still attractive for the investors.
5. Paragraph 3.32, large scale interconnections should only be made if there is cost benefit to the consumers. Small scale interconnections for emergency purpose should be maintained.
6. Paragraph 4.3, "Bilateral Agreement" might not be feasible as the power companies would tend not to accept any conditions not in their favour. Therefore, "Regulatory Framework Supported by Legislation" seems to be the only choice.
7. Paragraph 4.8 and 4.9 "Separate Regulatory Authority" is more efficient and preferred.

From: S H Lee, a Hong Kong citizen, March 2005



Lee S K

28/04/05 10:10 PM
Please respond to Lee S K

To: electricitycomments@EDLB.gov.hk
cc:
Subject: Comment on Electricity Supply
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

I refer to your consultation paper on the reform of electricity market.

Given the fact that Hong Kong is a small market, whether deregulation of the electricity industry will bring long term benefits to Hong Kong is questionable. We cannot compare directly the Hong Kong market with the overseas market on an apple-to-apple basis.

Also, we should not underestimate the importance of stability and reliability of electricity supply to Hong Kong's economy and business transactions. Any abrupt disturbance is very costly.

In my view, the scheme of control should be maintained as far as possible. Yet, measures can be built in to have interim review of the performance of the scheme of control so that we can strike a balance between stakeholders' interest and general public's concern.

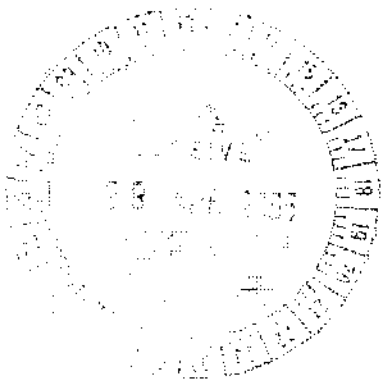
Regards,
S.K. Lee

Future Development of the Electricity Market in Hong Kong
Stage I Consultation

My opinion on the development of the electricity supply system in Hong Kong is as follows.

a. In view of the blackout incidents happened in these years in various parts of the world and the associated effects on the concerned community, we must have a very reliable electrical supply in Hong Kong, which represents as one of the financial centers and tour spots.
b. As there has been a good record in the supply reliability performance of Hong Kong and the Hongkong Electric Co., Ltd is among the tops in the world in this aspect, it is prudent not to introduce a change to the basic design pattern of the existing electricity supply system, which will involve unstable factors.
c. Apart from fulfilling the existing demands, the existing electricity supply system has to be constantly reviewed and replaced or upgraded to meet the ever-changing electricity supply requirements, future development and environmental obligation. The above will inevitably need a long-term financial plan for investment.

S.K. Lee



SL Tse

28/04/05 07:45 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Consultation Paper on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir,

I am a building services engineer practising in Hong Kong for more than 20 years and would like to comment on the Consultation Paper on Future Development of the Electricity Market in Hong Kong (Stage I Consultation).

Overseas experiences have shown that there were frequent blackouts and fluctuation of electricity prices when the electricity markets are deregulated, such as the flashover incident at Victoria-South Australia occurred on 14 March 2005. Whenever blackout occurrs, it is difficult to identify the business player(s) in the deregulated market accountable for the failure.

When compared with the major cities in the world and taking into account the factors such as reliability of the electricity supply, the household income and business turnover in Hong Kong, the current regulatory arrangement by bilateral agreement provided a stable and reliable electricity supply at reasonable price to Hong Kong in the past 40 years. Such arrangement is therefore considered acceptable to the consumers.

Best regards,

S.L. Tse

葉局長：

有關：電力市場未來發展

本人之意見如，請自開放市場

(1) 美國、加拿大等皆此而導與大停電。

(2) 中部將出現多家電力公司，各自澆鑄有長遠之電力規劃。

(3) 客戶住在遠處地方，須付出更高的輸電費用及裝置費用。

(4) 根據專業人士意見，開放市場未必一定好。

相同地，亦期如過風災時電話網路出現問題時，沒一間公司承擔。

C.M.Y.

"edward"

2005/04/29 12:51 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comment on the Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

To: Economic Development and Labour Bureau
Government of the HKSAR

29th April 2005
Dear Sirs,

My comments on the Stage I Consultation Paper are in the attached file.

I wish that my views will be considered in your proposals on the framework for the future development of the electricity market.

Yours sincerely,



S. S. Au My comments.doc

Economic Development and Labour Bureau
Government of the HKSAR

29th April 2005

Dear Sirs,

Comments on Consultation Paper on Future Development of the Electricity Market in Hong Kong

I refer to the Stage I Consultation paper and would like to express my opinions as follows.

- The power companies should continue to provide reliable electricity supply to the consumers as they do now. Most of us live and work in high rise buildings and the society thrives on air conditioning, computers and mass transit. Hong Kong does not afford to have an insecure electricity supply. The reliability of supply has been good in the past years. We as well as foreign investors are free from the threat of blackout in daily life and business operations. I am sure that it can only be achieved through an effective Scheme of Control.

- With the reliability and service we have now, the electricity tariff is reasonable. There must be a reasonable rate of return to attract investment. The case in California has demonstrated how price cap deterred investment and the consequence of lack of investment in new plants. I considered that the present price regulatory system is effective enough in tariff control. Complicated regulatory scheme and legislation can bring endless political controversy, scare away investment, and eventually incur invisible costs which more than offset the savings from tariff.

- Deregulation does not suit a small place like Hong Kong. If the Hong Kong electricity system is connected with the large network in the Mainland China, I should query how much Hong Kong can influence the quality of supply in the Mainland and the Hong Kong power companies can do to protect the safety of systems here if major problems occur in the large network, given that Hong Kong relies on import. There have been cases of cascaded trips in US and Europe not long ago that showed the drawback of interconnection.

Stable electricity supply is crucial to the prosper of Hong Kong. Since the present Scheme of Control has been effective in ensuring reliable supply and reasonable price, I suggest we should have faith in our own Hong Kong experience and maintain the Scheme of Control after 2008.

Yours sincerely,

S. S. Au

ss yuen

23/04/05 04:21 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage 1 Consultation Paper on The Future Dev. of Electricity Market in HK
☐ Urgent ☐ Return Receipt

Dear Sir,

Please find my comments as attached.

Regards

SS Yuen

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consult.doc

22nd April 2005

To: Secretary For Economic Development and Labour

Dear Sir,

Stage I Consultation Paper On Future Development
Of The Electricity Market In Hong Kong

In response to Stage I Consultation Paper, I would like to comment as follows:

Hong Kong is one of the most densely populated world class cities. To support the high level of important commercial activities and modern standard of living, adequate and reliable supply of electricity is required. Due to limited land supply in most areas of Hong Kong Island, over the years, skyscrapers have mushroomed on every available plot of land. The safety of these skyscrapers and efficient operations of their facilities say, fire fighting and vertical transportation systems highly depend on a reliable supply of electricity. Hence, a safe, efficient and reliable electric power is absolutely essential for Hong Kong to excel as a world class city.

Under the present Scheme Of Control Agreements (SCA), the power companies have so far provided reliable supply and excellent customer services at affordable prices. The prices in fact are considered cheap in comparison to the expenses people spend on transportation. If the SCA and the electricity supply system/model have been working well, why change them?!

We should learn from the bitter experience of other countries in meddling with the stable operating environment required by electricity supply industry. The blackout incidents after de-regulation in various countries have been widely reported in the press. Apart from the deterioration in supply reliability after de-regulation, de-regulation does not necessarily bring in good customer services. Recently, Energywatch, i.e. the Gas and Electricity Consumer Council of UK, has filed a Super Complaint to the UK Government on the services of the suppliers after de-regulation. Energywatch commented that "Customers are supposed to be the beneficiaries of competition …. Yet the reality is that there is little innovation or change and the numerous agents and parties involved serve only to create an excuse for failure to take ownership of a problem and ultimately to give reasonable customer service."

In conclusion, I consider that the SCA should be kept in its current form to the greatest extent possible.

Yours faithfully,

S.S. Yuen
A Registered Professional Engineer

SUN WAI POON

25/04/05 11:16 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir,

Future Development of the Electricity Market in Hong Kong
Stage I Consultation

I am an electrical engineer of a contracting company in Hong Kong. Referring to the above captioned subject, please be submitted that I have some ideas as follows:

1) Open electricity market by providing power throught connection of the distribution network of Hong Kong Island, Kowloon and even China area may cause great impact to the re-liability of power supply. Because if we connect different network from different power generation plants of different company, Government or the newly set up committee will have great difficult to control the operation.

2) When two stable power networks connected together. Because of their different characteristics, it will become a unstable power network. Adding the difficulty of control mentioned above, it will cause great black out even there is a little fault in the network. Just like the recent great black out happened in USA, Canada.....

3) Because of the large investment cost required for the power distribution network and power generation plant, therefore the price will not have great fall even in an open market for a short time. It is very dangerous to use the existing good re-liabiliy of power supply to exchange for a little bit lower

price of electricity. I think that the cost we lost will be even more than that we can get.

4) The power company will not invest adequate money to improve the power system in a open market in order to have more profit. It will make the re-liability of our power system worse & worse!

5) Because of the above , I strongly declare that the open market of electricity is not a practical & responsible way to control this essential utility of our power supply. If we still do not have a better method to control, I strongly suggest that we should keep the current Scheme of Control Agreement (SCAs) between the Government and the two power companies.

Best regard,

SW Poon



07/02/2005 17:38

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: S Y Choi

subject: Electricity Market Consultation

Enquiry: Could you please let us have a set of the consultation documents on the Future Development of the Electricity Market.

We could not print it out from the website probably due to a compatibility problem. It is also not available from the District Office.

My address is

Many thanks.

安 全 電 力 顧 問 公 司

SAFETY ELECTRICAL CONSULTING COMPANY

九龍深水埗福華街115-117號北河大廈商場一字樓35&46室

電話：2748 0838　　傳真：2748 0839

致：經濟發展及勞工局

　　葉澍堃局長

香港電力市場未來的發展

本人乃中華電力有限公司客戶諮詢會其中一名委員，亦是港九電器工程電業器材職工會理事長，得悉　貴局向市民諮詢上述標題有關意見，爲此，本人樂意提出淺見供局長閣下及貴局參考。

開放電力市場，引入競爭，減低電費是任何人士都喜歡的。但是我們不得不研究那些開放電力市場的國家，電費是否真正減低？供電是否正常及穩定？現時香港是否一定需要開放電力市場？開放電力市場後估計會帶來甚麼效果等等。

本人和我同事經研討後，特函　閣下及貴局須要注意電訊開放後，帶來消費者的好處，電話費減了價，但風暴將至時，因太多人使用電話，就因線路繁忙，多達半小時也不能接通，這樣我們是不能接受的。我們需要充足及穩定的電力，目前中電和港燈可以滿足到我們的電力需求，無須急於開放電力市場。因爲從近十年中證明，很多國家都是很大程度地因爲開放電力市場而造成災難性的大停電，損失嚴重，甚至目前還沒能夠查證是誰造成聯網的大停電事故者。

「管制和環保責任」香港地少人多，交通方便。在安裝和維修電力事故時很快捷，不似外國地大人多，開放電力市場引入投資者，有用武之地，亦可帶來消費者的權益，例如可多選擇電力承辦商，議價、提早供電時間等等。相反，香港因地理和環境因素，無必要在近年開放電力市場。但可將管制和環保責任，要求兩燈作出承擔，在多種發電和工程中如何改善環境污染，及公開相關資料。

「減低電費回饋市民」中電這幾年確實做了一些工作，因應經濟和市民的要求，維持多年電費不變、電費回扣、年老及有需要的家庭可申請電費半價等。但是我們仍須要兩燈檢討，在投資，營運中，合理調整利潤比例，以市民爲本。

安全電力顧公司

顧問：溫冠新　敬上

二〇〇五年四月二十日

RECEIVED

BY:.....

SHOP 35 & 46, 1/F., PEI HO BUILDING., 115-117 FUK WA STREET, KOWLOON.

TEL: 2748 0838　　FAX: 2748 0839

"Samuel Tong"

20/04/05 03:26 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Stage 1 Consultation Paper
☐ Urgent ☐ Return Receipt

As a consumer, of course, I want everything to be cheap. Realistically, we should pay for what we get. Many people say that our public transport and utility are expensive, but they have forgotten what they get. One has to pay more for the air conditioned comfortable transport as against our old non air-conditioned sardine packed bus. The same applies to electricity. I think the price is reasonable given the level of reliability and customer service they offer. In addition, the electricity bill is becoming less and less significant nowadays. Legislators, in order to get their votes, sometimes are just acting too much, focusing on minor issues.

I support the current Scheme of Control Agreement. Let's not change for the purpose of change and fall into the trap of those irresponsible legislators. Reliability is more important than the price as it affects our daily activities - every second!



Sandy Chiu

2005/04/29 05:21 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: My Opinion on the Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sirs,

I would like to express my personal views to the consultation paper.

As a residential customer of China Light & Power, I am very satisfied with their service, including reliability, tariff and customer service. As electricity is essential for our daily life, I definitely do not want to risk my daily life due to any opening up of the electricity supply market in Hong Kong. I do not want to suffer from any deterioration of life quality as compared to what we are enjoying now. I cannot see there would be any great drop in paying for electricity in opening up the market. Hence, I would suggest and would be happy to see if government could negotiate for a tighter controlled agreements with the power companies.

In short, please keep the present current form of electricity market with better control on the power companies. It is indeed not worthwhile to introduce any new competitor for it would affect our stability!

Sandy Chiu

Sunny Kan

To: electricitycomments@edlb.gov.hk
cc:
Subject: 對電力服務的意見
☐ Urgent ☐ Return Receipt

2005/04/29 11:59 PM
Please respond to sunny

本人現在對香港電燈公司及中華電力公司所提供的電力服務深感滿意。現時家中的電力供應非常穩定，以香港這個面積細少的地區內，有兩間電力公司提供服務已是足夠。若引入其他競爭者唯恐會出現價格鬥爭的惡性循環，以致服務質素下降，消費者未必能有所裨益。

Sandy Kan

25/04/05 09:58 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: HK Electricity Market Development - View on stage I consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sirs,

After reviewing the stage I consultation paper on the above, I would advise my comments/views as follows:

1. Reliable electricity supply shall be maintained:
HK is an international finance centre. Reliable electricity is very important for maintaining Hong Kong as an international finance centre and keeping Hong Kong development. The existing SCA achieve the objective of providing reliable electricity supply.

2. Achievement of the existing SCA
The existing SCA has met the Goverment's policy objectives and provided competitive electricity prices compared with other countries. Most important of all, it provides very reliable electricity supply.

I opine that the existing SCA providing highly reliable electricity at very competitive prices shall be maintained. Any changes may affect the reliability of electricity supply. Keeping the existing SCA scheme is the most logical and reasonable approach with minimium risk.

Thank You

Sarah Ng

2005/04/29 11:05 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage 1 Consultation Paper on Electricity Market
☐ Urgent ☐ Return Receipt

My view is that Hong Kong has a world-class electricity supply system which is extremely reliable and secure. This is one of the main factors that have made Hong Kong a successful financial and commercial centre in the last few decades.

Certainly the present Scheme of Control is the most important driving force for the long-term investiment of the two power companies on adequate power generation and reliable supply networks. Any insignificant tariff reduction due to open market in the expense of reliability is definitely not what I want.

Hence I'd like to see the SCA be extended in its current form after 2008 with minimal change.

Shirley Wong
29/4/2005



"sandy lau"

28/04/05 11:37 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage 1 Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sirs,

I have studied the document & would like to point out that the market competitors do not have any practical plans.
Due to persistent power shortage on the Mainland, I do not believe that Mainland could supply the stabilized & economical electricity to Hong Kong.

I support the current SCA regulation and expect to have both the excellent electricity service & fair and affordable
tariff.

Simon Leung



Simon Patkin

08/03/05 03:28 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Hard copy of consultation paper
☐ Urgent ☐ Return Receipt

Dear Sir or Madam

I run a small think tank in Hong Kong called Capitalist Solutions and I wish to look through the consultation paper on the electricity market in detail. Could you please let me know where I get a hard copy of the paper and all the supplementary materials to go with it? Alternatively is it possible for you to mail a copy to me at:

Simon Patkin

Sincerely

Simon Patkin
Director
Capitalist Solutions.

"So Siu Hei"

26/04/05 12:52 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Development of Hong Kong's Electricity Market after 2008
☐ Urgent ☐ Return Receipt

Dear Sir,

I am writing to express my views as follows:

Is Opening the Electricity Market Feasible?

1. As pointed out in Paragraph 3.44 of the Consultation Paper, existence of alternative electricity suppliers supplying from either Mainland China or local sources is essential for the electricity market to be opened. Paragraph 3.53 concludes that surplus electricity in the Mainland for supplying to Hong Kong would unlikely be available in the next few years. The capacities of possible local sources as discussed in Paragraph 3.55 and 3.56 are obviously inadequate. The lack of alternative generators can already lead to the conclusion that opening the electricity market is not feasible.

Can Opening the Electricity Market Bring Financial Benefits to Consumers?

2. It is not sure whether opening the electricity market will bring financial benefits to consumers. Overseas experiences indicate that under de-regulating environment, the electricity tariff can shoot up enormously when the generating capacity is not enough. The point is no one is responsible to ensure that there is always enough generating capacity in a de-regulating environment.

3. Overseas experiences, particularly in 2003, also show that the electricity supply reliability will be seriously impaired. Without doubt a degraded reliability will bring financial losses to consumers.

Paragraph 3.45 - Reduce Emissions from Local Power Generation

4. What are the benefits of reducing emissions from local power generation while that across the border is increased at the same time? It is well understood by now that pollutants from Mainland China have contributed significantly to the air pollution in Hong Kong. The Hong Kong air quality will only be worsened because in general the power plants across the border emit more pollutants for the same amount of electricity generated than the local power plants.

Recent Developments

5. Recently Hong Kong has seen some companies announcing rudimentary and immature electricity supply plans and have their stock price increased irrationally in the stock market. It seems that the consultation process has gone beyond collecting public opinions on some desktop studies. It is now a matter that can jeopardize public interest.

Suggestions

6. In view of the above, in particular Item 5, it is suggested that the Government should openly eliminate the option of Opening the Electricity Market while continuing the dialogue with the existing power companies to arrive at a solution beneficial to general public and acceptable to the power companies.

So Siu Hei
25 April 2005

致经济发展及改革局：

本人对电力市场未来发展有以下之意见：

一、开放市场，若要起电缆，只会增加挖地工程；
二、外国地方取用开放市场，结果导致大停电；
三、最after停电比停煤气影响更大更惨。

本人希望能继续现有的电力公司供电！

So Wing Tat

我建南南角色：

南国一电力市场建动之例

我南国是力市场走来发展，恐怖也在

种种阴故能，对电力供应的摆定性及

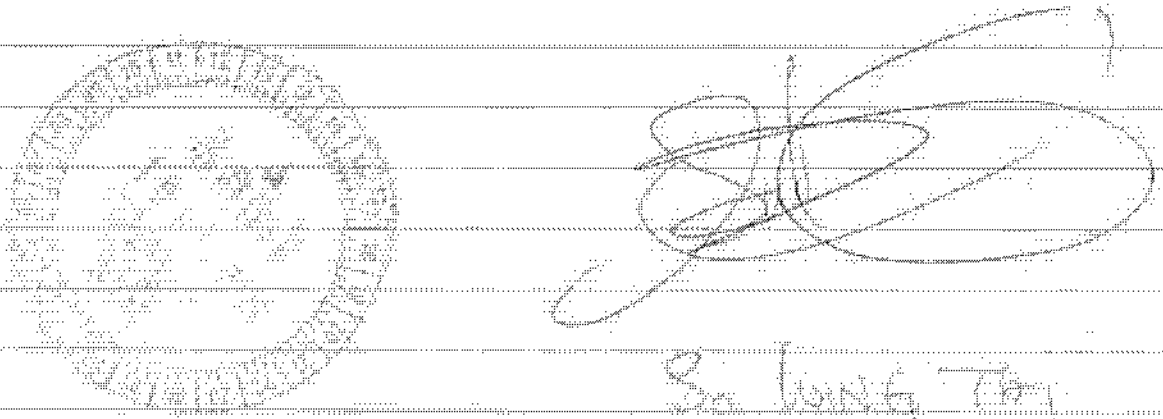
可靠性等角视获主，建时，零落的电

力可靠性之度也未平，零落作为国际电

脑中心地位电力的可靠性是非常重要的，

物为爱电力市场，管理关指营气候变化

故魂阴影在边南国考作考虑。



策局長　　電力市場未來發展

就政府發出的諮詢文件，外國的經驗
是因少失大，希望可要改善。外國（歐，美，加，星，紐）
都有
(1) 大停電
(2) 政府補貼
(3) 電費及行政費最終增加
(4) 市民不滿

再者，香港是民營，政府正干預投資市場。希望
三思。

（So Yuen Yee）



29/04/2005 11:18

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: Soren Nielsen

subject: Electricity Reform - Comments (Stage I Consultation)

Enquiry: Dear Sirs

Please could you confirm that comments faxed to you before 23:59 on 30 April 2005 will be considered.

Please could you also confirm whether you have published any of the comments received so far anywhere on your website (or elsewhere). In addition, please could you let me know whether you intend to make available to the general public all of the comments received by 30 April at any point in the future.

Many thanks

Soren Nielsen

Spencer Loung

24/04/05 08:51 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: 二零零八年後電力管制計劃協議之我見

☐ Urgent ☐ Return Receipt

本人認爲維持電力供應的可靠性遠較電費因引入競爭而有所下調更爲重要．
現中電及港燈均提供非常可靠的電力給予香港社會，服務及收費水平亦爲香港人所接受和認同．參照外國開放電力市場作例子，如早年美國加州大停電就是由於引入競爭後觸發電廠減少投資意欲而造成．本人並不希望香港電力市場爲了引入競爭而引入競爭，造成電力供應不穩定的原因．請維持現有機制，使香港能繼續享有可靠的電力供應．

Regards,
Spencer Loung

Ng Stanley
29/04/2005 21:20

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: STANLEY NG

subject: 香港電力市場的未來發展 - 第一階段諮詢

Enquiry: 站在消費者的角度，有更多選擇和收費低廉當然是好，但世上是沒有免費的午餐，我們要了解到電力系統是一個既龐大又複雜的基建設施，在作出改變之前，我們必需對整件事有週詳的考慮並作出妥善的安排。

本人在過往二十年內曾經居住過香港島及九龍半島，但從未親身經歷到停電，這足以證明兩電在保證電力可靠性下了不少苦功。電力是現今社會的必需品，不穩定的電力供應將會爲社會帶來龐大的經濟損失。

我覺得兩電現行的政策和收費都尚算合理，政府並不急需要對現行的政策作出修改。此外，本人更反對政府過份規管商營機構的運作模式。



04/05/2005 16:48

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: Stephen Chan

subject: Public consultation

Enquiry: TO WHOM IT MAY CONCERN

The public consultation on the future development of the electricity market after 2008 refers.

While the consultation came to a close on 30 Apr, I would like to enquire about how the responses submitted and collected by the Government would be made available for public access.

Looking forward to your reply and your kind relay of information.

Regards,
Stephen

18th floor, Edinburgh Tower, The Landmark
15 Queen's Road Central, Hong Kong
香港皇后大道中15號置地廣場愛丁堡大廈18樓
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shl 羅夏信律師樓
STEPHENSON HARWOOD & LO

Economic Development and Labour Bureau
2/F, Central Government Offices,
Main & East Wings,
Lower Albert Road, Central,
Hong Kong

EMAIL vkl@shl.com.hk
DIRECT LINE +852 2533 2790
DIRECT FAX +852 3150 3790
OUR REF LVK/BD/CLP

26th April 2005

Dear Sirs

Consultation paper on future development of the electricity market in Hong Kong Stage 1 Consultation (the "Stage 1 Consultation Paper")

Overseas and associated offices
Athens
Bucharest
Guangzhou
Johannesburg
Kuwait
London
Paris
Piraeus
Shanghai
Singapore
Zagreb

We refer to invitation by Government to submit views and comments on the Stage 1 Consultation Paper.

Our views and comments on certain aspects of the Stage 1 Consultation Paper are set out below:-

Policy Objectives

1. We note from the Stage 1 Consultation Paper that Government's overriding policy objectives are:-

   1.1 that consumers should receive reliable, safe and efficient electricity supply;

   1.2 that the price of electricity should be reasonable; and

   1.3 that there should be efforts to minimise the environmental impact caused by the generation and use of electricity.

2. As set out in the Stage 1 Consultation Paper (page 6), the policy objective set out in Para 1.1 above has been achieved under the current regulatory environment.

3. We also note from Government statistics (page 8) that residential electricity tariffs in Hong Kong are middle ranking compared to other major cities. While this is not the cheapest, we note (and agree) that it is not Government's objective to obtain the cheapest possible tariff at any cost.

4. We note that the objective set out in Para 1.3 above is only just being addressed by Government in light of the Kyoto commitment.

The Competing Models

5. We note that there are basically two competing models being considered:-

PARTNERS John Cale, Mark Read, Ian Devereux, Malcolm Kemp, Twiggy Liu, Roderick White, Voon Keat Lai, Hilda Chiu, Andrew Cotterell, Allen Wong, Jeremy Sargent, Owen Chan
NON-EXECUTIVE PARTNERS T S Lo (LL.M., J.P.*), Larry Ko*, Philip Kan, Andrew Sutch (Non-resident) * Notary Public
GUANGZHOU OFFICE 1907 Peace World Plaza, 362-366 Huanshi Road East, Guangzhou, 510060, PRC. Telephone +86 20 8388 0590, Fax +86 20 8386 3119
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ASSOCIATED FIRMS Stephenson Harwood, London and Lo & Lo, Hong Kong
www.shl.com.hk

5.1 An extension of the current SCA model with such amendment as agreed between Government and the electricity companies (the "**Modified SCA Model**")[1].

5.2 A model based on open-competition (the "**Market Competition Model**"). Within the Market Competition Model, there is a broad range of matters that can be made subject to open competition, starting with electricity generation.

6. We also note that a number of companies have recently indicated interest in participating in the supply of electricity to Hong Kong. This will only be possible if a Market Competition Model is adopted; at least with regard to generation of electricity.

7. It seems to us that the key pros and cons of the two competing models are as follows:-

Modified SCA Model	**Market Competition Model**
a. ***Tried and tested.*** The current SCA has a history of achieving the policy objections of Government as set out in Paras 1.1 and 1.2 above.	a. ***Not tried and tested.*** Overseas experiences seem to suggest that reliability might become an issue and cost savings might be illusory (particularly as far as mass consumers are concerned)[2].
b. ***Encourages investment.*** It is only natural that the electricity companies' time, efforts and investments will be channelled into activities that will generate them higher returns i.e. under the current SCA, towards increasing their fixed assets. This is both positive and negative:- (i) If the formula for defining return is formulated too narrowly, the SCA may well encourage investments in certain areas to the neglect of others[3].	b. ***Encourages investment only if the investment contributes to reduction in costs of production.*** In a Market Competition Model, the electricity producer will wish to maximise the spread between its costs and its revenue. Investments will only be made which improve this spread. Hence, the only way that Government can realise its policy objective set out in Para 1.3 above would be to prescribe minimum environmental standards which the power generators have to fulfil.

[1] We do not have specific views/comments as to which of the various options set out on pages 13-20 of the Stage 1 Consultation Paper should be preferred.

[2] We note that cost saving is not one of the policy objectives of Government.

[3] We think this is the short-coming of the current SCA. As the current SCA calculates returns only by reference to fixed assets, electricity companies will be more likely to build pollution reducing facilities such as de-sulphurisation plants (which become part of their fixed assets) than educating the public about energy saving measures (which do not generate returns for the electricity companies).

(ii) However, if the formula for defining return is formulated in a broader perspective, this could be used quite effectively by Government to channel investments into areas where it may not make commercial or economic sense, but where spending would be necessary for the greater Hong Kong good –e.g. environmental protection[4]. It should be possible to incentivise the electricity companies to exceed minimum legislated environmental standards on an ongoing basis by encouraging (a) fixed asset investment in anti-pollution plant and the upgrading of existing generation and distribution plant to be more efficient, and (b) investment and expenditure in areas which are designed to decrease consumption (which would normally be commercially opposed to the objectives of any company, especially one operating under a Market Competition Model). Hence, under the SCA, how investment is channelled can be influenced by Government by broadening the returns mechanisms to include other non-fixed costs	The influence of Government on electricity companies to undertake environmental protection programmes would be much less, particular if some of the plants are located outside Hong Kong[5]. Also, one might expect that, instead of working in tandem with Government to implement emission reduction programmes, electricity companies would be resistant to any environmental protection measures that might potentially increase their cost base. At best, they would meet only minimum legislated standards.

[4] The reason for this is because it is irrelevant for the electricity companies how they spend the investments - as long as the time and energy invested in that activity generates a return. Hence, Government can, by way of policy measures, encourage investment or disinvestment in certain areas.

[5] Government will also have difficulties policing these plants.

expenses (such as expenses on environmental protection activities acceptable to Government).	
c. ***Low regulatory costs being borne by taxpayers.*** Given that there is no incentive to 'cut corners', the electricity companies can be self-policing. The principal risk for Government is that the SCA raises the possibility of waste and inefficiencies. However, there are already bodies in Government and LegGo with considerable experience in vetting public spending. Hence, provided that appropriate mechanisms are put in place to encourage accountability to consumers (and, if needed, mechanisms for penalising the electricity companies for unnecessary wastage), the SCA is effectively self-policing.	c. ***High regulatory costs being borne by taxpayers.*** Given that power producers will have strong incentives to circumvent minimum environmental standards, an environmental pollution watchdog will have to be appointed to police the electricity producers. The costs of ensuring compliance will be borne by the taxpayers. The effectiveness of such an environmental pollution watchdog to monitor power plants outside Hong Kong is highly suspect.
d. ***Encourages innovation in spending.*** Hong Kong is a mature market and, in the short term, there is little need to increase investment substantially to generate more electricity. However, as assets depreciate, the returns of the electricity companies will be reduced [6] unless they continue investing in activities which generate returns. Provided that the SCA is sufficiently broadly defined, Government can have a role in directing how investments can be funnelled more effectively.	d. ***Encourages innovation in cost reduction (and income expansion).*** As the primary driver for the electricity companies would be to reduce cost, investment and energy will be channelled to reducing their cost base, not spending on non-cost related matters such as environmental protection. Similarly, there will be an incentive to increase income (i.e. the sale of kWh's) which will be contrary to conservation objectives.

[6] This assumes that the current "asset based" model is applied.

e. ***Putting the onus on environmental protection in the hands of people most able to execute the environmental protection programmes.*** As set out above, provided environmental protection is linked as an activity that will generate returns, electricity companies will treat environmental protection as one of their core activities. Hence, consumer's funds can be channelled effectively into environmental protection programmes. Thus, if the government wants (as it should) Hong Kong to take a world-leading role in developing renewable energy, waste-to-energy, and light and air-conditioning efficiency in densely populated environments, it only has to provide a commercial incentive under the SCA and the product will be delivered.	e. ***Lack of mechanism for savings (if any) to be channelled back for environmental protection programmes.*** Even assuming that the Market Competition Model achieves tariff reduction for consumers, there is no mechanism for such reductions to be channelled back to environmental protection programmes. Based on the Market Competition Model, it is unlikely that electricity companies will take any initiative towards this end (apart from achieving the minimum standards prescribed by law). On the other hand, there is no easy mechanism for Government to 'tax' consumers and channel these monies back into environmental protection programmes. It may be possible for Government to impose an environmental protection tax but would the costs of operating this tax plus the cost of setting up a public environmental protection agency outweigh the amount currently paid to the electricity companies under the SCA?
f. ***Potential for encouraging energy consumption or energy saving.*** Under the current SCA, electricity companies have the incentive to promote electricity consumption in order to maintain utilisation of the power stations (and further investment in additional generating plant). However, if their returns are more broadly defined such that returns can be generated from electricity conservation activities, electricity	f. ***No potential for encouraging energy consumption.*** As returns are directly linked to energy consumption, it would appear that there is no incentive for these companies to encourage energy saving measures. These companies are more likely to promote energy consumption instead.

companies will no longer have the incentive to encourage electricity consumption - as there will be no direct relationship between the amount of electricity consumed and their returns Hence, provided that the formula for calculating returns under the Modified SCA Model is appropriately defined, there is a strong potential for electricity companies to become proponents of energy saving rather than proponents of consumption.	

Conclusions

8. It would appear to us that the debate whether or not the SCA should be replaced by some form of competitive model is not an economic one that can be easily justified by reliability, cost considerations and environmental protection factors. On the contrary, the competitive model might well cause an erosion of reliability, an increase in costs and, importantly, an increased environmental cost.

9. Hence, it would appear to us that any justification for a competitive model post 2008 would be one based simply on political motivation and not on the overriding policy objectives set out in the Stage 1 Consultation Paper.

10. In view of its historical record of maintaining a safe and reliable electricity supply for Hong Kong at reasonable cost, we believe that a modified form of SCA is probably the most effective means of achieving Government's policy objectives set out in Para 1. Insofar as this is concerned, it would appear to us that the objectives can largely be achieved by adjusting three areas of the SCA:-

10.1 Expanding the definition of "Electricity-Related" in the current SCA to give greater emphasis to environmental protection[7] i.e. environmental protection should be considered as part of Electricity-Related activities.

10.2 Changing the formula of "Permitted Return" to cover also investments in environmental protection programmes that do not contribute to an increase in the pool of fixed assets of the electricity companies[8]. Hence, for example,

[7] The existing definition already covers "energy efficiency and conservation". This has to be expanded to deal with environmental protection more generically.

[8] We note that the various return options proposed by Governing in the Stage 1 Consultation Paper do not take into consideration these matters.

campaigns to reduce energy consumption should also generate returns even though they do not increase the overall fixed assets of the electricity companies.

10.3 Accordingly, provided that the SCA is drafted to encourage investment in all desired activities, the Government's only remaining concern is that a particular activity might be undertaken excessively in order to increase returns. This risk should be controllable through the SCA's financing review mechanism under which Government can influence future investment if it is considered excessive.

If you wish to discuss this further, please feel free to contact John Gale or Voon Keat Lai of this office.

Yours faithfully

Stephenson Harwood & Lo

Enc.

Steve Ng

2005/04/29 10:21 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on future electricity market
☐ Urgent ☐ Return Receipt



對香港電力市場未來發展的意見.doc

對香港電力市場未來發展的意見

香港電力市場的未來發展，對每個香港人都有切身關係，因此我亦借此機會表達個人意見。

1. 電價分配

作爲一個消費者，當然希望減少電費支出，但根據外國（洛杉機、多倫多）親友的經驗，開放市場，往往只會令有議價能力的大戶得益，中小用戶的支出反而增加。其實當中道理很簡單，供電給大戶的成本低，有長期合約保障售電量，價格調低亦有利可圖；而向中小用戶供電的成本相對較高，在開放市場下售電量沒有保障，令長遠投資的風險很高，因此造成投資不足，供應自然減少，在求過於供的情況下，便會推高中小用戶的電價。

另外中電與港燈電價的差別，亦是倡議開放電力市場，引入競爭的主要原因。試問如果開放電力市場後，港九的電價相同，那又是否公平？曾經旅遊美加的人都會發覺，當地的油站，價格各有不同，除了自助和非自助的分別外，還會反映不同地區的租金、設施的新舊等。相反香港同一牌子油站的價格，不論地區，全部劃一，相信高租金油站，定必需要接受低租金油站的補貼，對光顧低租金油站的顧客，並不公平。同樣，港燈規模較少，經濟效益較低，地價和環保設施看來亦比中電高，電費理應較高，如果硬要把兩地電價拉近，等如要九龍新界的用戶津貼港島的用戶，有違用者自付的原則。

2. 環境保護

電力屬污染性產品，如果降低電價會增加用電量，加重對環境的污染，相信大家都不願看見。報章時有報導，指出內地的工業用電效率低，是電力供不應求的其中一個原因，而用電效率低，主要是電價低，沒有經濟誘因去投資於用電效益高的生產機器，結果無電時要拉閘限電，有電時又污染環境。如果電價高，投資於減少用電的設施較支付電費化算，自然可以減少消耗能源，減少環境污染。因此爲了保護環境，高電價政策似乎是最有效，因爲可以鼓勵安裝慳電胆，購買能源效益較高的電器產品，與及安裝用電效率高的生產機器。其實如果發覺電價偏低，更應利用環保稅等手段，讓用電者負擔社會成本，真正做到污染者自負的原則。

3. 可靠供電

電話線路繁忙，我們還可以等一等才打。如果電力中斷，我們便要遲一點才可乘坐地鐵到達目的地，遲一點才把資料輸入電腦，遲一點才完成一個工序，停電所浪費的生產力十分廣泛，整個社會付出的代價會很大。我在美加的親友，都有對我談及大停電之苦，屋子裏沒有空調、電冰箱不能保鮮、辦公室工作癱瘓、交通燈停止操作、馬路上一片漆黑。如果類似的大停電發生在香港，情況必然更嚴重，原因住在美加的親友，房子大多不用升降機，但在香港居住，往往要走上一二十層樓，如果升降機因停電而不能應用，後果不堪設想，相信很多人要露宿街頭。因此我對引入外來電力有所保留，這些山長水遠輸送到來的電力是否可靠？如果需要在香港安裝等同的後備發電設施，以備不時之需，費用又由誰人負擔？國內經濟調控，涉及很多人爲因

素，一旦國內供電設施再次追不上需求增長，香港是否有優先用電權？有的話要付出多少經濟和政治上的代價？無的話是否可於短時間內增加本地發電設施？

4. 合理利潤

其實，很多人反對現有的規管，提倡開放電力市場，主要原因是兩間電力公司在經濟不景下，仍然能維持可觀的利潤。平心而論，這個安排，對用戶不無好處。在現有規管下，無論經濟好壞，通脹高低，回報率都不變，投資者承擔經濟風險，在經濟好，通脹高時，實質回報比其他行業偏低，以致股價落後大市。只有在經濟壞，通脹低時才可以收覆失地。試問香港經濟好的年頭多，還是經濟壞的年頭多？最近香港已踏入通脹期，油價飆升、人民幣升值、房地產供不應求令租金上升，都會加劇通脹，但租金上升對發電成本又有甚麼影響。如果電價與通脹掛鉤，結果是收入增加，營運與設施成本沒有增加，股東回報可以跟隨通脹上升，而用戶要多交電費。再者，通脹高並不等如經濟好，根據最近的財經新聞，每當油價上升，美國股市便會下跌，可見通脹亦會危害經濟，電價在這個時候增加，只會令用戶百上加斤，怨聲載道。因此如果我們不希望在通脹時受惡性循環之苦，便要接受通縮時不能降低的電價，不能只顧輸打贏要。

5. 公平競爭

中電在全港電力市場的佔有率超過七成，有市場主導地位，就算因競爭對手定價太低而放棄部份客戶，亦能操控其他客戶的電價，以彌補損失，甚至增加利潤。可見在現有市場供應商大小懸殊的情況下，勉強開放市場，有可能造成反效果。外地國營電力市場開放時，往往需要把政府所擁有的多間電廠分折，令每間電廠的規模不超過市場的四份一，達致公平競爭的先決條件。中電是一間私人公司，要將其一分爲三又談何容易。難道要學電訊市場，有市場主導的不准減價，讓其他供應商增加市場份額？

因此，如果香港繼續有需要維持合理電價分配、改善環境保護、確保供電可靠，便別無選擇，只有繼續現有的規管制度，否則很容易造成以下不利情況—

- 大用戶獲得減價，因此可以減少投資於能源效益高的設施，結果浪費能源，增加對環境的污染。
- 中小用戶的電價不減反加，在通脹時百上加斤，又要忍受環境污染的危害，又要冒著隨時停電的困擾。
- 投資者在扭曲的競爭環境和前景不明朗的情況下，只顧急攻近利，以致服務質素與環保成效下降。
- 政府被迫放棄小政府政策，增加監管人手避免電力市場失控，結果浪費納稅人的金錢。

"stomas"

2005/04/27 12:56 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Consulation paper
☐ Urgent ☐ Return Receipt



soc.doc

To: Economic Development and Labour Bureau
From: the citizen of Hong Kong Island

The major business of HEC is the electricity supplier to the households and commercial business in the Hong Kong Island & Lamma Island. HEC is the responsible corporate because it has own environmental policies .HEC has incorporated flue gas desulphurization units of Generation Plants in order to reduce emission of air pollution. While other developing countries like China do not have emission reduction target .

Open up the electricity market after 2008 SoC ended is the option but can it be benefit the interest of consumers and investors to sustain continuous economic growth in Hong Kong. Each option has its own merit and limitations and shortcomings

The SoC Agreement signed between HEC and the Government enables the Government to monitor all aspects of HEC's operations in Hong Kong, including tariff setting. The present tariff of electricity keep this level because electricity business involves long investment cycle and shouldn't be linked with short-term fluctuation in consumer price. It also enabled customers to enjoy reasonable tariff comparable to metropolitan cities such as New York, London and Tokyo etc.
Moreover, I don't think that the price of electricity of which is the main point of consideration among the majority of electricity consumer

In my point of view, the deregulation of electricity market which will introduce generation market competition may not yield low and stable price and better service quality and reliability. The factor comprise the following factors may affect the success of result.
- Generation surplus
- Transmission surplus
- Abundant fuel supply

Whether or not electricity deregulation delivers the benefits to its supporters including lower prices and more services is an open question. I claimed that I do not support the electricity deregulation issue

"Feasibility of Hong Kong Power Sector is Opened Up"

Dear Sirs,

In regards with the "Feasibility of Hong Kong Power Sector is opened up", there are two scenarios such as "Non-regulatory regime on the opening of Hong Kong Power Sector" and "Regulatory regime on the opening of Hong Kong Power Sector" need to be considered. This essay states all the possible pros and cons on the non-regulatory regime in Part A and on the regulatory regime in Part B before reaching a conclusion of the topic.

Part A: "Non-regulatory regime on the opening of Hong Kong Power Sector"

Pros:-

1. Once the contract terms of the hire of the transmission network between the new entrants and the existing power company have been mutually settled, the scheme of the "Non-regulatory regime on the opening of Hong Kong Power Sector" might be set up shortly in the coming future.

2. The existing power companies shall continuously keep commitment to their customers in supply of the most reliable electricity system, and they could set-up contract terms to the new entrants in the hire of their transmission network.

Cons:-

1. As the contract terms of the hire of the transmission network is not a governmental document, both of the Government and customers cannot control or take part into contract terms respectively when it is to be revised in future.

2. Lack of clearness of accountability and responsibility to the public.

3. Commitment to the public shall be in the companies' profit basis.

Part B: "Regulatory regime on the opening of Hong Kong Power Sector"

Pros:-

1. With the regulatory regime on the power sector, the new entrants are encouraged to participate in power sector market.

2. With the assistance from the Government, the electrical power energy revolution can be developed.

3. The power sector market can be developed by the competition amongst the power companies and the new entrants.

4. More choice of electricity suppliers to the customers.

5. The electricity networks can be consolidated amongst the power companies and the new entrants.

Cons:-

1. To implement the regulatory regime successfully, it is necessary to establish a comprehensively control schemes for the new entrants. As it is a long-term issue, the outcomes of the control schemes would not be seen in the early stage of the regulatory regime.

2. Crisis might be caused by the lack of communication amongst the power companies and the new entrants during the early stage of the regulatory regime.

Conclusion:

All in all, it is concluded that the Hong Kong Power Sector might not be opened up due to the huge level of investment required. For instance:

a) network investment – the cost (including material and labour) of laying power cables is about HK$40,000 per metre for a 400kV electricity transmission cable, Apart from that, the costs (including material and labour) of laying power cables (including 11kV and low voltage), switchgears and transformers, as well as the other associated equipment are very huge.
b) Generation – Electricity requires generation investment. The cost of the generation investment is very huge. New entrants to the electricity industry must face to the highly security of power supply to their customers. This commitment requires either investing substantial amounts in building new generation capacity or buying electricity from existing generators. The former requires long-term fuel contract, the latter requires electricity purchase from the existing electricity company. Both of them in turn need to be backed up by a secure revenue stream and these costs are finally being add-on on the electricity tariffs.

Nevertheless, meaningful competition in the power sector market would be possible in fulfilling the 6 objectives as states below:-

a) An adequate and reliable supply
b) Environmental responsibility
c) Reasonable and affordable tariffs
d) Private funding of investment
e) Cost effectiveness
f) Clear accountability and responsibility.

Yours faithfully

Sunny

Swire Pacific

Swire Pacific Limited
35/F, Two Pacific Place,
88 Queensway, Hong Kong.
Facsimile: 2845 5445

27 April 2005

Economic Development and Labour Bureau
2/F, Central Government Offices
Main East Wings
Lower Albert Road
Central
Hong Kong

Dear Sir,

Response to Consultation Paper on Future Development of the Electricity Market in Hong Kong - Stage 1 Consultation

In response to the above consultation, the Swire Group has drawn up the attached paper. In compiling our response, we have taken into consideration the balance of interest between the power companies and consumers as well as the needs of environmental and sustainable development.

We hope the Government will give serious consideration to our response and look forward to remaining involved in the consultation process as the Government firms up its policy.

Yours faithfully,
for and on behalf of
SWIRE PACIFIC LTD

Robert Cutler

RPC/cl

c.c. Mr Cary Chan

Response to Consultation Paper on Future Development of the Electricity Market in Hong Kong - Stage 1 Consultation

Swire Group of Companies

Cathay Pacific Airways Ltd.
Cathy Pacific Catering Services Ltd.
Hong Kong Aero Engine Services Ltd.
Hong Kong Air Cargo Terminals Ltd.
Hong Kong Aircraft Engineering Co. Ltd.
Hong Kong United Dockyards Ltd.
Swire Beverages Ltd.
Swire Properties Management Ltd.
Swire SITA Waste Services Ltd.
Vogue Laundry Services Ltd.

April 2005

Summary of Recommendations

The following summarises the views and recommendations made in this response :

- **Future Regulatory Regime**

Open competition is a risky step and irreversible process. There are still not enough well-tested success cases to substantiate the need for an open market immediately after 2008. A modified Scheme of Control Agreement (SCA) appears to be a more balanced option.

- **Independent Regulatory Authority (IRA)**

The setting up of an IRA could raise more questions than answers, also adding uncertainty to any bilateral commercial agreement between Government and power companies. We suggest the current regulatory system be maintained, however, a more transparent and regular auditing system should be introduced in the new SCA.

- **Return on Investment**

Future returns should be asset based and the rate of return should be linked to the capital market and business risk.
Incentives should be introduced to encourage improvement in cost efficiency, energy efficiency and environmental performance.

- **Meeting Future Demand**

Current capacity should be fully utilized before bringing in third party power sources. When demand warrants additional capacity, various options other than building plants locally such as buying power from third party power plants should be considered based on reliability, price of energy and the environmental performance of each option.

- **Environment and Sustainable Power**

Targets should be set to mandate the power companies to invest in sustainable sources and for purchasing sustainable power/ fuel available locally or cross border. Also to facilitate the consumers in using sustainable power by providing backup and allowing grid access.
Reductions in rate of return and cost should be put into a newly established "Environmental Fund" to finance large scale sustainable power projects.

- **Interconnector**

A more detailed study should be carried out on the feasibility of increasing the capacity of the interconnector as a means to
i) remove geographic constraints between Kowloon and HK Island for locating sustainable or more cost effective/ efficient power sources
ii) minimise impacts to HK Island in the case of a catastrophic incident at the Lamma Power Station.

- **Tariff**

The current tariff structure seems appropriate and the current Development Fund should remain in the future SCA.
Operation, generation and the grid including the interconnector should have its own separate accounts to reflect its operating cost so that the cost effectiveness of each component can be assessed for calculating improvement incentives.

1. Introduction

The purpose of this paper is to respond to the "Consultation Paper on the Future Development of the Electricity Market in Hong Kong – Stage 1 Consultation". This paper is submitted on the understanding that further consultations will be made later this year.

Under the current SCA, both CLP and HKE have demonstrated that they have met the requirements of providing reliable and good quality power to the consumers. Also we understand that Government has been implementing more stringent control on investment made on assets, by the two incumbent power companies, as well as their efficiency improvements. However, there are still shared concerns amongst the public on the current SCA which include :

i) adequacy and transparency of control on over-investment including the power plant, grid and facilities
ii) the rate of return
iii) incentives to encourage efficiency improvement
iv) flexibility to allow access to third party sustainable power
v) environmental performance

2. Objective

We suggest that the following objectives are to be met in the future market review :

i) reliability of power supply
ii) cost efficiency
iii) reasonable return
iv) transparency/ auditability
v) flexibility for future changes
vi) stable tariff
vii) environment/ sustainability

3. Future Regulatory Regime

Open competition is one of the means to achieve targets but should not be taken as a target itself. It seems there are still not enough well-tested success cases in other countries that could effectively or efficiently meet all of the above objectives in our specific environment.

We have concerns on open competition such as :

i) unclear accountability and responsibility on crisis resolving
ii) investment decisions can be dominated by commercial decisions
iii) choice of attracting more profitable consumers, hence interests of the SMEs or small domestic consumers can be sacrificed

We are of the opinion that it is not advisable to push for an open market immediately after 2008, though certain investors have already indicated their interest of entering the market. We must not assume that opening the grid and bringing in more competitors will necessarily achieve all of the above objectives. Instead, a modified SCA appears to be a more balanced option after 2008. It can undergo continuous or regular review to improve the scheme to better achieve goals and adapt to changes. Open competition is a risky step and irreversible process.

4. Regulatory Body

The option of setting up an Independent Regulatory Authority (IRA) can raise more questions than answers. Some of the issues include :

i) how independent should the IRA be
ii) members of the IRA
iii) politicizing a bilateral commercial agreement
iv) confidentiality of commercial information
v) unclear accountability with the power companies
vi) increased administration cost, which in turn will be borne by tax payers, and electricity consumers.

The running of the current SCA is examined by the various dedicated government bureaux and departments which in turn are monitored by the Legislative Council. It appears to be a direct and effective means. The Government being one part of the contract is accountable for the satisfactory running of the SCA. We have noted that more stringent monitoring has been imposed by the Government in the past two reviews.

We suggest that :

i) the current regulatory system should be maintained after 2008
ii) the current Energy Advisory Committee could be reformed to include more experts so as to give the government more solid views and suggestions
iii) more transparent and regular auditing mechanism should be introduced into the future SCA

5. Rate of Return

The current permitted rate of 13.5% could be appropriate back in the 60's when the SCA was first established. However, the SCA does not have the mechanism to allow revising the permitted rate based on the changing business operating environment.

The future SCA should provide incentives to maintain adequate investments on new plants, and grid facilities, and balance the interest of all stakeholders. Returns should be asset based and the rate of return should be linked to the capital market and the type of risk the business is exposed to.

The rate of return in the future SCA should adopt the "Cost of Capital" approach. Recognising the need for long term investment, running average over an appropriate period should be used to reduce risk of market fluctuation. Mechanisms must be introduced to ensure that investments are justifiable and cost effective/ efficient.

Other than the return that is linked to asset value, incentives should also be provided for making performance or quality improvements like

i) cost efficiency
ii) energy efficiency
iii) environmental performance

A cap of say 2% of the net asset value could be set as an incentive for achievements in the above areas.

6. Meeting Future Demand

It is to the benefit of the society at large that the current installed capacity be fully utilized before considering bringing in third party electricity sources. When demand warrants additional generating capacity, the Government should evaluate various other options. This should include mandating the power companies to purchase power from a third party or building additional plants locally.

All options should be evaluated based on the following criteria :

i) reliability
ii) price of energy
iii) environmental performance

Savings due to the purchase of energy at a lower cost can be shared between the power company and consumers for reducing the tariff.

7. Environment

Using energy from fossil fuel is one of the major environmental concerns since it is draining the limited natural resources, causing global warming and air pollution problems.

- Energy efficiency in power generation:-

Energy efficiency should be one of the key performance indicators leading to incentives if power companies can improve the efficiency of the plants, such as making better use of waste heat.

- Tariff:-

The present tariff does not reflect the social cost on environmental impacts of using power. Reduction in tariffs could also lead to more energy consumptions. Therefore we suggest that any reduction in cost and reduction in the rate of return should not have a corresponding drop in tariff. A separate "Environmental Fund" should be set up for funding large scale environmental efforts which can include:

i) investment in renewable energy
ii) local or cross border renewable energy research projects
iii) funding or subsidy for consumers who would like to invest in renewable energy sources.

- Environmental targets:-

The SCA should have aggressive prescriptive environmental targets for the two power companies to achieve, this can include:-

i) percentage of energy generated from sustainable sources
ii) Green House Gas and pollutant emission targets

8. Facilitating Wider Use of Renewable Energy or Fuel

Neither does the current SCA encourage the power companies to invest in sustainable power nor the Supply Rules allow consumers to supply power from co-generation or other sustainable means into the grid. Facilitating the use of such power should be prioritised in the future SCA.

Power companies should be encouraged to invest in renewable energy sources, local or cross border, to supply power to HK. A time based target should be set in the future SCA to mandate the power companies to achieve this. Investments made under this category should

receive the same rate of return as for normal assets, also can be partly or totally financed from the Environmental Fund as at 7) above. Consumers should share the profit based on the percentage of contribution transferred from the fund.

Locally where power is generated from renewable sources like solar, wind or energy from landfill gas, power companies should be mandated to facilitate its use by providing backup, allowing access to the grid or purchasing power from such sources to meet its target.

Where available, landfill gas should be used to fuel local power plants.

9. Co-generation

In situations where co-generation of power is more energy efficient, the power companies should facilitate its use, the same as for renewable energy mentioned in 8) above.

10. Interconnector between Kowloon and HK Island

A more detailed study should be carried out on the feasibility of increasing the capacity of the interconnector and its timing. The following considerations should be put into the study inter alia :

i) the interconnector as a means to remove geographic constraints between Kowloon and HK Island for locating sustainable or more cost effective/ efficient power sources

ii) HKE's power plants and facilities are closely sited on Lamma Island. Any catastrophic incident may cause extensive blackouts across HK Island. Increasing the capacity of the interconnector could minimize impacts of such magnitude

iii) remaining operating life of the existing interconnector and the future plan since it is already an installation of the early 80's.

11. Tariff

The current tariff structure seems appropriate. The Development Fund set up which is a good means to stablise tariff and finance long term projects in the current SCA should remain in the future SCA.

In the future SCA, operation, generation and the grid including the interconnector should be separated and each should have its own accounts so that the cost effectiveness of each component can be assessed for calculating improvement incentives.

- END -

"T.C. Lam"

28/04/05 11:51 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comment on how the electricity market should be regulated once the existing SCA runs out
☐ Urgent ☐ Return Receipt

I consider the supply of electricity in Hong Kong is very reliable.

Although there were isolated cases of loss of power in Hong Kong, the power supply usually can be restored in a very short time. No major lost in lives or serious inconvenience was reported.

Comparing with the long blackouts in USA, Canada and Europe, the operation of the electricity company in Hong Kong can be considered to be very efficient and satisfactory. The electricity company in Hong Kong shows to invest on their generation and transmission system under the present SCA. According to the reports, it was found that overseas did not invest in the power industry and results in deterioration of the supply reliability.

I consider that the current SCA should be kept.

Regards,

T.C. Lam

25/04/05 11:14 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Hong Kong Electricity Market Stage 1 Consultation
☐ Urgent ☐ Return Receipt

I think the present scheme of control to the power companies should be maintained. I live and work in Hong Kong. Over past years, I am satisfy with the reliable electricity supply we have. The number of shutdown and interruption was not many.

If the electricity market is de-regulated and introduce new operators in Hong Kong, I don't think the electricity tariff can significantly going down. Remember we have to establish some 'independent' regulating bodies and running cost will be paid by us.

I am happy with the present performance of the power companies and the present scheme of control should not change.

TFChan

"T S Kuan"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views on Stage I Consultation on Future Development of the Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

2005/04/29 11:59 PM

Dear Sirs,

Without a reliable electricity supply, I just wonder how HKSAR can still be a leading financial and commercial centre. We have been enjoying our life comfortably with reliable power and water supply for so many years. It appears that most people especially those politicians of my age have forgot those days when we suffered from regular back-out and restricted water supply.

People try to neglect the fact that doing power business will involve huge investment, long lead time for environmental assessment and construction and also a long pay-back period, which is totally different from telecommunication business. The lack of an attractive return will only discourage existing power players to invest less and less in addition / renewal / upgrading of their power generating and transmission systems. Their existing aged plants and equipment will continue to deteriorate and eventually force out some days. Even for new power players, if any, they would possibly only look for the cheapest ways of power generation and transmission, thus sacrificing supply reliability, not to mention environmental friendly. If this happens, the one eventually suffered will only be the people of the HKSAR.

In order to ensure the continuation of what we have had now at a reasonable and affordable tariff level, I would strongly support the need to retain the existing SCA and 13.5% permitted rate of return after 2008.

Best regards,

T.S. Kuan
29 April 2005

"lawrence_tswu"

25/04/05 12:25 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views on Government's Stage I Consultation Paper On Future Development Of Electricty Market In Hong Kong
☐ Urgent ☐ Return Receipt

Dear Sir,

With reference to your consultation paper on future development of electricity market in Hong Kong, I would like to submit my views and comments on your paper. Please find attached a word file for this purpose.

Regards

Mr. T.S. Wu



Views_Consultation _Paper_I.doc

Views & Comments On
Stage 1 Consultation Paper On Future Development Of The Electricity Market In Hong Kong

Importing power from Mainland China is definitely not a choice for Hong Kong. I would like to express my views and comments as follows:-

1. Power shortage is still a major problem in Guangdong Province. As everyone aware, there is a strong economic growth in Mainland China. According to a report in the newspaper, the recent GDP growth in Mainland China is 9.5%. Under the strong GDP growth, power shortage will continue to be a major problem in Guangdong Province in the short to medium-term. Without surplus power in Mainland China, we cannot rely on Guangdong Province to import power to Hong Kong.

2. Another issue needs serious attention is that the power companies in Hong Kong and Guangdong are under two different jurisdictions at present. If Hong Kong imports power from Guangdong, I am seriously concerned about one jurisdiction may have overriding control over the other due to operating problems or disputes. As Guangdong's supply reliability is very poor, I am really afraid that the remarkable US-Canada blackout incident will occur in Hong Kong one day. Hence, it is not wise to let our most vital necessity in the hand of an unreliable source.

3. According to the Government's consulting paper, there are still many polluting small thermal power plants operating in Guangdong. These plants are supposed to retire but they have been forced to run in order to relieve the tight power shortage situation in Guangdong. These polluted power plants made significant contribution in the deteriorating air quality in the Pearl River Delta. Due to the deteriorating air quality, a lot of people including our children are suffering from various kinds of respiratory diseases in Hong Kong. To improve the air quality and environment, phasing out these dirty power plants should be set in top priority. Also, we should dishonour to import such dirty power from Guangdong even if the electricity price is cheaper.

Finally, Hong Kong can ill afford any market structure that has no sure-fire guarantee of success. Since Hong Kong has just moved away from the economic downturns since 1997, any drastic or immature policy on electricity market reform will hurt both the businesses and citizens in Hong Kong. In fact, Hong Kong only needs a reliable electricity supply at reasonable price. The present Scheme of Control Agreement (SCA) serves us well in Hong Kong and I trust the SCA will continue work well in Hong Kong in the future. Why give up something works and switch to some unproven market reforms? Do we really need the electricity market reform in Hong Kong? Now, forget about those unproven electricity market reform games in Hong Kong. Stick with the SCA and Keep the SCA.

tw leung

21/04/05 10:05 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Suggestion for Future Development of the Electricity Market
☐ Urgent ☐ Return Receipt

Economic Development and Labour Bureau,
2/F, Central Government Offices,
Main & East Wings,
Lower Albert Road,
Central,
Hong Kong

Date: 21 APR 2005

Dear Sir,

Suggestion for Future Development of the Electricity Market in Hong Kong - Stage I Consultation

I am fully satisfied with the current Hong Hong electricity market including the reliability, price and the Scheme of Control Agreement for the two electricity companies. I am very proud that we enjoy extremely high quality power supply at present and we all agree reliability is very essential to a metropolitan city like Hong Kong. Overseas experience shows that lack of sufficient investment in power industry would result in the deterioration of supply reliability, it is not uncommon in deregulated markets. This has already happened in the massive US-Canada blackout in 2003. Our Government should be very cautious in this consideration; I do not think it is wise to have the price cut down at the risk of electricity failure.

I understand that the investment of power company is a long-term investment extending over 20 years and capital intensive, so a stable and a reasonable return would be an incentive factor for the power company to continue to invest in the facilities in order to maintain the high reliability of electricity supply. Besides, a reasonable return would also motivate the two companies to invest further in developing more environmental-friendly power production. In this respect, the government has the responsibility to give full support for the two power companies to achieve this aim.

I assume the 13.5% SCA return on investment is a reasonable and acceptable figure if we compare it with the average yearly return of 23% of all Hang Seng Index stocks companies for the last 26 years. Since the two electricity companies could provide safe, reliable and efficient power supply, I think the Scheme of Control Agreement for 13.5% return for the period of 15 years is well justified.

Yours faithfully,

Mr. T.W. Leung



20/03/2005 00:51

To: edb@edlb.gov.hk
cc:
Subject: Web Enquiry
☐ Urgent ☐ Return Receipt

realname: TAI SIU-WAI

subject: Future Development in Electricity Market

Enquiry: My view is to retain the existing Scheme of Control which can eliminate the bitter experience of massive blackout in the last several years in the Western World. The opening of market means likely loss of control of the entire supply network when dealing with contingency issues.

The rate of return should be adequate enough to enable the investors to undertaking the long term business of infrastucture construction, including generators & supply networks.

4 Feb 20xx

Cancellation of Electricity

Dear Sir,

Please maintain the status quo,

Cut is due to a good gift.

As we want Absolute.

Yours Sincerely,

Tan Lai Lai Maria

二〇〇五年三月十五日

銅鑼灣威菲路二閘
葉鴻泰

電力市場——第一階段諮詢

一般市民最關注的就是供電的可靠性和電費的收費。正所謂越改越貴，越電越大，一世仍照如圖閱讀，開放電力市場，為的是改善現有供電成本效率過低的弊病，不是說用的電力市場是最好不過的。

TAM SIU KUEN

"Joanna Tang"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views and Comments on SCA
☐ Urgent ☐ Return Receipt

2005/04/29 10:23 PM

To: Economic Development and Labour Bureau

Dear Sirs,

May I take this opportunity to express my view on this subject. I am a Hong Kong born citizen, as well as a returned immigrant from Canada. Having the experiences of living in two differenct places, I am so proud of all the developments and achievement that Hong Kong had gained in the past, both in industry and economy, these all rely on our stability in electricity supply. Over the past 100 years, these two power companies can ensure us to have reliable power supply in our community, and their tariff seems to be reasonable and affordable, therefore, I can't see why the Government has to open the market for new comer as I fear it might bring out more chaos and problems in the future. The open market in telecommunication is not a good example.

Please maintain the SCA. To open the market is a risky game.

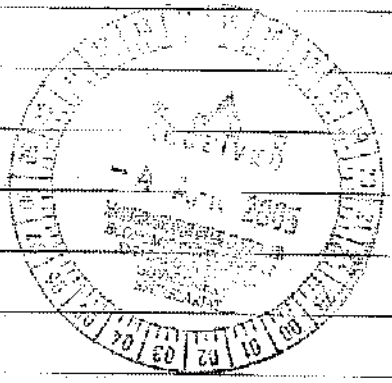
Please extend the SCA after 2008 for I believe it will make us better and better, I trust the reliabilty now. Don't change.

Regards
Tang Wai Yee
Citizen in Hong Kong Island

敬啟者

電力市場未來發展

本人對現時電力公司的服務水平和供電可靠性感到滿意，認為越改越走下坡。一動不如一靜，好地地無須改。



TONG Shi Lin

04-03-05

"terence"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 蝴-恨-瓊購-某
☐ Urgent ☐ Return Receipt

22/04/05 04:33 AM

維持管制計劃協議

本人認爲政府應維持現行的管制計劃協議, 方能達致政府要求---合理收費, 穩定可靠之供電及照顧環保的需要。

先談合理收費, 根據諮詢文件, 電費只佔用戶月開支2%, 這2%其實只佔一個很小比例。 再者, 香港的電費在世界主要城市也不過排列中間, 以現在這個可靠度達99.9998%(港燈)之穩定可靠的供電, 市民實不應過份呵索。

再說可靠度, 如前面所言, 香港電力的可靠度達99.9998%(港燈), 是目前全球表現最好的地方。 大面積停電在香港是絕少發生, 零星事故亦會很快恢復。 這令香港市民安心2003年美國-加拿大的大停電事件不會在香港發生。

在環境保護方面, 兩電積極利用再生能源。 港燈第一台風力發電機將在2006年投產, 而港燈目前在建造中的發電機組採用天然氣爲燃料, 比燃煤所產生的空氣污染小得多。 由此可見, 港燈在推動環境保護方面亦不遺餘力。

現行SCA成功地令電力公司不斷投資於供電設施, 令香港有意可靠之電力。 香港之繁榮穩定, 國際金融中心, 旅遊業, 服務業, 港人的日常生活, 全都有賴穩定可靠之電力方可達致。

terigood

28/04/05 09:57 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: 電力市場咨詢意見
☐ Urgent ☐ Return Receipt

致經濟發展及勞工局：

對於兩間電力公司的服務，我感到非常滿意，兩所電力公司已有超過100年的歷史，投資額龐大，是香港少有的實業，幾十年來，支持著香港發展成爲今日的國際大都會，而且香港能夠擁有「東方之珠」的美譽，兩電功不可煞。

多年來，我們每天享受著無間的電力供應，人們已漸漸遺忘停電是什麼一回事，以爲幸福是必然的。幾年前我去澳洲布里斯班居住，才經歷停電之苦。那裡打風之後，例必停電，因爲架空電纜給強風摧毀，影響範圍之廣以及人手不足，連續幾天停電，一點也不足爲奇。經此一役後，我才察覺到，原來本港兩電投放了很多資源於發電機組及輸電電網等設施上，我們才得享如此穩定安全的電力供應，我認爲政府應該多點教育市民理解，市民之可以享受如此優質的電力，是因爲兩電投放了很多資源在發展及改善設施方面。電力穩定性不但對住宅用戶很重要，而且對香港商業運作，整體國際形象也很重要。

利潤管制協議確保兩電提供極穩定的電力供應，以現行的准許利潤換取99.99的供電穩定性，我覺得利潤不算高，而且穩定的回報是一個誘因提升服務水平，單看近幾年，兩電已平均每年花了70億至80億元在維修及擴建電網上，因此，我認爲合理的回報，有助兩電持續良好的發展，最終我們是得益者。最怕減少了准許利潤會影響質素，那麼便得不償失。俗語有云「一分錢，一分貨」，要幾平有幾平，但質素是好是懷便是另一個問題。既然現行利潤管制已沿用了多年，而且帶來卓越成就，我看不到爲何要改變？

至於開放市場，我覺得政府不可草率，記得很多年前美國曾大停電，到了2003年又再度大停電，還連累加拿大也停電，而且歷時很長，帶來人民諸多不便和大量金錢損失。開放電力市場不一定好，也不一定壞，但要仔細研究，不可掉以輕心，得避免開放後，做成電價波動、增加停電機會、以及輸電網權責不清種種問題。假使引入其他競爭者，在其沒有自己的電網情況下，如要租用兩電電網，相信租金昂貴，自行建網又涉及龐大的投資，可行性尚待研究。政府有責任令市民大眾明白，電力牽涉長遠投資和龐大資金，跟電訊極不相同，有關開放市場，兩者不可混爲一談。

本人認爲現時享受的供電服務質素極高，因此所繳交的電費是合理的，也不想在現階段改變現時機制。

Terie Ho

To whom it may concern,

Opinion for Stage I Consultation Paper

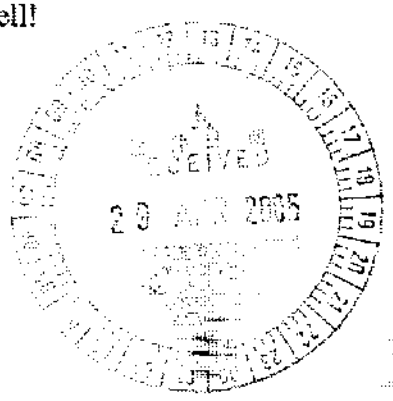
Electricity is almost affecting every aspect of life. It is essential as well as important, especially for Hong Kong, which is one of the world-class cities. Therefore, an efficient and reliable electricity supply is what Hong Kong really needs. Any change that may degrade the efficiency or reliability of electricity supply is not preferable.

From the Consultation Paper, the increase in interconnection between the existing Power Companies in Hong Kong as well as between Hong Kong and China for achieving the opening market has been discussed. In my personal opinion, this is not the appropriate time to carry out this change due to the following reasons: -

1. As Hong Kong is one of the key finance centres in the globe, a long period of blackout, like the one occurred in North American, arising from the result of interconnection among different electricity network, is not acceptable.
2. Technically, the stabilities of different power systems will affect one another. If there is a great variation of the protection systems for these electricity networks, like the ones in China, the risk of leading to the unpredictable outcome, like the blackout mentioned above, will become quite high. As a result, the high reliability of the power system can no longer be maintained like now.
3. The electricity market in Hong Kong is so small. Additional competitors may not help decreasing the tariff as they may not even earn enough profit.

On the other hand, the existing rate of return in Hong Kong is still at a reasonable percentage when compared with other countries, according to the consultation paper.

For the past few years, Hong Kong had suffered quite a lot economic loss due to the inappropriate change in certain systems or policies. Therefore, I would prefer to keep the existing Scheme of Control Agreement if it is working well!



Sincerely,

Terrence Chan



"Yeung, Terry Chak Sze \(Insurance\)"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Regulatory Review
☐ Urgent ☐ Return Receipt

2005/04/27 12:38 PM

Over the past decades, the electricity companies in Hong Kong have been providing secure and reliable electricity supply to the public. The current regime works reasonably well and there is no particular need to change the existing best practices. We don't want to see those blackouts in North America, Europe and Australia to occur in Hong Kong.

As a staff of a public utility, I prefer the status quo of the current Scheme of Control be maintained.

Regards,
Terry Yeung

CIWEM HK
P.O. Box 4258, General Post Office,
Hong Kong

THE CHARTERED INSTITUTION OF
WATER AND ENVIRONMENTAL MANAGEMENT
HONG KONG

香港水務及環境管理學會

Ref.: L089

Date: 28th April 2005

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sirs,

Re: Consultation Paper on Future Development of the Electricity Market in Hong Kong
Stage I Consultation

I have pleasure in submitting our response to the above.

Yours faithfully,

John Collier
Committee Member

Encl.

Response to the Consultation Paper
on Future Development of the Electricity Market in Hong Kong

From The Chartered Institution of
Water and Environmental Management,Hong Kong (CIWEM-HK)

CIWEM agrees with: -

1) The Government's policy objective as defined in the consultation document.

2) The prerequisites for the future regulatory regime, i.e. Ensuring Supply Safety and Protecting the Environment.

CIWEM has the following views on key issues:-

3) **Interconnection**. We do not support a New Interconnector as the associated capital and operations costs will be borne by the consumer with no clearly defined benefits in terms of increased operating efficiency,unless Government is determined to segregate Power Generation and Transmission and Distribution into separate businesses.

4) **New Supply Sources**. We believe that there should be Mandatory Grid Access for third party users to allow for the development of renewable energy sources by third parties such as wind,wave,tidal, photovoltaic and energy from waste.

5) **Regulatory**. We believe that Government should strengthen regulatory controls on tariffs, therefore we support Option 2 in the consultation document i.e. Regulatory Framework supported by Legislation with a single Agency within Government rather than a separate Regulatory Authority.

"Martin Wan" <martin@conservancy.org.hk>
09/05/05 12:06 PM
Please respond to martin

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Joint Position Paper on Electricity market
☐ Urgent ☐ Return Receipt

Dear Sir/ Madam,

I'm writing on behalf of 6 green groups to express our opinion on the future of the electricity market. Please find our joint statement in the attached file.

Best Regards,

Martin Wan

Wan Kwok-wai, Martin
Campaign Officer,
The Conservancy Association
Tel: (852) 2728-6781
Dir: (852) 2272-0303
Fax: (852) 2728-5538
E-mail: martin@conservancy.org.hk

Website: http://www.conservancy.org.hk



Electricity Market Joint statement (final).doc

Joint Position Paper on Future Development of Electricity Market in Hong Kong

Since the government published the Stage 1 Consultation Paper on "Future Development of Electricity Market in Hong Kong" (the "Consultation Paper") in January 2005, representatives of civil society groups have entered into a dialogue with government officials and the two power companies on various occasions. As a result of these discussions we believe it is important that, in designing the regulatory regime for the future electricity market, the following principles must be upheld at all times:

Principle 1 Continuous Improvements in Environmental Performance based on Precautionary Principle

Hong Kong's air pollution has worsened over the past years, and the power industry is a big contributor to this crisis. ***Although the Consultation Paper listed "protecting the environment" as one of the three key objectives in the review, it has devoted only three paragraphs to this issue without setting out specific targets for the power industry.***

It is worth noting that the power industry is responsible for over 71% of SO_2 and 49% of NOx emissions in Hong Kong. While the electricity generated since 2000 has increased by 25.8%, CO_2 emissions have increased by 35.9%; and SO_2 by 79.8%. Particulates have increased by 100% since 2001. Given the worsening emissions in the Pearl River Delta as a whole, it is imperative for Hong Kong to apply the precautionary principle in emission reduction. This requires considerably more ambitious emission reduction targets, both short and long-term, in order to meet the air quality objectives in a prudent manner. The current vague suggestion of, for example, a general reduction of NOx emission by 20% in 2010 compared to the 1997 level is not only misleading (note that NOx emission was already reduced by 21% in 2001 compared to the 1997 level) but also inadequate.

In aspiring to be a world class city, Hong Kong must seek to achieve more than the greenhouse gas ("GHG") reduction targets demanded of developed countries in the Kyoto Protocol. This should be achieved by a variety of means including energy conservation and increased use of renewable energy.

Emission caps for toxic pollutants and GHG must be set on the basis of precautionary principle, taking into account the extra obligations Hong Kong should shoulder because of its "developed city" status in the Pearl River Delta and in the global setting. The emission targets should be based on the lowest baseline of an advanced society, not some criteria that is convenient for the power companies.

Principle 2 Elimination of Perverse Incentives

The current regulatory arrangements provide four perverse incentives to the power companies by encouraging them:

1. To over-invest in power generation facilities so as to generate higher returns;
2. To oppose efficiency gains through territory-wide network connection and collaboration;
3. To increase toxic emissions by generating excess power which could have been avoided by sincere efforts in demand-side management or energy conservation; and
4. To increase profit levels through the use of cheaper and dirtier fuel so long as they are permitted by the loosely-set standards.

In essence, these perverse incentives are rewarding the power companies while they keep on wasting more resources (by building facilities that were not needed or could have been saved by better collaboration) and damaging the environment with more toxic emissions (which could have been avoided by reducing electricity consumption or by using cleaner fuel). ***To protect the environment and to give consumers a fair deal in power tariff, it is clear that such perverse incentives must be fully eliminated in the new regulatory regime.***

Principle 3 Effective Mechanism to enforce Environmental Targets

Not only are the current emission standards imposed on the power companies too loose to meet public expectations, the enforcement mechanisms are so weak that it is almost impossible for the government to exercise. Since it is impractical for the government, should power companies not use their best endeavours to reduce emissions, to simply revoke their production license and cut down power generation, there must be a new, effective mechanism to enforce environmental

targets. This new mechanism should contain, as a minimum, the following features:

- emission caps which are set because of the need to achieve air quality objectives on the basis of the precautionary principle, not because how easily the companies can achieve such targets;
- pre-defined cost penalties tied to the level of emissions, without the necessity of going through lengthy legal or administrative proceedings;
- transparency in the assessment and enforcement process which encourages the public to play a monitoring role and minimizes arbitrary discretion by responsible officials.

As the electricity market opens up, it is only a matter of time when power generated across the border will be supplied to Hong Kong. It is essential that the same environmental standards and enforcement levels be applied to such cross-border sources. However, for the site selection of new facilities, the site-specific nature of certain environmental impacts may mean that certain sites across the border may have advantages over local sites even if the same environmental standards are to be applied.

Principle 4 Stakeholder-led governance in regulatory framework

The current closed-door style of regulatory control does not inspire public confidence in the integrity and adequacy of the regulatory regime. Matters of environmental standards, emission caps, investment feasibilities and technological choices should be the result of community consensus after public deliberation, not bilateral, behind-the-scenes negotiations between the government and power companies. Given the correlations between public health and emission standards, and investment costs and tariff levels, there must be an open process to allow the community to make a choice for the future.

In essence, the current government-led governance model must give way to a stakeholder-led governance model so that the choices made as a result of regulatory control represent choices of the people. When matters of public health are at stake, public access to decision-making is clearly warranted. This requires a new level of transparency, openness and public engagement which must be reflected in the new institutional framework to be adopted in 2008.

Based on the above principles, we believe that the specific proposals below should be incorporated in the options developed for the second stage of public consultation:

1. The government should, with inputs from power companies, disclose full information to illustrate the correlations among capital investments, technological choices, environmental performance and tariff levels. Different scenarios should be set out for the public to debate through in-depth engagement at district level. Power companies should be responsible to demonstrate the cost-effectiveness of the various scenarios available for public selection.

2. A levy should be imposed on SO_2, NOx and RSP emissions by power companies on a unit basis. This will allow the companies to clearly assess the financial costs involved and hence an incentive for the companies to reduce emissions through either efficient production or environmentally friendly investments. The levy thus received should be devoted solely for renewable energy programmes.

3. A specific and continuously reducing cap should be set for CO_2 emissions, taking into account the best available potentials to improve fuel mix and increase the use of renewable energy sources over the short to long term.

4. A dedicated fund, based on a percentage of tariff revenue, should be set aside by the power companies to allow a separate institution to design and implement demand-side management and energy conservation programmes, and to undertake incentive schemes to promote renewable energy programmes. This new institution should adopt a stakeholder-led governance model, with support from government and power companies.

5. Third-party access to the power grid should be made mandatory as part of the new regulatory regime. This is essential to the development of renewable energy sources from new or small-scale operators.

6. The new regulatory framework should be supported by legislation and not through bilateral agreements. This will provide definitive authority and facilitate amendments to the regime as circumstances so require, such as the emergence of new renewable energy sources or the necessity to vary emission standards.

7. A new regulatory authority should be established with the support of legislation. This institution should adopt multi-stakeholder governance with independent authority, dedicated expertise and increased transparency to meet public aspirations.

* * *

May 2005

Civil society groups supporting the Joint Statement:

The Conservancy Association 長春社
(http://www.conservancy.org.hk/)
Friends of the Earth (HK) 香港地球之友
(http://www.foe.org.hk/)
WWF Hong Kong 世界自然(香港)基金會
(http://www.wwf.org.hk)
Green Power 綠色力量
(http://www.greenpower.org.hk/)
Association for Tai O Environment and Development 大澳環境及發展關注協會
Green Lantau Association 綠色大嶼山協會

The Goods Vehicle Fleet Owners Association Limited
貨車車隊聯會有限公司

c/o Byrne Corporate Services Limited
13/F Gloucester Tower, The Landmark, 11 Pedder Street, Central, Hong Kong. G.P.O.Box 4929, Hong Kong
Tel: (852) 2218-3003 FAX: (852) 2218-3503

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

28 April, 2005

Dear Sirs,

Re: Consultation Paper on Future Development of the Electricity Market in Hong Kong

The Goods Vehicle Fleet Owners Association Limited, representing its 30 companies including an employment of 4,000 persons and a fleet operations of 2,800 vehicles, would like to summarize our views on the post 2008 electricity regulatory regime, as follows:-

Supply Reliability

Our members are engaged in cross-border and inbound transportation of goods. Our land services and our support to the sea and air freights contribute to the overall success of Hong Kong as a re-export centre. A number of our core operations, like computing, transportation, retail and production systems, largely depend upon a reliable supply of electricity in the last two decades. A power interruption could be costly to the industry and Hong Kong. For instance, a power interruption in the back office will affect a series of our activities including the proper functioning of our computer system, the scheduling of the vehicle fleet and the proper handling of shipments. These will lead to time and economic losses. An even more far-reaching result will be the loss of Hong Kong's attractiveness as an efficient port.

Reliable supply of electricity is essential not only to our trade, but also to other businesses in Hong Kong. We share the view that adequate investment is needed to maintain a sufficiently high level of reliability for the community. We believe that any future electricity regulatory regime must be long-term and stable, and allow the power companies to earn reasonable returns to ensure continued and adequate investment in future.

Last, but not the least, no one can imagine how much damages would be done to Hong Kong if the electric interruption in Northern America were to happen here.

Air Quality

The air quality in Hong Kong is getting worse in recent years, with the Western and the

Northern parts of the New Territories being the most acute areas. According to government statistics, Pearl River Delta is the major source of pollutants while Hong Kong only accounts for a small portion of them. We realize that under the current regime the Hong Kong power companies have invested in equipments and various initiatives to reach high environmental performance. It is important that the future regime will continue to provide a high degree of operational certainty to motivate further the power companies' environmental performance. We notice the fact that power companies do not receive any government subsidies on their environmental initiatives, contrary to the taxi and mini-bus trades that receive government incentives to switch from diesel to LPG. The future regulatory regime should recognize that environmental improvement involves both costs and long planning and investment cycles, which require clarity and durability of the regulatory framework to support.

Electricity Tariff

Comparing the local electricity tariffs with those in other Asian countries, we consider that the overall tariffs in Hong Kong are quite reasonable, particularly in view of the high supply reliability we enjoy in Hong Kong.

In summing-up, we consider that the electricity cost, though important, is not the prime factor affecting our business operations. The two issues, namely reliability of electricity supply and air-quality are more paramount. We suggest that the current Scheme of Control Agreements be extended and the Permitted Rate of Return be set at a ***reasonable level*** in order to provide the right incentives for continuous future investments in the power sector. We also agree with the Government in establishing a more effective and open review mechanism for the financial plans of the two power companies in order to protect the interests of customers.

Best regards,

Yours sincerely,
For and on behalf of
The Goods Vehicle Fleet Owners Association Limited



Stephen Lui
Chairman

SL/cc
c.c. Ms. Vivian Mak (KCS Limited)

27 April 2005

Our ref: MD/L036-05

Ms Miranda Chiu JP
Deputy Secretary for Economic Development Branch
Economic Development Branch of the Economic
Development & Labour Bureau
Government Secretariat
2/F Central Government Offices, Main Wing
Lower Albert Road, Hong Kong

Dear Miranda

Consultation Paper on Future Development of the Electricity Market in Hong Kong: Stage 1 Public Consultation

Thank you for your letter inviting us to share our views on this particular subject. As one of the players in the local energy market, Towngas does not consider it appropriate at this stage to comment on those parts of the paper relating to the substance of the Scheme of Control Agreements. However, we are pleased to offer our comments on other issues raised in the document.

As a user who has to rely on electricity for gas production, we fully agree that government policy objectives for the electricity market should be to ensure supply safety; to protect the environment; and to ensure supply reliability and reasonable prices.

We welcome initiatives that will promote the use of renewable energy and more efficient means to use energy. The growing public interest in renewable and environmentally-friendly energy places the Government in a good position to take a lead in facilitating such downstream integration where practicable. However, for such integration to work it would need to function in a complementary manner with the grid supply and take due respect of all property rights.

In determining if any changes should take placed in the electricity market post 2008, we feel attention should be especially paid to the specific characteristics of the city of Hong Kong, including future estimated market size, sophistication of applications, possible consequences of supply interruption, supply situation and quality of neighbouring regional facilities, so as to ensure that potential risk is minimized.

Managing Director's Office 23rd Floor, 363 Java Road, North Point, Hong Kong. Tel: 2963 3801 Fax: 2963 3833 E-mail: alfred.chan@towngas.com

For any economy to be dynamic and successful, it is important that free market forces are allowed to prevail as the main driver for competition. We therefore believe that Government regulation for the electricity market, in whatever form, should be kept to the absolute minimum although we do not particularly support the establishment of a Separate Regulatory Authority.

We hope these views are helpful and will be taken into consideration when the government formulates a proposal for the future development of the electricity market and look forward to the subsequent Stage 2 consultation.

Yours sincerely

Alfred W K Chan
Managing Director

AWKC/ef

The Hong Kong Institute of Facility Management Limited
Unit C 35/F Morrison Plaza 9 9A Morrison Hill Road, Wanchai, Hong Kong Tel: 2537 0456 Fax: 2537 4426 http://www.hkifm.org.hk

Patron
The Honourable LEUNG Chun-ying, GBS, JP

27 April 2005

Secretary for Economic Development and Labour
Economic Development and Labour Bureau
Government Secretariat
Central Government Offices
Lower Albert Road
Hong Kong

Attention: Ms Miranda CHIU ***(By fax 2523 1973 and post)***

Dear Ms CHIU

Consultation Paper on Future Development of the Electricity Market Review
Stage 1 Public Consultation

Thank you for your letter of 8 March 2005 inviting us to put forth our views on the captioned subject. We are pleased to submit herewith our views and comments on Future Development of the Electricity Market Review from the perspective of facility management, as set out in the attachment, for your consideration.

Thank you for your kind attention.

Yours Sincerely

Kenneth CHAN Jor Kin
President
The Hong Kong Institute of Facility Management

Encl

VIEWS AND COMMENTS ON CONSULTATION PAPER ON FUTURE DEVELOPMENT OF THE ELECTRICITY MARKET REVIEW STAGE 1 PULBIC CONSULTATION

General

We totally agree with the Government's policy objective to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact caused by the generation and use of electricity. The Consultation Paper has provided very good qualitative analysis of a wide range of complex and interrelated issues. We welcome more quantitative analysis for the different scenarios, if at all possible. It would also be useful to consider the benefits and costs both in the near and longer term.

Reliability

As a first class city, Hong Kong has been enjoying a high reliability of electricity supply. This reliable electricity supply is both vital to the general public safety and efficient conduction of economic activities, which are of paramount importance to Hong Kong as a financial and business centre. Because of this importance, we opine that the regulatory body(s) should be adequately empowered with the necessary authority to oversee and ensure the high power supply reliability that we are now enjoying. Currently, the obligation to provide reliable electricity supply rests with the two power companies. They determine their own reliability standards, and plan their systems independently. (Source: Electricity Market Review: Planning Criteria and Reliability Standard, July 2000, Economic Development and Labour Bureau). As a foundation for the development of more open market, the setting of reliability standards for the market participants to comply with should be actively considered.

Reasonable Tariff

Electricity is indispensable in everyday life. The electricity charge is also an important contributing factor to the cost of living and business operation. Hence, a reasonable tariff is crucial to the economic development of Hong Kong.

The traditional wisdom of having prices regulated through market forces works well for common mass commodities. It is recognized that the introduction of market competition to the electricity market in Hong Kong is a complex issue as it involves long term investment. We therefore agree with the observation in paragraph 3.2 of the Consultation Paper that market reform is not a one-off exercise, but a continuous process necessitating adjustments to suit changing circumstances.

We note from the media some expressed interests to import power generated in Guangdong to Hong Kong. Nevertheless, they are generally met with skepticism of the feasibility given the barrier of finding a ready transmission and distribution network. Whilst agreeing to paragraph 3.53 of the Consultation Paper that the Government should continue to keep track of the electricity market development in the Mainland to consider possible sourcing opportunities and implications for our future electricity market, we think the prerequisite for Hong Kong to tap such sourcing opportunities from the

Mainland when they exist is to start with a suitable framework to allow this happening. In general, we advocate the migration to a framework for development of a more open electricity market.

Environmentally Sustainability

The United Nation Framework Convention on Climate Change and its Kyoto Protocol were extended to HKSAR in May 2003. We are pleased to learn that the Government will cap Green House Gas (GHG) emissions from power generation in Hong Kong through specifying the maximum allowable emission quantities in future licenses for power plants under the Air Pollution Control Ordinance. In addition to this, we suggest that efforts to minimize and regulate other forms of pollution, such as generation of suspended particulate, should also be considered, if there is no current provision for such.

Renewable Energy

We support the introduction of renewable energy sources. Other than small scale and localized uses, it appears that the development of renewable energy sources would have to be supported by grid access for third-party users. Because of this reason and to support future development of the market, we support in principle the mandatory approach for third-party access to the grid.

END

香港工程師學會
THE HONG KONG INSTITUTION OF ENGINEERS
香港銅鑼灣勿利道3號金百利中心5樓
5/F Island Beverley, No 1 Great George St, Causeway Bay, Hong Kong
電話 Tel: +852 2895 4446 傳真 Fax: +852 2577 7791
ckie-sec@hkie.org.hk www.hk.e.org.hk

電機工程部
ELECTRICAL DIVISION

29th April 2005

By Fax (Fax No. 2868 4679)

Economic Development and Labour Bureau,
2/F Central Government Offices,
Main and East Wings,
Lower Albert Road,
Central,
Hong Kong.

Dear Sir,

CONSULTATION PAPER
ON FUTURE DEVELOPMENT OF THE
ELECTRICITY MARKET IN HONG KONG
STAGE I CONSULTATION

In response to the Government's invitation for views and comments on the above, I am pleased to attach herewith the comments of Electrical Division – HKIE for your consideration.

Yours faithfully,

P.N. Ip
CHAIRMAN OF ELECTRICAL DIVISION
(2004-2005)

Encl.
PNI/rs

c.c. HKIE HQ (Attn.: Ms. Alice Leung)

27 April 2005

Consultation Paper on
Future Development of the Electricity Market in Hong Kong
Stage 1 Public Consultation

Comments from HKIE - Electrical Division

The Division has convened a few gatherings with members and the following are the comments received and were summarized in a table format for presentation. The following general principles were adopted upon which the review of the consultation paper is conducted.

- Offer views and relevant consideration to the stage –1 consultation paper (not clause-by-clause comments but relevant reference made)

- Suffice points for consideration where inadequacy was found or clarifications needed

- Broad principle review whereby more focused discussions and future study shall be dedicated to the near and short term pragmatic approach, mid-term implementation while meeting the long term objectives

- Finally, what do we want to see as a big picture in the Future Electricity Market in the next few decades

- Key areas of concern are –

  (i) Safe, reliability and efficient electricity supply

  (ii) Environmental and social impact

  (iii) Fairness and sustainability of new scheme

  (iv) Clear accountability and responsibility

  (v) Affordability of general public

  (vi) R&D effort and Engineering innovations

Page No.	Clause (Ref)	Subject of concern	Comments / Remarks
1 and 10	1.1 and 3.1	Policy objective, Shaping the Future Electricity market	▪ Fully agree with the Government's policy objective to ensure that consumers continue to receive reliable, safe and efficient electricity supply at reasonable prices while minimizing environmental impact. ▪ All local constraints shall be carefully assessed for the future development of the Electricity market in stage-2, which should include government support for Land and site availability, public views and proposed policies. The progressive process to be adopted in the short term, mid and long term shall match market readiness. A stable transition is key to the change process and shall not rock the economic and social stability ▪ Learn from the experience of other overseas market reform to avoid social outcry (e.g. tariff system) while encouraging more market participants. The present sentiments of the general public shall not be the only prime factor put under consideration ▪ Hong Kong shall continue to be a world-class city and so will be the electricity supply. Overseas investment shall find the same confidence, if not more (The set back of the Environmental conditions of Hong Kong has already brought significant migration of capitals out of Hong Kong and drop in competitiveness) ▪ The Electricity market after 2008 shall aim to bring further competitiveness and long term success as an ultimate goal. ▪ The new scheme and mode of control shall have a much higher transparency in the operation to the general public (e.g. annual tariff and review methodology) ▪ Technical development and investment in the supply infrastructure shall continue. Technology is not yet advanced to a state that allows unlimited free transfer of electrical power ▪ The long term future market shall be designed to fully promote efficient generation and use of electricity, protecting the environment, sustainable and highly transparent to electricity users.

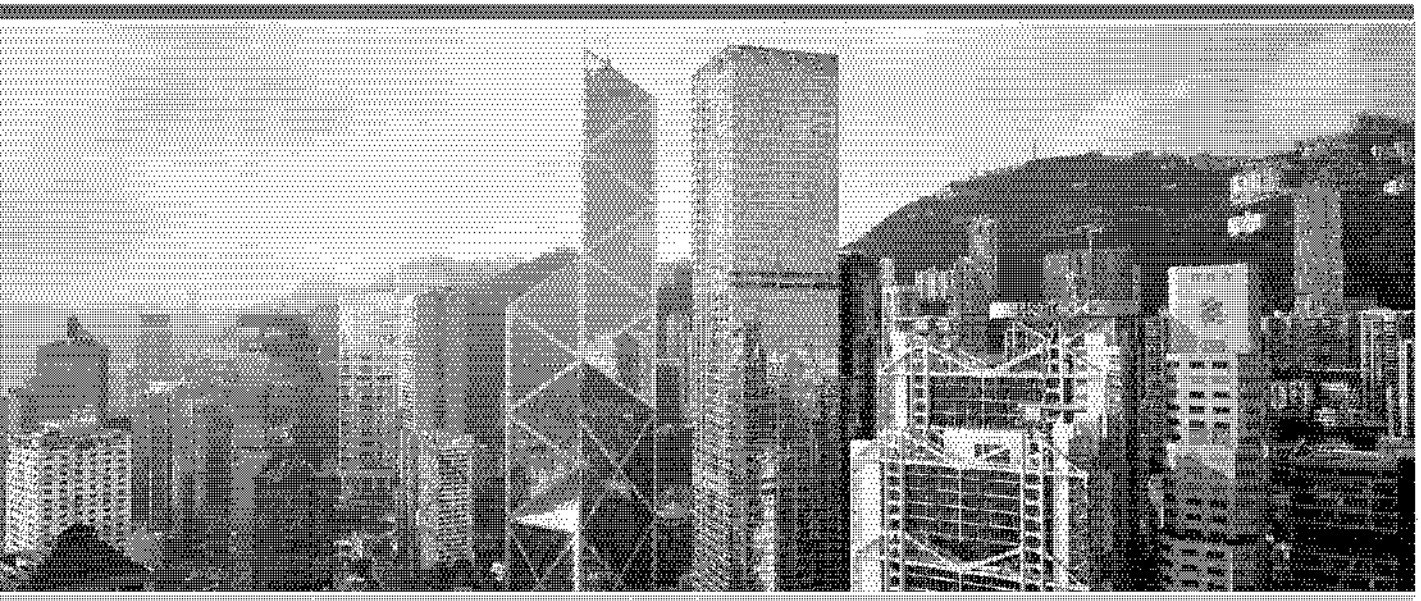
Page No.	Clause (Ref)	Subject of concern	Comments / Remarks
8	2.7	The SCA	▪ Any consideration of the way forward must be based on a complete/entire package and should not be based on any single issue alone ▪ Any decision must also be backed up by sound engineering evaluation and should not be focused only on economics and social impact.
10	3.2	Market reform elsewhere	▪ Drawing experiences from overseas market reform, it is found that the power system is primarily driven by economic models rather than engineering consideration. As much as any good economic models can predict, it is to be cautioned that the adverse effect might only emerge many years after the reform. ▪ To ensure a reliable power supply system, fundamental engineering principles and the associated risks should be carefully assessed by professional Engineers. Economics could well be reversed, resulted in supply interruptions, threaten life safety and face costly consequences.
11	3.3 – 3.9	Prerequisites	▪ Observe the local characteristics - What is the "reasonable" price to achieve " supply reliability" in developed countries may not be the same as that in Hong Kong. Similarly, the "Supply Safety" standard and the "Environmental" standard elsewhere may not be acceptable in Hong Kong.
11	3.5 – 3.9	priority	▪ While appreciate the emission cap imposed, the document appears to infer that environmental protection comes before supply reliability. It is however viewed that in terms of importance to the public, reliability of supply should be ranked higher.

Page No.	Clause (Ref)	Subject of concern	Comments / Remarks
13	3.8 – 3.9	Ensuring supply reliability and reasonable prices	▪ Appreciate government's understanding of the importance of reliability and the cost involved for supporting high reliability standard. ▪ Any "9" added to any subsequent decimal places of the reliability level now we enjoy actually means millions to billions of dollars used in the plant build up and tons of Engineers effort to accomplish ▪ The future market structure should provide adequate incentive to attract continuous investment in supply reliability.
14	3.14	Rate of return	▪ When the rate of return is considered, the unique nature of the industry must be noted. In view of the long term nature of the investment (including the new market entrants), the risk associated with the uncertainties over the lengthy investment recovery period must be taken into account.
16	3.20	Setting the Review period	▪ Review period shall be commensurate with the life of assets being installed. Power system plants usually lasts 25-35 years. Too short a review period would undermine the long term investment objectives of the present and future market players.

Page No.	Clause (Ref)	Subject of concern	Comments / Remarks
20	3 29 – 3.31	Increased interconnection	▪ The existing interconnection between HEC and CLP is for mutual backup only, the existing networks of the two power companies are not built with large surplus capacity to supply the other side. ▪ It is also envisaged that it might take a longer period than 5 years to construct the new interconnection and reinforcements. Hopefully, it can be better addressed in stage-2 consultation to match with the direction of the market change ▪ Will stage-2 study include cost/benefit analysis in considering the enhancement of the interconnection, given all its potential benefits, such as ▪ Increased system efficiency ▪ Joint economic dispatch ▪ Co-ordinate individual generation planning ▪ Efficient use of electricity generated ▪ Lesser amount of environmental impact ▪ More choice for users
24 – 25	3.41 – 3.43	Ownership and operation of the new interconnector / Reliability considerations	▪ Potential risks in supply reliability caused by the increased amount of power flow through the interconnection should not be undermined. The Government is fully aware of the adverse impacts on system reliability with reference made to the major blackouts in other parts of the world ▪ Who control and manage the co-ordination? Clear accountability shall be established and shall have no ambiguity.

Page No.	Clause (Ref)	Subject of concern	Comments / Remarks
25	3.45	Supply from Mainland China	• Supply Reliability from long-distance power transmission is one concern as they are also experiencing short fall in power supply • While under different areas of jurisdictions, the fuel source used in the power generation (from Mainland) might not be subject to the same stringent environmental control requirement as in Hong Kong. Which means that there might be reduction in air pollution in Hong Kong at the expenses of other area. It is felt both morally incorrect and unfair to local power suppliers • If the source is partly taken from hydro power plant from the western part of China, there should be a well established power supply co-ordination strategy in place between all market players to meet the peak demand periods.
28 – 29	3.55 – 3.58	Supply from other local sources	• Renewable sources is definitely a positive move as with all other developed countries. This will encourage further engineering research for innovation • Incentive scheme shall be devised to boost participation and provide grid access using appropriate regulatory framework on a fair and equitable basis • Given the local environment and other physical constraints, the building of an alternative layer of power transmission and distribution network is considered impractical and socially unwise.

香港電燈有限公司
The Hongkong Electric Co., Ltd.



Submission on Stage 1 Consultation

Future Development of the Electricity Market in Hong Kong

Contents

1	**Introduction**	**1**
2	**Executive Summary**	**3**
2.1	A crucial issue: reliability vs new risks	3
2.2	HEC's approach: benefits vs risks and costs	3
2.3	The Consultation Paper: a useful starting point	4
2.4	Issues are interlinked: the virtuous circle	4
2.5	Meeting the Government's key policy objectives	5
2.6	Electricity as an imperative	8
2.7	Reliability cannot be sacrificed for lower tariffs	9
2.8	International experience: lessons from experimentation	10
2.9	Perceived problems: HEC's responses	11
2.10	'Possible' options: 'benefits' do not necessarily outweigh costs	12
2.11	Specific issues raised in Consultation Paper	13
2.12	Conclusions and recommendations	18
3	**Meeting the Government's policy objectives**	**21**
3.1	Electricity as an imperative	25
3.2	Should reliability be sacrificed for lower tariffs?	26
3.3	International experience	27
3.4	Weighing up the benefits of reform	29
4	**Return on investment**	**33**
4.1	Rate of return regime under the current SCA	35
4.2	Criticisms of returns under the SCA	36
4.3	Criticism 1 - Are HEC's tariffs too high?	37
4.4	Criticism 2 - Are HEC's returns too high?	41
4.5	Opportunity cost	41
4.6	Hongkong Electric Holdings' stock performance	44
4.7	Electricity infrastructure is a long-term investment	45
4.8	Comparisons with international rates of return	46
4.9	Criticism 3 - Is there an incentive to over-invest under the SCA?	49
4.10	Criticism 4 - Has there been over-investment?	50
4.11	Possible options to address the criticisms of the SCA	51
4.12	Rate Base - ROA versus ROE approach	52
4.13	Determination of the permitted rate of return - comparing returns from other investments (benchmarking) versus cost of capital approach (WACC)	53
4.14	Treatment of the Development Fund	57
5	**Performance based regulation (PBR) and regulating tariff**	**59**
5.1	What are the possible modifications to the SCA?	60
5.2	What is PBR?	60
5.3	Does PBR have benefits as compared to the SCA?	61
5.4	What are the disadvantages of PBR?	64
5.5	Do the benefits outweigh the costs and risks?	67
5.6	Performance standards (return based on performance)	68
5.7	Increasing transparency of the existing tariff setting process	68
5.8	Fuel cost adjustments	69

Contents

6	**Increased interconnection**	**71**
6.1	Existing arrangements	72
6.2	Issues and 'possible' options	72
6.3	Full access capability	72
6.4	Enhancing system efficiency	73
6.5	Optimising system resources	74
6.6	Implementation issues	75
6.7	Do the benefits outweigh the costs and risks?	77
7	**New supply sources**	**79**
7.1	Existing arrangements	80
7.2	Issues and 'possible' options	80
7.3	Supply from Mainland China	80
7.4	Supply from other local sources	83
8	**Grid access for third-party users**	**85**
8.1	Existing arrangements	86
8.2	Issues and 'possible' options	86
8.3	Voluntary approach	87
8.4	Mandated open access	87
8.5	System reliability	87
8.6	Costs of mandated open access	88
8.7	Access pricing and disputes	90
8.8	Competition	90
8.9	Development of renewable energy sources	91
8.10	Do the benefits outweigh the costs and risks?	92
9	**Bilateral agreement versus legislation**	**93**
9.1	The existing regulatory arrangements	94
9.2	Criticisms of the existing regulatory arrangements	94
9.3	What are the 'possible' options?	95
9.4	Shorter regulatory periods	95
9.5	A new regulatory framework	96
10	**Government regulation versus independent regulation**	**99**
10.1	Existing Government Regulation	100
10.2	Criticisms of Government regulation	100
10.3	What are the possible options?	100
10.4	Centralising functions within the Government	100
10.5	Is independent regulation necessary in Hong Kong?	101
10.6	Do the benefits outweigh the costs and risks?	103
11	**Conclusions and recommendations**	**105**
12	**Abbreviations**	**107**
Appendix 1 - Recent failures in deregulated markets		**109**
Appendix 2 - Cost of regulation in overseas markets		**117**

1 Introduction

The Hongkong Electric Co., Ltd. (HEC) is pleased to provide this submission in response to the Government's Stage I Consultation Paper on Future Development of the Electricity Market in Hong Kong.

Since the release of the Consultation Paper in January 2005, HEC has been actively soliciting the views of its major stakeholders and carrying out extensive research on market reform in other jurisdictions. Accordingly, this submission is based on HEC's own hands-on operating experience in overseas power markets, feedback from various stakeholders, and findings from careful research.

HEC has been supplying electricity to Hong Kong Island for over 110 years, and has a demonstrated commitment to safely providing a reliable, efficient and adequate electricity supply to its customers.

HEC owns the Lamma Power Station which is located on a 50-hectare site at Po Lo Tsui at Lamma Island. This station provides electricity supply to Hong Kong Island, Ap Lei Chau and Lamma Island. In order to meet future demand for electricity on a timely basis, HEC has constructed a 22-hectare extension site to the Lamma Power Station to accommodate six additional gas-fired generating units. The first unit will be commissioned in 2006.

HEC has been operating in the Hong Kong market under the Scheme of Control Agreement (SCA) since 1979. HEC appreciates the Government's recognition of HEC's efforts and contribution to Hong Kong's development made under these arrangements.

As a key stakeholder in the Hong Kong electricity market, HEC welcomes this review and the opportunity to provide experience-based input for the future development of the market.

Queries in relation to this submission should be directed in the first instance to:

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2 Executive Summary

2.1 A crucial issue: reliability vs new risks

The 2008 SCA renewal presents the Government with the opportunity to review the successes of the past as well as consider new approaches that would continue to offer a reliable and economically efficient power supply for Hong Kong's future.

In an environment of continuing economic uncertainty, rising fuel prices and increasing environmental pressures, HEC recognizes that the Government and the community face a delicate task in balancing a range of often competing objectives.

However, paramount amongst these is the undisputed fact that the outstanding reliability achieved by Hong Kong's power companies over the SCA periods has been a vital contributor to Hong Kong's economic progress and prosperity. As many countries that have experimented with market reform have discovered to their detriment and chagrin, reliable power supply is very easy to take for granted but very difficult to fix once compromised.

Reliable power supply is very easy to take for granted but very difficult to fix once compromised.

2.2 HEC's approach: benefits vs risks and costs

As one of two incumbent power companies and with billions of dollars already invested in the Hong Kong power industry, HEC obviously has much at stake in the outcome of the current consultation process. HEC's shareholders and financiers therefore have more than just a legitimate interest in ensuring that the value of their existing investments is maintained and that HEC remains able to attract future funds at competitive rates.

However, HEC's shareholders and financiers ultimately share a common goal with Hong Kong's power consumers. A safe and secure power system that continues to deliver Hong Kong's exemplary reliability levels is only achievable if investors and financiers continue to have confidence in the regulatory arrangements governing the power industry.

As an investor-owned utility that has delivered world-leading levels of reliability, HEC believes that the current regime should only be amended where it can be clearly demonstrated that the benefits of the change outweigh the risks and costs.

Exemplary reliability levels are only achievable if there is confidence in the regulatory arrangements.

2.3 The Consultation Paper: a useful starting point

HEC commends the Government on its wide-ranging Consultation Paper, which provides a useful starting point for the 2008 SCA renewal process.

The Consultation Paper identifies the Government's policy objectives, which can be expressed as follows:

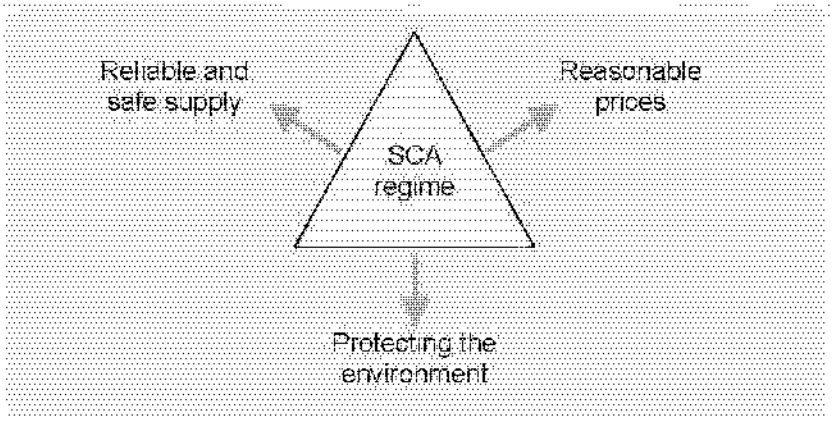


Figure 1: Government's policy objectives

In summary form, the objectives are:

- **reliable and safe supply** - reliable electricity supply is vital to the economic activity and everyday life in Hong Kong;
- **reasonable prices** - reliability must be balanced with price outcomes; and
- **protecting the environment** - minimising pollution (and improving air quality) and greenhouse gas emissions.

HEC agrees that these represent a realistic and sensible suite of policy objectives. However, as highlighted in the Consultation Paper, these objectives are sometimes in conflict. Ultimately, the most challenging issue will be the need to resolve these competing tensions.

2.4 Issues are interlinked: the virtuous circle

This submission sets out HEC's views on the issues raised in the Consultation Paper.

If the Consultation Paper is any guide, most attention will be devoted to the question of how best to achieve reliable supply at reasonable prices. It is indisputable that considerable economic benefits flow from a reliable power system. On the contrary, less attractive returns to investors in the power industry can result in economic consequences of under-investment that are very serious.

HEC sees these issues as inextricably linked in a "virtuous circle", which can be represented as follows:

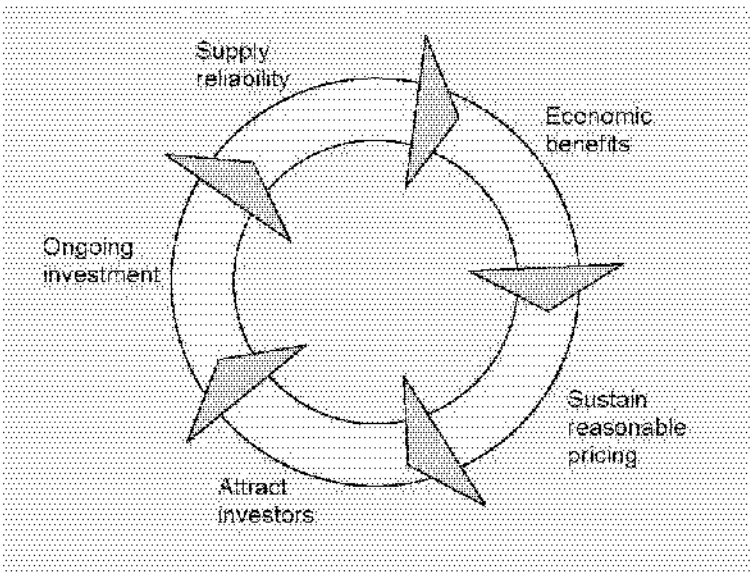


Figure 2: The virtuous circle

Importantly:

- there is no natural "starting point" in the circle - no element has priority;
- each element of the circle is dependent on all the other elements; and
- adjusting one element can have significant (and often unforeseen) effects on the other elements.

In this context, the various issues raised in the Consultation Paper can be seen as a set of interlinked issues.

2.5 Meeting the Government's key policy objectives

Reliability

The Government notes:

> *"We enjoy a high level of supply reliability that currently exceeds 99.99% which is among the highest in the world..."* [1]

This level of reliability is necessary for advanced economies that have become increasingly dependent on a secure and adequate electricity supply.

[1] Consultation Paper, p.6.

Hong Kong has high-density and high-rise living and a heavy reliance on elevators and electrified transportation systems. According to a recent high-rise building survey[2] which ranks 100 international cities according to the total number of floors of their high-rise buildings, Hong Kong has been ranked first. Hong Kong is followed by New York City and Seoul as a distant second and third respectively (as shown in Figure 3). Further, because of Hong Kong's climate, there is also a high penetration of air-conditioning which is considered crucial to lifestyle and working environments. Hong Kong people are also demanding, and they expect the highest standards to be maintained at all times.

Rank	City	Population	Buildings [a]	Points [b]	Reliability [c]
1	**Hong Kong**	**6,787,000**	**7,422**	**114,486**	**99.99+%**
2	New York City	8,115,135	5,444	35,406	99.9992%
3	Seoul	10,331,244	2,831	15,590	99.9963%
5	Singapore	3,437,300	3,503	13,147	99.9998%
7	Tokyo	8,130,408	2,069	9,223	99.9977%
14	Sydney	4,201,500	802	4,073	99.9909%
23	London	7,172,036	1,295	2,741	99.9931%
36	Paris	2,152,467	248	1,755	99.9968%
52	Taipei	2,719,293	152	1,228	99.9991%

(notes)

a) A high-rise building is defined as a building 35 metres or greater in height, which is divided at regular intervals into occupiable levels.

b) Points per building:
10 - 19 floors = 1 point; 30 - 39 floors = 200 points
20 - 29 floors = 5 points; 40 - 49 floors = 400 points
30 - 39 floors = 25 points; 50 - 59 floors = 800 points
40 - 49 floors = 50 points; 60 - 69 floors = 1600 points
50 - 59 floors = 100 points; 70+ floors = 3200 points

c) 9's of reliability in each month

Figure 3: High-rise building survey and supply reliability of major cities, April 2005

The importance of reliable electricity to a metropolitan city cannot be emphasized enough. In fact, Hong Kong is not alone in this aspect. Manhattan Island of New York City, another metropolitan city and a leading world-class financial centre whose service territory is similar to that of Hong Kong, also warrants high supply reliability.

Although the lower planning criteria for HEC require a lower investment level than New York's, HEC has been able to maintain the same level of reliability (i.e. 99.999%) as New York's since 1997. This has been a result of good asset management skills, thorough planning, quality construction, and the regular training of operating and maintenance staff on top of timely and sensible investments.

[2] Emporis (April 2005), www.emporis.com

Hong Kong people are demanding and they expect the highest standards to be maintained at all times, particularly given Hong Kong's position on this high-rise building chart.

Reasonable prices

The Consultation Paper shows[3]:

- in general, electricity bills account for less than 2% of the general household expenditure for residential customers;
- a recent survey indicates electricity bills constitute less than 10% of the monthly operating costs for the majority (77%) of the non-residential customers surveyed; and
- HEC's residential tariffs are in the middle range when compared to those of other major cities and only higher than those of the state-owned utilities in Singapore and Taipei.

Further, an analysis[4] has shown that increases in HEC tariffs have been well below CPI increases since 1983, the first full operating year of Lamma Power Station (even though this has included an unusual period of deflation in Hong Kong).

HEC tariff increases have been well below CPI increases since 1983 even though this has included an unusual period of deflation in Hong Kong.

Environment

The SCA has shown itself to be a particularly efficient and effective mechanism for the Government to implement its environmental policies, and energy efficiency and conservation programmes while maintaining appropriate tariff levels.

In a deregulated regime in which competition is based on the marginal costs of generation, utilities have no incentive at all to improve the environmental facilities and performance of their generation plants.

However, under the stable operating environment created by the SCA, HEC has been making significant environmental achievements and its efforts are well-recognized.

- HEC is presently installing the first commercial scale wind turbine in Hong Kong.

[3] Consultation Paper, pp 6-8

[4] Figure 13 in Section 5.3 of the Full Submission.

- HEC's first gas-fired generating unit is under construction and will use liquefied natural gas (LNG), which is an environmentally friendly fuel with low emissions.

- For its coal-fired units, HEC is the first power utility in the whole of Asia (except Japan) to introduce flue gas desulphurization (FGD) plant in 1993 to reduce SO_2 emissions significantly. In addition to FGD plants, HEC has also installed low-NO_x burners and electrostatic precipitators to reduce NO_x and particulates emission.

Of course, environmental objectives need to be balanced against the additional costs they impose. This is a case where there is a tension between the objectives of reasonable tariffs and emission reductions and so the caps imposed on emissions from generators must be practical and achievable at a reasonable cost.

The SCA has shown itself to be a particularly efficient and effective mechanism for the Government to implement its environmental policies.

2.6 Electricity as an imperative

Electricity is an essential service; it is not a luxury. It is a critical input into the creation and provision of all goods and services. Reliability of supply is indispensable to a modern and competitive economy and to ensuring continued economic growth.

> *"Today, the use of electricity is both indispensable to modern life and an essential part of our very well being. However, it has become so pervasive that it is "transparent" to most consumers, at least until there is an outage. Were it possible to turn off our entire electric power system for a few hours, and assess the impact, the full measure of electricity's role in the economy would become evident. Few processes other than some space heating, most transportation, and agriculture would continue to function, and even then poorly, constituting a loss of about $1 billion per hour. The entire economy would stop."*[5]

A business competitiveness survey conducted by the Chinese University of Hong Kong in 2004 indicated reliable supply is a very important consideration in deciding where to set up business and that reliability is more important than tariff levels.[6]

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[5] S. Massoud Amin and Clark W. Gellings 2005. *"The North American power delivery system: balancing market restructuring and environmental economics with infrastructure security."* Energy-The International Journal, forthcoming.

[6] The Chinese University of Hong Kong and Lingnan University *"A Report on the Survey of the Cost Competitiveness of Hong Kong Businesses"* (October 2004).

Despite this, it is only when the "lights go out" that the importance of reliability is recognized. For example, the blackout in 2003 affecting the Eastern U.S. and Canada resulted in an estimated economic loss of up to US$10 billion.[7]

It is only when the "lights go out" that the importance of reliability is recognized. The 2003 blackout across the Eastern U.S. and Canada resulted in an estimated economic loss of up to US$10 billion.

2.7 Reliability cannot be sacrificed for lower tariffs

Ultimately, there is a trade-off between the level of reliability and the level of tariffs. HEC is of the view that the current balance between reliability and tariffs is appropriate.

To the community, each unit of electricity costs around HK$1. However, for each unit of electricity unserved, the cost to the community from stoppages of various social and business activities is many times higher. A very conservative estimate of such cost in the U.S. is about HK$40 per unit.[8]

This can be best illustrated by considering a hypothetical example of Hong Kong's supply reliability declining from 99.99+% to 99.00% - that would result in a 1% probability of service interruption, or about 87 expected unserved hours per customer per year. Based on the 2004 annual reports of Hongkong Electric Holdings and CLP Holdings, Hong Kong's average demand per hour is about 4,478 MW. The 1% reliability deterioration would cost the entire community of Hong Kong approximately HK$15 billion per year.[9]

In trying to strike the right balance, it is imperative that the Government ensures that Hong Kong's electricity systems are reliable. International experience has shown that the economic impacts of under-investment in electricity infrastructure flowing from returns being set too low are extremely high and costly. As such, there should be a bias towards ensuring reliability when balancing the trade-off between reliability and costs.

HEC is of the view that the current balance between reliability and tariffs is appropriate, e.g. 1% less reliability could cost Hong Kong $15 billion per year.

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7 U.S. - Canada Power System Outage Task Force *"Final Report on the August 14, 2003 Blackout in the United States and Canada"* (April 2004) p 1.

8 See Woo and Pupp (1992) for a survey of outage costs in the U.S. As a comparison, the system average outage cost of PG&E in 1992 was estimated to be US$17 per unit of electricity unserved (Keane and Woo, 1992). The figure used by the National Grid (U.K.) in 2000 was £2.816 per unit of electricity unserved (Roques, Newbery and Nuttal, 2005, p 6).

9 4,478 MW per hour x 87.6 hours unserved per year x HK$40,000/MWh unserved is about HK$15 billion per year.

2.8 International experience: lessons from experimentation

The last 20 years have seen extensive electricity market restructuring, deregulation and new methods of regulation. As noted by the Government in its review of other economies, electricity market reform has led to mixed outcomes.[10]

There are a number of lessons to be learned from the reform experience of other countries.

- Electricity is unlike any other commodity in that it cannot be stored and demand and supply must be kept in balance at all times. This means that, unlike other commodity markets, deregulated electricity markets are very complex.

- Electricity is demand inelastic but supply and demand has to be continuously and instantaneously balanced. The electricity markets are therefore particularly susceptible to abuse of market power. Indeed, it has been claimed that most wholesale electricity markets around the world are subject to the abuse of market power by large firms.[11]

- As recognized by the Government, there is no universal model for market reform and local factors must be taken into account.[12]

- The costs of getting market reform wrong are enormous. The costs of the failed Californian market reform are more than US$50 billion.[13]

- The impact of regulation cannot be overstated. Inappropriate regulation has led to systematic under-investment in a number of countries with consequent infrastructure failure at a huge cost to society.[14]

- The complexities of reformed markets mean that they propagate new regulations and regulatory staff. These institutions and arrangements are expensive to establish and maintain. The costs are generally measured in tens of millions, if not hundreds of millions, of dollars.[15] Ultimately, these costs are priced into tariffs and passed through to consumers.

Of course, the negative experiences of other countries do not mean that changes or adjustments should be rejected out of hand. However, they do highlight the risks and costs involved, and Hong Kong therefore needs to act with extreme caution.

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10. Consultation Paper, p 10.
11. Fabra N and Harbord D, *"Market Power in Electricity Markets: An Overview of the Theoretical and Empirical Literature"* (2001).
12. Consultation Paper, p 10.
13. Lave, L.B., J. Apt and S. Blumsack (2004) *"Rethinking electricity deregulation"*, Electricity Journal 17(8): p 11.
14. Refer to Appendix 1 of the Full Submission.
15. Refer to Appendix 2 of the Full Submission.

Changes, if any, need to be carefully thought out and introduced incrementally. This would ensure that the Government can assess whether the anticipated benefits have actually arisen at each stage. The Government could then decide whether it should proceed further.

As part of this process, the first few steps or changes also need to be reversible. Hong Kong's power suppliers have made huge investments in long-term infrastructure and a significant cost of reform in other jurisdictions has been stranded costs related to sunk investments made on the basis of the old regime. If major changes are contemplated, these costs should be minimized or even avoided by a measured and proper transition. Further, once an inappropriate regulatory system has been introduced, it would be very difficult and costly to unravel it, and that invariably would lead to an erosion of confidence in the new arrangements by all stakeholders.

Many lessons have been learnt at enormous and unprecedented costs. Experimentation must be avoided.

2.9 Perceived problems: HEC's responses

The Government identified the following criticisms of the SCA[16]:

- the permitted rates of return are considered high in the present day economic climate;
- the permitted return, based on fixed assets, is perceived to have encouraged over-investment;
- the permitted rate of return fixed over a 15-year period lacks flexibility, as amendments to the SCA cannot be made without the consent of the parties involved; and
- the annual tariff and auditing reviews lack transparency.

HEC believes that these "problems" are overstated and arise from an incomplete understanding of the SCA and the environment in which electricity infrastructure providers operate. Each of these issues is considered in detail in the relevant sections of this submission but HEC's responses can be summarized as follows:

- Permitted return: All things considered, the existing permitted return has proved to be reasonable to investors, sufficient to attract investment, and has provided electricity supply at reasonable tariff, high reliability, and excellent services.

[16] Consultation Paper, p.9.

- Investment level: HEC's investment in electricity infrastructure has been prudent and timely under the regulatory scrutiny of the Government. Furthermore, any over-investment would have been penalized by an excess capacity adjustment that would be deducted from the permitted return.

- SCA time-frame: As recognized by the Government, the uncertainties arising from a shorter agreement period would deter continued or longer term investment by the power companies. Given the long-term nature of investment in electricity infrastructure and the long-term take-or-pay gas supply contracts, the current 15-year regulatory period is appropriate.

- Transparency: HEC is willing to work with the Government further on increasing the transparency of the tariff setting process, subject to full confidentiality for commercially sensitive information that is passed to the regulator.

HEC believes that these "problems" are overstated and arise from an incomplete understanding of the SCA and the environment in which electricity infrastructure providers operate.

2.10 'Possible' options: 'benefits' do not necessarily outweigh costs

The Consultation Paper suggests the following possible options:

(a) modifying the SCA by adopting new regulatory mechanisms;

(b) introducing a new regime involving one or all the options of increased interconnection, new supply sources and open grid access; and

(c) a new legislative framework and institutions.

HEC is concerned that many proponents for change see reform as a means to an end, namely the lowering of tariffs. Nevertheless, the costs incurred for the changes may actually be higher than the benefits, if indeed there were benefits to be derived. In fact, international experience has shown tariff reductions, even if realized, are often transitory and at the cost of poorly maintained systems which are incapable of meeting future demands. Market reform in California is a classic example where rates were mandated to fall but the ultimate cost to consumers and the State far exceeded those temporary benefits. The failure of electricity restructuring in Ontario is another well-documented example.[17]

The risks and benefits of each possible option are considered elsewhere in this submission. While HEC acknowledges that some of the options (if implemented properly) could give rise to benefits, HEC is of the view that these benefits do not clearly outweigh the costs or the risks that they introduce.

[17] Woo, C.K., D. Lloyd, and A. Tishler. 2003. *"Electricity market reform failures: UK, Norway, Alberta and California."* *Energy Policy* 31(11): 1103-1115; Trebilcock, M.J., and R. Hrab. 2005. "Electricity restructuring in Ontario," *Energy Journal* 26(1): p.123-146.

As a general comment, each of these options introduces a greater level of complexity and will be expensive to implement and maintain. These costs will be significant and must be factored into the analysis.

The consultation debate must not be driven by ideology – that one form of industry structure or regulation is superior to another. There is no perfect model; each model has its flaws and limitations. In changing the regulatory regime, Hong Kong will simply replace one set of issues with another set - this potentially leads to a downward spiral of ever increasing regulation.

Changes, if any, should produce outcomes that are demonstrably superior to the outcomes under the existing regime.

Change must not be for the sake of change.

2.11 Specific issues raised in Consultation Paper

A summary of HEC's comments in relation to each of the specific issues raised in the Consultation Paper is set out below.

Return on investment: ROA most appropriate

HEC is of the view that the criticisms of its return under the SCA are misconceived. HEC's 13.5% return is a "nominal" return (i.e. without reference to inflation) and applies equally to generation, transmission and distribution assets. The general misconception is attributed to the 6-9% return in the U.K. and Australia quoted in the Consultation Paper.[18] First of all, these rates of return are "real" rates (i.e. apply to inflation adjusted asset base). Secondly, HEC's tariff, which results from the SCA formula of cost pass-through and HEC's return, is less than the tariff charged to, for example, London consumers as tabulated in the Consultation Paper.[19] The London tariff is arrived at by similar cost pass-through arrangements and a combination of a market driven return on generation assets, and an "inflation adjusted return" on transmission and distribution assets. The fact that HEC's tariff is lower than the London tariff demonstrates that HEC's return is not out of step with rates of return in other jurisdictions. Indeed, when proper comparisons are made, taking into account the difference between "nominal" and "real" returns and the market return earned on generation assets, it is evident that HEC's return is reasonable.

HEC first signed the SCA in 1979. HEC's 13.5% return under the SCA since 1979 is again proved reasonable when taking into account the actual market conditions. Over the 26-year period between 1979 and 2004, the average inflation rate is 5.8% while the average best lending rate is 9.24%.

[18] Consultation Paper, p 16.

[19] Consultation Paper, p 8.

One of the issues that appears to have been lost in the debate over HEC's rate of return under the SCA is that *the return is not a guaranteed return.* In fact, over recent years, HEC has substantially under-recovered the revenue needed to enable it to earn the permitted return under the SCA. A substantial proportion of this under-recovery was a result of HEC agreeing to ease the tariff pressure on consumers and to assist in the recovery of Hong Kong's economy.

HEC's tariffs are in line with tariffs in OECD (Organisation for Economic Cooperation and Development) countries and other major cities. In addition, Hong Kong consumers enjoy a higher level of reliability for their tariffs than customers in other cities.

The existing SCA has provided appropriate incentives for investment in electricity infrastructure. At the same time, the excess capacity adjustment on permitted return has ensured that over-investment would be penalized.

HEC agrees with the Government that the Equity Base Approach lacks incentive for efficient financing, e.g. under-utilization of debt capital. The Asset Base Approach, on the other hand, provides incentives to ensure continued and adequate asset investment and has been widely adopted in the network businesses of the U. K. and Australia.

On the determination of the rate of return, the cost of capital approach considered in the Consultation Paper would add an extra layer of complexity and cost to the tariff setting arrangements. It provides no guarantee that appropriate investment incentives will exist to induce adequate investment in supply infrastructure for maintaining the existing level of reliability.

However, if changes to the return on investment regime were to be contemplated, the Government must take into account the fact that HEC has made substantial sunk investments on the basis of achieving a certain level of return over the life of those assets.

Return on Asset is most appropriate to Hong Kong.

Performance based regulation (PBR): not suitable for Hong Kong

The main advantage of PBR over traditional rate of return (ROR) regulation is that the former provides the utility with the incentive to aggressively cut expenditure because it would keep a share of the savings. However, international experience has shown that PBR has actually incentivized utilities to under-spend by cutting back necessary maintenance and upgrades. Reliability is thus compromised. Further, PBR is forward looking so if the regulator underestimates the expenditure required or simply "gets it wrong", then the utility will not "overspend" its allowance because it will not be able to recover it even if such expenditure is necessary.

Countries that use PBR are still grappling with its related host of issues, such as the distortions to investment timing. Given that PBR is usually only applied to networks, the Government should carefully consider whether its application to a vertically integrated utility would cause more problems than it solves.

The Government considers that the shorter regulatory periods for PBR, as compared to the SCA, provide more flexibility to make changes. In reality, there is less flexibility for PBR during the set regulatory period. Further, the regulatory reset every 3 to 5 years exposes the utility to a high degree of regulatory risk and leads to utilities and regulators investing substantial resources into the reset process which could be better directed.

The Government's consideration of linking tariffs to economic indicators through the CPI - X mechanism is understandable but not achievable. The CPI factor cannot be relied upon as a good indicator of the prevailing local economic situation. In addition, 90% of HEC's cost inputs are not related to the local inflation rate. This is why the fuel clause account is necessary as fuel costs are not within HEC's control. A CPI-following tariff would make tariffs unreflective of costs and increase HEC's risks. In any case, HEC's tariffs have increased at a rate well below that of inflation over the last 20+ years since 1983.

The Performance Based Regulation approach is not suitable for Hong Kong

Increased interconnection: illusory benefits

HEC and CLP have been interconnected since 1981 for emergency backup, sharing of reserve capacity and sharing of spinning reserve. The economic benefits have been significant and fully captured.

HEC is of the view that there are several characteristics of the Hong Kong electricity market that make the benefits of increased interconnection illusory. HEC's analysis indicates that the costs of any new interconnection would be higher than the benefits of deferring new generation.

The geographic proximity and similar load profiles of HEC and CLP mean that peaks and troughs in the HEC and CLP systems generally occur at the same time. This means that any reserve sharing benefits provided by further interconnection between HEC and CLP would be minimal.

The full system efficiency benefits that might arise by allowing the power companies to purchase power from each other would be impeded by the long-term take-or-pay commitments which both HEC and CLP have in place.

Finally, utilizing interconnection for regular (rather than emergency) electricity transfers would bring with it increased risks to supply reliability. Experience from overseas, and in particular the recent blackouts in the U.S., Europe and Australia, indicate that failure of a single piece of equipment can have a cascading effect on a highly interconnected network, leading to multiple failures and even total system breakdown.

In light of these factors, HEC is of the view that the costs and risks associated with increased interconnection outweigh the minimal benefits it may offer.

Several characteristics of the Hong Kong electricity market make benefits of increased interconnection illusory.

New supply sources: reliability and cost issues

HEC agrees with the Government that the Mainland cannot be relied on in the short to medium term as an alternative source of supply for Hong Kong since the Mainland will not have surplus electricity to supply Hong Kong in the foreseeable future.

From an environmental perspective, any spare plants, if available, should be used to phase out the existing highly-polluting, low-efficiency small thermal plants in Guangdong instead of being used for exporting electricity and, indirectly, pollution to Hong Kong. From a reliability perspective, importing supply from the Mainland, whose reliability standard in both generation and transmission systems is not at par with that of Hong Kong, will jeopardize Hong Kong's electricity supply.

Thus even if the supply constraints could be resolved in the longer term, the cost of electricity from the Mainland would unlikely be lower than that from local generation if costs for longer transmission distance, reinforcing the transmission networks, and upgrading the environmental and reliability standards at par with those of Hong Kong are included.

Furthermore, the fact that operators of electricity facilities in the Mainland are not under the jurisdiction of Hong Kong's regulatory authorities would in itself create regulatory risk and uncertainty for operators in Hong Kong. This could lead to under-investment in electricity infrastructure in Hong Kong.

Based on the above considerations, HEC agrees with the Government that it would not be prudent to predicate the development of the Hong Kong electricity market on supply from the Mainland.

For new supply sources of a renewable nature, HEC agrees that their introduction to Hong Kong should be actively explored. However, practical issues such as cost-effectiveness, technical feasibility, safety and supply reliability must be carefully assessed to determine the viability of these new sources of supply.

It would not be prudent to predicate the development of the Hong Kong electricity market on supply from the Mainland.

Grid access for third party users: extreme caution needed

Any proposal in relation to open grid access needs to be considered with utmost caution in the context of its potential impact on system reliability.

At present, Hong Kong enjoys an outstanding level of system reliability. Reliability has traditionally been regarded as being of primary importance in the context of electricity networks. However, international experience has shown that mandated open access has the potential to shift the paradigm of system reliability.

The introduction of mandated open access would also require a completely new legislative framework to deal with issues such as reliability and safety standards, technical standards for connection, access pricing, liability issues, dispute resolution procedures and the establishment of an independent system operator. The costs of establishing and administering this regime are likely to be extremely high. These costs would ultimately be borne by consumers.

Open access regimes are based on the assumption that competition is a workable proposition in the relevant market. However, there are currently a number of unique local factors, including the relatively small size of the market, scarcity of land, lack of indigenous fuel supplies and alternative sources of supply, that make it impossible to introduce meaningful competition in Hong Kong in the short to medium term. In the absence of any real prospects of competition in the near future, it would be premature to introduce a mandated open access regime at this stage.

Market size and market characteristics make mandatory open access highly risky.

Legislation over bilateral agreement: begs investment uncertainty and greater risks

Regulation by bilateral agreement has a proven track record in Hong Kong. It has provided certainty to market participants, facilitated investment and resulted in a high level of supply reliability.

There is no doubt that a legislative model under which the Government can change the regulatory framework without the agreement of participants gives the Government greater flexibility. However, greater flexibility will come at the expense of investment certainty and reasonable regulatory risk.

The costs of getting the regulatory framework wrong are enormous. International experience has shown that reform involving electricity industries is complex and has many pitfalls. In particular, inappropriate regulation can lead to systematic under-investment which in turn can lead to infrastructure failure. At worst it can lead to market failure as occurred in California.

The costs of establishing and administering such a regime are also likely to be very high and will ultimately be passed on to consumers.

Greater flexibility for changes would come at the expense of investment certainty. The costs of getting the regulatory framework wrong are enormous.

Independent regulation over Government regulation: no compelling reasons for change

Government regulation has proven to be an efficient and effective means of regulating the electricity industry in Hong Kong. The current approach of sharing regulating responsibility between EDLB, ETWB and EMSD (with the advice of the Energy Advisory Committee (EnAC)) is consistent with that taken in many overseas jurisdictions where there are separate authorities dealing with economic regulation, environmental regulation and technical regulation. Normally, the independent regulators in these jurisdictions are only responsible for economic regulation.

The argument for an independent regulator to oversee the electricity sector has principally arisen in markets where change has centred on the privatisation of state-owned enterprises and where full competition has been introduced. However, arguments for an independent regulatory body lose cogency in Hong Kong where the incumbents are already privately owned and the Government does not participate in the industry.

Electricity is an essential service and the Government should not abrogate responsibility for regulating service provision lightly. In light of this, and the potential costs and regulatory uncertainty associated with introducing independent regulation in Hong Kong, HEC is of the view that there are no compelling reasons to depart from the existing form of Government regulation.

HEC is of the view that there are no compelling reasons to depart from the existing form of Government regulation.

2.12 Conclusions and recommendations

The expiry of the current SCA gives the Government and the community an opportunity to reflect on how the Government's policy objectives have been successfully achieved in the past and how best to ensure the continued achievement of those objectives. It is important that changes are not imposed merely for the sake of change. That said, should the Government and the community decide to introduce changes, such changes must:

- firstly, be a visible improvement on the current regime and not create instability and uncertainty, taking into account the Government's key policy objectives; and
- secondly, provide benefits which unambiguously outweigh the costs and risks of implementing them.

On the first point, HEC believes that the SCA has accomplished great achievements. It has provided a framework which has delivered on the Government's key policy objectives for a number of decades at minimal cost and without Government subsidies. It has provided high reliability at reasonable cost and given a proven framework for the implementation of environmental policy. In other words, the SCA has worked extremely well.

On the second point, HEC has spent considerable time and energy in reviewing the possible changes. HEC does not believe that any of the suggested changes have benefits that demonstrably outweigh both the costs of implementing them and the risks they introduce. Fundamentally, the suggested changes involve the introduction of complexity into what has been, to date, a simple regulatory system that works. With complexity comes both additional costs and the risk of unintended consequences. Experimentation must be avoided.

At the start of this section, HEC referred to the "virtuous circle" which shows that a functioning electricity industry involves a number of mutually reinforcing elements. Even relatively minor changes can alter the dynamics of the industry and the incentives to invest. In seeking change, the community needs to ensure that the changes, if any, do not upset the balance of the existing regime, which has contributed so positively to Hong Kong. On this basis, major changes must be dismissed as unnecessary, misguided and risky.

Accordingly, HEC recommends that the Government's Stage II Consultation should proceed on the basis that the SCA would be retained in its current form. Replacing it with a new regime based on increased interconnection, open access and competition, or a regulatory model governed by legislation and an independent regulator would not represent clear improvements. Indeed, they would raise real issues and risks that contain far-reaching ramifications.

HEC believes the Stage II Consultation should concentrate on:

- agreeing on the elements of the current SCA for the next term given that the existing balance in the SCA is appropriate; and
- refining the SCA by making appropriate adjustments within the current framework that clearly enhance the regime and further deliver on the Government's objectives.

HEC looks forward to working with the Government and other stakeholders in Stage II Consultation.

Experimentation must be avoided. Should changes be introduced, they must offer visible improvements and not create instability and uncertainty. The benefits must outweigh the costs and risks. HEC does not believe the suggested change options offer real and meaningful benefits. HEC recommends that the Government's Stage II Consultation process should proceed on the basis that the SCA would be retained in its current form.

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3 Meeting the Government's policy objectives

- The SCA has met the Government's key policy objective of ensuring reliable supply at a reasonable cost for the last 40 years.
- It has delivered world-class levels of reliability of 99.99+%.
- HEC's tariffs are reasonable when compared to those of other cities.
- The SCA has allowed the Government to implement efficiently and effectively its environmental policy.
- Electricity is an essential service - it is critical to Hong Kong's standard of living, international competitiveness and economic growth.
- There is a trade-off between reliability and prices. In balancing that trade-off, the Government should err on the side of ensuring reliability. This is because international experience has shown that the social, economic and political costs of failed electricity systems are enormous.
- The current balance between reliability and prices is appropriate. It is incorrect to suggest that there has been over-investment or that HEC's returns are too high.
- Recent international experience of electricity industry restructuring has had mixed results with very few clear success stories. It has shown that the issues are complex and the costs to society of introducing the wrong model far outweigh the potential benefits.
- There has been a backlash against the global trend towards complex electricity reform. It does not always lead to benefits for consumers. Tariff reductions have often been transitory at the cost of poorly maintained systems incapable of meeting future demands.
- There is no perfect model for the regulation or structure of electricity industries. Each model has its limitations.
- The SCA is simple and low-cost. Many of the suggested changes introduce complexity and will be expensive to implement and maintain. Ultimately, the associated costs will be borne by consumers.
- Any new model must demonstrate that its benefits will clearly outweigh its costs and will deliver outcomes demonstrably superior to the SCA.
- While the changes discussed in the Consultation Paper might give rise to some benefits, this is not certain. In the meantime, they will involve increased costs, introduce new issues and potentially give rise to sub-optimal and unintended outcomes.
- The SCA has a proven track record and should be retained in its current form.

Government's key policy objective

The Government's key policy objective is:

> *"to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices while minimising environmental impact caused by the generation and use of electricity."*[20]

HEC supports and reaffirms this objective. As set out below, the SCA has clearly met this objective.

Reliability

The Government notes:

> *"We enjoy a high level of supply reliability that currently exceeds 99.99% which is among the highest in the world..."*[21]

This level of reliability is appropriate for advanced economies that have become increasingly dependent on a secure and adequate electricity supply.

Hong Kong has high-density and high-rise living and a heavy reliance on elevators and electrified transportation systems. According to a recent high-rise building survey[22] which ranks 100 international cities according to the total number of floors of their high-rise buildings, Hong Kong has been ranked first. Hong Kong is followed by New York City and Seoul as a distant second and third respectively (as shown in Figure 4). Further, because of Hong Kong's climate, there is also a high penetration of air-conditioning which is considered crucial to lifestyle and working environments. Hong Kong people are also demanding, and they expect the highest standards to be maintained at all times.

The importance of reliable electricity to a metropolitan city cannot be emphasized enough. In fact, Hong Kong is not alone in this aspect. Manhattan Island of New York City, another metropolitan city and a leading world-class financial centre whose service territory is similar to that of Hong Kong, also warrants high supply reliability. The New York Public Service Commission and the City of New York have both deemed that double contingency planning and "five nines" (i.e., 99.999%) of reliability are appropriate for Manhattan Island.[23]

HEC's planning criterion only caters for single contingency as it does not have the luxury of employing New York City's planning criterion which would require much more investment. Despite this, HEC has been able to maintain the same "five nines" of reliability as a result of good asset management skills, thorough planning, quality construction, and regular training of operating and maintenance staff on top of timely and sensible investments.

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20 Consultation Paper, p 1.

21 Consultation Paper, p 6.

22 Emporis (April 2005), www.emporis.com.

23 On February 26, 1997, New York State Public Service Commission issued *Order Adopting Changes to Standards on Reliability and Quality of Service* in Case 96-3-0979, setting the minimum standards for Manhattan Interruption Duration Hours (CAIDI) of 3.75 and Interruption Frequency (SIAFI) of 0.015. , When multiplied together, the CAIDI and SAIFI values yield a minimum reliability level of 99.99938% supply availability.

In view of the fact that Hong Kong has much more high-rise buildings than New York City which has a high supply reliability requirement of 99.999%, Hong Kong obviously deserves the highest reliability level in the world.

Rank	City	Population	Buildings [a]	Points [b]	Reliability [c]
1	Hong Kong	6,787,000	7,422	114,486	99.99+%
2	New York City	8,115,135	5,444	35,406	99.9992%
3	Seoul	10,331,244	2,831	15,590	99.9963%
5	Singapore	3,437,300	3,503	13,147	99.9998%
7	Tokyo	8,130,408	2,069	9,223	99.9977%
14	Sydney	4,201,500	802	4,073	99.9909%
23	London	7,172,036	1,295	2,741	99.9931%
36	Paris	2,152,467	248	1,785	99.9968%
52	Taipei	2,719,293	152	1,228	99.9991%

(Notes)

a) A high-rise building is defined as a building 35 metres or greater in height, which is occupied at regular intervals above occupiable level.

b) Points for Building:
1 - 19 floors = 1 point; 61 - 63 floors = 200 points
20 - 25 floors = 5 points; 73 - 79 floors = 300 points
26 - 29 floors = 25 points; 80 - 87 floors = 400 points
30 - 45 floors = 50 points; 91 - 99 floors = 500 points
46 - 60 floors = 100 points; 100+ floors = 600 points

c) CEDD's figures from web research

Figure 4: High-rise building survey and supply reliability of major cities, April 2005

Reasonable prices

The Consultation Paper shows[24]:

- in general, electricity bills account for less than 2% of the general household expenditure for residential customers;
- a recent survey indicates electricity bills constitute less than 10% of the monthly operating costs for the majority (77%) of the non-residential customers surveyed; and
- HEC's residential tariffs are in the middle range when compared to those of other major cities.

This is consistent with HEC's own analysis (see section 4) that HEC's tariffs are reasonable in a range of comparisons with:

- OECD countries;
- major world-class cities ; and

[24] Consultation Paper, pp 6-8.

- the 11 largest U.S. cities.

Notwithstanding that HEC's rates are in the middle range of those in the above locations, HEC's customers are receiving greater reliability.

Further, increases in HEC tariffs have been well below CPI increases since 1983 the first full operating year of Lamma Power Station, even though this has included an unusual period of deflation in Hong Kong.

Environment

In addition to being instrumental in safeguarding supply reliability, the SCA is a cost-effective framework for environmental protection. It has proven to be a particularly efficient and effective means for the Government to implement its environmental policies, and energy efficiency and conservation programmes. It gives the Government a very simple and transparent mechanism to strike the balance necessary between environmental protection and the level of tariffs.

New environmental measures impose additional costs. In a deregulated regime, in which competition is based on the short-term marginal costs of generation, generation companies have no incentive to improve the environmental facilities and performance of their generation plants. However, under the SCA, the Government can introduce new environmental standards and give investors the confidence that the costs of meeting those standards will be recovered.

HEC's record of environmental achievements listed below illustrates the ability of the existing SCA regime to deliver on environmental objectives while maintaining tariffs at a reasonable level.

- The Pacific Basin Economic Council (PBEC), an international organization dedicated to promoting economic co-operation/development, awarded HEC with a Silver Award in its prestigious PBEC Environmental Awards in 2004. This is the first time for a power utility receiving this award.

- HEC is presently installing the first commercial scale wind turbine in Hong Kong. This wind turbine, which will be commissioned in 2006, is an important milestone in the introduction of renewable energy to Hong Kong.

- HEC's first natural gas-fired generating unit is under construction and will use liquefied natural gas (LNG), an environmentally friendly fuel with low emissions. With the commissioning of this gas-fired unit in 2006, HEC's outstanding environmental performance will be further enhanced.

- HEC is the first power utility in Asia (except Japan) to install the flue gas desulphurization (FGD) plant for its coal-fired units. FGD plants remove more than 90% of SO_2 from the flue gas. In addition to FGD plants, HEC has also installed low-NO_x burners and electrostatic precipitators. These state-of-the-art technologies are very effective in reducing emissions:

  - low-NO_x burners significantly reduce NO_x emissions by two thirds;

  - the electrostatic precipitators together with FGD plants can remove about 99.8% of particulates from the flue gas.

- HEC only uses high quality coal with less than 1% sulphur content for electricity production.

- The retrofitting of the freshwater closed-loop submerged scraper conveyer (SSC) bottom ash systems into all the existing coal-fired units eliminates processed discharge into the sea.

- Every year, Lamma Power Station uses more than 100,000 tonnes of wastewater recovered from various operating processes and collected rainwater. The using of wastewater and rainwater (approximately 7% of the annual total freshwater consumption of the power station) helps to conserve this precious resource and allows a drastic reduction in effluent treatment as well as discharges to the sea.

- To promote the use of energy efficient appliances, HEC implemented an energy efficiency rebate program between 2000 and 2003 that has resulted in annual electricity saving of about 50GWh. Furthermore, there are educational programs that include the Smart Power Campaigns and the web-based energy efficiency education kits for primary and secondary school students. The kit for primary school students was completed in 2003 while that for the secondary school students will be completed in 2005.

- Public awareness of environmental protection continues to be raised through promotional activities such as sponsoring the establishment of an energy efficiency centre in the Science Museum and various research studies, e.g. research on the use of coal ash as artificial reefs for marine conservation.

Of course, environmental objectives need to be balanced against the additional costs they impose. This is a case where there is a tension between the objective of reasonable tariffs and emission reductions and so the caps imposed on emissions from generators must be practical and achievable at a reasonable cost.

However, HEC recognizes that the extension of the Kyoto Protocol to Hong Kong relating to greenhouse gases[25] and the commitment of the Government and the Guangdong Provincial Government to reduce other emissions by 2010 mean that further reductions will be required.

HEC has always complied with its environmental obligations and will continue to work with the Government to reduce emissions further in the most cost-effective manner possible.

3.1 Electricity as an imperative

Electricity is an essential service; it is not a luxury. It is a critical input into the creation and provision of all goods and services. Reliable supply is indispensable to a modern and competitive economy and to ensuring continued economic growth.

[25] Although the HKSAR, as part of China, is not required to meet specific emission reduction targets, the government is required to submit reports on greenhouse gas emissions to the United Nations from time to time.

A business competitiveness survey conducted by the Chinese University of Hong Kong in 2004 indicated that reliable supply is a very important consideration in deciding where to set up business and that reliability is more important than tariff levels.[26]

A Government survey of domestic consumers in 2003 indicated that nearly 50% of households ranked reliable electricity supply as their number one priority.[27]

> *"Today, the use of electricity is both indispensable to modern life and an essential part of our very well being. However, it has become so pervasive that it is "transparent" to most consumers, at least until there is an outage. Were it possible to turn off our entire electric power system for a few hours, and assess the impact, the full measure of electricity's role in the economy would become evident. Few processes other than some space heating, most transportation, and agriculture would continue to function, and even them poorly, constituting a loss of about $1 billion per hour. The entire economy would stop."* [28]

Despite this, it is only when the "lights go out" that the importance of reliability is recognized. For example, the blackout in 2003 affecting the eastern U.S. and Canada resulted in an estimated economic loss of up to US$10 billion.[29]

3.2 Should reliability be sacrificed for lower tariffs?

One of the major criticisms of the SCA is that HEC's returns are too high. This arises primarily from the perception that HEC is over-investing in electricity infrastructure.

This criticism is incorrect for three reasons:

- HEC's returns are reasonable when benchmarked against comparable companies and as rated by the stock market;
- the levels of investment have been reasonable and mechanisms exist under the SCA to ensure prudent investment by penalising over-investment; and
- the SCA has delivered an appropriate balance between reliability and tariffs.

These issues are explored in more detail in section 4.

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[26] The Chinese University of Hong Kong and Lingnan University *"A Report on the Survey of the Cost Competitiveness of Hong Kong Businesses"* (October 2004).

[27] HKSAR Census and Statistics Department *"Thematic Household Survey Report No. 17"* (April 2004) p 30.

[28] S. Massoud Amin and Clark W. Gellings 2005. *"The North American power delivery system: balancing market restructuring and environmental economics with infrastructure security."* Energy - The International Journal, forthcoming.

[29] U.S. - Canada Power System Outage Task Force *"Final Report on the August 14, 2003 Blackout in the United States and Canada"* (April 2004) p 1.

To the community, each unit of electricity (1 kWh) costs around HK$1. However, for each unit of electricity unserved, the cost to the community from stoppages of various social and business activities can be many times higher. A very conservative estimate of such cost in the U.S. is about HK$40 per unit.[30] This can be best illustrated by considering a hypothetical example of Hong Kong's supply reliability declining from 99.99% to 99.00% that would result in a 1% probability of service interruption, or about 87 expected unserved hours per year. Based on the 2004 annual reports of Hongkong Electric Holdings and CLP Holdings, Hong Kong's average demand per hour is about 4,478 MW. The 1% reliability deterioration would cost the entire community of Hong Kong approximately HK$15 billion per year.[31]

Accordingly, HEC supports the Government's comment that *"[w]e should therefore ensure that the future regulatory regime includes appropriate provisions to induce adequate and reasonable investment in electricity supply infrastructure."*[32]

In trying to strike the right balance, it is imperative that the Government ensures that Hong Kong's electricity systems are reliable. International experience (described below) has shown that the economic impacts of under-investment in electricity infrastructure flowing from returns being set too low are extremely high and costly. As such, there should be a bias towards ensuring reliability when balancing the trade-off between reliability and costs. This is because *"[t]he costs of inadequate electricity capacity are much, much greater than the costs of extra electricity capacity."*[33]

3.3 International experience

The last 20 years have seen extensive electricity market restructuring, deregulation and new methods of regulation. As noted by the Government in its review of other economies, electricity market reform has led to mixed outcomes.[34]

There are a number of lessons to be learned from the reform experience of other countries.

- Electricity is unlike any other commodity in that it cannot be stored and demand and supply must be kept in balance at all times. This means that, unlike other commodity markets, deregulated electricity markets are very complex.

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30. Woo and Pupp (1992), *"Cost of service disruption to electric consumers"* Energy 17(2): pp 109-126; Keane and Woo (1992), *"Using customer outage costs to plan generation reliability"* Energy 17(9): pp 823-827; Roques, Newbery and Nuttal (2005), *"Generation adequacy and investment incentives in Britain: from the Pool to NETA"*. Reference unserved costs in the U.S. (PG&E) and the U.K. (National Grid) were US$17/kWh and £2.816/kWh respectively.

31. 4,478 MW per hour x 87.6 hours unserved per year x HK$40,000/MWh unserved is about HK$15 billion per year.

32. Consultation Paper, p 13.

33. Watts, P.C. 2001. *"Heresy? The case against deregulation of electricity generation."* *Electricity Journal* 14(4): pp 19-24.

34. Consultation Paper, p 10.

- Electricity is demand inelastic but supply and demand has to be continuously and instantaneously balanced. The electricity markets are therefore particularly susceptible to abuse of market power. Indeed it has been claimed that most wholesale electricity markets around the world are subject to the abuse of market power by large firms.[35]

- As recognized by the Government there is no universal model for market reform and local factors must be taken into account.[36]

- The costs of getting market reform wrong are enormous. The costs of the failed Californian market reform are more than US$50 billion.[37]

- The impact of regulation cannot be overstated. Inappropriate regulation has led to systematic under-investment in a number of countries with consequent infrastructure failure at a huge cost to society.[38]

- The complexities of reformed markets mean that they propagate new regulations and regulatory staff. These institutions and arrangements are expensive to establish and maintain. The costs are generally measured in tens of millions, if not hundreds of millions, of dollars.[39] Ultimately, these costs are priced into tariffs and passed through to consumers.

The failures and inadequacies of market reform have led to a critical rethink by policy makers, economists and consumers on the benefits of reform. For example:

- *"Two thirds of the states have figured out that deregulation is a road to ruin."* (Consumer Federation of America)[40]

- *"At-cost electricity has buttressed Ontario's economy for many years. A risky experiment with deregulation of electricity would further destabilize an already unstable economy. Deregulating electricity would cause soaring rates and reduced reliability, leading to increased production costs - and unemployment."* (Ontario Electricity Coalition)[41]

- *"We urge FERC and state legislatures to pause in their deregulation efforts. In our judgment, most regional markets will not be sufficiently competitive so that consumers will see net benefits."* (Economists S Blumsack, D Perekhodtsev, Professor L Lave)[42]

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35 Fabra N and Harbourd D, *"Market Power in Electricity Markets: An Overview of the Theoretical and Empirical Literature"* (2001)

36 Consultation Paper, p 10.

37 Lave, L.B., J. Apt and S. Blumsack (2004), *"Rethinking electricity deregulation"*, Electricity Journal 17(8): p 11.

38 Refer to Appendix 1.

39 Refer to Appendix 2.

40 Consumer Federation of America, *"The Federal Response to the 2003 Blackout: Time to Put the Public Interest First"* (10 September 2003) p 1.

41 http://www.electricitycoalition.org/main_pages/7reasons.html

42 Blumsack, S, Perekhodtsev, D and Lave, L, *"Market Power in Deregulated Wholesale Electricity Markets: Issues in Measurement and the Cost of Mitigation"*, The Electricity Journal (November 2002) p 23.

- *"The effect of deregulation on electricity prices is not clear. There have been some reductions, but in some cases prices were coming down at a faster rate before deregulation. Prices will go up with increased fuel costs, which they would with or without deregulation. There has been a good deal of market manipulation by generators and suppliers and the benefits are not yet a foregone conclusion ... in the regulated sectors of the market, transmission and distribution capital investment has declined at a time when large amounts of assets are reaching the end of their design life."* (E Blauvelt, Partner of ABS Energy Research)[43]

- *"The Queensland Government's decision not to implement FRC [full retail contestability] was based on a comprehensive analysis, which indicates the benefits of introducing FRC do not outweigh the costs. In particular, the Government was concerned the FRC could result in significant price rises for regional customers."*[44]

- *"...flawless implementation of the government's plan may yield a small net benefit ... , which can be easily wiped out by a less-than-perfect transition to privatization and competition."* (Economists A. Tishler, J. Newman, I. Spekterman, and C.K. Woo)[45]

- *"As someone who early on was a strong supporter of restructuring, I now seriously question whether at this time we are capable of doing it right."* (K. Costello, senior economist of the National Regulatory Research Institute of the U.S.)[46]

3.4 Weighing up the benefits of reform

The negative experiences of other countries do not mean that changes or adjustments should be rejected out of hand. However, they do highlight the risks and costs involved, and Hong Kong therefore needs to act with extreme caution.

Changes, if any, need to be carefully thought out and introduced incrementally. This would ensure that the Government can assess whether the anticipated benefits have actually arisen at each stage. The Government could then decide whether it should proceed further.

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43 Blauvelt, E, *"Deregulation: Magic or Mayhem?"*, The Electricity Journal, (August/September 2004) pp 46-47.

44 http://www.energy.qld.gov.au/electricity/nem.html

45 Tishler, A., J. Newman, I. Spekterman, and C.K. Woo. 2004. *"Cost-benefit analysis of reforming Israel's electricity industry."* Energy Policy forthcoming

46 Costello, K. 2003. *"The shocking truth about restructuring of the U.S. electricity industry."* Electricity Journal 16(5): p11-19.

As part of this process, the first few steps or changes also need to be reversible. Hong Kong's power suppliers have made huge investments in long-term infrastructure and a significant cost of reform in other jurisdictions has been stranded costs related to sunk investments made on the basis of the old regime. If major changes are contemplated, these costs should be minimized or even avoided by a measured and proper transition. Further, once an inappropriate regulatory system has been introduced, it would be very difficult and costly to unravel it, and that invariably would lead to an erosion of confidence in the new arrangements by all stakeholders.

HEC agrees with the approach advocated by the Australian Productivity Commission (in its recent review of gas regulation in Australia) that applies equally to changing existing regulation as well as making the decision to regulate:

> *"In considering whether to intervene and the appropriate form of intervention, governments need to firstly consider the benefits from intervention (that is, the size of the problem). Governments then need to consider possible forms of intervention - do they generate benefits and at what cost do they achieve those benefits? Governments should only intervene where it generates net benefits, and should implement the form of intervention that generates the greatest net benefits."* [47]

What are the perceived problems?

When considering Hong Kong electricity market's future direction and development, the first step is to identify the perceived problems with the SCA and consider the magnitude of those problems. The Government identified the following criticisms of the SCA[48]:

- the permitted rates of return are considered high in the present day economic climate;
- the permitted return, based on fixed assets, is perceived to have encouraged over-investment;
- the permitted rate of return fixed over a 15-year period lacks flexibility, as amendments to the SCA cannot be made without the consent of the parties involved; and
- the annual tariff and auditing reviews lack transparency.

HEC believes that these 'problems' are overstated and arise from an incomplete understanding of the SCA and the environment in which electricity infrastructure providers operate. Each of these issues is considered in detail in the relevant sections below but HEC's responses can be summarized as follows:

- Permitted return: All things considered, the existing permitted return has proved to be reasonable to investors, sufficient to attract investment, and has provided electricity supply at reasonable tariff, high reliability, and excellent services.

[47] Productivity Commission, *"Review of the Gas Access Regime"* Report no 31 (2004) Canberra, p 84.

[48] Consultation Paper, p 9.

- Investment level: HEC's investment in electricity infrastructure has been prudent and timely under the regulatory scrutiny of the Government. Furthermore, any over-investment would have been penalized by an excess capacity adjustment that would be deducted from the permitted return.

- SCA time-frame: As recognized by the Government, the uncertainties arising from a shorter agreement period would deter continued or longer term investment by the power companies. Given the long-term nature of investment in electricity infrastructure and the long-term contractual requirements, the current 15-year regulatory period is appropriate.

- Transparency: HEC is willing to work with the Government further on increasing the transparency of the tariff setting process, subject to full confidentiality for commercially sensitive information that is passed to the regulator.

What are the proposed options?

The Consultation Paper suggests the following options:

(d) modifying the SCA by adopting new regulatory mechanisms;

(e) introducing a new regime involving one or all the options of increased interconnection, new supply sources and open grid access; and

(f) a new legislative framework and institutions.

HEC is concerned that many proponents for change see reform as a means to an end, namely the lowering of tariffs. Nevertheless, the costs incurred for the changes may actually be higher than the benefits, if indeed there were benefits to be derived. In fact, international experience has shown tariff reductions, even if realized, are often transitory and at the cost of poorly maintained systems which are incapable of meeting future demands. Market reform in California is a classic example where rates were mandated to fall but the ultimate cost to consumers and the State far exceeded those temporary benefits. The failure of electricity restructuring in Ontario is another well-documented example.[19]

Further, caution must be taken before "cherry picking" elements from other regimes. For example, one suggestion is to introduce a weighted cost of capital approach to determining the permitted rate of return as used in the U.K. and Australia. This is a prescriptive approach with many subjective elements. However, this approach requires appeal mechanisms as owners of sunk assets are at the risk of poor regulatory decisions. In the last two years in Australia, there have been a number of regulatory decisions on this issue that have been successfully appealed.[50] Even experienced and well-resourced regulators make mistakes. Implicitly, the introduction of this one change will require further resources for the Hong Kong regulator to make such determinations and a new regulatory framework with appeal mechanisms.

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[49] Woo, C.K., D. Lloyd, and A. Tishler, 2003, *"Electricity market reform failures: UK, Norway, Alberta and California,"* Energy Policy 31(11): 1103-1115; Trebilcock, M.J., and R. Hrab, 2005, *"Electricity restructuring in Ontario,"* Energy Journal 26(1): p 123-146.

[50] Application by Epic Energy South Australia Pty Ltd [2003] A Comp T5 (10 December 2003); Application by GasNet Australia (Operations) Pty Ltd [2003] A Comp T6 (23 December 2003).

The risks and benefits of each option are considered elsewhere in this submission. While HEC acknowledges that some of the options (if implemented properly) could give rise to benefits, HEC is of the view that these benefits do not clearly outweigh the costs or the risks that they introduce.

As a general comment, each of these options introduces a greater level of complexity and will be expensive to implement and maintain. These costs will be significant and must be factored into the analysis.

The efficiency gains are not clear or quantified. The problems which the proposed changes seek to address are not of such significance as to require an overhaul of the SCA. The outcomes of these proposals are not certain and not demonstrably superior to those achieved under the SCA in the last 40 years.

The consultation debate must not be driven by ideology – that one form of industry structure or regulation is superior to another. Experience shows that there is no perfect model. Each model has its flaws and limitations. In changing the regulatory regime, Hong Kong will simply replace one set of issues with another set; this potentially leads to a downward spiral of ever increasing regulation.

> *"... - regulators acknowledge distortions brought about by regulation, but then begin a quest to control them through more regulation. Professor Kahn, one of America's most famous economists, described the effect as the 'tendency of regulation; once undertaken, to become increasingly pervasive and thoroughgoing'"* [51]

Hong Kong has a simple, low-cost regime which has delivered on the Government's objective without the need for Government funding or subsidies. Where the goal is light-handed regulation, Hong Kong's electricity market is a proven success, when compared to those in OECD countries like Canada, U.S. and U.K.

There is no clear case for significant changes but a very real risk of jeopardising Hong Kong's existing supply of safe, reliable and reasonably priced electricity.

While the changes discussed in the Consultation Paper might give rise to some benefits, this is not certain. In the meantime, they will involve increased costs, introduce new issues and potentially give rise to sub-optimal and unintended outcomes. In contrast, the SCA has a proven track record and should be retained in its current form.

[51] Productivity Commission, *"Review of the Gas Access Regime"* Report no. 31 (2004) Canberra, p 155

4 Return on investment

The criticisms of HEC's returns under the SCA are overstated or misconceived.

- **The SCA does not guarantee HEC's returns. In fact, HEC has substantially under-recovered the revenue needed to enable it to earn the permitted return under the SCA.**
- **HEC's tariffs are in line with the tariffs in OECD countries and other major cities. In addition, for their tariffs, Hong Kong customers enjoy a higher level of reliability than customers in other cities.**
- **It is a fundamental principle that HEC's permitted rate of return should be equal to that available for similar investments (i.e. the opportunity cost of investing in electricity infrastructure). On this basis, HEC's permitted rate of return under the SCA is reasonable.**
- **Electricity infrastructure is a long-term investment and critics are judging returns on snapshots of the economic cycle rather than over the longer term. If changes to the return on investment regime were to be contemplated, the Government must take into account the fact that HEC has made substantial sunk investments on the basis of achieving a certain level of return over the life of those assets.**
- **Comparisons being made with regulated rates of return in other countries and Hong Kong are misleading unless the differences between Hong Kong and other countries are properly taken into account.**
- **HEC's rate of return is a "nominal" rate. When proper comparisons with other jurisdictions are made, HEC's return is reasonable taking into account the difference between "nominal" and "real" rates of returns and the actual economic situation of Hong Kong.**
- **HEC's investment in electricity infrastructure has been appropriate. The excess capacity adjustment on permitted return has ensured that any over-investment would be penalized.**

The Consultation Paper raises a number of options for changing the way in which returns are determined under the SCA:

- **The return on equity approach would encourage an inefficient capital structure and, in any case, does not address the criticisms of the current approach under the SCA.**

- The cost of capital approach to determining the permitted rate of return raises more issues. Far from being objective and transparent, it contains a number of uncertainties and subjective elements. It will be expensive to implement as it will require HEC and the Government to undertake detailed investigations and analysis of each component. International experience shows that it involves protracted negotiations (often requiring resolution by litigation or arbitration) and that even experienced regulators have made mistakes using it.

- The Development Fund should be retained. It is an important mechanism in the SCA that stabilizes tariffs and is held for the benefit of consumers. HEC has not built up large balances in the fund and the SCA includes capping mechanisms against this occurring.

HEC does not consider that the benefits of the proposed options are certain or of such magnitude as to justify the very substantive changes proposed to the existing system.

4.1 Rate of return regime under the current SCA

Permitted return

The SCA incorporates a form of rate of return (ROR) regulation. ROR regulation is commonly used in the U.S. for investor-owned utilities. It allows companies to pass through those costs which are necessary to ensure services to customers plus an appropriate return based in part on employed capital to the utility. The issue discussed in this section is the return permitted under the SCA.

In essence, HEC is permitted to earn a return on capital employed in providing the services each year up to the permitted rate of return multiplied by its rate base, i.e. the average value of its net fixed assets. There are then a number of deductions from this permitted return under the SCA.

The rate base comprises the average net fixed assets of the company used to provide the services. This is determined annually as the average of the opening and closing balances of HEC's net fixed assets. Net fixed assets comprise HEC's book cost of electricity-related assets less accumulated depreciation.

It must be remembered that the permitted return under the SCA is not a guaranteed return. In fact, in recent years, HEC has substantially under-recovered the revenue needed to enable it to earn the permitted return under the SCA. A substantial proportion of this under-recovery is as a result of HEC agreeing to ease the tariff pressure on consumers and to assist in the recovery of Hong Kong's economy.

Development Fund

Under the SCA, HEC must maintain a Development Fund.

In any year, HEC may recover sums which are over or under the permitted return. To the extent that HEC has surplus funds after tax and the permitted return, the excess is transferred to the Development Fund. Similarly, if there is a deficit, then HEC may receive funds from the Development Fund but only to the extent that the Development Fund has a positive balance.

The Development Fund is extremely important. Firstly, it helps to stabilize the tariffs charged to customers in that excess Development Funds are returned to customers by charging a lower-than-required tariff in any year when the required tariff increase is deemed too high. Secondly, the fund serves as a buffer for HEC against the risk of under-recovering through its tariffs. Again, as stated, the Development Fund cannot have a negative balance – therefore it does not serve as a guarantee that HEC will attain the permitted return.

The Development Fund is not an asset of HEC but actually represents a liability. It belongs to HEC's customers and is held for their benefit. The fund assists HEC to finance its current investment but HEC's shareholders have to pay an interest equal to 8% of the average of the opening and closing balances of the fund into the Rate Reduction Reserve. The balance of that reserve is used for a tariff rebate to all customers.

Deductions from the permitted return

There are a number of deductions from the permitted return before arriving at the net return to shareholders:

(a) **Interest charges** – Interest charges at a rate up to 8% that are incurred for financing the fixed assets are deducted from the permitted return.

(b) **Interest on increased customer deposits** – Interest up to a rate of 8% per annum on the increase in the average of the opening and closing balances of customer deposits from a base 1998 balance is deducted from the permitted return.

(c) **Charge on the Development Fund** – Each year, 8% of the average of the opening and closing balances of the Development Fund must be transferred to the Rate Reduction Reserve from HEC's permitted return. The balance of the Rate Reduction Reserve is used to reduce, by means of rebates, the tariffs charged to customers.

(d) **Excess Capacity Adjustments** – described below

Excess Capacity Adjustment

In May 1999 the Hong Kong Government and HEC amended the SCA to introduce an Excess Capacity Adjustment. Broadly, an Excess Capacity Adjustment is a penalty on HEC building additional generating units (Additional Units) from 1 January 1999 not justified by sufficient demand. Additional Units cover both installation of new generating units or the addition of capacity to an existing generating unit.

A formula is utilized to determine whether a case of excess capacity exists. Once a case has been confirmed, an agreed percentage of the costs of the Additional Unit are not counted as fixed assets and will not attract a net return for shareholders. This excess capacity adjustment on permitted return has ensured that over-investment will be penalized.

Through the 2003 Interim Review of the SCA, from 1 January 2004, the agreed percentage rose from 40% to 50%.

4.2 Criticisms of returns under the SCA

The main criticisms of the SCA in this regard are:

- Electricity tariffs are too high;
- the permitted rates of return are considered high in the current economic climate;
- the permitted return, based on fixed assets, is perceived to encourage over-investment; and
- there has been over-investment in generation capacity.

In the following sections, HEC shows that these criticisms are unjustified.

4.3 Criticism 1 - Are HEC's tariffs too high?

This is simply not borne out by the evidence that shows HEC's tariffs are in the middle range of tariffs charged in OECD countries and in other major cities around the world.

Government's comparison of residential tariffs of major cities 2005

The following table is from the Government's own Consultation Paper[52]:

City	Tariff range (HK$/kWh)
Tokyo (Tepco)	1.41 – 1.73
London (London Energy)	1.17 – 1.68
San Francisco (PG&E)	0.89 – 1.41
Sydney (EnergyAustralia)	0.75 – 1.23
Hong Kong (HEC)	0.82 – 1.18
Brisbane (Energex)	0.75 – 1.15
Hong Kong (CLP Power)	0.85 – 0.99
Singapore (Singapore Power)	0.8
Taipei (Taipower)	0.51 – 0.65

Based on: (i) tariff rates of the respective companies as at January 2005, (ii) consumption of between 100kWh to 1500kWh per month, and (iii) exchange rates as at January 2005.

However, attention should be drawn to the fact that Singapore Power and Taipower are wholly owned, either directly or indirectly, by the Singapore and Taiwan governments respectively. It is therefore not necessary for them to make commercial returns.

OECD average residential rates for 2003, based on market exchange rates

The Government's data is consistent with that of the International Energy Agency as shown in Figure 5. (OECD countries are appropriate for comparison purposes because many of them have per capita GDP comparable to Hong Kong.)[53]

Other major world cities

Figure 6 shows the comparison of the residential rates for major world cities based on usage of 500 kWh/month and applicable tariffs as of March 2005.

[52] Consultation Paper, p 8.

[53] This comment is based on 2003 GDP data available from the United Nations Statistics Division, Social Indicators Database as at January 2005.

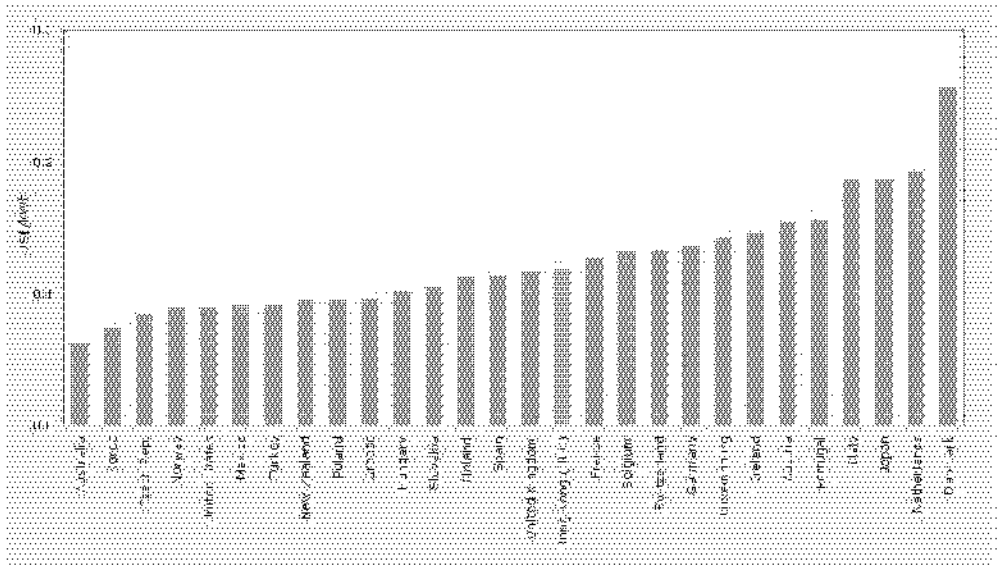


Figure 5: OECD Average Residential Rates, 2003 [54]

Most of the cities with the lower rates in the above figure are served by government-owned utilities (e.g. Toronto, Bangkok, Singapore and Taipei). HEC's rates are low when compared to other privately owned utilities serving international cities.

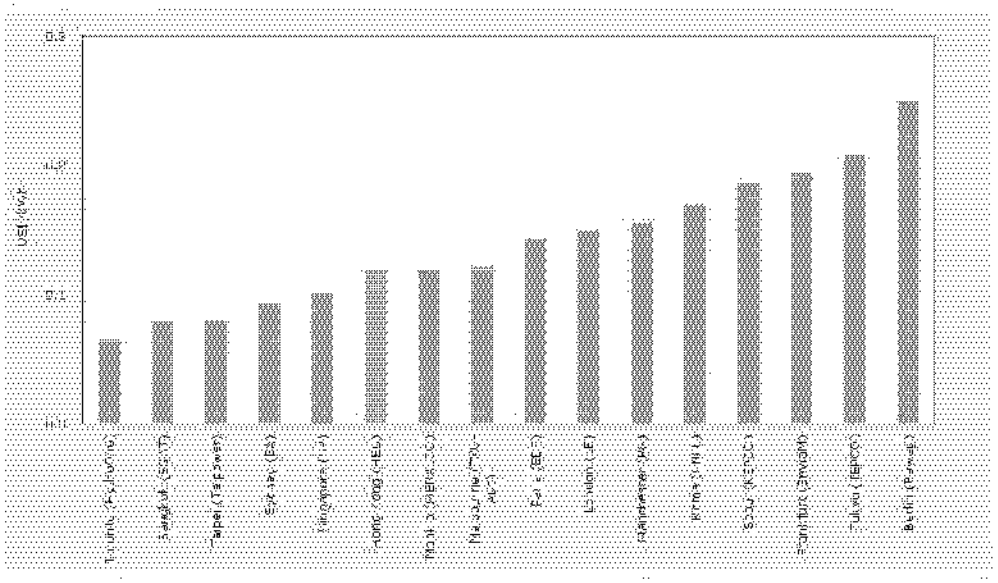


Figure 6: Major World Cities, Residential Rate for 500kWh/month [55]

[54] International Energy Agency, *"Energy Prices & Taxes 4th Quarter 2004"* Table 20. All prices for 2003 where available. Most recent data available for Australia (2002), Belgium (2000), Germany (2002) and Spain (2002).

[55] Applicable tariffs – company web sites.

Major U.S. cities

Figure 7 shows the comparison of the residential rates for utilities serving major U.S. metropolitan areas based on usage of 500 kWh/month and applicable tariffs as of March 2005.

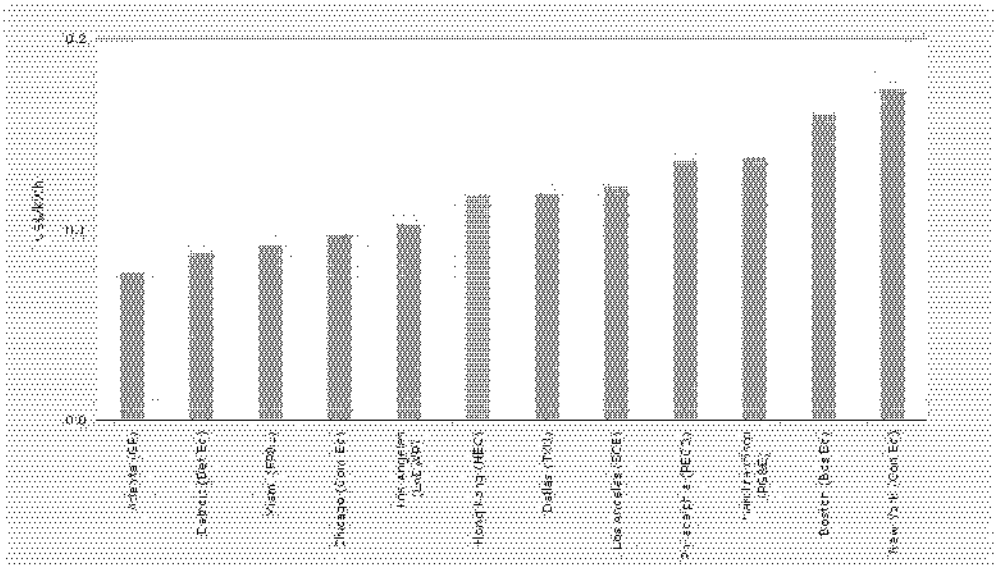


Figure 7: U.S. Cities, Residential Rate for 500kWh/month [56]

Are these comparisons robust?

Some critics argue that these comparisons are misleading because Hong Kong electricity suppliers enjoy cost advantages over suppliers in other cities. The main argument is that Hong Kong's geographic supply area is small compared to other cities. However, if anything, the reverse is true due to Hong Kong's unique nature:

- Hong Kong Island comprises hilly landscapes, resulting in higher costs to install and maintain electricity infrastructure;
- compared to overseas jurisdictions, underground electricity cables, which are 9-10 times cost of overhead lines for the same capacity and length, are more widely used in Hong Kong;
- Unlike many OECD countries (Canada, U.S. or Norway), Hong Kong does not have indigenous fuel and must import all of its required fuel;
- land and building costs for electricity infrastructure (such as substations) in Hong Kong are very expensive.

[56] Applicable tariffs – company web sites.

Finally, and very importantly, Hong Kong customers enjoy a higher standard of service (i.e. higher reliability) for their tariffs than most customers in the other cities and countries with whom the above comparisons have been made.

There are also criticisms that HEC's tariffs are higher than CLP's. While this is true for the average tariff, it is not the case for all categories of customers at all levels of consumption. However, it is important to recognize that the tariff differential has nothing to do with HEC earning a higher return than CLP or operating inefficiently. HEC and CLP have almost identical SCAs that stipulate them to earn the same rate of return on fixed assets. Benchmarking studies also confirm HEC to be an extremely efficient power company.

HEC's higher tariff can be explained by the fact that it has a scale of operations and operating environment different from CLP. Other things being equal, HEC requires a higher investment in assets per unit of electricity sold than CLP:

- Being a smaller system, the size of HEC's largest generating plant is 350MW as compared with CLP's 677MW. On transmission voltage, HEC uses 275kV while CLP uses 400kV. These imply higher capital cost per unit for both generation and transmission infrastructures for HEC.

- HEC's power station is on Lamma Island that can only be accessed by sea transportation. The construction cost is therefore higher than that for a power station in the rural area of the New Territories.

- In order to avoid sterilizing large strips of valuable land and to preserve Hong Kong Island's beautiful landscape, the power delivery from the power station to load centres needs to use the more expensive submarine / tunnel / underground cables rather than overhead lines. For the same capacity and length, installing cables requires 9-10 times the cost of overhead lines.

- Various districts on Hong Kong Island have been developed much earlier than the new towns in New Kowloon and New Territories. The lack of proper town planning in the early days, together with hilly topography and congested demography on Hong Kong Island, cause HEC greater difficulties and costs in the siting and construction of electricity infrastructure and subsequent upgrading.

- In response to the higher expectation for better environmental protection from the community and the Government, HEC introduced state-of-the-art environmental protection facilities to its system, e.g. the Flue Gas Desulphurization (FGD) plants in 1993 to reduce 90% of sulphur dioxide emissions of the relevant units.

While the above factors contribute to HEC's higher investment on per unit basis in electricity infrastructure, a look at the following sales-related factors further help explain HEC's higher tariff:

- HEC has a higher proportion of commercial consumption concentrating in daytime and a lower proportion of industrial and residential consumption spreading more evenly throughout the day. This results in a less efficient load factor and lower equipment utilization.

- CLP's local electricity sale is 2.7 times that of HEC. CLP has a better economy of scale, e.g. smaller workforce per unit of electricity sold.

- Electricity sale to China allows CLP to increase their Development Fund that in turn generates a hefty Rate Reduction Reserve. Both the Development Fund and Rate Reduction Reserve help CLP to lower their net tariff.

4.4 Criticism 2 - Are HEC's returns too high?

The answer is no for the following reasons.

(a) The permitted rate of return should be judged against the opportunity cost of an investment and, on this basis, the permitted rate of return is less than average returns on investments in other Hong Kong utilities or returns available by investing in the Hong Kong Stock Exchange.

This is discussed in section 4.5.

(b) The best judges of value are the financial markets, not regulators, and Hongkong Electric Holdings stock has not outperformed other listed stocks, contrary to what one would expect if HEC is making above normal profits.

This is discussed in section 4.6.

(c) Electricity infrastructure is a long-term investment and critics are incorrectly judging returns on snapshots of the economic cycle rather than over the longer term.

This is discussed in section 4.7.

(d) Comparisons with regulated rates of return in other countries are misleading because they do not account for the differences between Hong Kong and those other countries.

This is discussed in section 4.8.

4.5 Opportunity cost

There is a long line of U.S. cases which makes it clear that the permitted rate of return should be consistent with the returns available for similar investments or, put another way, the opportunity cost of investment.

- *"There is no particular rate of compensation which must in all cases and in all parts of the country be regarded as sufficient for capital invested in business enterprise. Such compensation must depend greatly upon circumstances and locality, among other things, the amount of risk in the business is a most important factor, as well as the locality where the business is conducted and the rate expected and usually realized there upon investments of a somewhat similar nature with regard to the risk attending them."* (Willcox v. Consolidated Gas Co., 212 U.S. 19, 48-49 (1909)) (Emphasis added)

- *"A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties . . ."* (Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679, 692-3 (1923)) (Emphasis added)

The other point to take from these cases is that the opportunity cost applied to Hong Kong should be judged relative to Hong Kong's environment.

Comparison of returns with other Hong Kong utilities

The Government recognizes, under the opportunity cost approach, *"the need to provide a return that can be earned from a similar investment (such as other utilities)"*.[57] While other utilities are good guides because they will usually have similar risk profiles, these are not the only investments available and any analysis should not be limited to just utilities.

CLP is obviously of limited value for comparison because it also operates under an SCA. However, Hong Kong and China Gas Co. Ltd. is one of the few, if not the only, Hong Kong utility available for comparison purposes. When compared to this company, HEC's returns are not too high.

Comparison of returns with other Hong Kong listed companies

HEC's returns under the SCA are not high when one takes into account actual market conditions over a 26-year period between 1979 and 2004:

- average yearly total return from Hang Seng Index Stocks is around 23%[58];
- best lending rate average is about 9.24%; and
- the inflation rate has averaged 5.8%.

[57] Consultation Paper, p 15.

[58] Yearly total return is calculated as percentage change in level plus dividend yield of the Hang Seng Index.

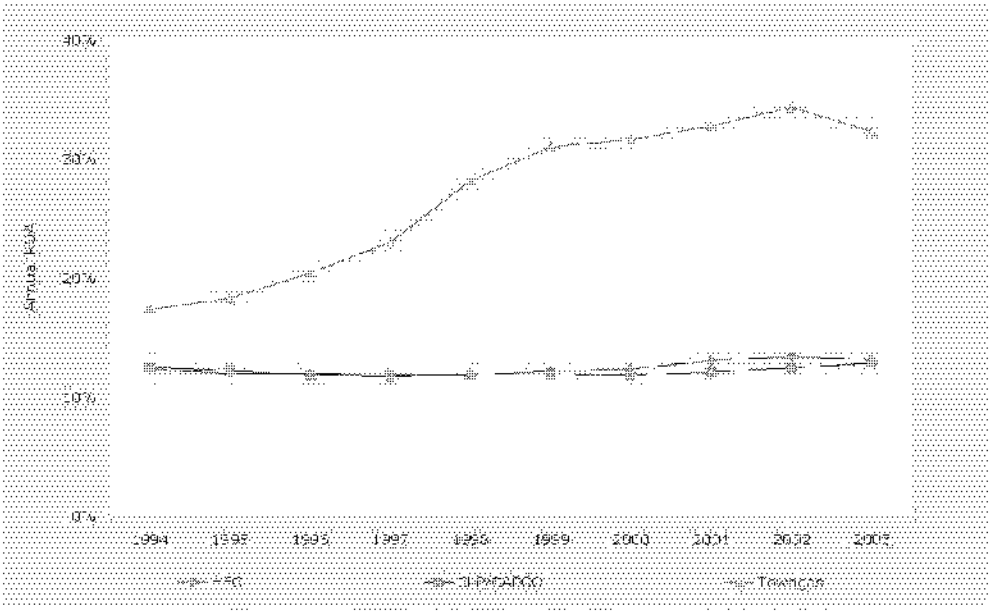


Figure 8: ROA comparison: HEC, CLP/CAPCO and Towngas [59]

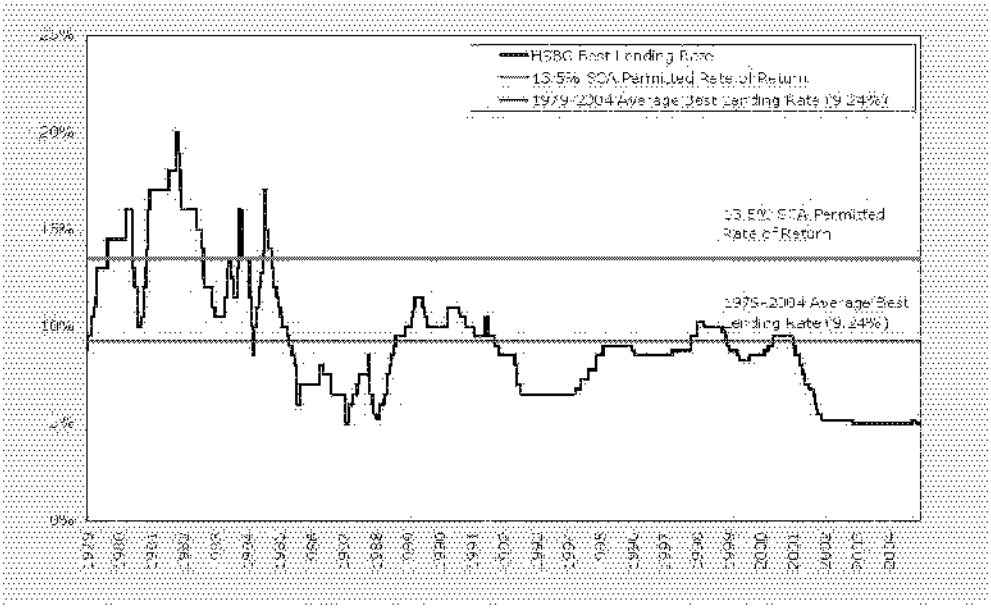


Figure 9: Comparison of Permitted Rate of Return under SCA to HSBC Best Lending Rate [60]

59. Calculations are based on data from annual reports of Hongkong Electric Holdings Ltd., CLP Holdings Ltd. and The Hong Kong and China Gas Company Ltd.

60. Hong Kong Monetary Authority, HKSAR

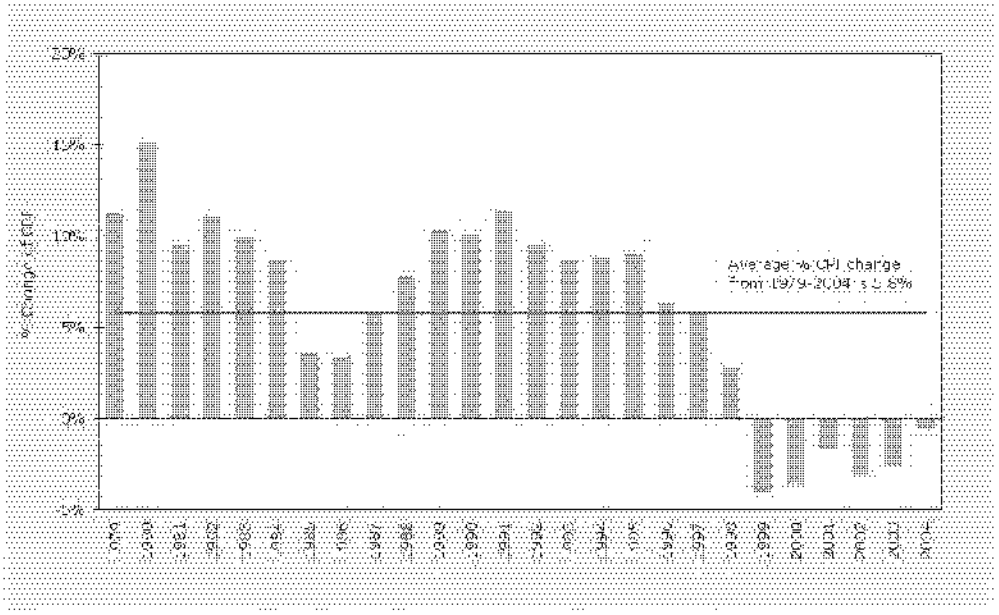


Figure 10: Percentage Change of CPI between 1979 and 2004 [61]

While it is true that HEC's risk profile may be different from that of other Hong Kong companies listed on the exchange, this is reflected in HEC's lower permitted rate of return. It is also not correct to suggest that HEC faces no risk:

- unlike utilities in other parts of the world, it has no exclusive franchise – in fact, the application of ROR regulation in the U.S. of previously unregulated privately owned utilities was linked to the provision of franchise rights;
- the SCA does not guarantee that HEC will earn the permitted return but in fact caps the permitted return;
- the excess capacity adjustment means that HEC will be penalized if additional generation capacity, which is planned based on forecast demand, cannot be justified by actual demand; and
- HEC's infrastructure investments are long-term, typically a minimum of 35 years, and HEC faces significant contract expiration risk as a result of having long-life sunk assets with no alternative uses.

4.6 Hongkong Electric Holdings' stock performance

If HEC is earning returns that are higher, given its risk level, than those that could be expected by other investment opportunities, then one would expect the stock of the Hongkong Electric Holdings Ltd., which has HEC as its important subsidiary and its main contributor in profit, to outperform the stock market and be considered favourably by investors.

[61] Census and Statistics Department, HKSAR

However, this is not the case, as evidenced by a comparison between Hongkong Electric Holdings' cumulative stock returns (including dividend reinvestment) and those of other stocks listed on the Hong Kong Stock Exchange over a 10-year period.

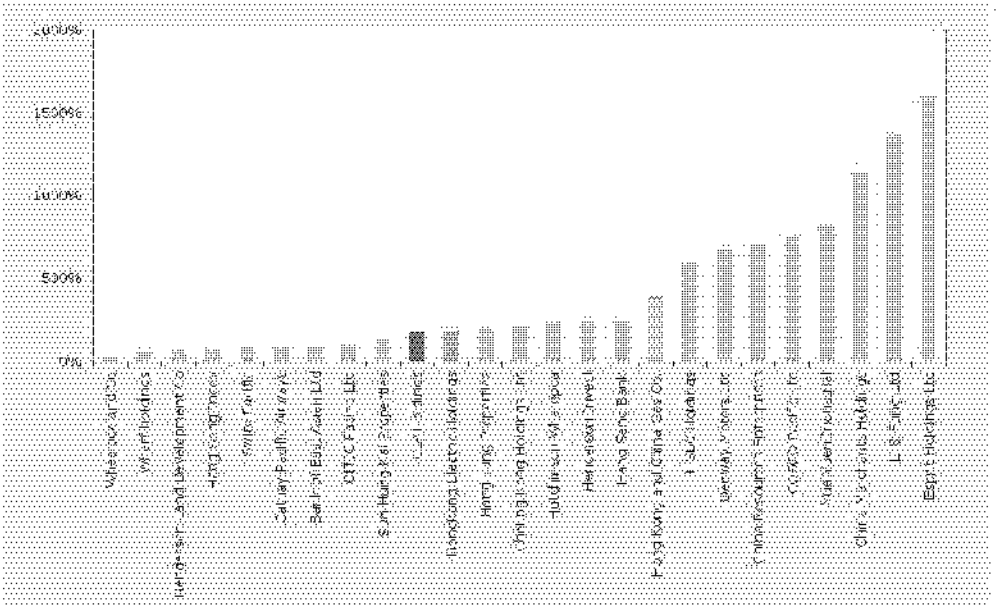


Figure 11: 10-year (1995-2004) cumulative stock returns, including dividend re-investment [62]

4.7 Electricity infrastructure is a long-term investment

HEC's investments in electricity infrastructure such as generation capacity and networks are long-term. Typically, the life of such assets is at least 35 years and the capital investment must be recovered over this period. Similarly, as HEC has no indigenous fuel sources, it seeks to enter into long-term, low-cost fuel supply arrangements.

Another feature of electricity infrastructure is that it is a sunk investment. It is not movable nor does it have any alternative uses. HEC's stranded asset risk is exacerbated by the fact that it has no opportunity to export power to other markets.

Unfortunately, people focus on a snapshot of returns at a particular time rather than over the full term of the investment. During that term, there may be times when returns may be considered higher than normal but this is balanced out by other periods where this is not the case.

[62] Bloomberg

A case in fact is that Hong Kong recently went through an unusual period of deflation that led to the perception that HEC's permitted rate of return was too high, i.e. HEC received a windfall. However, in addition to the deflationary period being unusual, this perception fails to take into account periods of high inflation that inevitably occur over the life of a long-term investment.

In considering any changes to the return on investment regime, the Government must take into account the fact that HEC's investments have been made on the assumption that it would receive a certain level of return over the life of the assets. Accordingly, any future regime must take into account the basis upon which these investments were made including, if necessary, distinguishing between the return on existing sunk assets and future investments.

4.8 Comparisons with international rates of return

The Government notes that direct comparisons of rates of return between countries are difficult for a number of reasons, including:

- differences in business ownership, which affect target rates of return and the equity/debt mixes;
- different market structures, which affect the utilities' make-ups and earnings of individual business units;
- business diversification; and
- different regulatory regimes under which the permitted return and actual return can differ.[63]

HEC agrees with the above reasoning. Despite these difficulties, the Government goes on to state in the Consultation Paper that typical permitted rates of return for vertically integrated investor-owned utilities in the U.S. are in the range of 6-13% and for regulated utilities in the U.K. and Australia are 6-7% and 6-9% respectively.[64]

HEC believes these comparisons with the SCA are misleading for a number of reasons in addition to those set out by the Government above.

Networks only

In the U.K. and Australia, the generation sector is not subject to regulated pricing. Therefore, the rates of return referred to only apply to the transmission and distribution sectors. The risk profile for an integrated utility that must source fuel, build and operate power stations and networks and retail the electricity is very different. Any comparison with the U.K. and Australian rates of return is simply not apt.

[63] Consultation Paper, pp 15-16.

[64] Consultation Paper, p 16.

Rates of return should not be viewed in isolation

In his seminal textbook "The Regulation of Public Utilities", Charles Phillips noted:

> *"In discussing allowed rates of return, however, it must be emphasized that any rate by itself is meaningless unless considered in connection with the commission's entire order; that is, with the type of rate base and test year employed, with the inclusion or exclusion of construction work in progress (CWIP), and so forth."*[65]

For example, the permitted return is a function of both the rate of return and the rate base. The same permitted return can be achieved by either a lower rate of return and a higher rate base or a higher rate of return and a lower rate base.

The most commonly used approaches to determining the rate base are "investment cost" and "fair value". In the SCA, the investment cost approach generally uses the "original cost" or the acquisition cost of the plant. The fair value or current value approach adjusts the rate base to reflect changes in the value of original investments. The adjustments can be based on trended original costs, reproduction cost, or replacement cost.

Generally, the fair value approach results in a higher rate base value than that under the investment cost approach. To compensate for the increase in rate base using the fair value approach, the allowed rates of return for fair value rate base are typically lower than those for rate base under investment cost approach.

This helps explain why HEC's rate of return is at the higher end. As noted by Charles Phillips:

> *"The relationship between the allowed rate of return and the type of rate base employed by the commissions has been analyzed in five studies. In each case, it was concluded that when the commissions adopt either reproduction cost or fair value rate bases, they partially offset the effect of the larger rate bases by granting lower percentage rates of return, but the combined effect of the larger rate base and the lower rate of return is to permit higher levels of earnings in reproduction cost and fair value jurisdictions."*[66]

In summary, HEC is of the view that the criticisms of its return under the SCA are misconceived. HEC's 13.5% return is a "nominal" return (i.e. without reference to inflation) and applies equally to generation, transmission and distribution assets. The general misconception is attributed to the 6-9% return in the U.K. and Australia quoted in the Consultation Paper.[67] First of all, these rates of return are "real" rates (i.e. apply to inflation adjusted asset base). Secondly, HEC's tariff, which results from the SCA formula of cost pass-through and HEC's return, is less than the tariff charged to, for example, London consumers as tabulated in the Consultation Paper.[68] The London tariff is arrived at by similar cost pass-through arrangements and a combination of a market driven return on generation assets,

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[65] Phillips C, "*The Regulation of Public Utilities*", Public Utilities Reports, Inc. (1993) p 383.

[66] Phillips C, "*The Regulation of Public Utilities*", Public Utilities Reports, Inc. (1993) pp 383-4.

[67] Consultation Paper, p 16.

[68] Consultation Paper, p 8.

and an "inflation adjusted return" on transmission and distribution assets. The fact that HEC's tariff is lower than the London tariff demonstrates that HEC's return is not out of step with rates of return in other jurisdictions. Indeed, when proper comparisons are made, taking into account the difference between "nominal" and "real" returns and the market return earned on generation assets, it is evident that HEC's return is reasonable.

Country specific risk

The U.S. authorities cited in section 4.5 make it clear that rates of return must be "*equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties*".[69] Therefore, any comparison with the U.S. has to consider the specific risks faced by Hong Kong investors versus U.S. investors in utilities when comparing rates of return.

Put simply, electricity infrastructure investment is more risky in Hong Kong than in the U.S.:

- Aside from the difference between a U.S. utility and a Hong Kong power company, the U.S. is generally viewed as a country with lower investment risk than Hong Kong. At present, Hong Kong's bond carries a country risk premium of 1.05%[70] when compared to the U.S. Increased economic integration of Hong Kong and China adds to Hong Kong's country risk premium because China's bond has a country risk premium of 1.35%.[71] Finally, Bloomberg indicates that Hong Kong's equity has a country risk premium of 2.5% when compared to the U.S.

- Unlike a U.S. utility, a Hong Kong power company does not have an exclusive franchise, an important point made explicit by the Government.

- Unlike a U.S. utility, a Hong Kong power company has fixed term contract and faces substantial contract expiration risk due to the stranded cost of long-living assets with little alternative use.

- Unlike many U.S. utilities, a Hong Kong power company operates largely as an isolated system, not interconnected to a large liquid wholesale market from which it can procure power and energy to meet its load obligation. Hence, it must be self-sufficient. The long lead-time of plant construction necessitates large capital commitment before demand realization. Demand forecast uncertainty can cause an ex ante prudent investment made to meet expected demand growth to become ex post imprudent because actual demand growth can turn out to be lower than expected. Ex post imprudence, if supported by the excess capacity test results, subjects HEC to penalties, uncommon in the U.S. for capital expenditure for implementing expansion plans already approved by a regulator.

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69 Willcox v Consolidated Gas Co. (1909) 212 U.S. 19, 48-49.

70 http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html (March 21, 2005).

71 http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html (March 21, 2005).

4.9 Criticism 3 - Is there an incentive to over-invest under the SCA?

A common criticism of ROR regulation is that it encourages over-investment. Even if it might be a valid criticism of ROR regulation generally, it is not a valid criticism of the SCA in particular, precisely because the SCA contains enough safeguards against over-investment by HEC.

Government scrutiny

For new generation facilities, HEC prepares a least-cost plan containing the optimum size and mix of new units, subject to the environmental requirements. For new transmission facilities, HEC also prepares a least-cost plan, subject to constraints due to the size and location of sites, choice of cable routes, etc.

Under the SCA, HEC and the Government's regulating bureau jointly conduct a financial review in which they agree to a 5-year Financial Plan. This plan includes both the generation and transmission expansion plans referred to above. It also includes details of the pattern of demand and electricity sales, revenue forecasts, capital expenditure, the amount of new funds to be raised as equity, the amount of retained earnings to be invested and how acquisition of new assets is to be financed. The final Financial Plan has to be approved by the Executive Council of the Government.

Upon approval, HEC can then invest in accordance with the plan. Implementation of investment proposals is via competitive, open and fair international tendering processes for equipment and civil contracts.

This 5-year plan may be subject to changes, as a new Financial Plan must be prepared if certain events occur within the existing 5-year period, including when major additions are made to HEC's generation, transmission and distribution system or major variations to the system would result in significant capital investments and increases to tariffs.

Hence, the Government has advance notice of new investment and the opportunity to verify the need for that investment. Ultimately, if the Government considers the investment imprudent, it can reject the inclusion of the investment in the Financial Plan. Finally, the Government annually audits HEC's capital expenditures to ensure that the Plan is executed properly.

This system includes checks and balances such as regulatory review, government approval, competitive procurement, and audits similar to investment reviews in other jurisdictions such as North America.

Excess capacity adjustment

The excess capacity adjustment in the SCA described at the beginning of this section is a stringent mechanism stipulated by the Government on the power companies for the construction of new generating units and is a strong disincentive against over-investment. Even though the Government might agree in principle that a new power station for, say, six generating units is to be built to meet future demand, the addition of each unit to this new power station must receive the Government's approval individually. The approval procedure is as follows:

- Before HEC can place an order to buy the equipment for building a new unit which takes, say, 3 years to complete, HEC has to justify the need for this unit in 3 years' time based on its load forecast.

- The Government will verify this need for capacity addition by checking HEC's load forecast, with the aid of Government internal economists and external consultants.

- Even if the Government agreed with HEC on the load forecast and gave official approval to HEC to build a particular unit, HEC is still subject to the penalty as described above if the demand for electricity does not warrant the need for the unit three years later when the unit is built. This is true even if the shortfall in demand is due to factors outside HEC's control, e.g. the SARS epidemic.

- This is a severe ex post penalty that can be imposed by the Government after the completion of the plant which has received prior approval from the Government for its construction. Again this sort of penalty is rare in other regimes in North America, the U.K. or Australia.

This adjustment mechanism was introduced in 1999. HEC has shown that it works to the consumers' benefit by deferring the commissioning of a new generating unit twice in response to the sluggish load growth caused by the slowing-down of Hong Kong's economy in the past few years.

4.10 Criticism 4 - Has there been over-investment?

There are many claims that HEC and CLP have over-invested in generation capacity. To test the validity of these claims, one needs to consider whether the reserve margins used in Hong Kong are reasonable and then consider the generation investment against those reserve margins.

Are Hong Kong's reserve margins reasonable?

HEC's primary generation planning criterion for generation is the equivalent of 2.5 hours per year of loss of load probability (LOLP).[72] It is reasonable by the North American industry standard, which has been confirmed by the independent U.S. consultants employed by the Government in reviewing HEC's Financial Plans in the past.

For a small system like that of HEC, this planning criterion translates to a reserve margin of about 25%, which is the safety margin of installed generation capacity exceeding peak demand to guard against any unforeseen breakdowns of generation plants.

[72] Hong Kong Government, "*Interconnection and Competition in the Hong Kong Electricity Supply Sector*" (1999).

Comparison of generation capacity against reserve margins

One of the claims is that instead of building new generation capacity at Lamma Island, HEC could have accessed the excess capacity of CLP through greater interconnection. Increased interconnection is discussed in section 6.

However, it must be remembered that increased interconnection would be a temporary solution. Even critics acknowledge that "*there is little doubt that with future growth in peak demand, reserve plant margins [of CLP] will decline towards 25%.*"[73]

The 25% threshold is in fact a minimum, not a cap. There will inevitably be times when the reserve margins will be significantly in excess of this threshold:

- The lead times to install new generation are long, implying that the investment decision is being taken well in advance of when the capacity is expected to be required. Projecting future demand is not an exact science. To the extent that there has been capacity in excess of the threshold, this can be attributed to demand growth which was lower than expected due to the 1997 Asian financial crisis and the well-documented move of the manufacturing industry from Hong Kong to Mainland China.

- The installation of new capacity will often involve a "step change". That is, capacity may well be in excess of the reserve margin threshold when a new plant is first commissioned. However, this will decline over time. One reason for this is that, from a long-term view, it may be more efficient to install new capacity of a larger size to take into account longer-term growth than to add capacity in small increments.

  One of the Australian Productivity Commission's criticisms of gas regulation in Australia is that it placed a greater emphasis on incremental expansion. It distorted investment by placing greater reliance than otherwise on expanding capacity incrementally to meet demand growth as it arises, rather than building a larger pipeline initially based on forecasts of realisable demand.[74] This is not an efficient outcome for society.

4.11 Possible options to address the criticisms of the SCA

To address the criticisms of the current SCA, the Consultation Paper considers various options for regulating the power companies' return on investment with respect to the following issues:

- determination of the rate base - the current return on assets (ROA) approach versus return on equity (ROE) approach (discussed in section 4.12);

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[73] Wilkinson, A and Hopkinson, L, "*Is HK's energy framework fair*", CLSA Emerging Markets and Civic Exchange (March 2003) p 29.

[74] Productivity Commission, "*Review of the Gas Access Regime*" Report no 31 (2004) Canberra, pp 107, 135-9.

- determination of the permitted rate of return – comparing returns obtained from investments in other utilities (benchmarking) versus cost of capital approach (also known as weight average cost of capital or WACC approach) (discussed in section 4.13); and

- treatment of the Development Fund (discussed in section 4.14).

Another issue related to the setting of regulatory review period is considered in section 9.4.

4.12 Rate Base - ROA versus ROE approach

The permitted return under the current SCA is calculated by applying the permitted rate of return on HEC's average net fixed assets (that is, return on assets or ROA approach). Another basic approach is to adopt the return on equity (ROE) approach. Under the ROE approach, the rate base would comprise the amount of shareholders' funds (i.e. equity) rather than the actual assets used to provide electricity-related services. The ROA approach is more widely accepted. It is adopted by regulators in the U.K., Australia, New Zealand and Ireland and is applied in regulation for, in addition to the power industry, various kinds of utilities including airports, gas transmission and distribution, rail, telecommunications and water.

HEC queries the benefits of the alternative ROE approach:

- There is no logical reason to exclude debt financed assets nor is there any need for HEC to inject further equity.

- It does not encourage an efficient capital structure as it would incentivize HEC to use more expensive equity capital to fund investment and does not address the perceived incentive to over-invest at all.

Why exclude debt-financed assets?

The ROA approach is logical because it compensates the utility for all the assets which are used in the provision of public services (irrespective of how they are financed). There is no logical reason to tie returns to the amount of equity which shareholders decide to invest.

Encourages an inefficient capital structure

Debt capital is generally cheaper than equity. However, total average financing costs decline with increased debt financing only up to a point, beyond which the costs start to rise. This is why very few companies are 100% externally debt financed.[75] As noted by the South Australian energy regulator in its review on return on assets:

[75] Morin, R.A. (1994) *Regulatory Finance: Utilities' Cost of Capital*, Arlington, Public Utilities Reports, Inc (Chapter 17).

"Although an increase in gearing will imply the use of more (cheap) debt finance, the risks borne by equity providers – and hence the returns required – also rises with the level of gearing." [76]

Changing to an ROE approach would in general incentivize a moving away from an optimal debt/equity mix by replacing debt financing with more expensive shareholder's funds. The Government itself acknowledges that this approach would lead to an under-utilisation of debt capital.[77]

Finally, moving to an ROE approach makes no difference to the perceived problem of over-investment. To the extent that the authorized return, whether ROA or ROE, is higher than the cost of capital, there can be a risk of over-investment. But this risk is mitigated via regulatory review and disallowance, as is currently done under the SCA.

4.13 Determination of the permitted rate of return - comparing returns from other investments (benchmarking) versus cost of capital approach (WACC)

The Consultation Paper defines the cost of capital approach as a systematic analysis of the costs of equity and the cost of debt of the relevant company. This WACC approach is used in the U.K. and Australia network businesses.

WACC is a calculation of a firm's cost of capital by weighting each category of capital in that proportion reflected in its capital structure or an optimal capital structure which (ignoring the effect of taxes) can be summarized as:

$$WACC = (R_e \times E/V) + (R_d \times D/V)$$

where R_e and R_d is the costs of equity and debt respectively and E, D and V are the values of equity, debt and total assets respectively.

The Consultation Paper suggests that this approach is more objective and transparent. However, in applying the WACC approach, there are a number of uncertainties. It is not simply a mechanical exercise which leads to a precise result:

"... any estimate of the cost of capital is subject to a degree of statistical uncertainty. The combination of its importance and the degree of statistical uncertainty have made the estimate of the cost of capital one of the more controversial matters faced by other regulators." [78]

For example, a particularly contentious issue is the cost of equity and how to determine it. There are a number of methodologies commonly used including the capital asset pricing model (CAPM), dividend growth model (DGM), price/earnings ratio and arbitrage pricing theory.

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[76] Essential Services Commission of South Australia, *"Electricity Distribution Price Review: Return on Assets Discussion Paper"* (August 2003) pp 37-8. Available at www. escosa.sa.gov.au.

[77] Consultation Paper, p 14.

[78] Essential Services Commission of South Australia, *"Electricity Distribution Price Review: Return on Assets Discussion Paper"* (August 2003) p 22. Available at www.escosa.sa.gov.au.

CAPM is widely used in the U.K. and Australia. Its basic steps are to:

- determine what is the market return on risk-free assets (usually government bonds) of appropriate tenor;
- determine what is the market risk premium, that is the extra return paid for owning the risky market portfolio (which represents the market as a whole) rather than the risk-free assets which have more predictable return; in this step, it is usually necessary to determine what an investor may expect to earn from the market portfolio;
- determine what is the risk level of the utility relative to the market as a whole, which is measured by the beta coefficient; and
- calculate the utility's cost of equity based on the results from the above steps using the formula prescribed by the model.

As can be seen from even this very simple explanation, many of the components such as the risk free rate of return and beta coefficient are subjective.

The WACC approach does provide a defined process for making this decision. However, it tends to focus the debate on subsidiary issues rather than the overall objective - "*ensuring investors receive a return that is sufficient to motivate the investment and attract the capital away from alternative investments.*" [79]

The benefit of a more defined process must be weighed against a number of other drawbacks.

Additional cost

The nature of the WACC components is such that it is inevitable that both the utilities and the regulators will require independent consultants to advise on the various issues. These costs are significant.

For example, the Australian Productivity Commission estimated that regulatory reviews by energy regulators in Australia cost in the order of A$27 million in 2002 alone. This does not include the greater costs expended by the utilities in preparing the submissions in the first place.

In a particularly contentious regulatory pricing decision on a major gas pipeline using the WACC approach, Epic Energy (the pipeline owner) noted that its costs from the process included the costs of preparing over 100 formal submissions to the regulator, AS2.5 million in hiring consultants, AS2.5 million in payments of the regulator's costs (excluding the A$800,000 that the regulator incurred in participating in a legal challenge of the draft decision). It could not quantify the time spent by management on regulatory matters, but noted "*the consequences of a lost development opportunity would be significant.*" [80]

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[79] Essential Services Commission of South Australia, "*Electricity Distribution Price Review: Return on Assets Discussion Paper*" (August 2003) p.21. Available at www.escosa.sa.gov.au.

[80] Productivity Commission, "*Review of the Gas Access Regime*" Report no 31 (2004) Canberra, pp 107, 145-6.

Protracted negotiations

The Government is correct in identifying that the WACC approach might entail a more protracted negotiation process.[81] This is consistent with international experience which also shows that the complexity of the WACC approach often gives rise to legal challenges by the utilities.

The following table is a summary of the most recent regulatory decisions in Australian gas pipeline pricing reviews prepared by the Australian Productivity Commission.[82] Note that this does not include the time required by the utility to prepare the initial regulatory submission or subsequent appeals.

For example:

- GasNet successfully appealed the regulator's decision on the Victorian transmission system to a review tribunal which meant a final resolution took some two years.
- Similarly, Epic Energy successfully appealed the regulator's decision on the Moomba to Adelaide system to the review tribunal which meant that a final resolution took almost 5 years.
- There is still no resolution on the regulatory pricing for the Moomba to Sydney system after more than five years. EAPL successfully appealed to a review tribunal in July 2004 but the regulator has appealed the Tribunal decision to the Federal Court.

Pipeline	State or Territory	Time for approval of initial access arrangement
Transmission pipelines/systems		
Victorian transmission system	VIC	1 year 1 month
Moomba-Adelaide	SA	3 years 3 months
Moomba-Sydney system	SA/NSW	4 years 7 months
Ballera-Mount Isa (Carpentaria Gas Pipeline)	QLD	1 year 10 months
Ballera-Wallumbilla	QLD	1 year 10 months
Wallumbilla (Roma)-Brisbane	QLD	1 year 10 months
Wallumbilla-Rockhampton (QLD Gas Pipeline)	QLD	1 year 3 months
Marsden-Dubbo (Central West Pipeline)	NSW	1 year 9 months
Amadeus Basin-Darwin	NT	3 years 9 months
Dampier-Bunbury	WA	4 years

[81] Consultation Paper, p 15.

[82] Productivity Commission, *"Review of the Gas Access Regime"* Report no 31 (2004) Canberra, p 150.

Pipeline	State or Territory	Time for approval of initial access arrangement
Tubridgi	WA	2 years
Parmelia Pipeline	WA	1 year 7 months
Goldfields Gas Pipeline	WA	4 years 6 months
Distribution Networks		
Multinet Gas, Westar Energy and Envestra systems	VIC	1 year 1 month
Envestra SA distribution	SA	4 years 2 months
Albury Gas Company	NSW	1 year 7 months
Wagga Wagga (Great Southern Energy)	NSW	1 year 6 months
AGL NSW distribution	NSW	10 months
Canberra	ACT	2 years
Queensland	QLD	1 year 2 months
Alinta Gas distribution	WA	1 year 1 month

Appropriateness of the WACC approach to Hong Kong

It is empirically difficult to implement WACC approach in the Hong Kong context. This discussion will focus on CAPM and DGM, the two most commonly used model to estimate cost of equity (COE) in the WACC formula.[83]

The problem with CAPM is that one must estimate the model's coefficients before one can compute the COE. Empirical estimation requires the data on a company's stock returns, the market stock returns, and a risk-free interest rate. This kind of data must necessarily be historic since no one can accurately project stock return data.

Suppose one estimates the COE of HEC with CAPM using historic data collected during the last 10 years in which the SCA was in effect (in real life one can only use the stock prices of Hongkong Electric Holdings (HEH) rather than HEC since HEC is not publicly listed and this will increase the inaccuracy of estimation). The historic returns of HEH stock reflect HEC's earnings, the bulk of which came from the steady SCA-related earnings. The beta estimate is likely to be smaller, reflecting HEH stock's lower risk relative to the stock market in general. But if HEC's future earnings become increasingly uncertain due to regulatory risk, its future stock returns would also become more volatile, leading to a larger beta estimate. Hence, the CAPM results based on historic data are biased, yielding an artificially low COE estimate. Thus, while CAPM is commonly used model, it is not empirically applicable to Hong Kong because it will always yield a COE

[83] Brealey, R.A. and S.C. Myers. 1996. *Principles of Corporate Finance*. New York: McGraw Hill Chapter 9

estimate that is too low and unreflective of the post-2008 uncertainties due to the changing regulatory regime.

Empirical versions of the dividend growth model make simplifying assumptions like constant dividend growth rate and fixed dividend pay-out ratio.[84] Both assumptions are dubious because if the post-2008 permitted rate of return is much lower than the current one, a power company is unlikely to maintain a constant dividend growth rate or a fixed pay-out ratio.

4.14 Treatment of the Development Fund

The Development Fund is extremely important as explained at the beginning of this section and should be retained. It is held for the ultimate benefit of consumers and helps to stabilize tariffs in that excess Development Funds are returned to customers through tariff reductions or rebates.

The criticism of the Development Fund is that utilities may be inclined to build up large balances.

First, HEC has not built up large balances in its Development Fund. As shown in Figure 12, HEC's Development Fund was not excessively high in the past years and has been at zero balance since 2003.

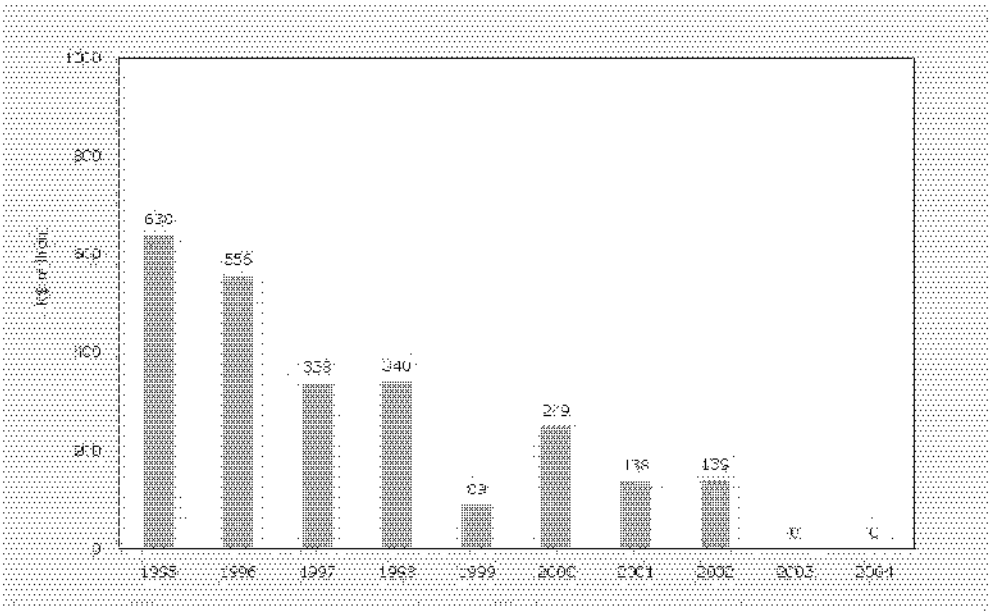


Figure 12: Development Fund Balance of HEC

[84] Brealey, R.A. and S.C. Myers. 1996. *Principles of Corporate Finance*. New York: McGraw Hill, Chapter 4.

Second, while it is true that CLP did have a large balance at one stage, it was agreed in the 2003 SCA Interim Review to cap the Development Fund at 12.5% of a company's annual local sales. Any amount over this cap will automatically be rebated to customers immediately in the next year in the form of a one-off rebate or tariff reduction.

Accordingly, this new mechanism and the existing establishment of the Rate Reduction Reserve, to which 8% of the Development Fund balance is to be paid from the permitted return, removes any incentive for or ability of the utilities to build up large balances.

5 Performance based regulation (PBR) and regulating tariff

- The main advantage of PBR is that it is seen to incentivize a utility to aggressively cut expenditure since it allows the utility to keep a share of the savings. However, international experience has shown that it may actually incentivize utilities to under-spend by cutting back necessary maintenance and upgrades. That is, the utility keeps the savings at the expense of supply reliability.

- Further, PBR is forward looking so if the regulator underestimates the expenditure required or simply "gets it wrong", the utility will not "overspend" its allowance, even if such expenditure is necessary.

- PBR is not a perfect form of regulation. It brings with it a host of other issues, including difficulties in determining the "X" productivity factor and initial price or revenue cap, distortions to spending patterns arising from gaming of the sharing mechanism and an incentive to increase electricity sales volume at the expense of the environment.

- The Government considers that the shorter regulatory periods introduce more flexibility. However, HEC questions this. In fact, the price or revenue cap, once set for the regulatory period, cannot be changed within the period.

- One of the oft-cited advantages of PBR is that it requires less regulatory oversight than ROR regulation. International experience shows this to be a questionable claim and, in any case, is certainly not true when compared to the existing SCA.

- The CPI – X mechanism is not appropriate for Hong Kong. The CPI factor cannot be relied upon as a good indicator to reflect the prevailing local economic situation. In addition, 90% of HEC's cost inputs are not related to the local inflation rate. A CPI-following tariff would make tariffs unreflective of costs and increase HEC's risks. In any case, HEC's tariffs have increased below inflation since 1985, the first full operating year of Lamma Power Station.

- Greater transparency can be achieved in the tariff setting process without resorting to PBR. HEC has already agreed to this in the 2005 SCA Interim Review and is willing to work with the Government further on this issue, subject to preserving HEC's legitimate interest in commercially sensitive information.

- The option of abolishing the Fuel Clause Account mechanism is not practical. Fuel costs are not in HEC's control. HEC would need a higher rate of return if asked to internalize this risk.

5.1 What are the possible modifications to the SCA?

In section 4, possible modifications to the permitted rate of return and rate base under the SCA were considered. This section considers other possible modifications to the SCA in the Consultation Paper being:

- performance based regulation and linking the tariff to economic indicators;
- the introduction of performance standards;
- increasing the transparency for the current tariff setting process; and
- abolishment of the Fuel Clause Account mechanism.

5.2 What is PBR?

Overview

The current SCA uses a form of rate of return (ROR) regulation which is common in the U.S. One criticism of the traditional ROR regulation is that it gives utilities little financial incentive to proactively reduce operating costs.

An alternative form of regulation is PBR (sometimes called incentive-based regulation) which is designed to address this issue. PBR is distinguished from ROR regulation in that it caps a utility's prices or revenue during the regulatory period. One of its main advantages over ROR regulation is that it is designed to give utilities an incentive to cut costs. It does this by placing the utility in a position of being a price taker such that it can only increase profits by reducing costs.

Generally, PBR is linked with a CPI - X mechanism which adjusts the price or revenue cap on an annual basis.

The CPI-X mechanism

The approach discussed in the Consultation Paper is the use of a price cap or revenue cap using a CPI - X (or RPI - X) mechanism to adjust the price or revenue cap during the defined regulatory period. The CPI - X methodology was developed as part of the U.K. privatisations in the early 1990s. It is commonly used in the U.K. and Australia for regulation of network businesses.

In essence, at the beginning of the regulatory period (typically 3 to 5 years), an initial price cap or revenue cap would be determined to enable the utility to recover its costs and an appropriate rate of return on its rate base. The price or revenue cap would then be adjusted annually in accordance with a formula as follows:

$$P_t = P_{t-1} \times (1 + CPI - X) + Z +/- S$$

where:

P_t is the price or revenue cap for the particular year t;

CPI is the annual percentage change in the consumer price index or some other form of inflation index;

- X is a productivity target being the level of efficiency which the utility is required to meet;
- Z is an ad hoc allowance under which the price or revenue cap can be adjusted to allow for pass-through of costs outside the utility's control (e.g. changes in taxes or government policies). Generally, a utility would have to obtain approval from the regulator before a cost would be allowed in the Z factor. If too many Z factor allowances are provided for then the regime starts to resemble ROR regulation; and
- S is a service or performance factor which is often incorporated into the PBR mechanism. The utility may be rewarded or penalized depending on whether it meets certain defined service or performance standards.

Assuming the X factor is set at a positive number, the prices or revenues will increase by less than inflation during the regulatory period. The X factor forces the utility to be more efficient and customers share in the efficiency gains or automatically get the benefit of the efficiency gain which the regulator believes the utility should have been able to achieve. If the utility can reduce costs beyond the required level of efficiency, then it keeps the gain until at least the end of the regulatory period.

Where a price cap is used, the utility can earn additional revenue by increasing sales volumes as the cap applies to each sale unit rather than total sales.

5.3 Does PBR have benefits as compared to the SCA?

In the context of the SCA, the Government identifies the following benefits of PBR and the CPI - X mechanism:

- it could provide greater incentive for utilities to cut costs and operate efficiently;
- it could bring tariffs more in line with the economic situation;
- the shorter regulatory review period would provide greater flexibility in introducing changes.

Incentive to cut costs

There is no doubt that utilities have much greater incentives to aggressively cut costs under this form of regulation. The utility is set an allowance and is able to determine exactly how - or whether - it will spend the money, in response to the incentive that it can keep any allowance not used at least during the regulatory period.

However, this stated advantage can also be a major disadvantage. The incentive to cut cost may be so great and the allowances so strict that it actually leads to under-investment. In the former case, there have been suggestions that utilities may deliberately under-spend (e.g. by cutting maintenance and investment) and keep the proceeds as profit. In the latter case, if allowances are not high enough, utilities are penalized for "overspending" in capital; even though such expenditure may be prudent, even necessary, to maintain the system.

The following examples from the U.K. and Australia relate to distribution systems regulated under CPI-X price cap mechanism.

In its March 2004 policy document relating to electricity distribution price controls, the U.K. regulator, Ofgem noted:

> *"... most companies have spent less than allowed. In aggregate the price control "allowed" for around £5.5 billion of net investment over the period 2000 - 2005 and projected expenditure by the companies is around £5.3 billion - i.e. companies are forecasting to under-spend the allowances made by Ofgem. The under-spend to date, for the 3 years ending March 2003, is around £300m. Arguably therefore if higher investment is needed in the future (as the companies are indicating), this will not be achieved solely by Ofgem giving companies even higher allowances or revenues. It is a valid question whether the rewards that companies receive for reducing their investment costs are too great."* [85]

Ofgem has recognized that in the future capital overspends will become more likely and has therefore developed a test to allow prudent capital overspends to be included in the rate base.

After widespread blackouts in Queensland in 2004, the Queensland Government ordered an independent panel to conduct an inquiry into the status of Queensland distribution systems. This panel found that reliability of supply had deteriorated over the 2001-04 period, primarily due to inadequate investment.

> *"The Panel believes that the current regulatory regime has resulted in [one of the Queensland distributors] ... deferring necessary "additional" capital expenditure because it is not sufficiently financially rewarding..."* [86]

> *It is accepted that achieving operating and maintenance expenditure efficiency improvements is one of the prime objectives of this form of regulatory control. However, the Panel believes that there is a big difference between under-spending due to efficiency improvements and under-spending due to not carrying out necessary maintenance activities."* [87]

In both cases, further changes to the price controls were recommended to deal with these issues. As discussed previously, the costs of under-investment and failed electricity systems are much greater than a small amount of over-

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[85] Ofgem, "*Electricity Distribution Price Control Review, Policy Document*" (March 2004) p 2-3. Available at www.ofgem.gov.uk.

[86] "*Electricity Distribution and Service Delivery for the 21st Century*", p 51. Available at www.energy.qld.gov.au.

[87] "*Electricity Distribution and Service Delivery for the 21st Century*", p 54. Available at www.energy.qld.gov.au.

investment. PBR therefore needs to be implemented carefully to get the incentives right.

Bring tariffs in line with economic conditions

Hong Kong has a very open and volatile economy which is subject to a host of external factors (e.g. international oil prices). A year with high inflation may not necessarily mean a vibrant economy. As such, the CPI factor cannot be relied upon as a good indicator of the prevailing local economic situation. When the inflation is high but the economy is poor (e.g. in years 1982 and 1989), the increase in tariff due to the linkage with CPI will further aggravate the deteriorating living standard for consumers. If the goal is to contain tariffs by CPI for the benefit of customers, then it is certainly unachievable.

In addition, as most of the factors of electricity production in Hong Kong are imported, the costs of these inputs have no link to Hong Kong's consumer price movements. HEC has determined that about 90% of its operating costs (e.g. fuel, tax, depreciation) are not related to the local inflation rate. Linking HEC's tariffs to CPI will make them lack cost reflectivity.

It may be possible to construct some other form of index which more accurately measures changes to HEC's input costs. However, it will lack the credibility and timeliness of generally accepted and available inflation indexes. It would also add to the complexity and cost of the regime if the parties have to agree and then calculate an industry specific inflation index on an on-going basis.

HEC would also like to point out that increases in tariffs have in fact been less than CPI increases since 1983, the first full operating year of Lamma Power Station, as shown in the Figure 13.

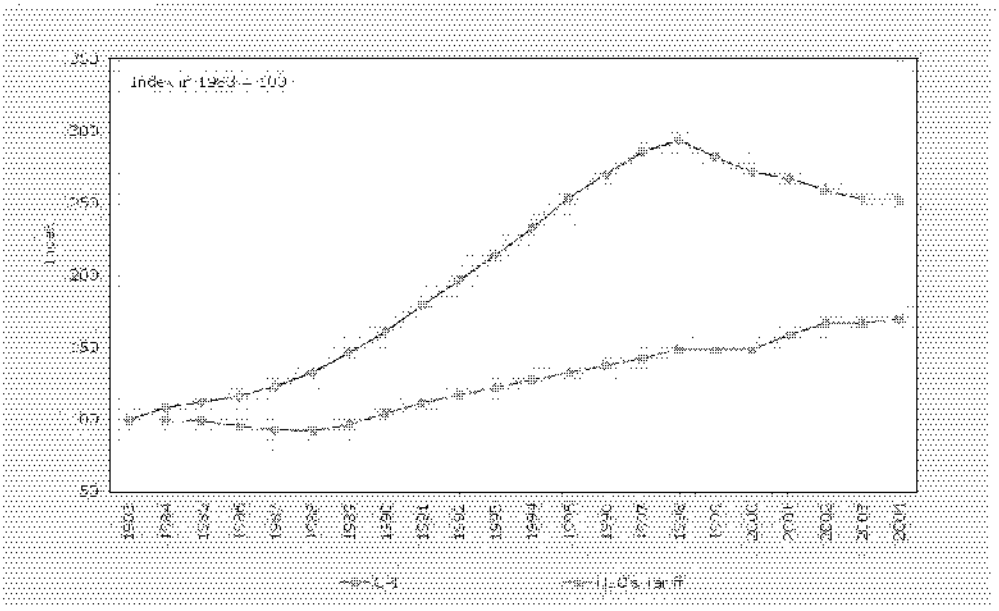


Figure 13: Comparison of HEC's tariff to the Consumer Price Index (1983-2004) [88]

[88] Census & Statistics Department, HKSAR Government and Hongkong Electric Holdings Ltd. Annual Reports.

More flexibility by using a shorter regulatory period?

As recognized by the Government such flexibility is at the cost of investment certainty and the risk of discouraging investment.[89] This is an issue explored in section 9.

Further, flexibility has little to do with indexing. If anything, fixed revenue or price controls which are set for the regulatory period and linked to indexes preclude flexibility. As noted by the South African National Electricity Regulator:

> *"Because the [PBR] methodology is a forward looking method, it is full of uncertainties and an error at the beginning of the [PBR] period may be very detrimental for the industry as it is very difficult to make adjustments to the [PBR] components during the [PBR] period. In an environment of dynamic change and restructuring, it would be difficult for the Regulator to change some components during the set period."* [90]

5.4 What are the disadvantages of PBR?

The Government identifies the following shortcomings:

- it would require other measures to ensure that the objective of maintaining safe and reliable supply is not compromised - this relates to the under-investment problem discussed above;
- it could give rise to increased business risk and discourage investment; and
- it would require more administrative scrutiny and bring about higher costs (discussed further below).

There are also other disadvantages which have been noticed from international experience.

X factor issues

The value of the X factor is difficult to calculate and can be contentious. There is no guidance or formula of determining it.

Simply setting the X factor based on past performance raises issues. *"If the regulator uses the past performance of the firm, such as profitability, as a guide to setting the X factor then management incentives will be undermined and the price cap will take on the characteristics of rate of return regulation. This effect will be more pronounced if reviews of the X factor are undertaken at short intervals."* [91]

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89 Consultation Paper, p 20.

90 National Electricity Regulator, *"Regulatory Framework for the Economic Regulation of the Electricity Supply Industry (ESI) of South Africa (A Discussion Document)"* (29 July 2002) p 8.

91 *"Price Regulation of Utilities"*, Treasury Economic Roundup (Feb 1999) p 64. Available at www.treasury.gov.au.

Further, at some stage productivity gains may be exhausted and costs of doing business increase beyond inflation such that the X factor is set at a negative number. Tariffs will then increase at a rate higher than inflation.

Setting price or revenue caps

Similarly, setting the initial price cap or revenue cap can be difficult. *"Some descriptions of incentive regulation give the impression that it consists entirely of a price cap formula, set without any need to consider a company's actual costs. In practice, it is only possible to define a successful price cap formula once the regulated companies' costs are well defined."* [92]

In Australia, a "building block" approach is used to determine the revenue required so as to set the price or revenue cap. This involves detailed scrutiny of individual cost areas of the utility and benchmarking. In fact, it starts to approximate ROR regulation.

Getting it wrong

Unlike the SCA, the regulatory periods for PBR must be shorter because it involves anticipating the revenue or prices required by the utility for the future period. No regulator can operate with perfect foresight. Windfall losses or gains may occur because of unanticipated economic conditions, weather, fluctuating demand or other such factors.

In the 2004 panel inquiry into Queensland's distribution system failures referred to above, one of the reasons for the failures was high population growth leading to much greater than expected demand. Instead of spending its allowances for capital expenditure on system maintenance and upgrades, the distributor used the allowance to fund more connections to the system. The additional load on the system exacerbated the lack of investment.

Similarly, in the U.K. it was considered that the price caps set at the time of privatisation were too generous. This led to much political and consumer dissatisfaction with the CPI - X mechanism and concerns over issues of fairness and equity. The regulator in March 1995 then set much more severe price caps in the second regulatory cycle which led investors to have concerns that the new regulatory regime lacked commitment.[93]

As noted above, it is difficult to make changes in the middle of the regulatory period. *"Revising price caps before the end of the regulatory period - or even after the regulatory period has finished - to take away unexpected profits undermines these incentives [to reduce costs] and may even offer worse incentives for efficiency than a traditional regime of cost pass-through."* [94]

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[92] Kraus, M, *"Germany's Push for an Incentive Regulation in the Energy Market"*, NERA Energy Regulation Insights (March 2005) p 4. Available at www.nera.com.

[93] For a discussion on the U.K. experience, see the Electricity Industry Association's *"Electricity Restructuring and Privatization in the United Kingdom."* Available at www.eia.doe.gov.

[94] Kraus, M, *"Germany's Push for an Incentive Regulation in the Energy Market"*, NERA Energy Regulation Insights (March 2005) p 4. Available at www.nera.com.

Distortions on timing and investment

One of the side effects of PBR and the CPI - X mechanism is that it makes utilities focus on achieving cost savings at the start of the regulatory period rather than at the end. These savings are generally only retained by the utility until the end of the regulatory period; thereafter, they are transferred to the customers in the form of price cuts. So the earlier the savings, the more the company benefits. Conversely, savings which could be made at the end of the period may be concealed and deferred to the next period.

Regulators have developed mechanisms to remove these distortions involving "glide path" or "carry over" mechanisms where the benefits to the utility of cost savings made during the regulatory period can carry over into the next regulatory period. However, these mechanisms add a further layer of complexity to the regulatory regime.

A similar issue arises on capital investment. It is not always clear whether utilities will keep the full benefits of unexpected reductions in capital expenditure. Often only actual capital expenditure goes into the rate base rather than planned capital expenditure. Further, it is better to make capital investments at the end of the regulatory period when they can enter into the rate base at the beginning of the next period and start earning a return immediately.

This raises a related issue - *"[t]he fact that companies often reap more benefit from improvements in operating costs than from greater efficiency in capital spending means that there is no incentive to make efficient trade-offs between the two. This causes particular problems in capital-intensive industries with long-lived assets, where the optimal approach is often to raise spending on maintenance to delay the need for renewal."* [95]

Price cap gives no incentive for demand side management

Price cap incentivizes the utility to increase electricity sales as it allows the utility to earn more profits. Thus, it does not encourage demand side management unless special incentives are included - but this adds to the complexity of the regime.

More regulatory scrutiny and expense

One of the benefits usually cited for PBR is that it is more "light-handed" when compared to the more "intrusive" ROR regulation. This is because prices or revenues are set for the fixed regulatory period and, in theory, regulators do not need to scrutinize expenditure or investment decisions to determine whether they are prudent.

It is doubtful whether this is entirely true even when compared to the traditional ROR regulation. Management and regulators have to devote a significant amount of time to the regulatory resets, not to mention annual tariff changes and mid-period reviews or requests for pass-throughs. As admitted by one U.K. regulatory manager:

[95] Dobbs, R and Elson, M, *"Regulating Utilities: Have we got the formula right?"*, The McKinsey Quarterly (1999) Number 1. Available at www.mckinseyquarterly.com.

> *"For three years out of five, the management team is distracted by the upcoming periodic review and the implications of their actions on the outcome."* [96]

International experience indicates the claim that PBR requires less regulatory scrutiny is questionable and, in any case, is certainly not true when compared to the existing SCA.

5.5 Do the benefits outweigh the costs and risks?

HEC acknowledges that PBR gives greater incentives to cut costs than the traditional ROR regulation. However, it is complex and introduces its own set of problems and distorting incentives which are still being grappled within jurisdictions which have had this form of regulation for some time. Of particular concern is that in its goal to achieve cost reductions, it may do so at the cost of service quality and reliability.

It is also not necessarily correct to assert that PBR can provide better incentives for economic efficiency than all forms of ROR regulation. The practical distinction between ROR regulation and PBR is blurred and, as discussed above, PBR with many Z factors can resemble ROR regulation. Further, ROR regulation can and does have strong incentives for cost cutting and investment efficiency due to prudence review and disallowance, as under the SCA's current provisions for financial review, auditing review and excess capacity adjustment.

The Consultation Paper specifically refers to PBR with a CPI - X mechanism in the U.K. and Australian context. However, it is only used in those countries for regulation of network businesses, not integrated utilities. In the 1990s in the U.S., which has over 100 regulated investor-owned utilities, only three small integrated electric utilities (Central Maine Power, Rochester Gas & Electric and Narragansett) were subject to a CPI-indexed cap.[97] This form of regulation is not the norm for regulating network companies in OECD countries. Only 10 of the 30 OECD countries presently use CPI-indexed caps.[98]

Thus, it is important that PBR should not be seen as an inherently better model than the SCA. This is particularly so when one of its key features, the CPI - X mechanism, is not automatically applicable to HEC given its input costs do not track generally accepted measures of inflation.

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[96] Quoted in Dobbs, R and Elson, M, *"Regulating Utilities: Have we got the formula right?"*, The McKinsey Quarterly (1999) Number 1. Available at www.mckinseyquarterly.com.

[97] Schmidt, M. R. (2000) *Performance-Based Ratemaking: Theory and Practice*. Arlington, Public Utilities Reports Inc. Biewald, B., T. Woolf, P. Chernick, S. Geller, and J. Oppenheim (1997) *Performance-Based Regulation in a Restructured Electric Industry*, Columbus, National Association of Regulatory Utility Commissioners.

[98] Al-Sunaidy, A. and Green, R, (2005) *"Electricity deregulation in OECD countries," Energy (forthcoming from EEEI)*, Table 2.

5.6 Performance standards (return based on performance)

The Consultation Paper suggests that incentives could be introduced to encourage improvements in operating efficiency and service performance (e.g. to meet or exceed performance standards and targets).[99]

The Government correctly points out that this approach will entail additional resources and costs in determining performance targets, and monitoring and assessing actual performance against the targets.[100]

As noted above, such service standards are often included in PBR as an "S" factor such that utilities are rewarded or penalized if they over- or under-perform against the standards. Performance standards are critical to PBR to ensure that utilities do not reduce expenditure by lowering performance. If PBR is not introduced, then HEC questions whether such standards are really necessary given the cost.

HEC has already demonstrated a commitment to service and performance quality. In addition to its high levels of supply reliability, its standard of services also compares favourably to other international utilities. For example, HEC's performance has been able to meet or surpass the stringent customer service standards set for various areas of customer services. To name a few, HEC accomplished the following in 2004:

- Meter installation after satisfactory inspection – immediate.
- Reconnection of supply after payment of outstanding charges – same day as payment is received.
- Average waiting time for telephone enquiry services by Customer Services Representatives and calls to Customers Emergency Services Centre – less than 9 seconds.
- Average arrival time to scene in urban areas in response to emergency calls – less than 28 minutes.
- Average time for supply restoration after interruption of supply – within 2 hours.

5.7 Increasing transparency of the existing tariff setting process

Under the existing tariff setting process, the tariff rate is set as part of the 5 yearly Financial Plan agreed with the Government to enable HEC to recover its permitted return and operating costs.

[99] Consultation Paper, p 17.
[100] Consultation Paper, p 17.

There is then a review with the Government's regulating bureau at the end of each year to consider the tariffs for the following year. If, for the next year, HEC requests an increase in its tariff which deviates significantly from that agreed in the 5 yearly Financial Plan, then approval from the Executive Council of the Government is required. If the deviation is too large, a new Financial Plan may need to be submitted to the Government and obtained final approval from the Executive Council. Accordingly, the Government has direct and continuing oversight over tariff changes.

However, one of the criticisms of the SCA is that the tariff setting process lacks transparency. The Consultation Paper suggests that an alternative to introducing the CPI – X mechanism might be to retain the existing tariff setting process but make more information publicly available.

In fact, this issue has already been addressed in the 2003 SCA Interim Review. HEC agreed to segregate and present cost data pertaining to generation and networks to the Government. It is true that HEC gives the Government commercially sensitive information as part of this process which is not made public. Hongkong Electric Holdings, the parent of HEC, is a listed company and the inappropriate disclosure of confidential information would lead to stock speculation.

HEC is not aware of any tariff-setting regime which does not allow a utility to specify at least some information as confidential. To do otherwise inhibits full disclosure between the regulator and the utility.

The Government notes that the disadvantages of this proposal are that the public may still not be satisfied by increased disclosure and such disclosure will increase the time required to complete the process. HEC agrees with these comments.

Nevertheless, HEC is willing to discuss further with the Government what additional information could be provided to assist public understanding of the process.

5.8 Fuel cost adjustments

Under the SCA, HEC maintains a Fuel Clause Account (FCA). This account records difference between the standard cost of fuel as agreed between HEC and the Government and the actual cost of fuel. The difference is passed on to consumers through rebates or surcharges.

Since all types of fuel (coal, gas and oil) for electricity generation used in Hong Kong are sourced from the global market, the power companies have virtually no control on their prices. It must be understood that the purpose of setting up the FCA is to merely formalize the fuel cost recovery process and increase its transparency. Even if PBR were introduced, it would be necessary for fuel costs to be a "Z" factor as it is a cost outside HEC's control.

The projected FCA rebates/surcharges have always been vetted and audited by the Government during the annual tariff review, the annual auditing review and the financial plan approval process.

The disadvantage of the FCA stated in the Consultation Paper that power companies might not have the incentive to ensure efficient fuel procurement is not correct. Despite the direct pass-through, fuel procurement efficiency is beneficial not only to the consumers but also to the power companies as they are under constant public pressure to minimize net tariffs paid by consumers. It is therefore to their advantage to keep the fuel cost as low as possible.

The FCA mechanism must be retained after 2008 to protect the power companies from risk exposure in fuel price fluctuation. Removal of the FCA will only lead power companies to ask for a higher required return as they will need to internalize fuel cost volatility.

6 Increased interconnection

- HEC agrees with the Government that interconnection capabilities to "full access" is not economically viable as major capital investment would be required to build the new interconnection and to reinforce the existing networks.
- HEC's analysis shows that the costs of the new interconnection are higher than the benefits of deferring new generation.
- The characteristics of the Hong Kong market mean that the benefits from increased interconnection are minimal.
- The lack of diversity between the HEC and CLP systems reduces the benefits of reserve sharing provided by increased interconnection.
- Optimizing system resources by joint planning between the two power companies or by a central agency is neither practical nor cost effective due to the complex legal and commercial issues involved.
- Utilizing interconnection for regular power transfer brings with it greater risks in relation to supply reliability. Recent blackouts in the U.S., Europe and Australia have shown that single failure in one system can lead to cascading failures over the whole interconnected systems.

6.1 Existing arrangements

The transmission grids of HEC and CLP have been interconnected since 1981. Interconnection exists via submarine cables between Hong Kong Island and Kowloon. It is primarily used for emergency backup, sharing of reserve capacity and sharing of spinning reserve. The economic benefits have been significant and fully captured.

HEC currently develops its generation capacity plans independently. However, possible support from CLP via the existing interconnection has been taken into account in the planning to reduce the level of reserve capacity. As for generation of electricity, HEC currently dispatches its generation plants independently.

6.2 Issues and 'possible' options

One of the criticisms of the existing level of interconnection is that it is seen as a barrier to customer choice between the two power companies and to competition from external sources of supply. A technically feasible option as recommended by the Government's consultancy study in 2003 was to install a new interconnection consisting of two 400kV circuits, each of 700MW in capacity.

There are three operational considerations identified in the Consultation Paper in relation to increased interconnection:

- increasing interconnection capability to a "full access" level so that customers would have the choice of obtaining supply from either of the two existing power companies;
- utilizing the increased interconnection to enhance overall efficiency of the HEC and CLP systems;
- optimising system resources by increasing co-ordination between the two power companies or having central planning either jointly by the two power companies or by a central agency in developing the overall system plans.

6.3 Full access capability

Although increasing interconnection capability to "full access" may be technically possible it is clearly not economically viable.

As pointed out in the Consultation Paper:

- to allow customer choice, the interconnection as well as the networks of the two power systems would have to be enhanced;
- the power companies would need to develop substantial additional generation capacity to cater for supplying customers in both service areas;

- these significant upfront costs would be borne by all consumers while the perceived benefits would be uncertain and long in coming.[101]

Given these considerations, HEC agrees with the Government that "full access" interconnection is not currently a viable option for Hong Kong.

6.4 Enhancing system efficiency

Increased interconnection is seen as a means of:

- bringing about investment savings arising from deferring the need for new generation capacity and a reduction in running costs of generation put on-line to meet the spinning reserve requirement; and

- allowing one power company to increase power purchase from its interconnected counterpart to supply its customers if such a purchase is deemed to be more cost effective than its own generation. This is primarily a fuel cost saving, which is the largest proportion of variable costs.

However, HEC is of the view that there are a number of issues with increased interconnection:

- The costs of increased interconnection are higher than the benefits of deferring new generation.

- The characteristics of the Hong Kong market mean that these benefits from interconnection are minimal.

Costs

Major capital investment would be required to build the new interconnection and reinforce the two networks, but this could only reduce the overall reserve capacity of HEC and CLP marginally by deferring the need of new generation by about 2 years.

HEC has analysed this situation and found that the costs of interconnection are higher than the benefits of deferring new generation.

Reserve capacity

Interconnection can defer installation of new generation in two ways:

- the ability to transport electricity from a system with surplus generation to a system with a shortfall in generation. As this is equivalent to entering into a contract for supply from one system to another, this is termed a "contract capacity benefit"; and

[101] Consultation Paper p.22.

- the ability of a bi-directional interconnection to provide reserve sharing between the interconnected regions. That is, each system can maintain less reserve because it can rely on the other. This is termed a "reserve sharing benefit".

The contract capacity benefit in this case is low, since, as discussed in section 6.6, utilizing the interconnectors for contract capacity brings with it greater risks to supply reliability. To meet the supply reliability objective, HEC should develop its system plan with self-sufficient generation and should not rely on contract capacity from the interconnection.

The value of the reserve sharing benefit increases with the diversity between the interconnected systems. The likelihood of the reserves being available increases if each system has different patterns of electricity consumption, different timings of peak demand, different weather patterns, different fuels, different supply/demand situations, etc. For example, if the electricity demand in one area is at peak while that in another area of a possibly different time zone or different economic models is still in off-peak period and the power systems of the two areas are interconnected, then one system can support another system.

However, because of the geographic proximity, similar economic activity patterns and similar load profiles of the HEC and CLP systems, the peaks and troughs of the two systems generally occur at the same time. This lack of diversity means that the full benefits of increased interconnection cannot be realized.

Economic dispatch/fuel cost savings

The full benefits of increased interconnection may also be impeded by the existing long-term take-or-pay commitments which both HEC and CLP have in place.

For example, the Daya Bay nuclear plant has a must-run operational constraint and CLP has a significant electricity purchase obligation until 2014. Similarly, CLP's Black Point plant also has a must-run status under the take-or-pay gas contract which lasts until 2015. Likewise this applies to HEC's LNG supply contract for Lamma Extension.

These long-term take-or-pay contracts mean that the most economic dispatch may not be achievable.

6.5 Optimising system resources

At present, the two power companies separately prepare their own demand forecasts and power system development plans.

As identified in the Consultation Paper, increased coordination in planning would entail additional resources for the two power companies or the central agency (should that be established), and more administrative interfaces between the two power companies.[102] As shown in Appendix 2, the costs of setting up and maintaining independent system operators can be substantial. There are also complex legal and commercial issues relating to joint planning. As pointed out by the Government's consultants, this should require some form of regulation applied in the form of a Hong Kong "grid code" which the two power companies will have to observe.[103]

Greater interconnection also means that intra-network augmentation can have significant impact on the other network. This is attributed to the fact that the planned directions and quantities of power flow in the original networks of lesser interconnection will be distorted by the introduction of import or export of electricity between the networks after implementing greater interconnection. In fact, this distorted power flow is one of the biggest problems faced by many interconnected systems because it will recreate bottlenecks on the networks. Therefore, coordination of transmission network planning and augmentation needs to be introduced, including mechanisms for resolving disagreements between the power companies.

As both power companies are separately owned and publicly listed companies, joint planning may not be optimal in terms of optimising individual resources and maximising respective shareholder benefits. HEC is of the view that the costs of implementing such a regime outweigh any benefits that may be achieved.

6.6 Implementation issues

There are a number of complex and interrelated issues which also need to be considered in the context of any proposal to increase interconnection between the two power companies.

Funding

The Consultation Paper considers the possibility of the increased interconnection being funded and operated either jointly by the two power companies or by a third party.

Because of the supply-demand position and the similar load characteristics of both power companies, HEC is of the view that there are currently no economic drivers for building the new interconnector. Given that the costs of the new interconnector will ultimately be borne by all consumers in Hong Kong, HEC is of the view that it is inappropriate for the new interconnector, if required, to be built by either one of the incumbents or a third party.

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[102] Consultation Paper p 24.

[103] Mot Connell Limited, *"Investigation Study of Increasing Power Interconnection in Hong Kong"* (June 2003) p v.

Funding and operation of new interconnector undertaken by third parties is fraught with difficulties. Australia is one of the few jurisdictions to have allowed merchant-owned interconnectors to be developed. These interconnectors are operated on the basis of obtaining profits by arbitraging the price differentials in the interconnected regions. This has been a failure. The two interconnections, namely between South Australia and Victoria and between Queensland and New South Wales which have been built in Australia have now both applied for regulated status. While the Government is not proposing this model, there are nevertheless lessons to be learnt from the Australian experience. In particular:

- the system operator and incumbent network owners spent considerable time and resources on the technical issues and integration of these interconnectors into the market;
- there were a large number of access issues relating to the operation of the interconnectors and arguments over who should pay for it; and
- the third party who constructed the relevant interconnectors engaged in litigation to prevent the construction of network augmentation which it saw as competing with the operation of the interconnectors.

Reliability

Interconnection, if built for regular power transfers (i.e. the "contract capacity" mentioned above), brings with it increased risks to supply reliability. Experience from overseas electricity markets has illustrated that operational and system disturbances can arise with highly interconnected systems.

In particular, the blackouts in Europe and U.S. in 2003 indicate the cascading effect when a single piece of equipment in an interconnected network breaks down.

As described in the report by the U.S. - Canada Power System Task Force investigating the 14 August 2003 blackout in North Eastern America in which 50 million people lost power after 265 power plants were tripped in a cascading manner:

> *"A cascade is a dynamic phenomenon that cannot be stopped by human intervention once started. It occurs when there is a sequential tripping of numerous transmission lines and generators in a widening geographic area. A cascade can be triggered by just a few initiating events, as was seen on August 14."* [104]

One of the contributing factors in that case was the failure of FirstEnergy in Ohio to trim trees causing lines to fault.

[104] U.S. - Canada Power System Task Force, *"Final Report on the August 14th Blackout in the United States and Canada"* (April 2004). Available at https://reports.energy.gov/BlackoutFinal-Web.pdf.

The direct cause of the 2003 blackout in Italy was the fall of power lines in Switzerland due to storm but when a second line tripped seconds later it caused all the lines between Italy and the rest of Europe to trip. Subsequent analysis of the blackout attributed it to a number of structural and regulatory issues including:

> *"conflict between trading interest of companies involved and technical requirements of the existing system - the existing system is not designed to cope with deregulation"*;
>
> *"the unresolved conflict between the trading interests of those involved countries and operators and the technical and legal requirements for the safe and reliable operation of the networks"*; [105]
>
> *"many countries in the EU have low reserve generating capacity. This ... then leaves less margin in the event of failures"*. [106]

Another incident happened on 13 August 2004, when a current transformer at a generator located in the Australian state of New South Wales exploded. This failure led to a major system incident causing a loss of six generators in New South Wales. This sudden loss of generation then caused a fall in power system frequency that automatically triggered load shedding in all of the interconnected regions of Queensland, Victoria and South Australia.[107] This caused much debate in Queensland where a disproportionate number of customers had been disconnected compared to those in the other states, even though there was no fault in the Queensland system and it had surplus generation at that time.

6.7 Do the benefits outweigh the costs and risks?

Given the high costs associated with increased interconnection, the lack of economic drivers and the potential adverse effects on the stability of the system, HEC is of the view that these costs and risks outweigh any potential benefits that may arise from increased interconnection.

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[105] Report on the blackout in Italy on 28 September 2003. Available at http://www.energie-schweiz.ch/imperia/md/content/medienmitteilungen/mm06-122003/89.pdf

[106] Hall and Thomas, *"Blackouts: Do liberalisation and privatisation increase the risk?"* PSIRU, University of Greenwich (December 2003) p 9.

[107] NEMMCO, *"Power System Incident Report - Friday 13 August 2004 Final Report"* (28 January 2005). Available at http://www.nemmco.com.au/marketandsystemevents/232-0022.pdf

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7 New supply sources

- HEC agrees with the Government that the Mainland cannot be relied on in the short to medium term as an alternative source of supply for Hong Kong.
- The Mainland will not have surplus electricity to supply Hong Kong in the short to medium term.
- HEC holds the view that even if supply constraints could be resolved in the longer term, the cost of electricity from the Mainland would unlikely be lower than that from local generation if costs for longer transmission distance, reinforcing the transmission networks, and upgrading the environmental and reliability standards at par with those of Hong Kong are included.
- From an environmental perspective, any spare plants, if available, should be used to phase out the existing highly-polluting, low-efficiency small thermal plants in Guangdong rather than used for exporting electricity and, indirectly, pollution to Hong Kong.
- From reliability perspective, importing supply from the Mainland, which has a much lower reliability standard, will jeopardize Hong Kong's supply reliability.
- The fact that operators of electricity facilities in the Mainland are not under the jurisdiction of Hong Kong regulatory authorities will create regulatory risk and uncertainty to operators and investors in Hong Kong. This may lead to under-investment in electricity infrastructure in Hong Kong.
- Based on the above considerations, HEC agrees with the Government that it would not be prudent to predicate the development of the Hong Kong electricity market on supply from the Mainland.
- HEC agrees that introduction of renewable energy sources in Hong Kong should be actively explored. However, practical issues such as cost effectiveness, technical feasibility, safety and supply reliability issues must be carefully assessed to determine the viability of these new sources of supply.

7.1 Existing arrangements

Currently, the electricity supplied to Hong Kong is primarily sourced from HEC's and CLP's generation assets located in Hong Kong. CLP imports some power from Guangdong Nuclear Power Station at Daya Bay and the Guangzhou Pumped Storage Power Station at Conghua.

7.2 Issues and 'possible' options

The Consultation Paper considers whether there are alternative sources of supply that might enable greater consumer choice in Hong Kong.

The Consultation Paper focuses on two possible sources of alternative supply:

- importing electricity from the Mainland to meet part of the demand in Hong Kong; and
- independent power producers, some of whom might wish to develop renewable energy resources.

7.3 Supply from Mainland China

HEC agrees with the Government that Mainland cannot be relied on in the short to medium term as an alternative source of supply for Hong Kong since the Mainland will not have surplus electricity to supply Hong Kong in the foreseeable future. In addition, HEC holds the view that even if supply constraints could be resolved in the longer term, the cost of electricity from the Mainland would unlikely be lower than that from local generation if costs for longer transmission distance, reinforcing the transmission networks, and upgrading the environmental and reliability standards at par with those of Hong Kong are included.

Furthermore, the fact that operators of electricity facilities in the Mainland are not under the jurisdiction of Hong Kong's regulatory authorities would in itself create regulatory risk and uncertainty for operators in Hong Kong. This could lead to under-investment in electricity infrastructure in Hong Kong.

The above viewpoints of HEC on supply from Mainland China, namely availability, economics, environment, reliability, and regulatory risks and uncertainty, shall be discussed below.

Availability

The supply situation in Guangdong remains very tight. Demand for electricity in Guangdong grew by 35% between 1999 and 2001 and demand continues to grow at about 10% per year. Guangdong has relied heavily on power imports from neighbouring provinces and some power rationing has occurred. At present, Guangdong still has to import from Hong Kong to meet their demand. Their priority is therefore to ensure that it has sufficient installed capacity to meet its own demand rather than to supply Hong Kong.

According to the National Policy, Guangdong should decommission about close to 10,000MW of inefficient and polluting small-capacity generating plants. Due to its high demand growth, Guangdong continues to have difficulties complying with this requirement. If this is to be complied with, Guangdong is unlikely to have any surplus to supply Hong Kong for a very long time.

Economics

There is a prevailing misconception that electricity imported from China, when compared to local generation, would be available at a lower cost. In view of the long transmission distance from Guangdong to Hong Kong and the lack of reserve transmission capacity, it is likely that the transmission networks in Guangdong would need to be upgraded in order to have the capability to export electricity to Hong Kong. Upgrading this system would require a substantial amount of time and money that will eventually be borne by Hong Kong consumers if such upgrade is for facilitating supply to Hong Kong. Accordingly, electricity imported from China may not be competitive when the significantly higher transmission charges are taken into consideration.

Moreover, in an interconnected electricity system, any capacity shortage suffered by one party may have an adverse impact on the supply reliability and electricity price of the other interconnected parties. Given that the power demand in Guangdong is four times higher than that in Hong Kong, a serious shortage of capacity throughout South China would therefore jeopardize the electricity supply reliability and drive up the electricity price in Hong Kong.

One of the prime factors that led to California's electricity crisis is the inadequate generation capacity within the state. This, coupled with an unexpected summer heat wave and a cut down on imported supply, triggered the rolling outages and blackouts during the period of 2000-2001.

A case in point on the importance of self-sufficiency is the experience of Alberta's deregulated electricity market during California's energy crisis in 2000-2001. Alberta became vulnerable to volatile price fluctuations when California, with whom it is interconnected, suffered severe capacity shortages.

Unlike other commodities, electricity price has a much wider range. Wholesale price can jump up from cents per unit to tens of dollars per unit. This can happen in a very short time and without any sign as long as there is a genuine or expected power shortage. Many markets have set very high level of Value of Lost Load (VOLL), e.g. A$10,000 per MWh in Australia. This price will be paid to all generation in the system during power shortage.

The above examples illustrate two possible phenomena that may happen in Hong Kong if there is firm supply from South China:

- When South China experiences power shortage, Hong Kong will suffer too. There would be little manoeuvre room for HEC to meet its customer demand if it has to depend on other parties for firm capacity.

- When there is a price hike in South China, it will affect Hong Kong as well. HEC will be forced to pay high import prices in case of system disturbances, heat wave and/or power shortages.

Environment

In fact, even if the supply and demand situation in Guangdong can be balanced in medium to long-term via the import of hydro power from the neighbouring provinces/areas, the highly-polluting, low-efficiency small thermal plants operating in Guangdong will still pose an environmental threat to the whole Pearl River Delta region. In order to improve the overall environmental performance in the region, any spare plants, if available, should be used to phase out these polluting thermal plants rather than used for exporting electricity and, indirectly, pollution to Hong Kong. Thus, even if the supply constraints can be resolved in the medium to long term, from an environmental perspective, Hong Kong should still rely on its own highly environmentally friendly plants instead of the inefficient and polluting thermal plants in Guangdong for electricity.

Reliability

At present, reliability of supply, which requires both the generation plants and the networks to perform well, is under the full control of the two Hong Kong utilities. With adequate infrastructure and good asset management in place, Hong Kong's supply reliability is among the highest in the world.

In terms of generation reliability, the California's energy crisis in 2000-2001 illustrates vividly that if Hong Kong is to be supplied by South China, any capacity shortage suffered by South China will result in a cut down on imported electricity and a deterioration of supply reliability in Hong Kong.

In terms of network reliability, the networks of South China are not at par with Hong Kong's networks. To depend on China for electricity supply, electricity has to flow across the South China networks before getting into the Hong Kong networks. As such, no matter how reliable the Hong Kong networks are, a less reliable transport system on the other side of the border will jeopardize the high supply reliability presently enjoyed by consumers in Hong Kong.

Regulatory risks and uncertainty

Under the present one-country-two-systems regime, the regulatory authorities in Hong Kong will not have any jurisdiction over generators and network operators in South China. It would then be difficult for the Government to exercise stringent legislative and administrative control of all electricity supply facilities supplying Hong Kong on safety, reliability, and environmental protection. This will pose regulatory risks.

Moreover, since operators of electricity facilities in Hong Kong and South China are not regulated under the same system and jurisdiction, one cannot rule out the possibility that there might be changes in regulation in the Chinese system that are unfavourable to the Hong Kong operators. These factors, together with the fact that the operation of the electricity facilities in China is far from being transparent, will create uncertainty to investors and will lead to under-investment in electricity infrastructure in Hong Kong.

7.4 Supply from other local sources

HEC agrees that the introduction of renewable energy sources to Hong Kong should be actively explored. To that end, HEC agreed at the last SCA Interim Review in 2003 to set up a production scale wind turbine to assist in exploring possible further use of wind power generation for Hong Kong.

However, there are a number of practical issues, including cost effectiveness, technical feasibility, and supply reliability and safety, that need to be considered and addressed before renewable energy can be factored properly into the development of Hong Kong's future electricity market.

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8 Grid access for third-party users

- System reliability and safety are paramount and any benefits arising from increased grid access need to be carefully weighed against possible adverse impact on system reliability and safety.
- HEC is of the view that the voluntary approach is more appropriate and that any requests for access must be considered on a case-by-case basis.
- The costs of establishing and administering an open access regime are potentially very large and will ultimately be borne by consumers.
- Open access regimes are based on the assumption that competition is a workable proposition in the relevant market. The unique characteristics of the Hong Kong market mean that meaningful competition will be difficult to establish in the short to medium term.
- Hong Kong's power suppliers have made huge investments in long-term infrastructure. One of the significant costs of reform in other jurisdictions has been stranded costs related to sunk investments.

8.1 Existing arrangements

The existing electricity transmission and distribution networks in Hong Kong are separately owned and operated by HEC and CLP.

Under the current SCA, neither HEC nor CLP is granted a franchise over the networks in the areas they cover. However, due to the high costs in duplicating networks and other practical limitations such as land availability, it is generally uneconomic and impractical to duplicate the power grid.

For HEC, connection of independent generation resources to the power grid is presently arranged through bilateral negotiation on a case-by-case basis.

In September 2004, EMSD set up a working committee, which included representatives from HEC, CLP and a wide spectrum of stakeholders, on the preparation of a technical guideline for the grid connection of small-scale renewable energy power systems. EMSD launched the guideline at end March 2005 as soon as the guideline was fully developed and agreed on by all members of the working committee.

8.2 Issues and 'possible' options

The main issue identified with the existing arrangement is that it acts as a barrier to new market entrants that inhibits increased competition in the electricity supply sector. It is also suggested that the introduction of open access may facilitate the development of alternative sources of supply such as renewable energy and energy-from-waste technologies.

The Consultation Paper canvasses two possible approaches to facilitating access to the power grid:

- the voluntary approach under which the power companies would be encouraged by the Government to make individual arrangements for third party access with details on technical, reliability and safety requirements, and responsibilities and liabilities to be covered by bilateral agreements between the power companies and the grid users; and

- the mandatory approach which compels the grid owners to provide access to third parties provided certain stipulated connection requirements are met.

Under the mandatory approach, a new regulatory framework would be introduced through legislation which would:

- stipulate issues relating to technical standards and liability to be specified in the agreement between the grid owner and the users; and

- provide detailed specifications covering codes of conduct, technical standards for connection, access charges and dispute resolution mechanisms.

8.3 Voluntary approach

HEC is of the view that the voluntary approach is more appropriate and that any requests for access must be considered on a case-by-case basis with careful consideration of the following issues:

- safety of the general public, and safety of employees working for the power companies and the third party users;
- potential effects on system reliability; and
- cross subsidies - the allocation of any additional costs incurred for the grid to ensure safety and reliability in the implementation of third-party access should be on a user-pays basis, i.e. the third party users should bear the full costs without receiving any cross subsidies from other consumers.

8.4 Mandated open access

The main driver for an open access regime is to introduce greater competition in the supply of electricity. However, the introduction of any form of mandated open access needs to be critically examined in light of:

- the set up and ongoing costs associated with establishing such an open access regime, for both the utility and the Government;
- the complexities associated with regulating open access pricing (in particular, disputes);
- the possible detrimental effects on system and supply reliability - any new connections must not affect the reliability of supply to HEC's existing customers;
- the possible dampening effect on investment if utilities are concerned that their investment will be undermined by "free riders"; and
- whether competition is likely or appropriate in the context of the Hong Kong environment.

8.5 System reliability

Any proposal in relation to open grid access needs to be considered very carefully in the context of its potential impact on system reliability.

At present, Hong Kong enjoys an outstanding level of system reliability. Mandated open access to the grid in Hong Kong has the potential to shift the paradigm of system reliability. Reliability has traditionally been regarded as being of primary importance in the context of electricity networks. However, HEC is concerned that this reliability may be compromised if an open access regime is imposed.

Under the existing arrangement, decisions on grid construction and usage are based on "keeping the lights on" for its customers. Although reliability obviously remains a key concern for network owners in open access environment, new market dynamics caused by open access change the engineering aspects of grid reliability.

International experience has shown that system reliability can degenerate under open access regime. It has been observed in the U.S. that:

> *"Whereas electricity grid reliability was expected, in fact taken for granted, during the era of franchise monopolies, reduced reliability and the potential for unexpected blackouts have surfaced as an undesirable by-product of electricity restructuring."* [108]

The U.S. - Canada Power System Outage Task Force that investigated the causes of the 2003 blackout in U.S. and Canada observed that:

> *"It is likely that the increased loads and flows across a transmission grid that has experienced little new investment is causing greater 'stress upon the hardware, software and human beings that are the critical components of the system'."* [109]

8.6 Costs of mandated open access

The introduction of mandated open access would represent a fundamental shift away from the existing light-handed form of regulation.

It would require the introduction of a completely new legislative regime framework to deal with issues such as:

- reliability standards, codes and rules;
- technical standards for connection;
- access pricing;
- liability as between market participants;
- dispute resolution process to deal with disputes in relation to access pricing and between market participants; and
- the establishment of an independent system operator.

[108] Whitfield, M. *"Update on the Impact of Electricity Market Competition in the USA on the Nuclear Industry"* The Uranium Institute 25th Annual Symposium (30 August - 1 September 2000) London, p 4

[109] U.S. - Canada Power System Outage Task Force, *"The Final Report on August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations"* (April 2004) p 32

The costs of establishing and administering this regime are likely to be extremely high. Given that these costs will ultimately be borne by the consumers, careful consideration needs to be given as to whether the benefits outweigh the costs of an open access regime.

Set up costs

The introduction of such a major regulatory change requires substantial set-up costs that result from the creation of new organisations, the investment in new hardware and software and the changes to operating systems.

For example, the set up costs in California were estimated at US$500 million.[110] Other jurisdictions have also incurred substantial set up costs associated with open access regimes. Details of these costs are set out in Appendix 2.

Costs of economic regulation

Open access ultimately entails some form of economic regulation on transmission tariffs for third party users. The Consultation Paper does not indicate who would perform this role, however it would clearly require the establishment of a new body, whether that be a government or an independent body, to regulate those tariffs.

The costs of economic regulation are substantial. For example, annual budgets for state regulatory commissions in the U.S. and Australia are measured in the tens of millions of dollars. Further details of these costs are contained in Appendix 2.

In addition, there are substantial costs incurred by market participants who operate under an open access regime. To comply with the regime, market participants must prepare access agreements, respond to information requirements of the regulator and prepare submissions to inquiries. This often involves employing external consultants as well as dedicating significant internal resources to the process.

Costs of independent system operator (ISO)

ISOs are a common element of market restructuring and assume responsibility for grid operation via dispatch, congestion management and other functions.

In North America, annual operational costs of ISOs have typically been in the hundreds of millions of U.S. dollars,[111] while the formerly integrated utilities have experienced little cost savings in this area as they continue to perform many transmission-related functions (e.g. load forecasts and schedule preparation).

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[110] The Electricity Industry: *"Reliability and the Road Ahead for Hong Kong"*, transcript from conference, Session 1 (29 April 2004).

[111] Lutzenhiser, M. (2004) *"An expensive experiment? RTO dollars and sense."* Public Utilities Fortnightly 142(12) pp 38- 44.

According to a recent study in the U.S., the operational costs of newly formed transmission operators were found to have *"doubled since 2001 and now outweigh nearly all of the benefits of anticipated by the national cost-benefit studies."* [112]

The study also found that the impact on consumers of creating the new transmission operators worsens over time.

> *"In near term ... RTO [Regional Transmission Operator] creation may have a neutral impact on consumers.... In the mid term, the net benefit ranges from zero to -$300 million per year... In the long term, the net impact on consumers is -$200 million to -$300 million per year."* [113]

Further details on the costs of ISOs in other countries are contained in Appendix 2.

8.7 Access pricing and disputes

The move to open grid access also brings with it issues relating to access pricing.

Network access pricing is a complex issue and disputes inevitably arise in relation to the outcome of access pricing reviews. Evidence from overseas indicates that this can lead to protracted disputes and insufficient investment in infrastructure.

> *"Australian experience with regulated and merchant transmission lines has certainly been characterised by controversies, litigation, and delayed investment in regulated transmission."* [114]

The cost implication of these disputes, together with the potential impact on future investment, is an important consideration in relation to any moves towards an open access regime.

8.8 Competition

Is competition workable in Hong Kong?

The option to mandate open access is predicated on the assumption that competition in electricity supply market in Hong Kong is a workable proposition.

There are a number of unique local factors which make it difficult to introduce meaningful competition to the Hong Kong electricity market.

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[112] Lutzenhiser, M, (2004) *"An Expensive Experiment? RTO dollars and sense"*, Public Utilities Fortnightly 142(12) p 39.

[113] Liutzenhiser, M, (2004) *"An Expensive Experiment? RTO dollars and sense"*, Public Utilities Fortnightly 142(12) p 41.

[114] Littlechild, S, (2004) *"Regulated and merchant interconnectors in Australia: SNI and Murraylink revisited"*, CMI Working Paper 37, Department of Applied Economics, University of Cambridge, UK p 1.

Hong Kong is a relatively small market which ultimately would be capable of supporting only a small number of new participants. Competition, which would require a complex regulatory framework, may not be justified given the relatively small scale of the Hong Kong electricity market.

The fact that Hong Kong has no indigenous energy sources and only limited land resources would make it very difficult for new participants to enter the market. In the long term, meaningful competition is dependent on whether there are viable alternative sources of supply from South China. As discussed in section 7, HEC is of the view that competition involving South China is, at best, a long-term option.

Finally, Hong Kong does not have the infrastructure required to support competition in the market, such as customer transfer processes and metering facilities.

Stranded costs

Another risk associated with the introduction of competition is that existing assets will become stranded. Stranded costs are costs that have been prudently incurred, as approved by the Government, by utilities to serve their customers, but which cannot be recovered when the market or regulatory structure changes.

Stranded costs usually arise in the context of investor-owned utilities where a company's value is determined through the market's expectations. To maintain the confidence of the market and to ensure that the Government's agreements with the utilities are honoured, the utilities should be entitled to recover the costs associated with investments previously approved by the Government.

Stranded costs have been a particular issue in the U.S. where large stranded costs were incurred by utilities as part of the transition to a competitive market. These stranded costs were recognized by the Federal Energy Regulatory Commission (FERC) by Order 888 where FERC reaffirmed that the recovery of legitimate, prudent and verifiable stranded costs should be allowed.

8.9 Development of renewable energy sources

HEC acknowledges that the development of renewable energy sources is an important element of the Government's energy policy.

To that end, HEC has, in conjunction with EMSD, been actively involved in the development of technical guidelines for the grid connection of small-scale renewable energy power systems.

However, wind generation projects, particularly on a large scale, bring with them a host of technical and reliability issues:

- as wind is intermittent and cannot be relied upon, it is difficult to forecast its availability and doubtful whether wind generation should be counted as firm capacity in determining whether reserve margins are met;

- it creates difficulties in managing flows of electricity over the network; and

- as they are unscheduled plants, they can unbalance the system leading to greater requirements for ancillary services.[115]

Accordingly, HEC is of the view that grid access for these facilities needs to be carefully considered on a case-by-case basis to ensure that high system reliability is maintained.

8.10 Do the benefits outweigh the costs and risks?

Any moves toward open access to the grid should be based on a careful cost-benefit analysis.

Mandated open access is a radical departure from the existing form of regulation in Hong Kong. The international experience provides a salutary lesson as to the difficulty and often financially disastrous effect of market reform.

HEC is of the view that at this stage, the costs and uncertainties involved in introducing such a regime, and the potential adverse impact on system reliability outweigh any potential competition benefits that may arise as a result of open access.

[115] For example, these issues are discussed in the Australian context in a NEMMCO paper "Forecasting Intermittent Generation in the National Electricity Market" available at http://www.nemmco.com.au/dispatchandpricing/260-0005.pdf and a paper by the Australian Ministerial Council on Energy *"Integrating Wind Farms into the National Electricity Market"* available at http://www.mce.gov.au.

9 Bilateral agreement versus legislation

Regulation by bilateral agreement has a proven track record in Hong Kong. In particular, regulation by bilateral agreement has:

- provided certainty to market participants and facilitated investment;
- resulted in a high level of supply reliability for industrial, commercial and residential users and consumers; and
- created a simple and cost effective means of regulation.

The goal of increased regulatory flexibility needs to be considered in the context of the possible risks associated with introducing a new regulatory regime implemented through legislation. These risks include:

- loss of certainty for investors and the consequent risk of under-investment;
- increased regulatory costs associated with the establishment and ongoing administration of the regulatory regime which will ultimately be borne by consumers;
- greater complexity and bureaucracy; and
- the consequences of getting the legislative regime wrong.

9.1 The existing regulatory arrangements

Economic regulation of HEC is currently exercised through the SCA. The SCA was first introduced in 1963 and has been operating in Hong Kong for over 40 years.

The SCA, which has a term of 15 years, sets out HEC's obligations and rights, and provides a framework for the Government to monitor HEC's financial affairs and technical performance. The SCA includes provisions for:

- the parties to agree to the submission of five yearly Financial Plans which include the capital and operating plans and the submission of new Financial Plans at any time if warranted by circumstances;
- annual tariff reviews and annual auditing reviews of the technical and financial performances of the power companies; and
- five yearly interim reviews of the SCA.

As discussed in the sections above, new investment and material changes in tariffs must be approved by the Government's regulating bureau and, if deemed necessary, the Executive Council of the Government.

The SCA has proven to be a simple, low-cost regime which has delivered on the Government's objectives without the need for Government funding or subsidies.

9.2 Criticisms of the existing regulatory arrangements

The main criticism of the existing regulation through bilateral agreement is that it requires the consent of the parties to the agreement before amendments can be made and therefore restricts flexibility to introduce changes to take account of prevailing circumstances.

Although the agreement cannot be amended without the consent of the parties, the annual financial and technical reviews and their respective audits do give the Government a degree of flexibility in administering the regulatory arrangements.

The five yearly interim reviews have also provided the signing parties with an opportunity to amend the SCA to deal with particular issues. For example, as part of the 1998 and 2003 SCA Interim Reviews, HEC and the Government agreed on new provisions to deal with excess capacity via an excess capacity adjustment and a new mechanism to prevent large balances from accumulating in the Development Fund.

HEC also agreed, as part of the 2003 SCA Interim Review, to set up a production scale wind turbine to assist in exploring possible further use of wind power generation for Hong Kong.

9.3 What are the 'possible' options?

In addition to the current regulatory arrangements, the other options considered in the Consultation Paper are[116]:

- shortening the agreement period to a 5- or 10-year duration; or
- replacing the SCA with a regulatory framework supported by legislation which could include an appeal procedure for regulatory decisions and/or a dispute resolution mechanism.

9.4 Shorter regulatory periods

In relation to the first option, the Government recognizes that the uncertainties arising from a shorter agreement period would deter continued or long-term investment by the power companies.[117]

HEC agrees with this view. As indicated above, the current SCA, which has a 15-year regulatory period, has created an environment where investors can confidently invest in new infrastructure. Given the long-term nature of investment in electricity infrastructure and the long-term contractual requirements (e.g. the long-term LNG take-or-pay agreements), the current 15-year regulatory period is appropriate.

Even with a 15-year regulatory period, HEC faces significant re-contracting risk as its investment in electricity infrastructure will not be fully recovered over that period.

It is important to remember that investments in electricity infrastructure are generally sunk costs. To make such an investment requires HEC to have a high degree of confidence in the regulatory regime that:

- HEC will recover its costs and earn a reasonable return; and
- HEC's assets will not become stranded by future disallowance from the rate base.

A shorter regulatory period significantly increases the investment risk - governments or regulators will have more opportunities to "second-guess" an investment during its life cycle after it is sunk, even though it was prudently made at the time of the investment decision, and on the basis of achieving a certain rate of return which could have been earned on a similar investment at that time.

Biglaiser and Ma (1999) noted the adverse impact of re-contracting on investment:

> *"The incentive to invest ex ante may be reduced or become absent altogether because the returns of a sunk investment cannot be guaranteed due to the lack of [regulator] commitment."*[118]

[116] Consultation Paper pp 33-34.

[117] Consultation Paper p 33.

The additional risk would impact on the level of investment in existing and new infrastructure unless that additional risk was mitigated by a higher rate of return.

9.5 A new regulatory framework

There is no doubt that a legislative model under which the Government can change the regulatory framework without the agreement of participants gives the Government greater flexibility. However:

- this is at the expense of investment certainty and creates greater regulatory risk;
- since this framework would be a paradigm shift in regulation in Hong Kong, there is a risk of getting it wrong; and
- there is a significant expense involved in establishing that framework.

Regulatory risk

Regulation by legislation would represent a fundamental shift in the form of regulation in Hong Kong. Essentially, market participants would move from an environment where there is certainty as to investment arising from a mutually negotiated framework to a regulatory regime under which the Government can change the regulatory framework without the agreement of participants.

Private sector firms, equity investors and financiers will need to take a view on regulatory risk under a legislative regime and the potential for adverse change after an investment has been made.

An article in the McKinsey Quarterly considered that the considerable discretion given to regulators in the U.K. to determine prices at the commencement of each regulatory period produced market uncertainty. It suggested that this market uncertainty explained some of the increased cost of equity for utilities under the U.K. system as compared to the U.S. utilities:

> *"Thus the real allowed return in the United Kingdom must typically be more than 1 percent higher than the return in the United States. The cost to the United Kingdom's economy is between $2 billion and $3 billion a year in higher utility charges – equivalent to about an extra 1 percent on the basic rate of personal income tax."* [119]

[118] Productivity Commission, *"Review of the Gas Access Regime"* Report no. 31 (2004) Canberra, p 105.

[119] Dobbs R and Elson M, *"Regulating Utilities: Have we got the formula right?"* (1999), The McKinsey Quarterly, 1999 Number 1. Available at www.mckinseyquarterly.com

Regulatory bodies themselves have recognized that:

> *"...excessive discretion or the inappropriate exercise of discretion can increase uncertainty and regulatory risk which in turn increase the costs of capital, or prevent companies from undertaking investments or initiatives that would otherwise improve efficiency."*[120]

In contrast, the SCA has proven to be an effective means of providing certainty for market participants and created an environment where investors have confidently invested in assets to meet growing demand.

Costs of getting the legislative framework wrong

The costs of getting the regulatory framework wrong are enormous. The proposal is not an incremental change but a replacement of the existing regime. Electricity is unique; international experience has shown that reform involving electricity industries is complex and has many pitfalls.

In particular, inappropriate regulation can lead to systematic under-investment that in turn can lead to infrastructure failure. At worst, it can lead to market failure such as that occurred in California.

A case in point is the U.S. where there is ongoing debate on issues like regional transmission organisations; standard market design; and incentives for, and cost recovery of transmission and distribution investment. The ensuing outcome is alarming, as summarized by the National Council of Energy Policy in the U.S.:

> *"Electricity-industry restructuring has derailed. The massive blackout of August 14 2003 was not needed to underscore the point, but it adds urgency to the effort to find solutions. ...Indeed, investment in all categories of electricity is down significantly."*[121]

The consequences of under-investment in electricity infrastructure have been highlighted recently in a number of countries where major blackouts have occurred. For example, the blackout in Italy in 2003 affected 57 million people. This blackout has been attributed to the fact that companies are unwilling to spend money on assets where the return is low or uncertain, especially if the market is unwilling to compensate for reliability.[122] Appendix 1 provides further examples of how supply reliability can be affected due to a lack of investment in existing and new infrastructure.

In contrast, under the SCA, Hong Kong has enjoyed high levels of supply reliability.

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[120] Essential Services Commission Victoria *"Productivity Commission Review of the Gas Access Regime - Submission to the Draft Report by the Essential Services Commission"* 7 April 2004, p 8.

[121] National Commission on Energy Policy (2003) *"Reviving the electricity sector"*, Washington DC, p 3.

[122] *Hall and Thomas, "Blackouts: Do liberalisation and privatisation increase the risk?"* PSIRU, University of Greenwich (December 2003) p 8.

Costs of establishing new regulatory framework

International experience has shown that the costs of establishing a new regulatory regime can be extremely high. There is not only the cost of establishing the regime and new institutions but the possibility of compensating investors for stranded assets resulting from such change.

In addition, the ongoing costs of administering the legislative regime are also potentially very large. Examples of regulatory set up costs and ongoing administration costs are contained in Appendix 2. These additional costs will ultimately be borne by consumers.

In contrast, the SCA has proven to be a cost effective means of regulating the industry.

Distortions in behaviour

Switching to a heavy-handed regulation by legislation requires the power companies to commit significant resources to carry out the activities required by the new regulatory regime. There will be increased incentives for interested parties to engage in lobbying, bargaining and negotiation. For power companies, this kind of activities will ultimately result in an increase in costs to be borne by the consumers.

A sharp observation was made by Professor Yarrow: *"In the practice of regulation, supply creates its own demand: provide an authority discretionary powers and there will be no shortage of lobbyists urging the use of those powers for purposes that suit their own interests."* [123]

Do the benefits outweigh the risks?

The introduction of a regulatory regime backed by legislation would undoubtedly give the Government greater flexibility to change the regulatory rules if it considers such change to be necessary. However, increased flexibility for the Government has the trade-off of more regulatory uncertainties for market participants.

Hong Kong has a simple, low-cost regime which has delivered a reliable supply of electricity at a reasonable cost. Establishing a new regulatory regime will be costly and time consuming, and there is ultimately no guarantee that the new regime would more effectively meet the Government's policy objectives.

HEC is of the view that the uncertainties and costs associated with implementing a new legislative framework and the potential adverse impact on investment outweigh the increased flexibility introduced into the regulation of the electricity industry.

[123] Yarrow, G., Regulatory Policy Institute, Oxford, "*Regulating for Competition*" (2000) paper prepared for the UK Communications White Paper, p.16.

10 Government regulation versus independent regulation

- Government regulation has proven to be an efficient and effective means of regulating the electricity industry in Hong Kong.
- Electricity is an essential service. The Government should not abrogate responsibility for regulating service provision lightly. The Government remains best placed to implement its primary policy objectives.
- Arguments for an independent regulatory body lose cogency in the Hong Kong market where the incumbents are already privately owned and the Government does not participate in the industry.
- Independent regulation brings with it the risk of regulatory capture.
- The costs of setting up an independent regulator and the ongoing costs of maintaining an independent regulatory regime outweigh any perceived benefits of having independent regulation.

10.1 Existing Government Regulation

At present, the Government is responsible for the economic regulation of the electricity industry through the SCA. Regulatory oversight is undertaken by various authorities within the Government as outlined in section 2.3 of the Consultation Paper.

10.2 Criticisms of Government regulation

The perceived problems with the existing institutional arrangements are:

- at present the regulatory oversight is undertaken by various authorities within the government and the coordination and interfacing between the different bureaux and departments adds to the administrative procedures; and
- there is no independent "one-stop shop" to deal with all related regulatory issues.

10.3 What are the possible options?

The possible options canvassed in the Consultation Paper are [124]:

(a) funnel relevant personnel and/or expertise from the various bureaux/departments to form an agency within the Government to take over the electricity-related environmental policies and to execute all existing and new regulatory functions;

(b) establish an independent authority which would be:

i. established and empowered by legislation, with a governing board which represents interests of investors and consumers, to ensure independent and impartial decision making;

ii. responsible for executing all regulatory functions relating to the electricity market, and making recommendations to the Government on relevant policy issues; and

iii. funded by the Government, and/or through appropriate fees levied on market participants.

10.4 Centralising functions within the Government

HEC is of the view that the current approach of sharing regulatory responsibility among EDLB, ETWB and EMSD, and with the advice of the Energy Advisory Committee (EnAC), is an appropriate division of responsibility within the Government.

[124] Consultation Paper pp 35-36

This approach is consistent with that taken in many overseas jurisdictions where there are separate authorities dealing with economic regulation, environmental regulation and technical and safety regulation. Normally, the independent regulator in these jurisdictions is only responsible for economic regulation.

The existing arrangements are flexible enough to enable resources to be deployed within the Government as and when required. Any moves to centralize the regulatory functions into one agency will need to be carefully considered as this may ultimately lead to greater bureaucracy and higher administration costs.

10.5 Is independent regulation necessary in Hong Kong?

The argument for an independent regulator to oversee the electricity sector has principally arisen in markets where reform has centred on the privatisation of state-owned enterprises and where full competition has been introduced. In this context, there has been a perceived need to remove any direct political interference and possible lack of neutrality from the regulatory process, particularly where the government remains a market participant after the reforms have been introduced.

However, the arguments for an independent regulatory body lose cogency in the Hong Kong market where the incumbents are already privately owned and the Government does not participate in the industry. In these circumstances, the arguments for an independent regulator are less compelling.

The costs of independent regulation

Any new regulatory institution would need to be established by legislation and require funding. The costs of establishing and maintaining an independent regulatory body can be extremely high. Ultimately, these costs will be borne by consumers.

There is also a significant risk that these costs increase over time. The International Energy Agency has noted that:

> *"The move towards political independence has implications for the management of the public sector because it usually entails setting up a separate organisation. This is costly, and more importantly, establishing autonomous organisations may produce some problems in the long term because of the tendency of organisations to grow and self perpetuate."*[125]

Examples of regulatory set up costs and ongoing administrative costs in other countries that have been through the reform process are contained in Appendix 2. These costs are significant.

[125] International Energy Agency, *"Regulatory Institutions in Liberalised Electricity Markets"* (2001), p 18.

Over-regulation

Professor Kahn, one of America's most famous economists, noted that new layers of regulation are sometimes introduced in response to adjustments made by the regulated business. This has also been observed by Spann who has noted that:

> *"In their attempts to eliminate, or at least reduce, some of the distortions created by the original simple decision rule... regulators often find that they must continually extend their regulatory controls as firms make adjustments to previously imposed constraints."* [126]

In contrast, the SCA has proven to be a relatively simple and light-handed form of regulation.

Risk of regulatory capture

Independent regulation brings with it the risk of regulatory capture. Regulatory capture refers to the risk that administration of the regulatory regime might be influenced by other interests. Regulatory capture can manifest itself in a number of ways. For example:

- regulators might have their own personal objectives. The incentives of employees of regulatory agencies depend on the type of employee, and understanding of their motivations is important in explaining the policies that are implemented;[127]
- regulators might be captured by the businesses they regulate. The regulators deal frequently with the businesses they regulate and might identify too closely with these businesses;[128] and
- there is often a tendency for regulators to favour consumers to prove their value and enhance their popularity. It has been observed that:

[126] Spann, R.M. (1975) *"Taxation and electric utility regulation and the efficient allocation of energy resources"* in Cicchetti, C.J. and Jurewitz, J.L. (eds), *Studies in Electric Utility Regulation*. Ballinger Publishing Company, Cambridge, Massachusetts, p 172.

[127] Productivity Commission *"Review of the Gas Access Regime"* Report no 31 (2004) Canberra, p 157.

[128] Stigler, G.J. (1971) *"The theory of economic regulation"*, *Bell Journal of Economics*, vol 2, no 1, pp 3-21.

"There is often a tendency for regulators, in an attempt to protect the public interest, to treat extraordinary losses and gains differently. For example, if a firm makes a decision that later proves to have been wrong (e.g. to build a power plant that ends up being unneeded, or ends up costing much more than expected), there is a tendency to force the firm (namely the shareholders) to bear the part of the costs of the 'mistake' rather than pass the entire cost onto the firm's customers. On the other hand, if the utility makes a decision that results in much greater profits than expected (e.g. negotiates long-term contracts for the supply of inputs just before the spot price of these inputs unexpectedly skyrockets), then there is a tendency for the gains to be passed on to customers, because allowing the firm to retain the extra profits would result in the firm earning more than a 'fair' return." [129].

10.6 Do the benefits outweigh the costs and risks?

Electricity is an essential service. It is a critical input into the creation of all goods and services. Given that it is such an essential service, the Government should not abrogate responsibility for regulating the industry unless there are compelling reasons to do so.

In the Consultation Paper, it is acknowledged that *"the existing organisational structure has worked well and ensured that financial and supply reliability, safety and efficiency considerations are appropriately balanced against environmental considerations"*.[130]

HEC acknowledges that in certain markets, there may be some need for independent regulation instead of government regulation. This is particularly so where there are numerous firms participating or where the Government retains some interest in the market.

Hong Kong has a relatively small electricity market with only two market participants and the Government does not have any direct interest in the market. In light of these two market characteristics, the potential costs, and the regulatory uncertainty associated with introducing independent regulation to Hong Kong, HEC is of the view that there are no compelling reasons to depart from the existing form of Government regulation.

[129] Train, K.E. (1991) *Optimal Regulation: The Economic Theory of Natural Monopoly*, MIT Press, Cambridge, Massachusetts, pp 96-97.

[130] Consultation Paper, p 35.

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11 Conclusions and recommendations

The expiry of the current SCA gives the Government and the community an important opportunity to secure a reliable and economically efficient power supply for Hong Kong's future.

In an environment of continuing economic uncertainty, rising fuel prices and increasing environmental pressures, HEC recognizes that the Government and the community face a delicate task in balancing a range of often competing objectives.

However, paramount among these is the undisputed fact that the outstanding reliability achieved by Hong Kong's power companies over the SCA periods has been a vital contributor to Hong Kong's economic progress and prosperity. As many countries with experience of market reform have discovered to their detriment and chagrin, reliable power supply is very easy to take for granted but very difficult to fix once compromised.

On this basis, HEC is of the view that it is important that changes are not imposed merely for the sake of change. That said, should the Government and the community decide to introduce changes, such changes must:

- firstly, be a visible improvement on the current regime and not create instability and uncertainty, taking into account the Government's key policy objectives; and
- secondly, provide benefits which unambiguously outweigh the costs and risks of implementing them.

On the first point, HEC believes that the SCA has accomplished very high achievements. It has provided a framework that has delivered on the Government's key policy objectives for a number of decades at minimal cost and without Government subsidies. It has provided high reliability at reasonable cost and a proven framework for the implementation of environmental policy. In other words, the SCA has worked extremely well.

On the second point, HEC has spent considerable time and energy in reviewing the possible changes. HEC does not believe that any of the suggested changes has benefits that demonstrably outweigh both the costs of implementing them and the risks they introduce. Fundamentally, the suggested changes involve the introduction of complexity into what has been, to date, a simple regulatory system that works. With complexity comes both additional costs and the risk of unintended consequences. Experimentation must be avoided.

Experience shows that there is no perfect regulatory model. Each model has its flaws and limitations. Even relatively minor changes can alter the dynamics of the industry and the incentives to invest. In seeking improvement, the community needs to be ensured that the changes, if any, do not upset the balance of the existing regime, which has contributed so positively to Hong Kong. On this basis, major changes must be dismissed as unnecessary, misguided and risky.

HEC is of the view that there is no clear case for significant changes but a very real risk of jeopardising Hong Kong's existing supply of safe, reliable and reasonably priced electricity.

Accordingly, HEC recommends that the Government's Stage II Consultation should proceed on the basis that the SCA would be retained in its current form. Replacing it with the new regime based on increased interconnection, open access and competition, or a regulatory model governed by legislation and an independent regulator would not represent clear improvements. Indeed, they would raise real issues and risks that contain far-reaching ramifications.

HEC believes the Stage II Consultation should concentrate on:

- agreeing on the elements of the current SCA for the next term given that the existing balance of the SCA is appropriate; and
- refining the SCA by making appropriate adjustments within the current framework that clearly enhance the regime and further deliver on the Government's objectives.

HEC looks forward to working with the Government and other stakeholders in Stage II Consultation.

12 Abbreviations

CAPM	Capital Asset Pricing Model
CLP	CLP Power Hong Kong, Ltd.
Consultation Paper	Stage One Consultation Paper on Future Development of the Electricity Market in Hong Kong
COE	Cost of Equity
CPI	Consumer Price Index
DGM	Dividend Growth Model
EDLB	Economic Development and Labour Bureau
EMSD	Electrical and Mechanical Services Department
ETWB	Environment, Transport and Works Bureau
FCA	Fuel Clause Account
FGD	Flue Gas Desulphurization
FERC	Federal Energy Regulatory Commission (U.S.)
HEC	The Hongkong Electric Co., Ltd.
HEH	Hongkong Electric Holdings, Ltd.
ISO	Independent System Operator
LOLP	Loss of Load Probability
NEMMCO	National Electricity Market Management Company (Australia)
OECD	Organisation for Economic Co-operation and Development
Ofgem	The Office of Gas and Electricity Markets (U.K.)
PBR	Performance Based Regulation
ROA	Return on Asset
ROE	Return on Equity
ROR	Rate of Return
RPI	Retail Price Index
SCA	Scheme of Control Agreement

VOLL	Value of Lost Load
WACC	Weighted average cost of capital

Appendix 1 - Recent failures in deregulated markets

Blackout Incident:	South Australia, 14 March 2005
No. of people affected:	Supply to about 60 per cent of 760,000 customers were interrupted for 50 minutes to 2 hours.[131]
Estimated economic losses:	Figures not available.
Causes:	Fault in a high-voltage network caused a failure in the electricity interconnector between South Australia and Victoria.[132]
Commentary:	"Was the 3rd time since 1999 that the Port Augusta to Adelaide high voltage line had experienced faults."[133]
	"Brought calls for increased infrastructure spending to provide absolute reliability."[134]

[131] *"60 per cent of customers left in the dark"* The Advertiser (15 March 2005)

[132] NEMMCO Power System Incident Report (14 March 2005); *"Power companies face lawsuits over outage" The Courier Mail* (14 March 05).

[133] *"Dusty insulator cuts state's power,"* The Courier Mail (15 March 05).

[134] Moran, A, *"Meeting Gas and Power Infrastructure Needs"*, Address to the Australian Energy Summit (17 March 2005).

Blackout Incident:	Queensland, Australia, 24 January 2004
No. of people affected:	Up to 120,000 people were affected over 5 days.
Estimated economic losses:	Figures not available.
Causes:	A series of severe thunderstorms that damaged power lines, transformers and cross-arms in Southeast Queensland.[135]
Commentary:	Many of the outages caused by the storms could have been avoided if ENERGEX had an appropriate vegetation management program in place.[136] The Somerville Report noted that ENERGEX had given a low priority to expenditure for reliability works in the three years before the 2004 outages, and found that ENERGEX's maintenance expenditure has been inadequate over recent years.[137]

Blackout Incident:	Queensland (QLD) / New South Wales (NSW) / Victoria (VIC) / South Australia (SA), 13 August 2004
No. of people affected:	About 250,000 homes in QLD were affected for nearly 2 hours, while industrial users in NSW, VIC and SA were also affected.[138]
Estimated economic losses:	Figures not available.
Causes:	Explosion in electrical transmission equipment in NSW Hunter Valley.[139]

[135] "*Electricity Distribution and Service Delivery for the 21st Century*" Detailed Report of the Independent Panel, Department of Natural Resources, Mines and Energy, Queensland (July 2004) p 24.

[136] "*Electricity Distribution and Service Delivery for the 21st Century*" Detailed Report of the Independent Panel, Department of Natural Resources, Mines and Energy, Queensland (July 2004) p 24.

[137] "*Electricity Distribution and Service Delivery for the 21st Century*" Detailed Report of the Independent Panel, Department of Natural Resources, Mines and Energy, Queensland (July 2004) pp 111, 113.

[138] "*Equipment failure blacks out quarter-million Australian homes, businesses*" *Associated Press Worldstream* (13 August 2004); "Power cuts create black Friday" *The Courier Mail* (14 August 2004).

[139] "*Beattie calls for review after four state power black out*" *AAP Newsfeed* (15 August 2004)

Blackout Incident:	Sweden/Denmark, 24 September 2003
No. of people affected:	4 million people without power for over 6 hours.[140]
Estimated economic losses:	Figures not available.
Causes:	Faults in Swedish power system – a nuclear power plant tripped and a failure in a sub-station then occurred, causing a loss of 20% of Sweden's electricity capacity to the grid.[141] Low reserve capacity, shortage of production capacity.[142] Made worse by the fact that a number of generating units were off-line for maintenance at the time.[143]

[140] World Energy Council, "*Focus on electricity blackouts*". Available at http://www.worldenergy.org/wec-geis/focus/blackouts/scandinavia.asp.

[141] Elkraft System Final Report on Power Failure in Eastern Denmark and Southern Sweden (4 November 2003) p 3.

[142] Elkraft System Final Report on Power Failure in Eastern Denmark and Southern Sweden (4 November 2003) p 4.

[143] World Energy Council, "*Focus on electricity blackouts*". Available at http://www.worldenergy.org/wec-geis/focus/blackouts/scandinavia.asp.

Blackout Incident:	Italy, September 2003
No. of people affected:	57 million[144]
Estimated economic losses:	Figures not available.
Causes:	"Direct cause was the fall of a power lines in Switzerland - when a second line tripped seconds later it caused all lines between Italy and the rest of Europe to trip…however it was also due to already known structural and regulatory issues."[145] "The underlying causes of the incident…are the unresolved conflict between the trading interests of the involved…operators and the technical and legal requirements for safe and reliable operation of the networks."[146] "Lack of reserve capacity"[147] "Conflict between trading interests of companies involved and technical requirements of existing system - existing system not designed to cope with deregulation"[148]
Commentary:	"Companies are unwilling to spend money on assets where the return is low or uncertain, especially if the market is unwilling to compensate for reliability."[149] "Many countries in the EU have low reserve generating capacity. This…then leaves less margin in the event of failures."[150] It has been suggested that Italy was over-dependent on imports.

[144] World Energy Council, "*Focus on electricity blackouts*". Available at www.worldenergy.org/wec-geis/focus/blackouts/italy.asp

[145] Union for the Coordination of Transmission of Electricity, Press Release (29 September 2003).

[146] Report on the blackout in Italy on 28 September 2003 (November 2003). Available at http://www.energie-schweiz.ch/imperia/md/content/medienmitteilungen/mm06-122003/89.pdf.

[147] Hall and Thomas, "*Blackouts: Do liberalisation and privatisation increase the risk?*" PSIRU, University of Greenwich (December 2003) p 8.

[148] World Energy Council, "*Focus on electricity blackouts*". Available at www.worldenergy.org/wec-geis/focus/blackouts/italy.asp.

[149] Hall and Thomas, "*Blackouts: Do liberalisation and privatisation increase the risk?*" PSIRU, University of Greenwich (December 2003) p 8.

[150] Hall and Thomas, "*Blackouts: Do liberalisation and privatisation increase the risk?*" PSIRU, University of Greenwich (December 2003) p 9.

Blackout Incident:	Midwest and Northeast U.S., and Ontario, Canada, 14 August 2003
No. of people affected:	50 million people affected in 8 U.S. states and parts of Canada.[151]
Estimated economic losses:	US$ 4-10 billion[152]
Causes:	Tripping of high voltage overhead line in Ohio due to proximity to trees poor vegetation management. Inadequate system understanding, inadequate situational awareness, violation of North American Electric Reliability Council operating and planning standards by several entities.
Commentary:	"Although the blackouts were caused by a series of technical faults, it has been argued that the underlying problem is lack of investment."[153] "A report by the U.S.-Canada Power System Outage task force makes it clear that this blackout could have been prevented and that immediate actions must be taken in both the U.S. and Canada to ensure the electric system is more reliable."[154]

[151] U.S. - Canada Power System Outage Task Force "*Final Report on the August 14, 2003 Blackout in the United States and Canada*" (April 2004) p 1.

[152] U.S. - Canada Power System Outage Task Force "*Final Report on the August 14, 2003 Blackout in the United States and Canada*" (April 2004) p 1.

[153] "*What caused the blackouts?*", BBC Business News online, 13 August 2003, Available at http://news.bbc.co.uk/1/hi/business/3153237.stm

[154] World Energy Council "*Focus on electricity blackouts*". Available at www.worldenergy.org/wec-geis/focus/blackouts/usa.asp

Blackout Incident:	California, 2001
No. of people affected:	Figures not available.
Estimated economic losses:	Over US$50 billion[155]
Causes:	"Supply shortages due to factors such as regulatory impediments to generation and transmission investments and market manipulation and lack of incentives to invest in transmission."[156]
	"While there were many causes it was 'fundamentally a regulatory crisis rather than an economic crisis.'"[157]
	"Two largest electric utilities went bankrupt after being forced to buy at high wholesale prices and sell at fixed retail prices by law."[158]
Commentary:	"Suggestion that price controls to blame – 'blackouts are the inevitable result of attempts to regulate and legislate basic economic laws out of existence.'"[159]
	"It is claimed that the reason that other Western U.S. states didn't experience the crisis was because they increased prices to consumers."[160]

[155] Lave, L.B., J. Apt and S. Blumsack (2004), "*Rethinking electricity deregulation*", Electricity Journal 17(8), p 11.

[156] Conference: "*The electricity industry: reliability and the road ahead for Hong Kong*" (29 April 2004) p 17.

[157] Lave, L.B., J. Apt and S. Blumsack, "*Rethinking Electricity Deregulation*" Electricity Journal (2004) 17(8), pp 11-26

[158] Conference: "*The electricity industry: reliability and the road ahead for Hong Kong*" (29 April 2004) p 17.

[159] S Peterson and C Augustine, "*Regulatory failure in the California electricity crisis*" (2003) Electricity Journal 16(7), pp 56-64

[160] S Peterson and C Augustine, "*Regulatory failure in the California electricity crisis*" (2003) Electricity Journal 16(7), pp 56-64

Blackout Incident:	Victoria/South Australia, Jan/Feb 2000
No. of people affected:	Over 1 million[161]
Estimated economic losses:	A$100 million[162]
Causes:	Load shedding led to mandatory government restrictions on use of power between 1pm and 7pm imposed over one week period in Victoria. South Australia also affected by power shortages. A combination of industrial action, high demand and temporary loss of generating units caused by breakdown at Victorian power stations.[163]
Commentary:	"Although it is unclear, NECA suggests that it is possible that the load shedding that occurred would have been avoided with higher reliability standards."[164] "Both the Victorian and South Australian governments and NEMMCO faced much public criticism over their handling of the incident, particularly when it later came to light that during the restrictions NEMMCO had sold electricity generated in Victoria to NSW and electricity generated in South Australia was sold to Victoria."[165]

[161] Morton T, "*Power games: the politics of electricity*" ABC AM Radio Transcript, (19 March 2000). Available at http://www.abc.net.au/rn/talks/bbing/stories/s112648.htm.

[162] Fitzsimmons H, "*Outrage over sale of electricity from Victoria*", ABC AM Radio Transcript, (11 February 2000).

[163] NECA, "*The performance of the national electricity market*" (June 2002) p 85.

[164] NECA, "*The performance of the national electricity market*" (June 2002) p 85.

[165] See, for example, H Fitzsimmons, "*Outrage over sale of electricity from Victoria*", ABC AM Radio Transcript (11 February 2000).

Blackout Incident:	Auckland, February 1998
No. of people affected:	1 million[166]
Estimated economic losses:	Tens of millions[167]
Causes:	Failure of power cables.[168]
Commentary:	Under-investment in transmission blamed.[169]
	"6000 residents living in apartments forced to move out for the 3 week period, 60,000 city workers forced to work elsewhere - caused widespread disruption and chaos."[170]

[166] Melhuish, M, Sustainable Energy Forum, Presentation, NZ Energy Conference (7-8 October 2002).

[167] "*Power failure brings New Zealand's largest city to a standstill*" CNN world news (24 February 1998), http://www.cnn.com/WORLD/9802/24/nzealand.blackout/index.html

[168] "*Power failure brings New Zealand's largest city to a standstill*" CNN world news (24 February 1998). Available at http://www.cnn.com/WORLD/9802/24/nzealand.blackout/index.html

[169] Melhuish, M, Sustainable Energy Forum, Presentation, NZ Energy Conference (7-8 October 2002).

[170] "*Power failure brings New Zealand's largest city to a standstill*" CNN world news (24 February 1998). Available at http://www.cnn.com/WORLD/9802/24/nzealand.blackout/index.html

Appendix 2 - Cost of regulation in overseas markets

I Set-up costs

Market restructure, deregulation or the introduction of major regulatory changes require substantial set up costs that result from the creation of new organisations, investment in new hardware and software and changes to operational systems. The following figures provide specific examples of the set-up costs associated with overseas electricity market reform.

Canada

Ontario Market Restructuring - total cost of over C$1 billion[171]

Cost of establishing the Independent Market Operator - C$300 million

Cost of establishing Ontario Power Generation- C$100 million

Cost of establishing local distribution companies - C$600 million

U.S.

Set-up costs in California were US$ 500 million.[172]

Australia

Set up costs for NEMMCO totalled A$50 million, and AS3.5 million was spent on establishing NECA.[173] In the 2003/04 financial year NEMMCO received A$53,700,292 in fees from market participants to offset the establishment costs, of which a $21.4 million debt remains.[174]

The total cost of setting up a system for full retail contestability in Australia was A$ 100 million.[175] Of this, a $39 million debt still remains.[176]

It is estimated that the total cost of the new Australian Energy Regulator (established in July 2004) will be A$10.7 million, and the government has allowed $8.4 million total towards set up costs in the 2004-05 budget, with $1.9 million for up-front capital costs.[177]

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[171] Woo et al. (2005) *"Costs of electricity deregulation"*, Energy – The International Journal, forthcoming, p 5.

[172] *"The Electricity Industry: Reliability and the Road Ahead for Hong Kong"*, transcript from conference, Session 1 (29 April 2004).

[173] Final Determination - Application for ACCC authorisation to change the National Electricity Code, p 10.

[174] NEMMCO Annual Report 2003-04, pp 2 39.

[175] *"The Electricity Industry: Reliability and the Road Ahead for Hong Kong"*, transcript from conference, Session 1 (29 April 2004).

[176] NEMMCO Annual Report 2003-04, p 2.

[177] Australian Government budget 2004-05, Portfolio Budget Statements – Treasury, ACCC, Section 2.

II On-going regulatory costs

In Australia it has been estimated that the total annual cost of regulation in terms of employees and consultants for the electricity generation, distribution and transmission sectors is over A$88 million.[178] The following figures provide some indication of the costs associated with the various aspects of regulating overseas electricity markets.

A. Independent system operators - annual expenses[179]

Ontario, CA - CS212 million

California, U.S. - US$198 million

Midwest, U.S. - US$119 million

New England, U.S. - US$103 million

New York, U.S. - US$116 million

PJM, U.S. - US$247 million

Fingrid, Finland - €152.7 million

Elkraft, Denmark - DKK3,108.2 million

Elexon, U.K. - £65.5 million

B. Economic regulators

The U.S. FERC had an annual budget of US$52 million for electric power activities in 1998.[180] State regulatory commissions also had large annual expenditures, for example[181]:

California - US$77 million

New York - US$52 million

Pennsylvania - US$31 million

[178] Moran, A, *"Paperburden Costs of Economic Regulation of the Gas and Electricity Supply Industry"* (2003) APIA Submission to the Productivity Commission, Energy Issues Paper No 29, p 3.

[179] North American costs based on 2002/2003 data. See Woo et al, (2005) *"Costs of electricity deregulation"*, Energy – The International Journal, forthcoming, p 5. Fingrid costs see 2004 Annual Report, p 26. Elkraft Costs see 2005 Operating Budget, http://eng.elkraft-system.dk/C1258C090032B149/Financial%20aspects/4CE769A846E31DEDC1256FC40049BAEE?OpenDocument. Elexon, see Annual Budget 2004-07, p 7.

[180] International Energy Agency, *"Regulatory Institutions in Liberalised Electricity Markets"* (2001), p 93.

[181] Data relates to expenditures in the early 1990s, Philips, C., *"The Regulation of Public Utilities: Theory and Practice (1993)"* Table 4-2. Note that these commissions are also responsible for regulating a range of other industries, such as gas, water and telecommunications.

Virginia - US$37 million

Australian state regulators also face large annual operating expenses[182]:

Independent Pricing and Regulatory Tribunal NSW (IPART) - A$15,741,000

Essential Services Commission of South Australia (ESCOSA) - A$4,470,000

Essential Services Commission of Victoria (ESC) - A$12,935,609

Australian federal government agencies with explicit regulatory functions employ around 30 000 staff and in 2001-02 spent approximately AS4.5 billion.[183]

A study measuring the cost to the Australian government of regulatory authorities administering the Gas Access Regime found that the total cost of industry regulation was between A$16.7-18.8 million per annum, with a cost of over A$5.4 million for access arrangements alone.[184]

C. Licence fees and regulators' costs paid by system participants

Regulators' costs are typically recovered through licence fees levied on the regulated businesses. As the following figures indicate, these fees are substantial, and the costs are ultimately passed on to consumers through rising tariffs.

ESCOSA received A$8.97 million (of total income of AS9.78 million) in the form of licence fees from electricity/gas operators. Of these, electricity generators, transmitters, distributors and retailers paid A$6,203,100 altogether in licence fees.[185]

ICRC received A$1.419 million in licence fees from utilities in 2003/04.[186]

In 2002-03 Envestra paid annual licence fees of A$1.1 million and A$1.2 million for the use of the South Australian and Victorian gas networks respectively.[187]

Epic Energy paid A$2.5 million to regulators for the Dampier-Bunbury pipeline access arrangement process, as well as an addition AS2.5 million in consultants' fees, while NT Gas spent half a million dollars on the access arrangement process for the Amadeus Basin-Darwin pipeline.[188]

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[182] 2003-04 Annual Reports of IPART (p 23), ESCOSA (p 39) and ESC (p 58). These regulators are responsible for regulating a number of services (e.g. electricity, gas, water, rail, ports and grain in Victoria) however figures relating to expenditure on particular areas are not available. A large part of the costs are associated with the electricity sector, see above figures re licence fees paid by electricity market participants.

[183] *Review of the Gas Access Regime*, Productivity Commission Inquiry Report (11 June 2004) p 147.

[184] *Review of the Gas Access Regime*, Productivity Commission Inquiry Report (11 June 2004) p 148.

[185] ESCOSA Annual Report 2003-04, pp 39, 41.

[186] ICRC Annual Report 2003-04, p 53.

[187] *Review of the Gas Access Regime*, Productivity Commission Inquiry Report (11 June 2004) p 145.

[188] *Review of the Gas Access Regime*, Productivity Commission Inquiry Report (11 June 2004) p 145.

D. Administrative and other costs

In U.K., Ofgem administrative costs in 2003/04 totalled £37.2 million.[189]

In Australia, ESCOSA engaged consultants, contractors and external lawyers to the value of AS1.219 million during 2003-04.[190]

NECA administration expenses totalled AS1,026,820 in the 2003/04 financial year, and A$509,624 was spent on consultants' fees.[191]

ICRC's ordinary operating expenses were A$3,410,000.[192]

[189] OFGEM 2003-04 Annual Report p.51.
[190] ESCOSA Annual Report 2003-04, p 42.
[191] NECA Annual Report 2003-04, p 34.
[192] ICRC Annual Report, p 87.

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28th April, 2005

Economic Development and Labour Bureau
Government of the Hong Kong Special Administrative Region
2/F, Central Government Offices, Main & East Wing
Lower Albert Road
Central
Hong Kong

Dear Sirs,

Consultation Paper on Future Development of the Electricity Market in Hong Kong
Response Paper

With a membership of over 5,500, the IEE Hong Kong is the local Branch of the IEE. The IEE is the largest professional engineering society in Europe and has a worldwide membership of more than 120,000 in 140 countries.

With Branches and Professional Networks throughout UK and the world, the IEE is an innovative international organisation for Communication Engineering, Computing and Control, Electronic Systems & Software, Information Professional, Management, Manufacturing and Power professionals with specifically tailored products, services and qualifications, ready to meet the needs of today's technology industry.

Following the publishing and invitation to comments of the above Consultation Paper, the Branch Committee of the IEE Hong Kong commissioned a Working Group on 22nd February 2005 to study the Consultation Paper and provide comments to the Hong Kong SAR Government. Members of the Working Group are as follows:

- Mr. K.Y. Leung – Chairman
- Mr. Gary Ko – Secretary
- Mr. Mathew Chan
- Mr. T.K. Chiang
- Mr. L.M. Chow
- Professor T.S. Chung
- Mr. M.S. Kwan
- Mr. Alexander Wong
- Mr. David Yuen

The Working Group has convened six gatherings including meetings with representatives from the Economic Development and Labour Bureau, CLP Power and the Hongkong Electric. Extending beyond the Working Group, all members of the IEE Hong Kong have been invited to give comments to the Working Group for compilation of response.

Attached is the consolidated response of the IEE Hong Kong and we wish that our comments will contribute to the future development of the electricity market.

Yours faithfully,

K.Y. Leung
Chairman
Working Group
The IEE Hong Kong

Consultation Paper on Future Development of the Electricity Market in Hong Kong
Response Paper by the IEE Hong Kong

Table of Contents

1. Overview

2. Comments to relevant sections of the Consultation Paper

   2.1 Government's Policy Objectives

   2.2 Objectives of the Review

   2.3 Achievements of SCA

   2.4 Criticisms of SCA

   2.5 Lessons from Overseas Reforms

   2.6 Prerequisites

   2.7 Possible Approaches to Future Regime
   2.7.1 A Modified SCA-type Regime
   2.7.2 A Regime with New Features

   2.8 Regulatory Arrangement

   2.9 Institutional Set-up

   2.10 Implementation Schedule

[1] Overview

Hong Kong is a world class and affluent city with a denser population and higher concentration of multi-story buildings than most parts of the world. Electricity supply is not only a form of energy use but also an undividable part of public security and safety. We concur with the government's policy objective to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices with reduced environmental impact.

Whilst we concur that the criticisms of the existing SCA must be addressed, in shaping the future electricity market, any decision must be backed by balanced consideration of technical, social and economic analysis with reference to the continuous prosperity of Hong Kong. Recognising the contribution by the existing SCA on the provision of reliable, adequate and safe supply of electricity that have helped to support the economic development of Hong Kong in past years, the suitability of continuation of the SCA into the future decades needs to be critically reviewed and the outcome be accepted by the public.

We understand that there is a worldwide trend of introducing competition into electricity markets, but also recognize there are concerns in those markets relating to reliability performance and investment incentives. Hence careful and in-depth study on more mature reformed markets should be made before making a decision to deregulate the local market. Meanwhile, the uniqueness of the electricity market in Hong Kong, including highly dense population with lots of high-rise building, lack of natural resources, scarcity of land and private ownership of power companies, has to be taken into consideration in the future regime.

A successful regime must be formulated with internally consistent terms and consideration must be made based on a complete/entire package but not on any single issue in isolation. In the future electricity market, consideration should be given to balance the interests of both small and larger consumers. .

For a modified SCA-type regime, an agreement with a sufficient length and a reasonable rate of return is considered appropriate for the large capital and long term investment nature in electricity market, and to maintain investments incentive for coping with future demand growth and maintaining adequate reliability performance. But in between there should be interim reviews for assessment and adjustment of the return based on pre-determined adjustment mechanisms. The base and magnitude of the rate of return can only be ascertained when the shape of the electricity market and the associated incentive and risks are determined. Moreover, there should be reward/penalty mechanisms based on performance targets, as well as social and environmental costs, for example.

The chosen reference factors (e.g. fuel price factor, depreciation, suitable economical index) and the rationale for adjustment of tariff should be made more transparent to the public.

We concur with the government's view that implementation of any new features would be dependent upon the market conditions and relevant infrastructure being in place. Whilst new supply sources from China are logical in the longer term, it is necessary to resolve the problems on incompatibility or discrepancies in legal, commercial, environmental and technical frameworks. Therefore, before going into details on grid access, Government should have a decision on what is the long term mission of the electricity market – should it be a fully opened market or not? Without this clear picture, it is difficult to determine how, or whether, the existing grid be reformed.

For increased interconnection between CLP and HEC, if it is not economically viable to provide full customer choice within Hong Kong, as indicated by the Government, a balance must be struck between the extent of increased interconnection against risk to reliability and economic benefits gained, and whether there are net benefit achievable through increased interconnection.

In principle, renewable energy should be promoted. We should be careful in evaluating its application in Hong Kong taking into consideration the unique characteristics and limitations of Hong Kong. Decisions can only be made upon completion of the feasibility studies mentioned by the Government and where detailed information is available. Moreover, in evaluating the feasibility, both technical as well as financial and environmental considerations should be taken into account.

In terms of regulatory arrangement and institutional setup, it is immature to comment at the present stage before the structure of the electricity market is determined. It is believed that the existing bilateral agreement and institutional arrangement are considered as appropriate for a modified SCA because it has been proven, and is simple and cost effective, provided an adjustment mechanism on the rate of return can be formulated. When more changes are introduced and/or the market is restructured to prepare for many service providers, regulatory framework supported by legislation and establishment of an independent regulator may be more effective. However, cost and benefits of such change should be carefully considered.

We have studied and discussed the entire Consultation Paper in detail and the following chapter are the comments to relevant sections of the Consultation Paper.

2.1 Government's Policy Objectives

(item 1.1 on P. 1)

Hong Kong is a world class and affluent city with denser population and higher concentration of multi-story buildings than most parts of the world, where electricity supply is not only a form of energy use but also an undividable part of public security and safety. We concur with government's policy objective to ensure that consumers receive reliable, safe and efficient electricity supply at reasonable prices with reduced environmental impact. We also recommend the objectives be expanded to include electricity quality, clear accountability and responsibility, sustainability of the continuous development of the electricity market and tariff transparency.

2.2 Objectives of the Review

(item 1.2 on P. 1)

While we agree with the government's objectives of the review, we would suggest the government spells out clearly the priority of the objectives and adheres to them in the future electricity market.

2.3 Achievements of SCA

(items 2.4-2.6 on P. 5-8)

Recognising the existing SCA has contributed to the economic development of Hong Kong because of the provision of reliable, adequate and safe supply of electricity, the suitability of keeping of the form of the current SCA into future decades needs to be critically reviewed and the outcome be accepted by the public. Yet, changes should not be introduced just for the sake of change, nor be influenced by any political sentiments which may prevent objective analysis.

2.4 Criticisms of SCA

(item 2.7 on P. 8-9)

We concur that the public criticisms of the existing SCA must be addressed. While most criticisms point to the price of electricity and the profit level of power companies, they seldom criticise the reliability, safety, and quality. Together with environmental impact and open market issues, all these factors are equally important,t if not more so, when the electricity market develops into the future. In shaping the future electricity market, any decision must be backed by balanced consideration of technical, social and economic analysis with reference to the continuing prosperity of Hong Kong.

2.5 Lessons from Overseas Reforms

(items 3.1-3.2 on P. 10)

As pointed out by the Consultation Paper, as Hong Kong is unique in itself, the experience and development in other major economies may not be generally applicable to the ever-changing local environment. Competition in the electricity market is a world wide trend while, in contrast, there is an absence of the provision of a competitive environment for the existing two companies in Hong Kong.

Market reform is a long and continuous process and may take many years. Once a major reform is started, it would reach a point of no return. With the introduction of competition through deregulation, it is anticipated that more pressure will be exerted on electricity suppliers to raise or maximise their operational efficiency. It is also noted that over-emphasis on economic-biased considerations in some overseas reforms have created adverse effect to most stakeholders. While some overseas deregulated markets have thrived, in some, there are also concerns by their local parties on the low investment incentive for generation facilities which has created a threat to reliability. Hence careful and in-depth study on more mature reformed markets should be made before making a decision to deregulate the local market. The achievements on safety and reliability with the existing SCA must be taken into account for the future electricity market in order not to jeopardise the economic prosperity of Hong Kong.

2.6 Prerequisites

(items 3.3-3.9 on P. 11-13)

Any development or reform of the electricity market should not jeopardise the free market status and economic prosperity of Hong Kong. This is because an effective market structure is always driven by business sectors but not the government. The uniqueness of the electricity market in Hong Kong has to be taken into consideration:

- Lots of high-rise commercial and residential buildings heavily reliant on electricity to have viable daily operations
- No natural resources, all have to be imported
- Scarce, and expensive, land resources
- Private investment

There is also a growing concern that cross subsidisation of electricity unit cost has existed between different categories of consumers e.g. small (residential) consumers, large (commercial, utilities, etc.) consumers. In the future electricity market, consideration should be given to balance the interests of both small and large consumers. In case there are additional power supplier(s) in the future, all categories of consumers should be fairly served.

Overseas experience tells that we need to establish a long term incentive plan (but with built-in mechanism to offer fair but not excessive incentive) to ensure continuous investment for the sake of maintaining good quality and high security of the electricity supply in Hong Kong.

2.7 Possible Approaches to Future Regime

The future regime of the electricity market should aim to enhance the competitiveness of Hong Kong and maintain Hong Kong's position as a world-class city. It is worthy noting that a successful regime must be internally consistent, but internally consistent terms could not normally be formulated by means of mix and match of all favourable terms together. Any consideration of the way forward must be based on a complete/entire package and should not be based on any single issue in isolation.

2.7.1 A Modified SCA-type Regime

(items 3.10-3.27 on P. 13-20)

(A) Return on Investment

One criticism of the current SCA is that the permitted rate of return is too high under the prevailing economic conditions. However, a reasonably attractive rate of return should be provided to the electric companies to encourage investments for coping with future demand growth and maintaining reliability performance.

Moreover, when the return on investment is considered, the unique nature of the industry must be noted. In view of the long term nature of the investment (including the new market entries), the risk associated with the uncertainties over the lengthy investment recovery period must be taken into account. There are some overseas examples which show that inadequate investment after deregulation may have arisen due to the absence of adequate incentives over the investment recovery cycle. The base and magnitude of rate of return can only be ascertained when the shape of the electricity market and the associated incentive and risks are determined.

Base of Return

It is difficult to judge whether the return should be solely based on asset or equity. Using an asset base may result in over investment and using an equity base may result in inefficient financing. More opinions from the public and the relevant professionals should be obtained before concluding a final model, and other possible options or combination of options should be pursued in detail. However, suitable weighting should be established such that the electricity companies will optimise their asset investments and apply efficient financing tools.

In establishing the base of return, the following factors could be included:

- continuous investment in research and development to increase productivity and reduce cost

- investment in new plants and equipment to cater for the changing demand of the public and consumers

Permitted Rate of Return

Without a transparent mechanism, it is not easy to set a fixed permitted rate of return. The returns of some overseas electric companies operating under similar environment could be benchmarked with and the cost of capital could be taken into account in determining the permitted rate of return.

Permitted return should also take into account some relevant factors, such as economic factors, business risks, performance targets, and environmental impact. Upon achieving the pre-determined performance criteria, a higher return can be obtained, or reduced as needed. The parameters can include utilization rate of built-facilities, production output ratio (e.g. unit production output vs capital/asset/etc.).

Review Period

In setting the review period, the life of assets being installed should be taken into account, though not necessarily be commensurate with the life cycle of most power system plants, which are of 20-30 years. An adequate length of agreement period should be in place to enable a reasonable balance between risks and return. In between there should be interim review period for assessment and adjustment of the return based on pre-determined adjustment mechanisms.

For the review period of tariff, annual review is considered as appropriate. With the exception of commercially sensitive figures, most information shall be disclosed and communicated to the public to promote transparency.

Development Fund

Any surplus of the return can be deposited in the existing Development Fund to provide a cushion to stabilize the tariff. However, a regulatory system should impose a maximum value, not allowing the fund to build up a large balance, refunding the excess to the customers through tariff cuts in monthly bill.

(B) Return Based on Performance

In order to implement a return based on performance, a set of standards and targets have to be established first. While a comprehensive set of measurable standards and targets could be set, the formula for offering incentives based on performance against the standards and targets may not be easily established. Additional resources are required to monitor and assess the actual performance and it may not be cost effective to do so.

[C] Regulating Tariff

While the reference factors (e.g. fuel price factor, depreciation, suitable economical index) for adjustment of tariff should be made more transparent to the public, an overextensive use of public hearings/consultation is not encouraged. The formation of an independent body like the Consumer Council to oversee the review of tariff may improve cost transparency and boost public confidence in the cost structure.

As fuel is subject to cost spikes and volatility, fuel cost adjustments should remain as part of the tariff. Operational efficiency and fuel procurement may be considered as part of the performance targets.

2.7.2 A Regime with New Features

(items 3.28-3.64 on P. 20-32)

We concur with the government's view that implementation of any new features would be dependent upon market conditions and the relevant infrastructure being in place. Though a total package approach may shape the future of the electricity market, comments relating to particular areas are provided as follows:

(A) Increased interconnection

The existing interconnection between the HEC and CLP Power is for mutual backup purpose and is not built with sufficient capacity to supply the other side. The Government should carefully consider the extent of increased interconnection, as it is mentioned in the consultation paper that a "full access" capability would be very costly and might not be economically viable. The benefits of interconnection could thereby rest upon enhanced system efficiency, improved coordinated use of generating facilities, maximisation of usage of existing power supply infrastructure, provision of more choice for consumers, etc. However, as pointed out in para 3.43 of the Consultation Paper, more interchange of electricity using stronger interconnection demands a higher degree of coordination amongst all interconnected parties in order to maintain a high reliability standard. A balance must be struck between the extent of increased interconnection against risk to reliability and economic benefits gained.

Since it is envisaged that it might take longer than 5 years to construct the new interconnection, increased interconnection can be better addressed in Stage II consultation to match with the direction of the market change.

(B) New Supply Sources

Supply from Mainland China

Supply reliability from long-distance power transmission is one concern as China is also experiencing a short fall in power supply. While under different jurisdictions, the fuel source used in the power generation might not be subject to the same stringent environmental control requirement as in Hong Kong, which means that there might be a reduction in air pollution in Hong Kong at the expense of other areas.

However, in the long term, interconnection with the South China market seems to be a logical option and the future electricity market in Hong Kong must be shaped to prepare for it. Admittedly, there are currently power shortages in South China, in particular in Guangdong province where economic as well as electricity demand growths are high. A South China interconnection would, in future, enable the Hong Kong electricity market to tap into the fruit of development of the Mainland.

Renewable Energy

In principle, renewable energy should be promoted as a means to help reducing GHG emissions. According to the Consultation Paper (para. 3.56), we understand and welcome that various feasibility studies on the application of various technologies of renewable energies including photovoltaic and wind power generation are underway.

Notwithstanding the fact that there is a growing trend of renewable energy development worldwide, we should be careful in evaluating their application in Hong Kong taking into consideration the unique characteristics and limitations of Hong Kong. Decision can only be made upon completion of these feasibility studies and the availability of detailed information. Moreover, in evaluating the feasibility, both technical and financial considerations should be taken.

Financially, although the technologies of renewable energy have recently advanced significantly, such technology is still expensive compared with conventional generation sources. Taking into account the technical constraints as described above, which would also add to the total cost, a balance must be struck between the benefit to the society as a whole and costs incurred.

In a long term perspective, the more use of renewable energy in Hong Kong may depend on technological breakthrough, and/or through interconnection with appropriate renewable energy sources in China.

[C] Grid Access for Third-Party Users

Many consumers believe that there will be reduction in tariff if there are more electric companies in the market. Before going into details on grid access, Government should have a decision on what is the long term mission of the electricity market – should it be a fully open market or not? Without this clear picture, it is difficult to determine how should the existing grid be reformed. Therefore, Government should provide more data, examples and objective analysis in the Stage II consultation under grid access for third-party users, particularly on the finance and cost implications.

For 'short' term development in the coming new regime, appropriate provision for grid access by third-party suppliers should be allowed for, with an aim to gain net benefit from the choice of a more cost effective supply source(s) to meet future growth in demand among the existing power companies and third-party users. Preparation for competition, if not the introduction of competition, may need to be provided for in future market reform.

In terms of administration, a set of specifications covering codes of conduct, technical standards for connection, liability, charging mechanisms and dispute resolution will have to be established to ensure fairness to both the grid owners and users, compatibility with the entire power system and, most importantly, the safe and reliable operation of the power grid. In addition, a set of performance standards should be established such that the reliability performance of the grid users can be monitored.

2.8 Regulatory Arrangement

(items 2.3 and 4.1-4.6 on P. 3-4 & 33-35)

Before the structure of the electricity market is determined, it is immature to comment on the form of future regulatory arrangement in the present stage. It is believed that the existing bilateral agreement is considered as appropriate for any modified SCA because it has been proven as more flexible in introducing changes through mutual agreement. When more changes are introduced and/or the market is restructured to prepare for many service providers, a regulatory framework supported by legislation may be a more effective and efficient. However, regardless of the form of regulatory arrangement, there are several factors needed to be considered:

- the striking of balance among the interests of all stakeholders
- optimal use of resources with due consideration to the technical performance of the electricity supply system
- setting up of incentives to ensure the service providers continuously improve, to meet the demand from the public and consumers
- setting up of a transparent mechanism for the review and adjustment of tariff
- encouragement of a more stable tariff to enhance certainties to businesses
- provision of adequate incentive to attract investment in electricity supply

2.9 Institutional Set-up

(items 2.3 and 4.7-4.10 on P. 3-4 & 35-37)

It is immature to consider this option in isolation because the institutional set-up should be fit for purpose. Different set-up may be required if the future regime is different. It would be appropriate for the government to evaluate the options when the broad direction of the future regime has been decided before an appropriate set-up can be determined.

However, should the future electricity market resemble the existing SCA structure with few service providers in the market, the present regulatory arrangement with some rationalisation will be adequate for the effective and efficient control of the electricity market. It is because most stakeholders have acquired some 40 years of experience of its operation.

A separate regulatory authority may be required if there are many players in the electricity market when bilateral-type arrangement cannot be executed effectively. Statutory requirements will be the rule of the game under this sort of market arrangement. More information on cost implications in establishing and managing a regulatory authority should also be provided for public consideration and agreement.

2.10 Implementation Schedule

(items 4.11-4.12)

Apart from the criticisms listed in the consultation paper, there are no major deficiencies in the existing SCA. The expiry date of the SCA in 2008 may not be necessarily a deadline for the beginning of market reform if no improvement can be formulated and agreed. Should any legislation be introduced, more lead time will be required. An extension of the existing SCA for a relatively short term should not be ruled out before entering into a new stage.

If the future electricity market is believed to be an improvement over the existing one, the shortcomings of the existing market need to be addressed in a higher priority and in a shorter time frame: perceived over-investment, lack of transparency in tariff adjustment, lack of competition, etc. It is suggested the government lays down the changes introduced (and with justifications) and their respective implementation schedule in the Stage 2 consultation for all the stakeholders to assess the impact and agree.



2005/04/27 05:39 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage I Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sir,

After reading the subject paper, I felt that comments were not easily be made by general public because the issues are very technical. Since the cost of wrong movement can be unbearable, I prefer to keep the existing SCA at minimal change. Please don't make any legislation on our electricity market.

I hope the society can make right decision on this issue. Don't be moved by political forces. Be rational!

Best Regards,

Thomas Lui



25/04/05 08:35 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Electricity Market in HK
☐ Urgent ☐ Return Receipt

I am a full supporter of economics.

I don't believe demand for electricity is so elastic that a competitive market can do any good to the consumers.

Why not let the Scheme of Control stay?

Tiffany Yuen

陳 天佑

25/04/05 10:59 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comments on Future Development of the Electricity Market in Hong Kong.
☐ Urgent ☐ Return Receipt

Reliable and safe electricity supply is what we want under reasonable and affordable tariff.

Current electricity fee in Hong Kong is not expensive as compared with other major cities such as Tokyo. In addition, the cost of electricity to household accounts is less than 2% of household monthly expenditure.

Existing regime is cost-effective. Open market and competition are not feasible in a small market like Hong Kong. Overseas experiences have shown lower supply reliability and price fluctuations under deregulation.

Tim Chan
25/4/05

Timmy Kong

2005/04/30 11:42 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: 電力市場咨詢建議
☐ Urgent ☐ Return Receipt

To whom it may concern,

please refer to attached document.

Thank you.

Timmy Kong



電力市場咨詢建議.doc

30-04-2005

姓名　　：孔祥柏

敬啓者,

維利現行利潤管制計劃, 監管制度, 反對開放市場, 電力聯網

本人閱讀政府關於電力市場的咨詢文件後, 得知政府的政策目標是爲消費者於合理價格下提供? 定, 安全及有效率的電力供應, 同時盡量減低對環境的影響, 現本人有以下建議:

1. 對利潤管制計劃, 基本上維持以往的做法, 但加上以能者多得爲原則, 表現越好, 可得的準許利潤越高。
2.
3. 維持現行的監管制度。
4. 反對開放市場, 電力聯網。

理由如下:

- 13.5%的準許利潤, 若考慮由 1979 年以今的經濟演變過情, 實屬合理。
- 對電力市場的投資屬非常長線投資, 以 15 年爲期的監管計劃是合理的長度。
- 本人從過往報張上得知, 香港電燈公司的電費實屬合理及可負擔的, 反爲煤氣公司, 鐵路公司等收費過高。
- 現行的監管安排經過以往的 40 年, 可說已証實爲可行及好的監管安排。
- 有關批評港燈的電費比中電爲高, 考慮了客戶? 的不同(商業用戶較多), 要求的供電? 定性較高, 以及客觀的城市發展環境, 因而引至較高的營運成本, 是可以理解和合理的。
- 以近年外國曾發生的大停電看, 電力聯網的風險實在太大, 實屬不可取, 兼且若然聯網, 港燈客戶面對的電費加幅將比中電客戶爲高, 做成不公平。
- 香港的電力市場過細, 開放市場及引入競爭實在不是個現實的考慮。

"Tina Liu"

2003/04/26 09:52 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: 支持現行的《管制計劃協議》
☐ Urgent ☐ Return Receipt

我希望在2008 年以後，香港的電市場能維持現行的《管制計劃協議》。

我們應該妥善維持香港重要的基礎設施，令香港維持現行的國際級水平。我們在電力上應自給自足，不能依靠大陸進口。

電力進口是不可行的。

浸會大學香港能源研究中心主任周全浩指出，發電及輸配電分別佔整體成本的三分二及三分一，內地發電成本雖較低廉，但鋪設電纜到香港的成本不菲。

如開放電力市場計劃需投資數十億元資金，最終建設費亦是消費者承擔。這是毫無益處。

依照諮詢文件，中國大陸，特別是廣東省，並沒有剩餘電力。進口電力是不行。廣東經常停電。如香港連接廣東的電力系統, 香港的供電可靠性將被降低。

如香港供電突然中斷，就算只是數分鐘，這對我來說是十分可怕的。如果我正在餐館裡進食時，我就必須離開，因新鮮空氣不夠，可能還要走樓梯，到時漆黑一片，甚或互相踐踏，不感想像。如果股票市場在我的交易期間無法運作, 我將會損失金錢。並且許多在港公司沒有後備發電機, 這有別於中國情況。會有更多在港公司出現問題，比想像中會更嚴重。

容許投資者有適當的回報是正確的。發電和輸電基礎設施需要長時間回報，《管制計劃協議》讓電廠適當地投資。如果爲要便宜開放電力市場，短線投資者不會爲未來香港的基礎設施著想而投資。這樣怎會有高的供電可靠性？

"Ting Tiew On"

30/03/05 09:47 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: view
☐ Urgent ☐ Return Receipt

Dear Sir,

Please refer to the attached document on my views concerning Future Electricity in Hong Kong. This is actually the assignment for the "power marketing" subject I am currently taking in Polytechnic University.

TING Tiew On.



Assignment 1.doc

Ting Tiew On 04900797r

Assignment 1

With reference to attached article and consultation paper, or otherwise, design a possible reform of the Electricity Supply Industry of Hong Kong.

Summarize the key points of your findings and justification within two pages to include the following heading:

i. Key features of the Scheme of Control
ii. Merits of the SOC
iii. Deficiency of the SOC
iv. Desirable outcome of HK' s ESI after 2008
v. Benchmark Model
vi. Possible model of reform

A. Introduction

Hong Kong Scheme of Control (SoC) governs the operation of Hong Kong Electric (HKE) on Hong Kong and Lamma islands, and CLP Power in Kowloon and New Territories has been a major success in delivering reliable and state-of-art services. Nevertheless, the introduced scheme does not seem to be perfect as expected.

B. Key features of the Scheme of control

This scheme is established between the government and power companies through Scheme of Control Agreements (SCAs). The duration of the agreement is for 15 years. These agreements set out the obligations and rights of the power company and provide a framework for the government to monitor the power companies' financial affairs and technical performance, taking into account the mutual benefits of investors and consumers.

C. Merits of the SOC

It encourages the participation of new competitors into electricity supply market. The scheme imposes an obligation for the power companies to provide sufficient facilities to meet present and future electricity demand. In return, power companies are entitled to 13.5% rate of return on their fixed assets plus additional 1.5% for assets contributed by shareholder's funds. The high return of electricity market has provided a stable environment and incentive for continued investments to meet growth in electricity demand with a high reliability that currently exceeds 99.99%. Whilst enjoying the benefit as investors, customers' interest is also considered as the scheme ensures the power companies to supply electricity at lowest cost. Under the scheme, government has the right to monitor the financial and technical performance of power companies leading to the adjustment of the annual tariff accordingly to safeguard both consumers and power companies' interests.

D. Deficiency of the SOC

High return rate of 13.5% on fixed assets and additional 1.5% of assets financed by shareholders' fund sparks the public dissatisfaction especially in the periods of economic downturn as the permitted rate of return and the rate base are fixed over the entire 15-year period of the SCAs. The duration of 15 years for amendments is deemed to be lengthy and inflexible for necessary adjustment. In addition, annual tariff and auditing is said to be lacking of accurate information as they do not invoke public participation, only the government and power companies are involved.

E. Desirable outcome of HK's Electricity Supply Industry (ESI) after 2008

Generally, a positive outcome of HK's ESI is expected and summarized as below:

i. Enhanced system efficiency through increasing interconnection between power companies. Two consultancy studies[1] concluded that there would be overall economic benefits in increasing the interconnection capability between HEC and CLP Power, and that this project is technically feasible.

ii. Optimized system resources through sharing of knowledge and expertise as in terms of demand forecasts, reserve sharing and system planning. The current return rate of 13.5% is based on fixed assets plus 1.5% form shareholders' fund. As this issue is highlighted in current media (newspaper cutting on pg. 4), it will ultimately be altered and consumers

[1] ERM Study on "Interconnection and Competition in the Hong Kong Electricity Supply Sector", November 1999 and MCL Study on "Investigation Study of Increasing Power Interconnection in Hong Kong", June 2003.

are going to enjoy a lower tariff. Civic Exchange and CLSA jointly held a workshop on regulatory reform and propose 8% as a return rate[2].

iii. There has been agreement between the governments with two power companies to set up two production-scale wind turbines during the Interim Review of the SCAs in 2003. Therefore, by the year 2008, Hong Kong will be less dependent on coal and fossil based energy and this simply means no further deterioration of air quality. A consultancy study[3] in 2002 presents that renewable energy will supply 261-686 GWh/year by the year 2012.

iv. More competitors will come into play as a major or third party to share the power revenue.

v. A lower tariff is emerging through the adjustment of return rate for investors, renewable energy, more competition and interconnection between power companies.

F. Benchmark Model

It is extremely difficult to finalize a benchmark model as every country imposes a different registration concerning power regulations. Some general guidelines for a de factor benchmark model should generally consist of the following:

i. The model will attract competitors with adequate investors. More choices of electricity supply companies should be promoted to enhance the quality of services among the relevant competitor. The sufficient number of market participants is crucial for transforming a regulated regime to a market-driven regime to guard against price fluctuation arising from abuse of market power.

ii. Balance of interests for investors and consumers. Tariff set should be reasonable and based on transparent formula considering attractive return rate for investors.

iii. Encourages environmental friendly energy generation. The reduction of emissions (SO_2, NOx and particles) in power generation is vital to achieving the emission reduction targets. However, the drawback from considering emissions in optimization process of power dispatching is the increased cost of generation which brings discouraging effect upon the tariff. However, in a long run dependent upon coal and fossil fuels is a threat to the clean air in any country. The alternative is to invest in pollution free and renewable power resources such as hydroelectric, nuclear, solar energy, wind, waves etc.

G. Possible model of reform

Based on the discussions above we identify some possible model of reform:

i. Review of the rate of return and base of return as necessary to ensure a fairer balance of interests for both consumers and investors.

ii. Shorter agreement duration around 5 years as 15 years is too long.

iii. Rate base maybe determined by both asset and equity. This will provide incentive to ensure continued investment in asset as well as encouraging shareholders to inject funds for future investments.

iv. More incentive and support to attract new market participants.

v. Tariff revision with increased transparency.

vi. Tariff set over a fixed period (say one year) with links to economic indicators, such as the consumer price index (CPI). This will bring the tariff more in line with the economic situation

[2] CLSA Report, "Is HK's energy framework fair?" March 2003.

[3] Stage I Study on "Potential Applications of Renewable Energy in Hong Kong" completed in 2002.

Source: China Daily,
Hong Kong Edition, 21st February, 2005

"TONG YI HONG, GARY"
2005/04/30 06:17 PM

To: <edb@edlb.gov.hk>
cc:
Subject: 香港電力市場的未來發展-第一階段諮詢
__ Urgent __ Return Receipt

以下是本人對香港電力市場的未來發展-第一階段諮詢的意見:

1. 管制協議

多年來，香港的電力供應是透過電力公司與政府之間的雙邊協議爲香港提供及發展成一個既可靠及安全的能源市場。在准許投資回報及嚴謹規劃基礎下，電力公司可以發展並提供足夠設備以應付未來的需求，不受其他因素影響，而出現融資問題。美國加州的一間電力公司便因出現財政短絀而面臨破產。所以過去的一個簡單而有效的協議令香港可以在七、八十年代經濟起飛的日子沒有缺電的情況。因此，此協議方式去經營電力事業應予保留。

2. 電力市場的開放

正因電力系統網絡的建造如羅馬不是一天可以建成，加上香港現今地下管道的擁擠，再建立另一網絡實屬浪費資源。有電力市場開放的國家如澳洲，其電力公司本來是國營企業，政府用私有化(開放電力市場)方式去解決政治問題，正如香港水務署及機電工程處過去所面對的。香港的電力網絡及系統是私有的產業及在沒有專營權下去營運，不能像過去收回香港電訊的專營權做法，此會令投資者失去信心。

電力聯網在技術上雖然可行，若在責任上劃分不清，當系統上有任何震盪，可以骨牌般令整個電力系統失效。早前在北美及意大利大停電正是由一小問題所引起。先進的國家如美、加及歐洲，都接連出現問題。與內地今日嚴重缺電的電力市場聯網，對香港的電力可靠性構成威脅。聯網與否應予三思。

3. 合理的電費和投資回報

香港的電費雖比鄰近地方如中國內地、台灣和星加坡爲高，但這些地方的電力公司乃國營企業或是得到政府的補貼。香港的電力公司以在利潤管制下而其供電的覆蓋面及可靠性，足以媲美它們及有過之。電費的高低應以其佔家庭的支出作出比較，而在香港，電費只佔其百份之二，這證明電費在香港不是電力公司在利潤管制協議下令電費過高。正由於香港人口稠密，高樓大廈林立人，以及香港作爲亞洲的金融中心，供電的可靠性不容忽視。投資電廠及網絡項目的建造及營運，動以百億元計，所以合理的回報是其投資者的考慮之一。

4. 環保

建議在中國大地興建電廠向香港提供電力的構思，這只是將環保問題轉嫁於第三者。況且，

tracy fong

To: electricitycomments@edlb.gov.hk
cc:
Subject: advice on the electricity supply
☐ Urgent ☐ Return Receipt

2005/04/30 11:36 AM

Dear sir (the Economic Development and Labour Bureau),

I am writing to show my concern on the future development of electricity supply.

Air pollution in Hong Kong become more serious in recently year, electricity supply should be in a more environmental way. I think that in 2008 when new agreement is made with Electricity Company, coal usage should be reduced since it produce large amount of green house gases.

In long term, the usage of renewable energy like solar and wind should be increase. Hong Kong is really lagging behind other countries in using renewable energy.

I suggest a ratio of renewable energy usage should be deal with electricity company actively and reasonably. I believe reaching 8% in 2015 is a reasonable percentage.

In order to protect the earth and improve air quality in Hong Kong, I really hope my suggestion can be considered.

Yours faithfully,

Tracy Fong

中華電力公司華員職工會
九龍油蔴地彌敦道 466 號恩佑大廈 1/F,C 座
電話：2332 1456 傳真：2332 1515

香港電燈集團公司職工會
香港北角蜆殼街 18 號嘉昌商業中心 6/F
電話：2571 8064 傳真：2571 0758

經濟發展及勞工局
葉樹堃局長：

中華電力公司華員職工會和香港電燈集團公司職工會是本港兩間電力能源公司員工組成的工會組織，兩電工會的會員及兩電公司的員工既是電力行業的從業員，又是電力能源的消費者，兩電工會試從兩者的角度來表達對香港電力市場未來發展的意見。

(一) 眾所周知，香港是一個人口稠密、工商業發達、時刻也不能離開電力能源的大城市。電力供應穩定的重要性可想而知。因此，香港電力市場未來發展的任何改變絕不可降低供電穩定性的標準。爲保証電力供應穩定，必須考慮下列因素：

1. 一支穩定的、運作成熟的電力工程管理及技術隊伍。爲此，從事電力工程的從業員的職業必須保持穩定。
2. 不能降低基建及維修的技術標準。現時，香港的電力基建及維修有相當高的標準是保証電力供應穩定的關鍵，電力市場的未來發展絕不能因惡性競爭，將貨就價而降低標準。

(二) 電力工業環保標準只能進一步提升，絕不能降低。電力工業是一個污染性的行業，各地爲降低其污染性而想盡辦法。香港作爲國際性大都市，對環保的要求理應更加嚴格。若爲了競爭，降低成本，而降低環保標準的要求是絕不可接受的。

因爲：

1. 環境污染帶來人類各種疾病，從而使醫療支出增加，這是得不償失的。
2. 污染給各種生物帶來影響，破壞生物鏈的平衡，這種破壞可能會造成地球永久性的破壞。

(三) 任何的改變都應考慮投資者，消費者及從業員工方面的利益平衡。

上述意見，敬希慎重考慮。

中華電力公司華員職工會　　香港電燈集團公司職工會

主　席：　　主　席：

2005 年 [illegible] 月 [illegible] 日

致經濟發展及勞工局經濟發展科

敬啟者：

本人是港島東區西灣河之居民，在港島居住已超過三十年了，最近本人從電視新聞和報章上看知有關電燈公司於２００８年的專利權問題本人有以下看法。

在現今電腦化之年代，電力供應的穩定性最重要，如果停了電電腦還運作嗎？這一點不得不稱讚一下我們香港有關電力供應商，在我之記憶中，這麼多年來香港從未因為電力供應故障而引起大停電，要不然，

香港還能譽有東方之珠和國際金融中心的美譽嗎？電力穩定性不但對整個社會影响很大連一個普通家庭如同樣影响很大，試問現今社會那一家庭沒有電腦呢，就連小學都要在電腦上做家課。如果電力不穩定影响他們的功課，家長們實會擔擾不已。至於價格問題，本人認為一分錢一分貨，更何況以現時香港之電費佔個人入息的率很少，不會影响民生，而穩定之電力供應就對民生影响極大了。所以本人很支持現時之供電制度

此致

Tse Yu Ip 26-04-05

Dear Sir/Madam,

Subject: Electric Tariff in Ahead Future

Under the current control agreement, profits of both power companies, CLP Holdings, and Hong Kong Electric Holdings, should be capped at maximum of 13.5 per cent of their capital expenditure. The current control agreement, Scheme of Control (SoC), with the government will expire in 2008. The new control regime should consider the electric tariff system.

Currently, the tariff system of these companies encourage residence customer to save energy by charge more on high consumption. Also, demand charge is proposed to high consumption (indusial) consumers. Beside, the control regime should enforce the companies to provide more tariff plans for customers to select. The tariff plans should similar to mobile phone tariff.

In the new regime, customer can select some fix payment plans so they can enjoy a fixed unit of electricity. Once the consume more electric than their plans, the power companies can charge each extra unit of electric as penalty.

On the other hand, customer can pay less tariff when they consume electric in low demand period, for instance, 12:00am to 06:00am. The companies should encourage commercial or indusial buildings with central Air-conditioning systems to install ice-storage A/C to share and distribute the power consumption between midnight and early morning.

Lastly, the power companies should not cap any tariff for their capital expenditure because the transmission and distribution network, and generation capacity is well developed. In order words, no Scheme of Control should be set up for the companies to cover their capital expenditure. The electric tariff should be determined by the market.

Yours faithfully,

Tsui Ka Ki Anthony

敬啓者:

我們是中華電力的用戶,對於香港電力市場未來的發展欲提供以下意見:

1. 現行的電力供應制度行之已久且有效,符合香港市民的需求,我們覺得無需刻意爲改變而改變,若然要改變現行的制度,必須維持現有的供電質素及清楚界定不同參與者的責任及釐定他們的問責角色;

2. 部份客戶從個人利益出發,要求電價愈低愈好,不過,不同的客戶有不同的觀點,但如果不能維持充足、可靠的電力系統及現有的服務水準及承諾,相信更低的價格也不能取代主流市民的意願;

3. 香港的經濟及社會發展有賴安全及可靠的電力供應,我們期望的電力供應不僅要源源不絕,避免中斷,還要隨時能滿足我們的需求,香港一直享有世界級的供電服務,將來亦應如此;

4. 環保是香港電力供應商要承擔的重要責任之一,以環保的原則營運,採取開放的態度,履行對社會的承諾,以客戶爲先,並將相關資料公開。

5. 電力行業涉及長遠及龐大的資金投資,只有提供了足夠吸引力的回報,才能反映電力投資的特質,這樣才能確保私人資金持續不斷的投入;

6. 中電的電價自1998年以來已維持不變，期間更爲客戶提供了6次的電費回扣，香港市民以合理及可負擔的電價享用可靠程度甚高的電力供應，價格較世界上一些大城市更便宜；

7. 一間營運效率高而且將資金運用得宜的電力公司，是香港市民所願意接受的，而中華電力所提供的，正是此種通過提升生產力及節約成本，保証客戶享有最符合成本效益的供電服務。

以上數點乃我們對香港電力市場未來的發展而提供的意見，祈望政府有關機構慎重考慮。謝謝！

此致

經濟發展及勞工局

For and on behalf of
TWINFORT INDUSTRIAL LIMITED
中華電力公司客戶

Authorized Signature(s)

2005/04/29 06:45 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Stage I Consultation for the Future HK Electricity Market
☐ Urgent ☐ Return Receipt

Although HK is a small city, our government should treat its electricity supply as a strategic commodity similar to a country. As we have a stable, reliable supply with middle-level price, it is not bad to keep it going. Of course, we should always be alerted in improving it technically, scientifically and in operational-wise, etc. Playing unnecessary and "unyieldful" politics should always be avoided.

Yours faithfully,
tzu-sing

UBS Investment Research

HK Power: Our view of the consultation paper

Key takeaways

31 January 2005

www.ubs.com/investmentresearch

Alice Hui

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■ **Supply reliability is the top priority of the government**

In our view, the good news is that the government has emphasized on retaining supply reliability & minimising environmental impact. It has also played down the China option in the next few years. Given that HK needs new capacity by 2010 (it takes 3 years to complete a new unit), we think CLP & HKE will retain their bargaining power to demand a reasonable return post-2008.

■ **HK is unique - it has many limitations**

We believe it is difficult to have a major power sector reform in HK due to: 1) the small size of the power market; 2) private ownership of HK power assets (unlike other markets where power assets are often state-owned prior to power sector reform); 3) government decision on allowed return likely by 2006 as construction of a new unit needs to start in 2006/07.

■ **What will be HK's post-2008 allowed return?**

We believe returns in HK will be tied to the WACC & the tariff setting formula to 'CPI-x', which would lower the allowed return from >13.5% to 10%. Our sensitivity analysis shows a 19-22% cut in 2003 SOC earnings for CLP & HKE assuming a 10% return base.

■ **Maintain Neutral 1 on CLP and Neutral 2 on HKE**

Our DCF model already assumes a 15% cut in our 2009 EBIT estimate, reflecting investment risk. However, Legco debates & public consultations could limit the stocks' upside potential. We prefer HK & China Gas.

UBS does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

The judging begins...

On 31 January 2005, the government finally released the consultation paper on the future development of the electricity market in Hong Kong. The key issues under review are: return base, tariff, supply reliability, separation of generation, transmission and distribution segments, interconnection, and power purchases from China.

Stage 1 of the two-stage consultation process will end on 30 April 2005.

Overall, the proposals by the government are in line with our expectations. For details, please refer to our full report *"Hong Kong Power: The Three Triggers"* published on 25 November 2004.

What are the best post-2008 options?

In our view, the best post-2008 options for the Hong Kong power sector are:

- **Resetting the allowed rate of return.** For example, regulatory assets to be tied to the Weighted Average Cost of Capital (WACC) and the tariff-setting formula to be tied to indices reflecting a better cost structure of the industry and economic efficiency (the 'x' factor).

  Return base to be tied to WACC and tariff setting formula to be tied to CPI minus x

- **Increasing the frequency of periodic review.** Reviewing the key parameters of the return base every five years instead of every 10 to 15 years.

- **Enhancing interconnection capacity.** To prepare Hong Kong for future competition with Southern China in the long term.

- **Benefits exceeding costs to achieve the following:** 1) maintain supply reliability; 2) high quality service; 3) reasonable tariffs; 4) incentive to invest in future capacity.

We believe the government has little choice

Given the expected power shortages in Hong Kong by 2010 and potentially unreliable supply from China, we think the government does not have much choice but to give in to a high return for CLP and HKE.

Hong Kong has many limitations

We maintain our belief that allowed returns post-2008 for CLP and HKE will be reduced from more than 13.5% to 10% after introducing the WACC to the return base and CPI minus x to the tariff-setting formula, and adding reasonable returns on investment. Our DCF model already assumes a 15% reduction in 2009 EBIT, reflecting the investment risk.

Although we believe CLP and HKE will maintain reasonable returns post-2008, we think Legco debates and the public consultations will likely limit the upside potential for their share prices. We prefer HK & China Gas (Neutral 2).

Hong Kong has many limitations

- **Hong Kong would need new capacity by 2010.** Based on the maximum demand growth of 7.7% for CLP and 6.1% for HKE in mid-2004, Hong Kong would need new capacity by 2010 as the reserve margin would likely fall to 21.9% that year—below the safe margin of 25%. Without a clear regulatory framework, we believe both power companies are unlikely to invest in future capacity. As it takes three years to build a power plant, the government would need to make a decision by 2006. (Please see our Reserve margin analysis on pages 5-7.)

  Demand and supply are key drivers, and China is not yet ready

- **Competition not applicable in the short term.** In our view, tight supply in Guangdong is a result of the following: 1) Strong demand for power due to high economic growth. 2) The ban on companies building coal-fired power plants on pollution concerns. In the future, new power supply in Guangdong will depend mainly on imports from other regions. As it would take time for China to establish a reliable supply system, we think China will not be ready to compete with Hong Kong for at least another 10-15 years.

- **Interconnection.** Not meaningful in the short term as China is not yet ready. We believe the theme "unification of the country", that is, establishing a nationwide network via interconnections, is more important to China than the concept of 'deregulation'.

  Establishing a nationwide network is the national policy in China

- **Allowed returns in Hong Kong not comparable with overseas markets.** This is because in many cases the generation segment has been liberalised in the global markets for many years. However, in Hong Kong, generation, transmission and distribution segments have not yet been unbundled.

- **Reliability and clean energy.** There is a price for this.

- **Investment community should also have a say.** Given private ownership, we believe the government should also listen to CLP and HKE stakeholders.

- **Clean power will not come cheap.** The government has instructed CLP and HKE not to construct new coal-fired power plants in Hong Kong due to pollution concerns. We believe the pricing of clean power from China (such as nuclear power) will not be cheap. In 2003, CLP's cost of nuclear power from Phase I Daya Bay was HK$0.510/kWh (US$0.065/kWh), well above HKE's unit fuel cost of HK$0.094/kWh (US$0.012/kWh). With CLP's purchase of nuclear power and natural gas from China, CLP's production cost was HK$0.475/kWh (US$0.061/kWh) in 2003 versus HKE's HK$0.372/kWh (US$0.048/kWh).

- **Power assets in Hong Kong are not government controlled.** Unlike other economies where power assets are often state-owned prior to power sector reforms, Hong Kong's generation, transmission and distribution facilities are controlled by three 'private' power companies CLP, ExxonMobil Energy (formerly known as Exxon Energy) and HKE. As a result, it would be difficult to change the existing operating environment of the Hong Kong power companies, in our opinion. ExxonMobil controls 60% of all the power

plants in Hong Kong (except where HKE operates) via CAPCO, a 40% associate of CLP.

- **California power crisis.** Both the Hong Kong and the Chinese governments have become more cautious about deregulation after the California power crisis. Reliability has become the government's top priority.

Understanding different market conditions

Hong Kong is unique

In summary, we think it is important to understand the limitations of the Hong Kong power market before proposing a major change in the regulations.

- **Small size.** It is difficult to have 'real' competition in Hong Kong.
- **No fuel source from Hong Kong.** Hong Kong is dependent on fuel imports.
- **High global coal prices.** Higher production costs of electricity.
- **HKE switching to more expensive gas by 2006.** This would lead to higher production costs.
- **Private ownership in Hong Kong.** This compares with state-owned entities in many markets prior to the power sector reform.
- **Big difference in tariff pricing between CLP and HKE.** HKE's 2003 basic and net tariffs were 22.6% and 15.6% above CLP's.
- **Big difference in CLP and HKE's Development Funds.** CLP's Development Fund remains high (HK$2,355m as of June 2004). In sharp contrast, HKE's Development Fund is drying up (HK$481m as of June 2004).

Reserve margin analysis of CLP Power & CAPCO

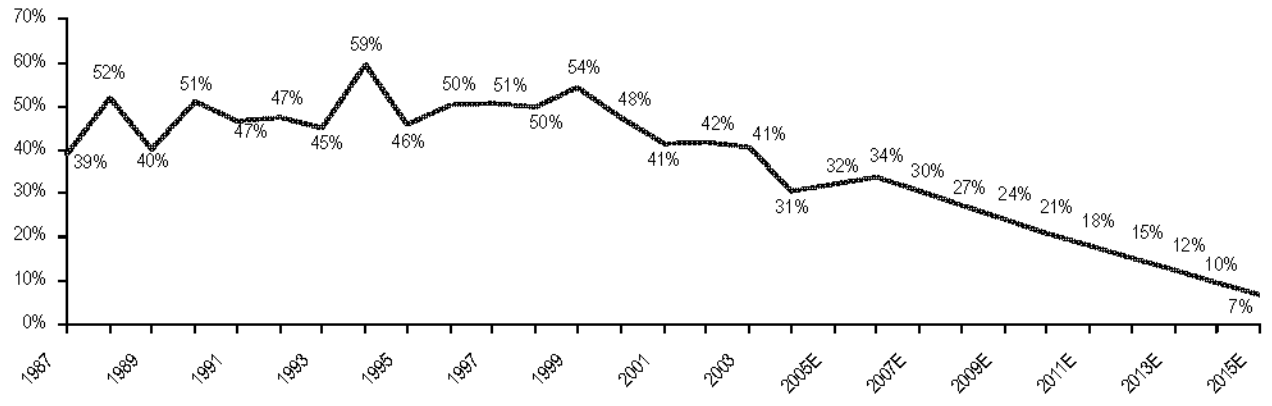
CLP recording 7.7% maximum demand growth on 2 July 2004 was a positive for the company. The reserve margin thus fell from 40.7% in 2003 to 30.6% in 2004. Assuming 2.5% maximum demand growth pa from 2005, we would expect the reserve margin to fall to 24.1% in 2009 (safe margin: 25%). As it takes about three years to construct a power plant, we expect CLP would start building a new unit by 2006.

Table 1: CLP Power & CAPCO—Our reserve margin analysis

Year	Black Point	Maximum demand (MW)	YoY +/- %	Installed capacity (MW)	YoY +/- %	Reserve margin (%)
1987		3,440	*10.2%*	4,778	*9.6%*	38.9%
1988		3,593	*4.4%*	5,455	*14.2%*	51.8%
1989		3,892	*8.3%*	5,455	*0.0%*	40.2%
1990		4,058	*4.3%*	6,132	*12.4%*	51.1%
1991		4,180	*3.0%*	6,132	*0.0%*	46.7%
1992		4,365	*4.4%*	6,432	*4.9%*	47.4%
1993		4,432	*1.5%*	6,430	*0.0%*	45.1%
1994		4,730	*6.7%*	7,540	*17.3%*	59.4%
1995		4,720	*-0.2%*	6,890	*-8.6%*	46.0%
1996		4,998	*5.9%*	7,515	*9.1%*	50.4%
1997		5,066	*1.4%*	7,638	*1.6%*	50.8%
1998		5,304	*4.7%*	7,951	*4.1%*	49.9%
1999		5,354	*0.9%*	8,263	*3.9%*	54.3%
2000		5,598	*4.6%*	8,263	*0.0%*	47.6%
2001		5,844	*4.4%*	8,263	*0.0%*	41.4%
2002		5,829	*-0.3%*	8,263	*0.0%*	41.8%
2003		5,874	*0.8%*	8,263	*0.0%*	40.7%
2004E		6,329	*7.7%*	8,263	*0.0%*	30.6%
2005E	312.5	6,487	*2.5%*	8,576	*3.8%*	32.2%
2006E	312.5	6,649	*2.5%*	8,888	*3.6%*	33.7%
2007E		6,816	*2.5%*	8,888	*0.0%*	30.4%
2008E		6,986	*2.5%*	8,888	*0.0%*	27.2%
2009E		**7,161**	***2.5%***	**8,888**	***0.0%***	**24.1%**
2010E		**7,340**	***2.5%***	**8,888**	***0.0%***	**21.1%**
2011E		**7,523**	***2.5%***	**8,888**	***0.0%***	**18.1%**
2012E		**7,711**	***2.5%***	**8,888**	***0.0%***	**15.3%**
2013E		**7,904**	***2.5%***	**8,888**	***0.0%***	**12.4%**
2014E		**8,102**	***2.5%***	**8,888**	***0.0%***	**9.7%**
2015E		**8,304**	***2.5%***	**8,888**	***0.0%***	**7.0%**

Note: Key assumptions: maximum demand growth of CLP Power: 2005-15: 2.5% pa.
Source: Company data, UBS estimates

Chart 1: CLP Power & CAPCO—Our reserve margin analysis



Source: Company data, UBS estimates

Reserve margin analysis of HKE Co

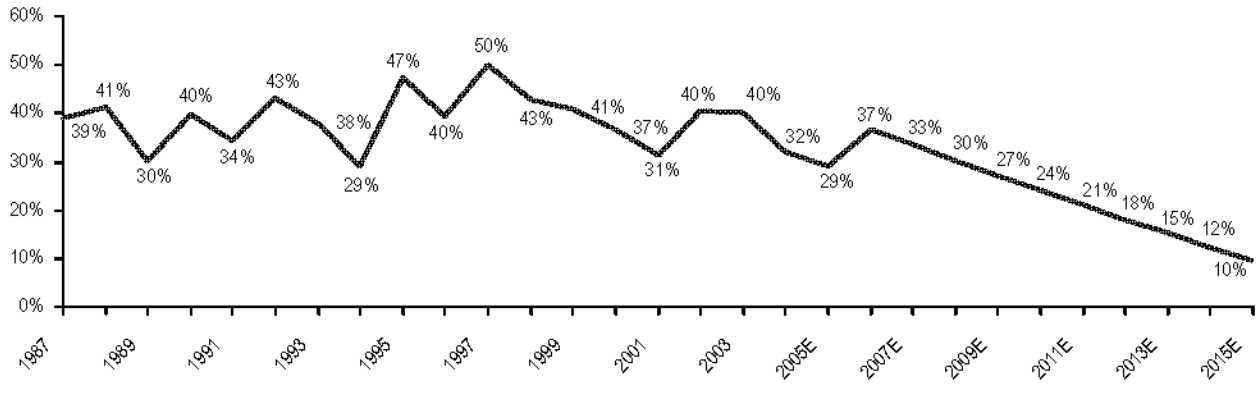
HKE recorded 6.1% maximum demand growth in mid-2004, a positive, in our view. The reserve margin thus fell from 40.2% in 2003 to 32.1% in 2004. Assuming a 2.5% maximum demand growth pa from 2005, we would expect the reserve margin to fall to 23.9% in 2010 (safe margin: 25%). As it takes about three years to construct a power plant, we expect HKE would start building a new unit by 2007.

Table 2: HKE Co—Our reserve margin analysis

Year	New capacity	Maximum demand	*YoY+/-%*	Installed capacity (MW)	*YoY+/-%*	Reserve margin (%)
1987		1,379	*9.5%*	1,915	*13.6%*	38.9%
1988		1,421	*3.0%*	2,005	*4.7%*	41.1%
1989		1,540	*8.4%*	2,005	*0.0%*	30.2%
1990		1,613	*4.7%*	2,255	*12.5%*	39.8%
1991		1,680	*4.2%*	2,255	*0.0%*	34.2%
1992		1,819	*8.3%*	2,605	*15.5%*	43.2%
1993		1,890	*3.9%*	2,605	*0.0%*	37.8%
1994		2,021	*6.9%*	2,605	*0.0%*	28.9%
1995		2,006	*-0.7%*	2,955	*13.4%*	47.3%
1996		2,118	*5.6%*	2,955	*0.0%*	39.5%
1997		2,205	*4.1%*	3,305	*11.8%*	49.9%
1998		2,316	*5.0%*	3,305	*0.0%*	42.7%
1999		2,343	*1.2%*	3,305	*0.0%*	41.1%
2000		2,417	*3.2%*	3,305	*0.0%*	36.7%
2001		2,516	*4.1%*	3,305	*0.0%*	31.4%
2002	115	2,436	*-3.2%*	3,420	*3.5%*	40.4%
2003		2,440	*0.2%*	3,420	*0.0%*	40.2%
2004E		2,588	*6.1%*	3,420	*0.0%*	32.1%
2005E		2,653	*2.5%*	3,420	*0.0%*	28.9%
2006E	300	2,719	*2.5%*	3,720	*8.8%*	36.8%
2007E		2,787	*2.5%*	3,720	*0.0%*	33.5%
2008E		2,857	*2.5%*	3,720	*0.0%*	30.2%
2009E		2,928	*2.5%*	3,720	*0.0%*	27.0%
2010E		**3,001**	***2.5%***	**3,720**	***0.0%***	**23.9%**
2011E		**3,076**	***2.5%***	**3,720**	***0.0%***	**20.9%**
2012E		**3,153**	***2.5%***	**3,720**	***0.0%***	**18.0%**
2013E		**3,232**	***2.5%***	**3,720**	***0.0%***	**15.1%**
2014E		**3,313**	***2.5%***	**3,720**	***0.0%***	**12.3%**
2015E		**3,396**	***2.5%***	**3,720**	***0.0%***	**9.6%**

Note: Key assumptions: Maximum demand growth of HKE Co: 2005-15: 2.5% pa.
Source: Company data, UBS estimates

Chart 2: HKE Co—Our reserve margin analysis



Source: Company data, UBS estimates

If the reserve margin falls to 21.9% in 2010, Hong Kong would need new capacity that year. As it takes three years to complete a new power plant, this means that the government would need to decide by 2007.

Hong Kong would need new capacity in 2010

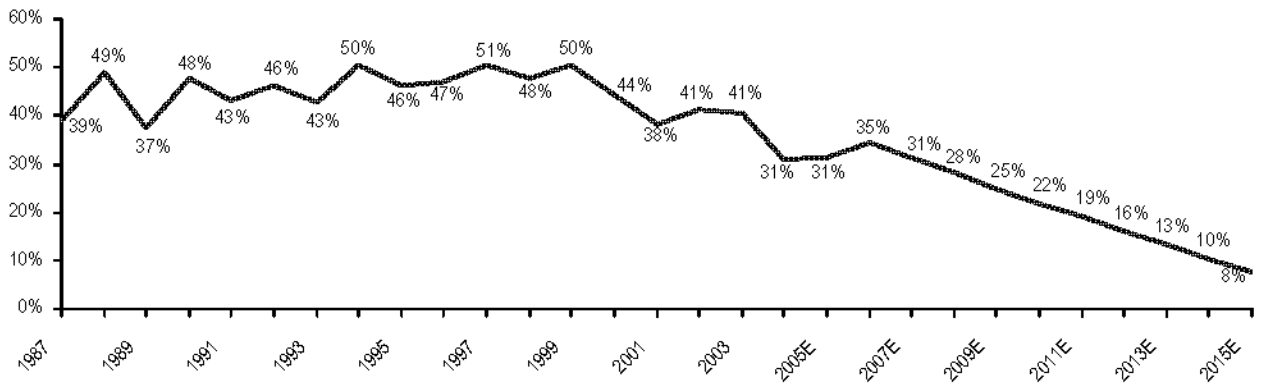
Table 3: CLP Power & CAPCO and HKE Co (interconnection)---Our reserve margin analysis

Year	CLP New units	HKE New units	Maximum demand						Installed capacity			Reserve margin
			CLP	YoY	HKE Co	YoY	HK	YoY	CLP	HKE Co	HK	
	MW	MW	MW	+/- %	MW	+/- %	MW	+/- %	MW	MW	MW	%
1987			3,440	10.2%	1,379	9.5%	4,819	10.0%	4,778	1,915	6,693	38.9%
1988			3,593	4.4%	1,421	3.0%	5,014	4.0%	5,455	2,005	7,460	48.8%
1989			3,892	8.3%	1,540	8.4%	5,432	8.3%	5,455	2,005	7,460	37.3%
1990			4,058	4.3%	1,613	4.7%	5,671	4.4%	6,132	2,255	8,387	47.9%
1991			4,180	3.0%	1,680	4.2%	5,860	3.3%	6,132	2,255	8,387	43.1%
1992			4,365	4.4%	1,819	8.3%	6,184	5.5%	6,432	2,605	9,037	46.1%
1993			4,432	1.5%	1,890	3.9%	6,322	2.2%	6,430	2,605	9,035	42.9%
1994			4,730	6.7%	2,021	6.9%	6,751	6.8%	7,540	2,605	10,145	50.3%
1995			4,720	-0.2%	2,006	-0.7%	6,726	-0.4%	6,890	2,955	9,845	46.4%
1996			4,998	5.9%	2,118	5.6%	7,116	5.8%	7,515	2,955	10,470	47.1%
1997			5,066	1.4%	2,205	4.1%	7,271	2.2%	7,638	3,305	10,943	50.5%
1998			5,304	4.7%	2,316	5.0%	7,620	4.8%	7,951	3,305	11,256	47.7%
1999			5,354	0.9%	2,343	1.2%	7,697	1.0%	8,263	3,305	11,568	50.3%
2000			5,598	4.6%	2,417	3.2%	8,015	4.1%	8,263	3,305	11,568	44.3%
2001			5,844	4.4%	2,516	4.1%	8,360	4.3%	8,263	3,305	11,568	38.4%
2002		115	5,829	-0.3%	2,436	-3.2%	8,265	-1.1%	8,263	3,420	11,683	41.4%
2003			5,874	0.8%	2,440	0.2%	8,314	0.6%	8,263	3,420	11,683	40.5%
2004E			6,329	7.7%	2,588	6.1%	8,917	7.3%	8,263	3,420	11,683	31.0%
2005E	312.5		6,487	2.5%	2,653	2.5%	9,140	2.5%	8,576	3,420	11,996	31.2%
2006E	312.5	300	6,649	2.5%	2,719	2.5%	9,368	2.5%	8,888	3,720	12,608	34.6%
2007E			6,816	2.5%	2,787	2.5%	9,603	2.5%	8,888	3,720	12,608	31.3%
2008E			6,986	2.5%	2,857	2.5%	9,843	2.5%	8,888	3,720	12,608	28.1%
2009E			7,161	2.5%	2,928	2.5%	10,089	2.5%	8,888	3,720	12,608	25.0%
2010E			**7,340**	**2.5%**	**3,001**	**2.5%**	**10,341**	**2.5%**	**8,888**	**3,720**	**12,608**	**21.9%**
2011E			**7,523**	**2.5%**	**3,076**	**2.5%**	**10,600**	**2.5%**	**8,888**	**3,720**	**12,608**	**18.9%**
2012E			**7,711**	**2.5%**	**3,153**	**2.5%**	**10,864**	**2.5%**	**8,888**	**3,720**	**12,608**	**16.0%**
2013E			**7,904**	**2.5%**	**3,232**	**2.5%**	**11,136**	**2.5%**	**8,888**	**3,720**	**12,608**	**13.2%**
2014E			**8,102**	**2.5%**	**3,313**	**2.5%**	**11,415**	**2.5%**	**8,888**	**3,720**	**12,608**	**10.5%**
2015E			**8,304**	**2.5%**	**3,396**	**2.5%**	**11,700**	**2.5%**	**8,888**	**3,720**	**12,608**	**7.8%**

Key assumptions: 1) Minimum reserve margin for Hong Kong: 25%. 2) UBS forecast for maximum demand growth: CLP Power: 2005-15: 2.5% pa; HKE Co: 2005-15: 2.5% pa; 3) HKE Co: Conversion of two existing generation units (G5 & G7 from 250MW to 365MW) to combined cycle operation units, providing an extra 115MW in 2002. 4) HKE Co: Dropping the plan to re-power Lamma 5 (from 700MW to 725MW) to provide an extra 25MW in 2002. 5) HKE Co: Dropping the plan to re-power Lamma 4 (from 725MW to 750MW) to provide 25MW in 2003. 6) HKE Co: Completion of Lamma 9 (300MW) in 2006. 7) CLP Power: Completion of Black Point 7-8 (625MW) in 2005-06, respectively, based on existing schedule. Including CLP Power and CAPCO.

Source: Company data, UBS estimates

Chart 3: CLP Power & CAPCO and HKE Co (Interconnection)---Our reserve margin analysis



Source: Company data, UBS estimates

Regional valuation comparison

Table 4: Regional valuation comparison (priced as of 31 January 2005)

Country	China							Hong Kong			India	Korea	Malaysia			Philippines		Thailand	
Company	Datang Int'l	China Resources Power	China Yangtze Power	Guangdong Electric A	Huaneng Power	Huadian Power	SP Power A	CLP	HKE	HK & China Gas	Reliance Energy	KEPCO	Tenaga	Malakoff	YTLPI	FPH	Meralco B	EGCO	Ratchaburi
Reuters code	0991.HK	0836.HK	600900.SS	000539.SZ	0902.HK	1071.HK	600795.SS	0002.HK	0006.HK	0003.HK	RLEN.BO	015760.KS	TENA.KL	MLKF.KL	YTLP.KL	FPH.PS	MERB.PS	EGCOf.BK	RATC.BK
Share price+	5.55	3.75	8.53	4.26	5.45	2.30	5.68	44.30	34.80	16.20	550.55	27,800	10.70	7.50	1.84	41.50	26.50	82.50	40.00
Price target+	6.20	5.10	12.30	NA	5.05	1.70	NA	48.50	34.90	16.10	670.00	NA	11.90	10.00	2.35	NA	22.50	81.40	41.80
Upside potential (%)	11.7%	36.0%	44.2%	NA	-7.3%	-26.1%	NA	9.5%	0.3%	-0.6%	21.7%	NA	11.2%	33.3%	27.7%	NA	-15.1%	-1.3%	4.5%
Market cap (US$ bn)^	3.7	1.8	8.1	1.4	9.5	1.5	1.5	13.7	9.5	11.7	2.3	17.3	8.9	1.7	2.2	0.4	0.4	1.1	1.5
Price performance relative 2003	-12%	NA	NA	10%	-14%	-26%	48%	-13%	-23%	-13%	33%	-9%	-18%	8%	-2%	63%	95%	18%	25%
Price performance absolute 2003	120%	NA	NA	6%	115%	87%	63%	18%	4%	17%	130%	17%	1%	32%	20%	131%	176%	156%	171%
Price performance relative 2004	11%	7%	19%	-46%	-9%	-25%	0%	7%	2%	20%	-9%	14%	0%	17%	-6%	27%	-19%	-10%	-10%
Price performance absolute 2004	5%	17%	1%	-55%	-14%	-29%	-15%	21%	16%	35%	3%	25%	14%	33%	7%	60%	2%	-22%	-22%
Price performance relative YTD	-5%	-8%	3%	-6%	-6%	0%	-3%	3%	2%	5%	6%	-1%	-3%	3%	1%	25%	-3%	5%	0%
Price performance absolute YTD	-5%	-11%	-3%	-9%	-6%	0%	-9%	-1%	-2%	1%	5%	4%	-2%	4%	2%	38%	7%	10%	5%
Rating	Neutral 1	Buy 2	Buy 1	NA	Reduce 1 (RRD)	Reduce 2	NA	Neutral 1	Neutral 2	Neutral 2	Buy 2	NA	Neutral 2	Buy 2	Buy 2	NA	Reduce 2	Neutral 1	Neutral 1
Reported profit (m)*																			
2003	1,612	589	1,438	1,164	5,430	1,029	675	7,687	6,057	3,051	1,623	2,323,425	1,062	442	603	3,824	907	5,994	5,424
2004E	2,350	1,264	3,090	864	5,398	1,060	866	8,530	6,249	3,054	4,612	2,328,797	814	460	613	3,436	747	4,474	6,480
2005E	2,822	1,756	4,199	793	5,553	709	872	8,597	6,667	5,337	6,090	2,589,813	1,075	548	744	3,557	2,333	5,021	6,591
2006E	2,943	1,935	4,975	675	4,768	525	895	9,130	6,827	5,445	7,209	2,920,686	1,747	600	963	3,422	5,632	5,189	6,839
Reported profit YoY growth (%)																			
2003	29.0	-1.6#	224.8	-1.4	38.5	-13.0	24.8	8.2	-8.6	0.1	-41.9	-23.8	-24.2	24.9	24.2	-226.4	-103.2	102.6	14.7
2004E	28.6	114.4	115.0	-25.7	-0.6	3.0	28.3	9.0	4.8	0.1	184.1	0.2	-23.4	4.1	1.7	-10.1	-17.6	-25.4	19.5
2005E	21.1	38.9	35.9	-8.2	2.9	-33.1	0.8	2.6	5.0	74.7	32.1	15.5	32.1	19.1	21.3	3.5	212.3	12.2	1.7
2006E	4.3	10.2	18.5	-14.9	-14.1	-26.0	2.5	6.2	2.4	2.0	18.4	8.6	62.5	9.5	29.4	-3.8	150.0	3.3	3.8
Reported EPS*																			
2003	0.35	0.20	0.25	0.44	0.45	0.20	0.30	3.19	2.84	0.54	11.78	3,686	0.34	0.51	0.13	7.00	0.83	11.41	3.74
2004E	0.45	0.33	0.39	0.32	0.45	0.20	0.33	3.47	2.97	0.54	29.75	3,624	0.26	0.52	0.14	6.35	0.74	8.50	4.47
2005E	0.48	0.46	0.53	0.30	0.46	0.12	0.33	3.56	3.12	0.95	29.73	4,094	0.34	0.62	0.16	6.58	2.32	9.54	4.55
2006E	0.48	0.50	0.63	0.25	0.40	0.09	0.39	3.77	3.20	0.97	35.19	4,339	0.55	0.68	0.21	6.33	5.80	9.95	4.72
EPS YoY growth (%)																			
2003	29.0	NA	213.6	-1.4	38.1	-13.0	24.8	8.2	-8.6	0.7	-38.5	-22.7	10.7	21.4	25.7	-226.3	-102.9	103.0	14.7
2004E	28.6	62.1	56.7	-25.7	-0.7	3.0	26.9	8.7	4.8	0.5	152.6	-1.4	-23.6	2.8	2.0	-9.2	-10.0	-25.5	19.5
2005E	5.7	38.3	35.9	-8.2	2.9	-41.0	0.8	2.3	5.0	75.4	0.0	12.7	30.0	18.0	20.0	3.5	212.3	12.2	1.7
2006E	0.1	10.2	18.5	-14.9	-14.1	-26.8	2.5	6.2	2.4	2.0	18.4	6.0	62.5	9.5	29.4	-3.8	150.0	3.3	3.8
PE (x)																			
2003	16.8	18.4	34.0	10.1	12.8	12.5	13.9	13.9	12.3	30.0	46.7	7.5	31.5	14.7	13.8	5.9	32.1	7.2	10.7
2004E	13.1	11.3	21.7	13.5	12.9	12.1	14.9	12.8	11.7	29.9	18.5	7.6	41.2	14.3	13.5	6.5	35.7	9.7	9.0
2005E	12.9	8.2	16.0	14.8	12.6	20.5	14.3	12.5	11.1	17.0	13.5	6.8	31.7	12.1	11.3	6.3	11.4	8.6	8.8
2006E	12.9	7.4	13.5	17.3	14.6	28.0	14.4	11.7	10.9	16.7	15.6	6.4	19.5	11.1	8.7	6.6	4.6	8.4	8.5
DPS*																			
2003	0.18	-	0.09	0.23	0.25	0.06	0.04	1.98	1.71	0.35	4.40	1,053	0.08	0.18	0.10	-	-	2.75	1.75
2004E	0.23	0.08	0.20	0.23	0.26	0.06	0.03	2.12	1.71	0.35	4.50	1,127	0.18	0.28	0.10	1.00	-	3.00	1.79
2005E	0.24	0.11	0.27	0.23	0.29	0.04	0.03	2.20	1.80	0.59	5.06	1,239	0.14	0.31	0.10	1.00	-	3.25	1.82
2006E	0.24	0.13	0.32	0.23	0.29	0.03	0.03	2.28	1.83	0.57	5.06	1,345	0.14	0.34	0.10	1.00	-	3.50	1.89

(continued)

Country	China							Hong Kong			India	Korea	Malaysia			Philippines		Thailand	
Company	Datang Int'l	China Resources Power	China Yangtze Power	Guangdong Electric A	Huaneng Power	Huadian Power	SP Power A	CLP	HKE	HK & China Gas	Reliance Energy	KEPCO	Tenaga	Malakoff	YTLPI	FPH	Meralco B	EGCO	Ratchaburi
Dividend yield (%)																			
2003	3.0	-	1.1	5.2	4.3	2.2	0.4	4.5	4.9	2.2	0.8	3.8	1.1	3.3	5.4			3.3	4.4
2004E	3.9	2.2	2.3	5.2	4.5	2.3	0.6	4.3	4.9	2.2	0.8	4.1	1.7	3.7	5.4	2.4	-	3.6	4.5
2005E	4.1	3.1	3.1	5.2	4.9	1.6	0.6	5.0	5.2	3.7	0.9	4.5	1.3	4.1	5.4	2.4	-	3.9	4.5
2006E	4.1	3.4	3.7	5.2	4.9	1.2	0.6	5.1	5.3	3.5	0.9	4.8	1.3	4.5	5.4	2.4	-	4.2	4.7
Dividend payout (%)																			
2003	51.3	-	49.2	52.6	55.5	28.1	13.3	62.0	60.3	64.7	37.4	28.6	23.5	35.3	74.9	-	-	24.1	46.8
2004E	50.0	25.0	50.0	70.8	58.1	27.3	8.3	61.2	57.5	64.6	15.1	31.0	70.0	53.4	73.5	15.7	-	35.3	40.0
2005E	50.0	25.0	50.0	77.1	61.9	33.6	8.3	62.0	57.6	62.3	17.0	30.3	42.0	49.8	61.2	15.2	-	34.1	40.0
2006E	50.0	25.0	50.0	90.7	72.1	34.4	8.3	60.4	57.2	59.3	14.4	31.0	25.8	50.0	47.3	15.8	-	35.5	40.0
EBITDA margin (%)																			
2003	47.2	39.2	92.4	46.5	46.9	42.6	45.9	31.6	80.2	51.0	21.5	44.8	30.5	56.5	57.9	31.3	8.8	72.9	26.3
2004E	46.0	38.8	88.2	34.0	39.9	36.5	41.0	32.4	76.1	48.3	23.9	39.7	31.8	59.4	56.4	30.9	8.2	63.9	24.7
2005E	44.8	42.1	88.9	30.9	36.1	29.9	42.5	33.3	74.9	48.1	28.4	41.7	31.8	50.2	57.0	30.8	9.6	67.2	24.2
2006E	43.6	38.4	89.0	25.7	33.0	28.4	41.6	34.3	74.5	48.6	24.4	42.6	32.4	49.9	56.3	30.8	12.8	62.5	25.6
EV/EBITDA (x)																			
2003	5.7	65.5	25.7	10.9	5.7	6.1	12.2	10.5	9.0	15.4	6.2	3.3	11.3	5.6	6.7	4.3	6.1	4.3	7.8
2004E	6.6	22.4	13.7	5.9	6.9	6.0	9.5	13.4	9.8	23.3	8.1	4.0	10.6	7.0	7.6	5.4	6.3	5.9	8.8
2005E	5.8	11.5	10.5	6.2	7.0	7.3	7.8	12.5	9.2	21.8	12.3	3.6	10.7	9.9	7.0	4.7	5.1	5.6	8.3
2006E	5.3	9.3	9.2	7.5	7.5	8.6	7.8	11.7	8.9	20.0	10.4	3.4	9.8	10.6	6.6	4.1	3.6	5.2	7.2
Net gearing (%)																			
2003	61.1	10.2	38.0	9.4	25.1	94.1	213.7	42.9	39.7	1.7	21.7	54.2	201.3	50.5	146.5	207.4	111.2	61.9	127.2
2004E	90.2	65.4	30.7	6.5	76.1	115.8	272.9	37.9	39.3	2.9	10.9	53.4	191.0	160.2	171.3	185.5	101.7	48.0	96.0
2005E	70.3	75.6	52.8	5.8	77.1	141.7	256.3	37.0	33.2	-4.5	-17.8	51.9	175.0	212.0	120.3	127.6	88.4	25.4	72.7
2006E	74.2	55.8	76.7	6.5	96.7	216.8	240.8	37.0	32.6	-4.6	-21.8	50.9	154.4	243.9	102.0	85.7	66.3	9.1	46.8
ROE (%)																			
2003	12.0	13.0	10.1	15.2	16.9	11.8	13.2	19.9	17.9	18.9	7.3	6.3	7.6	16.7	13.7	18.8	2.0	26.0	22.9
2004E	14.3	13.4	15.0	10.6	14.6	11.1	15.1	18.6	19.2	17.8	8.3	6.0	5.7	15.6	13.4	16.2	1.6	16.3	24.4
2005E	14.1	16.6	19.0	9.6	14.9	6.7	13.0	17.4	20.3	26.4	6.6	6.6	7.1	16.8	15.5	16.2	4.5	16.4	21.7
2006E	15.6	16.2	21.3	8.1	12.3	4.7	11.3	18.1	20.7	23.1	6.4	6.7	10.7	16.6	18.1	13.7	9.9	15.3	19.8
ROIC (%)																			
2003	13.8	4.5	11.0	24.4	17.3	11.9	7.2	16.1	16.1	29.0	13.5	8.5	5.0	18.3	11.2	19.6	6.9	22.9	12.7
2004E	14.3	7.1	15.7	18.1	13.6	11.4	8.1	13.0	16.1	28.4	14.4	6.5	5.5	15.4	10.4	20.3	6.8	20.6	13.6
2005E	13.9	10.8	18.9	16.0	12.7	7.7	8.4	13.5	17.3	26.5	9.3	7.4	5.6	11.3	11.4	20.9	8.8	21.1	14.4
2006E	15.4	11.7	19.0	11.7	10.3	5.9	7.8	14.6	18.1	24.3	9.0	7.7	6.1	8.9	12.3	21.9	12.9	21.1	16.5

+ Local currency except for H-share IPPs and CRP which are in Hong Kong dollars. ^ Including A, B, H and domestic shares * Local currency except for CRP which is in Hong Kong dollars. Many numbers in this table are based on the average of two years. # Based on 2002 pro forma net profit to calculate YoY growth for 2003. Source: Company data, UBS estimates

Statement of Risk

We believe risk to our estimates comes from any variation in the following: real GDP growth, maximum demand growth, capex, tariff, new return base after 2008 and potential competition from China in the long term.

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Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

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UBS Investment Research: Global Equity Ratings Definitions and Allocations

UBS rating	Definition	UBS rating	Definition	Rating category	Coverage[1]	IB services[2]
Buy 1	FSR is > 10% above the MRA, higher degree of predictability	**Buy 2**	FSR is > 10% above the MRA, lower degree of predictability	**Buy**	36%	32%
Neutral 1	FSR is between -10% and 10% of the MRA, higher degree of predictability	**Neutral 2**	FSR is between -10% and 10% of the MRA, lower degree of predictability	**Hold/Neutral**	53%	35%
Reduce 1	FSR is > 10% below the MRA, higher degree of predictability	**Reduce 2**	FSR is > 10% below the MRA, lower degree of predictability	**Sell**	11%	29%

1: Percentage of companies under coverage globally within this rating category.
2: Percentage of companies within this rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS; as of 31 December 2004.

KEY DEFINITIONS

Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.
Market Return Assumption (MRA) is defined as the one-year local market interest rate plus 5% (an approximation of the equity risk premium).
Predictability Level The predictability level indicates an analyst's conviction in the FSR. A predictability level of '1' means that the analyst's estimate of FSR is in the middle of a narrower, or smaller, range of possibilities. A predictability level of '2' means that the analyst's estimate of FSR is in the middle of a broader, or larger, range of possibilities.
Under Review (UR) Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation.
Rating/Return Divergence (RRD) This qualifier is automatically appended to the rating when stock price movement has caused the prevailing rating to differ from that which would be assigned according to the rating system and will be removed when there is no longer a divergence, either through market movement or analyst intervention.

EXCEPTIONS AND SPECIAL CASES

US Closed-End Fund ratings and definitions are: Buy: Higher stability of principal and higher stability of dividends; Neutral: Potential loss of principal, stability of dividend; Reduce: High potential for loss of principal and dividend risk.
UK and European Investment Fund ratings and definitions are: Buy: Positive on factors such as structure, management, performance record, discount; Neutral: Neutral on factors such as structure, management, performance record, discount; Reduce: Negative on factors such as structure, management, performance record, discount.
Core Banding Exceptions (CBE): Exceptions to the standard +/-10% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Companies Mentioned table in the relevant research piece.

Companies mentioned

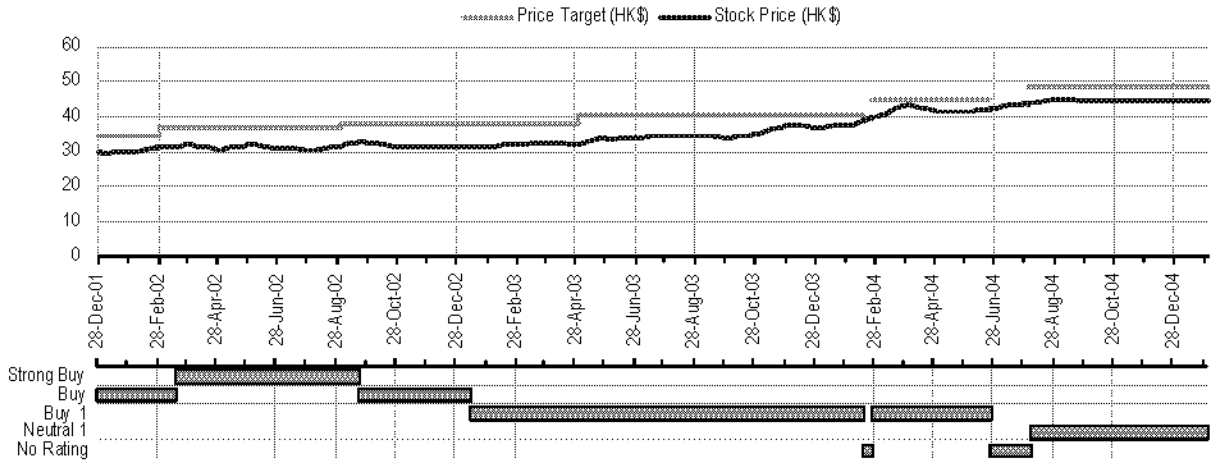
Company Name	Reuters	Rating	Price
CLP Holdings[16]	0002.HK	Neutral 1	HK$44.30
HK & China Gas[16]	0003.HK	Neutral 2	HK$16.20
HK Electric[16]	0006.HK	Neutral 2	HK$34.80

Price(s) as of 31 January 2005. Source: UBS.

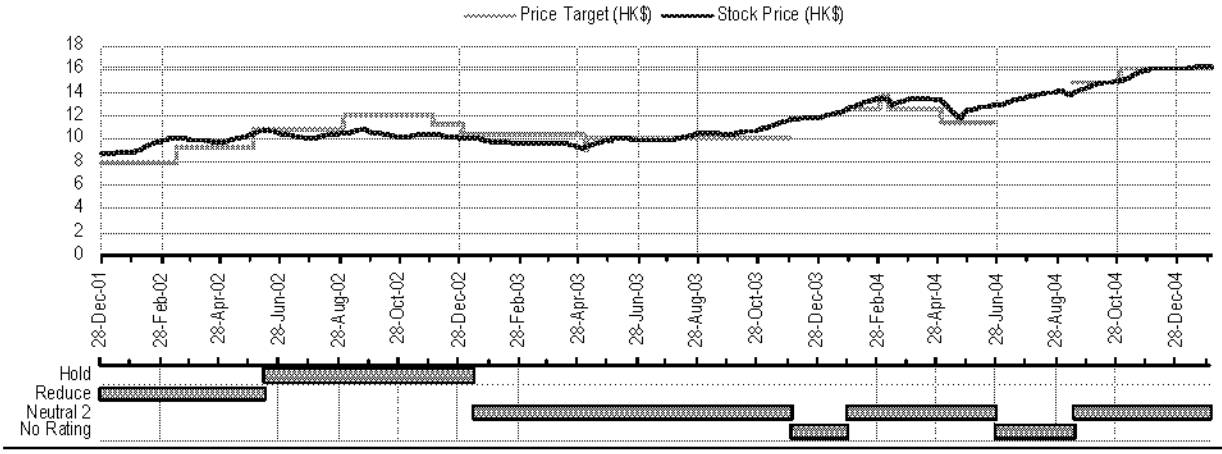
16. UBS Securities LLC and/or UBS Capital Markets LP makes a market in the securities and/or ADRs of this company.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

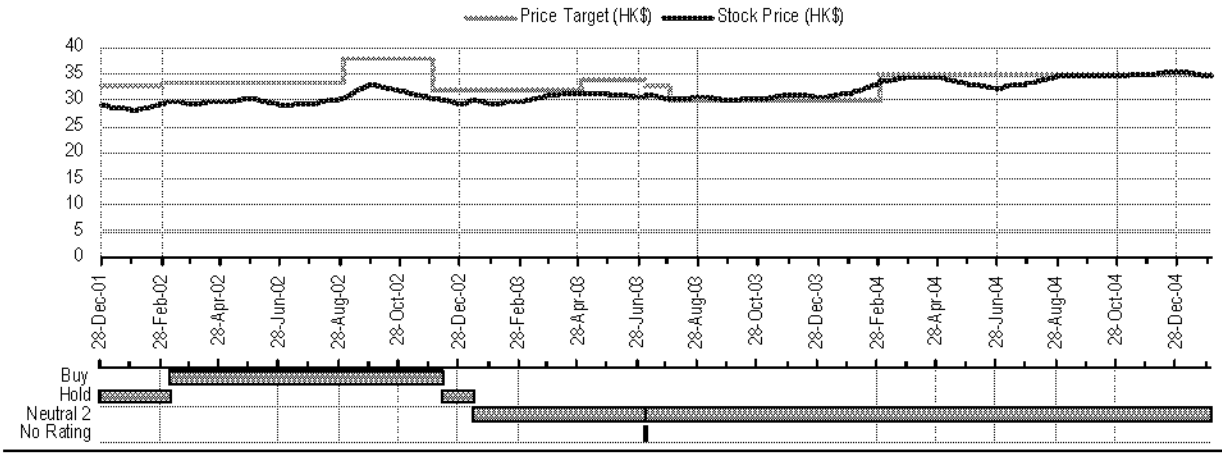
CLP Holdings (HK$)



HK & China Gas (HK$)



HK Electric (HK$)



Source: UBS; as of 31 January 2005.

Note: On October 13, 2003, UBS adopted new definition criteria for its rating system. (See 'UBS Investment Research: Global Equity Ratings Definitions and Allocations' table for details.) Between January 11 and October 12, 2003, the UBS ratings and their definitions were: Buy 1: Excess return potential > 15%, smaller range around price target; Buy 2: Excess return potential > 15%, larger range around price target; Neutral 1: Excess return potential between -15% and 15%, smaller range around price

target; Neutral 2: Excess return potential between -15% and 15%, larger range around price target; Reduce 1: Excess return potential < -15%, smaller range around price target; Reduce 2: Excess return potential < -15%, larger range around price target. Prior to January 11, 2003, the UBS ratings and definitions were: Strong Buy: Greater than 20% excess return potential, high degree of confidence; Buy: Positive excess return potential; Hold: Low excess return potential, low degree of confidence; Reduce: Negative excess return potential; Sell: Greater than 20% negative excess return potential, high degree of confidence. Under both ratings systems, excess return is defined as the difference between the FSR and the one-year local market interest rate.

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"Venule"

2005/04/27 08:06 AM

To: <electricitycomments@edlb.gov.hk>
cc: "venule office"
Subject: Comments on future development of electricity market in HK
☐ Urgent ☐ Return Receipt

I think Hong Kong should maintain the high standard of supply security.

Due to the constraints in build up new networks in urban area, it is not possible to introduce new electricity supplier in the distribution and transmission network.

Venule Chan



"vhouse"

25/04/05 07:58 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject:
☐ Urgent ☐ Return Receipt

To: Economic Development and Labour Bureau

In response to the Stage I Consultation Paper, my family are in favour of maintaining the current SCA provided that the expected return gained by the two power companies would be lower to a more competitive level.

敬啟者：

開放电力市場未必有得益，短期电费可能下調少許，但供电穩定性會較现在差。

现有供电集團因多了外来集團競爭合理利潤減少將对維修更新設備減少，聘用员工亦減少以平行成本，新集團亦会因投资期長回報慢，资源设施未必追上要求而现有本地集團設備一旦老化，供电不穩危机便出现。

供电集團增加，供电網絡亦会增多，会地底設施更複雜路面挖掘工程更多，耗時更長，維修发展更添難度，引起交通更混亂，出錯机会更大。

環保方面

如在本地增加发电厰數目，本地固有大多地点可供興建如由鄰近地方輸电来港，固定周環保條例較香港條將令整体更差，呼吸病例也会增多，醫療支出增加，劳动力減少得不償失。

最有现有供电集團亦因利潤问題，將会放緩更新保養維修設備及電設電厰設備在外地，減較成本及避避香港環保條例此舉引起本地员工失去工作，增加領取綜援人數。

本地一市民 WHCHAN

24-4-05

RECEIVED
29 APR 2024

"Boris Ho"

23/04/05 11:32 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Views and Comments on Stage I Consultation Paper on Future Electricity Market
☐ Urgent ☐ Return Receipt

Dear Sir/Madam,

After finished reading your Stage I Consultation Paper, I would like to send in my views and comments as follows:

Views:

Market reform, deregulation or poor planning occurs in quite a lot of highly developed countries (e.g. US, Canada and Europe) and developing countries (e.g. China and India). However, these countries are suffering from blackouts and outages due to the above-mentioned reasons. Hong Kong is so lucky that the existing status of electricity operation. We could enjoy highly reliable electricity and the prices are reasonable.

Comments:

I hope Hong Kong' s electricity market should maintain the present status to encourage electricity suppliers to invest in highly reliable equipment and apparatus so that blackouts should never occur in Hong Kong. I have no objection to maintaining the current form of SCA after 2008.

W.H. Ho

"WK Chan"

2005/04/30 12:13 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: FW: Maintaining the Current Scheme of Control Agreement for the Hong Kong Electricity Market After 2008
☐ Urgent ☐ Return Receipt

Dear sirs,

I refer to my email below.

Minor amendment is made and highlighted in 'blue' for your easy reference.

Regards,

WK Chan

-----Original Message-----
From: WK Chan
Sent: Wednesday, April 27, 2005 12:39 AM
To: electricitycomments@edlb.gov.hk
Cc:
Subject: Maintaining the Current Scheme of Control Agreement for the Hong Kong Electricity Market After 2008

Dear Sirs,

After reading the Consultation Paper regarding the future development of the electricity market in Hong Kong, my views and comments are listed as below.

1. The reliability of electricity supply is very important to the success in Hong Kong development. Hong Kong is an international city, reliable electricity supply is vital to our daily lives/business operation. We should remember that the blackout incidents happened in US, Canada, Italy and UK's power industry in 2003, these incidents caused lots of inconvenience/distress to the public. The deregulation or reformation of electricity market provide insufficient incentive for the power company to make sufficient/continual investment in their power plants, transmission and distribution equipment. As a result, the reliability of supply is degraded. On the contrary, the current SCA in Hong Kong provide incentive for two power companies to make an adequate investment in their plants, networks to maintain a reliable electricity supply to the customer. Therefore, I fully support that the current SCA regulation should be extended after 2008.

2. With the increasing demand of electricity in Guangdong area, the supply of electricity in Guangdong becomes tight and importing electricity from Mainland China is not practical and economical in the foreseeable future. Besides, there still have many inefficient and polluting plants in operation to relive the power shortage situation in the Guangdong area. These inefficient plants create serious air pollution problem in the Pearl River Delta region (including Hong Kong). In fact, the air quality of Hong Kong is getting worse in the past few years and it is obvious our air quality is being affected by these polluting power plant in Mainland. I don't want to see the air quality in Hong Kong is further deteriorating by these polluting plants. In Hong Kong, the two power companies strive their best to minimize the impact to our environment by installing/retrofitting more advance facilitates in their plants(e.g. low NOx burner, flue gas desulphurisor, electro-static precipitator). In my opinion, the current SCA should be retained as it provide incentive for the power companies to improve the environment.

Regards,

WK Chan

23 April 2005

Mr. IP Shu Kwan, Stephen, GBS, JP
Secretary for Economic Development and Labour Bureau
Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Mr Ip,

Stage I Consultation on Future Development of
The Electricity Market in Hong Kong

Referring to the Stage I Consultation on future development of the electricity market in Hong Kong, I am writing to express my views on the proposed regulatory arrangement and institutional set-up as follows:

Legislation

It is no doubt that Hong Kong's state-of-the-art electricity industry is among the best in the world. This is an achievement that the whole community should be proud of. I believe the key to this success is the simple and well-functioning SCA.

As advised by the Consultation Paper, SCAs are bilateral agreements between the Government and the power companies. One change to this arrangement as suggested in the Consultation Paper is to create a new regulatory framework supported by legislation. I strongly oppose to this suggestion based on the following reasons:

* SCAs are bilateral agreements which were made based on commercial principles with minimal political elements. Throughout the years, the whole electricity industry is growing under a healthy and autonomous commercial

environment, which is a paramount success element of Hong Kong's reputable free-trade market. Legislation would certainly introduce unnecessary political intervention into and impose negative impacts on this environment.

* Revealed from the controversies surrounding the West Kowloon cultural development, the Hunghom Peninsula estate and the collapse of the Link Reit listing, populism is fast becoming a strong political force and is likely to exert more influence on political and economic developments in Hong Kong. Popular voices have already had an impact on Hong Kong's efficient business operating environment. In fact, the rising populism is overtaking our heritage of entrepreneurship.

Although I recognize the rights to express opinions (as I am doing now), I do have serious concerns about using public opinion as a political tool to intervene commercial business operation. The above incidents have shown populist politics at its worst, and have well illustrated my worry. I don't think we would like to see our electricity industry, which we are proud of, ruined by politics.

* It is not uncommon to find discussions at LegCo meeting irrational and meaningless. Politicians are always arguing about so-called "principles" and "democracy" without making any real contributions to Hong Kong as a whole. They seldom put forward any pragmatic suggestions for solving problems; they exaggerate problems, create more problems and controversies instead. The standing of the legislature has been further eroded by the emergence of populist politicians in recent few years.

If our electricity industry development was handed to these politicians, the present commendable industry efficiency and service quality would certainly be damaged without any doubt. I am surprised that the Government has suggested letting the fade of such an essential daily-life necessity, electricity, to be decided by politicians.

Based on the above observations, legislation is certainly not a choice for the benefits of the whole society. I strongly recommend the Government to work out the framework based on the well-founded commercial principle and avoid introducing any political intervention to the already successful electricity industry.

Separate Regulatory Authority

In my opinion, there is absolute no need to establish an independent authority, which is a new and extra entity to the present electricity industry structure. My argument is founded on the following logics:

* According to OFTA's financial results on its website, its operating expense in 2003/04 was about HK$260 million. It naturally follows that a similar amount of operating expense, not to say the pre-establishment preparation and the establishment costs, would be required for the proposed separate regulatory authority. Although these costs might be recovered from governemnt's funds (originated from taxpayers) or from electricity tariffs, they would be ultimately borne by end consumers.

* In addition to the extra cost, the added bureaucracy would unavoidably lengthen the whole administration process, incur extra overheads, and ultimately lower the overall industry and regulatory efficiency.

* To deal the extra administrative and regulatory requirements, which may not be necessary for the well functioning of the electricity industry, power companies would most probably put more resources to ensure their compliance. This would increase their operating costs and lower their overall operation efficiency. The costs arising from these extra and unnecessary regulatory requirements would be borne by the consumers at the end.

Based on all these points, I can't see setting up a separate regulatory authority would bring any benefits to the community. Conversely, such decision would lead to waste of public resources and harm the industry efficiency.

Concluding remarks

Every change comes with a cost. The above arguments well illustrative that the proposed options of legislation and separate regulatory authority would not bring any benefits to the society, but more costs, more inefficiencies and more social controversies at the worst. Obviously, these harmful options should be ruled out.

Finally, I strongly request the Government to take a reasonable, rational and pragmatic approach, instead of following the prevailing political climax, in formulating the electricity industry development roadmap.

Yours sincerely,

WK Leung
A Hong Kong Citizen

"johnnycm"

2005/04/27 01:50 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comment to "Consultation Paper on Future Development of The Electricity Market in Hong Kong"
☐ Urgent ☐ Return Receipt

After reviewing the consultation paper,
I prefer to maintain the existing electricity system due to the following reasons:

1. Existing electricity system is reliable, safe and efficient as compared with other systems in the world.

2. The price of electricity is reasonable for the living standard in Hong Kong.

3. Environmental impact caused by the generation and use of electricity is minimal.
On the other hand, wider use of renewable energy (e.g. wind turbine and solar power) has already been implemented.

4. Open market and deregulation are not feasible in a small market in Hong Kong.
However, unpredictable risk for an open market will finally be shared by all citizens in Hong Kong.

Regrads,
WL Choy

t tt

To: electricitycomments@edlb.gov.hk
cc:
Subject: Some views and comments on stage 1 consultation
☐ Urgent ☐ Return Receipt

2005/04/27 10:02 PM

Having finished reading your Stage I Consultation Paper, I would like to express my views and comments as follows:

Electricity is a very important element of economic activity and social welfare, as one of the international financial centre, the security of supply is the most important. From the past experience, both power companies in
Hong Kong can maintain a secure and reliable
system, so I have never come across any blackouts especially on the Hong Kong Island.

I believe that the existing SCA is one of the important factors to encourage the power companies to continue their long-term investment in power infrastructure and quality service. Deregulation could lead to disinvestment, which changed the obligation to serve of the utilities, which is the simple obligation to deliver reliable electricity. One of the good examples in deregulated markets is the U.S. – Canada blackout in 2003. It may be even worst in crowded cities like ours' home, Hong Kong,! so I don' t mind to pay a reasonable premium for reliable electricity supply.

There may be some improvements in the existing SCA, but the change to competition requires major restructuring, new trading systems and mechanisms to be put into place, and time for companies to adapt to the new competitive environment. These factors will cause some uncertainties for reliable electricity supply in the future. Try to keep things simple. I believe that the existing SCA is a logical regime for the future development of Hong Kong.

Mr. WL Tang



"W.L. Yuen"

2005/04/30 10:33 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: I just want to have a stable & reliable electricity supply
☐ Urgent ☐ Return Receipt

After I finished reading the Stage I consultation paper, my family & I really want to keep on the present situation, because we have no confidence on the third electricity company transfer electricity from China to HK. Moreover, the cost for building up the third company will be completely beared up by users & finally we need to pay a further higher price for electricity.

W.L. Yuen
30/4/2005

By Fax : 2868 4679 Date: 20 April 2005

To : Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings,
Lower Albert Road, Central, Hong Kong

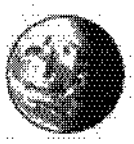
Views and Comments on Stage I Consultation Paper

Referring to the 'Stage I Consultation on Future Development of the Electricity Market in Hong Kong', I would like to express my views and comments as follows:

In the past, I realized deregulation would bring tariff reduction at the cost of only slight deterioration of supply reliability. However, the large scale of blackouts in various countries like US, Canada and Australia in recent years changes my mind. Deregulation has the inherent effect of lack of accountability and responsibility among individual power supply companies. Hong Kong, as an international financial centre, cannot afford such disastrous incidents that may be resulted from similar deregulated electricity market implemented in the above countries.

The current Scheme of Control in Hong Kong has encouraged the two electricity companies to continue investment in their infrastructure, and to improve their services. Hong Kong people have been enjoying reliable electricity supply and quality services from the two companies. I opine that high reliability of electricity supply is the utmost importance for Hong Kong, and the existing Scheme of Control for Hong Kong's electricity supply should be maintained after 2008, with some improvements.

Mr. W.M. Wong



Mars

26/04/05 07:40 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity Comments
☐ Urgent ☐ Return Receipt

After reviewing the consultation paper, I prefer to maintain the existing electricity system due to the following 4 reasons:

1. The price of electricity is reasonable while that for Towngas is too high in Hong Kong.

2. Existing electricity system is reliable, safe and efficient as compared with other systems in the world.

3. Environmental impact caused by the generation and use of electricity is minimal and the wider use of renewable energy (wind turbine and solar power) has already been implemented.

4. Open market and deregulation are not feasible in a small market in Hong Kong, and the risk will be finally shared by all citizens in Hong Kong.

W.S.Tse

Tel:

29 April 2005

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Dear Sirs

The future development of Hongkong Electric market Stage 1 consultation paper.

After reading the Stage 1 consultation paper my view and comments as follows.

i. The elelctic companies in Hongkong are willing to providing stable and reliable electric supply is base on the current SCA form as will as the customers enjoy the excellent service.

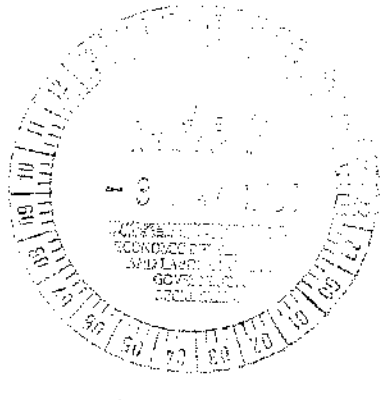
ii. Owing to lack of other supply sources and limited market size for supporting new market player, deregulation is not a feasible way to go.

iii. The first wind turbine will be established in 2006, I believed that the two electric companied have done a goods job for our environment and next generation.

Conclusions

i. The SCA gives electric companies incentives to improve the environment. In my opinion SCA should be retained if we all wish to continue with improving the environment.

ii. I can't see any other framework better than the SCA.



W. Wong (Mr.)

"Wing Ying Yuen"

25/04/05 08:59 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity Market in Hong Kong
☐ Urgent ☐ Return Receipt

I am a conservative by nature!

Given the horrible experience of blackouts in the deregulated markets overseas, why should we still take the risk if the existing SOC works neatly?

I recommend the SOC should remain.

W.Y. Yuen



"Wa Wa"

2005/04/29 09:11 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage 1 consultation --> My View
☐ Urgent ☐ Return Receipt

Natural resources are scarce and their prices will go up and up as this is the definite trend. We all know there is no price cap for coal, oil, gas etc. So, the current SCA is a good method to keep HK's energy prices stable. Fully open market does not have a price cap!

wai chai

2005/04/30 09:38 AM
Please respond to wai chai

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comment
☐ Urgent ☐ Return Receipt

本人就第三間電力公司有意加入本港的電力市場有以下的意見及問題:

本人認爲目前香港的兩間電力公司已提供了市民完善的服務, 由其服務至今,從沒有發生過任何大停電, 收費亦沒有大波動.而收費跟服務亦成對比. 因此本人十分滿意目前現時的狀況.

但本人卻擔心假如第三間電力公司的加入, 會否影響現時的電力供應,收費及這兩間電力公司員工. 香港的市民還能否有穩定的電力供應商?第三間電力公司又會否爲了壟斷市場而降低其收費, 但影響電力供應的服務?

本人認爲讓第三間電力公司加入電力市場, 市民要承擔一定的風險.現階段秘第三間電力公司的加入對香港的影響是好是壞, 仍是未知數.電費會否大幅下降, 但影響服務質素.對現時兩間電力公司的員工又會否有影響. 而市民究竟有沒有需要去承擔這個風險.



wai~~

2005/04/30 09:41 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comment
☐ Urgent ☐ Return Receipt

香港的繁榮與電力的供應有著一定的關係.假如香港沒有穩定的電力供應,外商會否在港投資?又會否有旅客到訪?目前香港已有兩間可提供穩定,可靠的電力公司.這兩間電力公司已服務香港市民多年.這段期間,並沒有發生過大停電,亦沒有什麼造成市民的不便,假如第三間電力公司加入本港的市場,這間電力公司又能否給予市民穩定,可靠的服務?又會否影響現時的電力市場?而其收費又會否令影響現時的市場?

沒有人可以預料,第三間電力公司加入.對香港的影響是好還是壞.但如果第三間電力公司的加入而影響香港電力的供給及收費,這樣又是否值得?



"Queenie & Walter"

2005/04/30 04:30 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: electricity market comment
☐ Urgent ☐ Return Receipt

Dear Sir,

My name is Walter Hui.
I want to give my ideas for Stage 1 Consultation of future electricity market in Hpng Kong.
I think the monthly expenditure on electricity bill is less that the expenditure in transportation fee or gas bill.
The scheme of control agreements is success. I suggest to maintain the present scheme of control agreements.
I prefer a reliable, safe, green and efficient electricity supply.
The future power company shall invest more in renewable energy, at least 10%.
Moreover, the portion of investment for future power company shall be at least 90% in Hong Kong market and not in overseas. So that, more jobs can be created to Hong Kong residents.
The profit in scheme of control agreements shall be modified to about 8% and can be adjusted higher or lower according to the interest rates.

BY FAX (No. 2868 4679)

Mr Stephen IP, GBS, JP
Secretary for Economic Development and Labour Bureau

25th April 2005

Dear Mr. IP

COMMENT ON FUTURE DEVELOPMENT
OF ELECTRICITY MARKET IN HONG KONG

I fully agree with your policy objective in the Stage 1 Consultation paper that consumers in Hong Kong should receive reliable, safe and efficient electricity supply at reasonable prices. I write to point out that deregulation is not applicable to Hong Kong because of the following reasons: -

1. I believe that reliability of electricity supply is of utmost importance to ensure Hong Kong as the leading international financial centre in Asia. Recent blackouts in countries such as US, Canada, Italy, Australia and India demonstrate that it is very difficult to ensure good network planning and adequate investment in a deregulated market. Consequently, the reliability of electricity supply will be seriously jeopardized.

2. Overseas experience shows that deregulation may not guarantee tariff reduction. The remarkable examples are the rapidly increase in the electricity prices happened in California and Ontario previously.

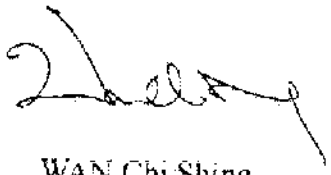
3. I notice from the clause 2.5 and 2.6 of the Consultation paper that the present local residential tariff is in the mid-range among other major cities in the world and the electricity bills accounts for less than 2% of the general household monthly expenditure for residential customers. Therefore, I consider that our residential tariff is reasonable and affordable in general.

4. In my opinion, it is difficult to support any new market players in Hong Kong due to the limited market size and lack of supply from other local sources, such as renewable energy sources. As indicated in the Consultation paper that surplus electricity in the Mainland for supplying to Hong Kong would unlikely

be available in the near future. Hence, importing electricity from China is also not a choice. Besides, the reliability of the electricity in China is very poor as compared to that in Hong Kong.

In conclusion, our electricity supply has always been reliable with reasonable price. It is unwise to expose ourselves to the unforeseeable risks of deregulation. I therefore cannot see any compelling reasons to change the present SCA with a brand new arrangement.

Yours sincerely



WAN Chi Shing



"Martin Wan"

2005/04/29 01:14 PM
Please respond to martin

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Submission for the Joint Statement of NGOs
☐ Urgent ☐ Return Receipt

Dear Sir/ Madam,

I'm writing to you to inform you that we'd like to submit a Joint Statement of the Conservancy Association and other NGOs in next week. I hope you will accept our late submission.

Yours sincerely,
Martin

Wan Kwok-wai, Martin
Campaign Officer,
The Conservancy Association

E-mail:
Website: http://www.conservancy.org.hk

28 April 2005

Economic Development and Labour Bureau
2/F., Central Government Offices, Main & East Wings
Lower Albert Road, Central
Hong Kong

Future Development of the Electricity Market in Hong Kong

Dear Sir/Madam

With regard to the issue whether the electricity market should be de-regulated after 2008, based on overseas experience, even the market is de-regulated, the transmission and distribution part will inevitably remain a natural monopoly i.e. a mechanism similar to the existing Scheme of Control Agreement (SCA) will still be necessary, the parts that can be de-regulated should be the generation and the retail parts. Let us concentrate on the generation part, successful de-regulation of generation will require

- An independent regulatory body that will have jurisdiction over all players including those in Hong Kong and the Mainland

As the Mainland, especially Guangdong suffers from chronic shortage in generation capacity, the first condition is unlikely to become a reality at least within several years after 2008. For the second condition, as Hong Kong and the Mainland have different social and legal systems, whether an independent regulatory body is feasible or not is doubtful.

With these in mind, the logical approach is to extend the current SCA and then on this basis, address directly to the problems that most Hong Kong people are genuinely concerned i.e. whether the tariff is too high because of alleged over-investment by the power utilities.

Yours faithfully

Wan Wai Kin

2005/04/29 11:40 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: SCA
☐ Urgent ☐ Return Receipt

TO ECONOMIC DEVELOPMENT AND LABOUR BUREAU

AFTER STUDYING THE STAGE I CONSULTATION PAPER, I FEEL THAT HONG KONG MUST KEEP HIGHLY RELIABLE ELECTRICITY. HK CANNOT SUFFER BLACKOUTS AND OUTAGES AS IN US AND CANADA. THIS IS TOO RISKY. I FEEL IT IS WORTH TO PAY A REASONABLE TARIFF IN ORDER TO GET A STABLE ELECTRICITY SUPPLY. WHY GET A LOWER TARIFF, BUT WITHOUT A 100% RELIABILITY? IT IS NOT WORTHY ENOUGH. IT IS NOT HARMFUL TO MAINTAIN THE SCA FOR A LONGER PERIOD WHICH CAN SAFEGUARD OUR ECONOMY AND SOCIETY.

I SEE NO GOOD POINT IN OPENING THE MARKET. MAINLAND IS NOT A RELIABLE SOURCE.

PLEASE CONSIDER MY VIEWS.

WAN YEE CHUNG

Warren Wu

26/04/05 07:08 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Electricity Market Consultation
☐ Urgent ☐ Return Receipt

Dear Sir,

Please find attached my submission in form of a Word file.

Warren Wu



Elect. Submission.doc

24 April 2005

Dear Sir,

Comments on Consultation Paper on Future Development of The Electricity Market in Hong Kong (Stage I Consultation)

I am writing to express my comments on the Stage I Consultation Paper on Future Development of the Electricity Market in Hong Kong. My general impression is that there is no apparent benefit for moving away from the current SCA regime and I therefore suggest maintaining the current SCA after 2008.

My detailed comments on particular issues raised in the paper are as follows:

Return on investment

Comment 1: *The difficulties involved in adopting the cost of capital approach should be fully addressed. Probably, it should not be adopted as there are irresolvable difficulties in fixing the parameters with acceptable accuracies.*

The paper indicates that the cost of capital approach for determination of the Permitted Rate of Return is more systematic, objective and transparent. This is however far from the truth. From overseas experience, determination of all the parameters for cost of capital calculations are subject to touchy debates, no matter how sophisticated the determination methodology is.

Comment 2: *Equity base should not be adopted as it does not bring any benefits but may induce inefficient financing as pointed out by the paper.*

It is quite probable that switching from the present asset base to equity base will bring no benefit. The reasons for switching from asset to equity base are unconvincing:

- While the paper indicates that asset base could expose the regime to potential over-investment, equity base does not bring any improvement. It is illogical that a simple change in formula for profits calculation can prevent over-investment.

  Given the necessary parameters, ean equivalent ROE can always be calculated for a particular ROA and vice versa. Why a company will not over-invested if its ROE instead ROA is regulated?

- It is stated that, with an asset rate base, the proportion of debt and equity in acquiring the assets (gearing) would affect determination of the appropriate rate of return. But, the same

equally applies to an equity rate base. Finance theory indicates that the cost of equity is affected by the gearing. A regulated ROE value is only meaningful if other parameters, similar to those for ROA determination, are also specified. In any case, determination of ROE is not necessarily simpler than that for ROA.

Regulating tariff

Comment 3: *It is impractical to abolish the Fuel Cost Adjustment mechanism.*

While it is not explicitly mentioned in the paper, abolishing the mechanism is only meaningful if the power companies are required to bear the risk of fuel cost fluctuation. This will unavoidably make the power companies to include premium in the tariff to cater for unfavourable fuel cost fluctuation and this arrangement will induce higher-than-otherwise-necessary electricity prices.

Comment 4: *The paper fails to inform the fact that inflation-linked tariff will bring fundamental changes to the regulatory regime with many complications and far-reaching implications.*

More details with sufficient analysis must be provided to the public. It is dangerous for the public to make judgement with the oversimplified information provided by the paper without knowing the potential risks.

New supply sources

Comment 5: *Jurisdictional and environmental issues must be addressed if news supply sources in the mainland are to be introduced into Hong Kong.*

The issue of how Hong Kong can exercise jurisdictional power on mainland suppliers must be resolved.

In order to improve the air pollution problem, Hong Kong should not import electricity from the mainland unless the general environmental performance of mainland (or at least Guangdong) power plants can match that for Hong Kong plants. Otherwise, as electricity is indistinguishable after getting on the power grid, importing electricity from the mainland is in effect producing more pollution.

Yours faithfully,

Warren Wu

"Winfield Tam"

2005/04/27 08:32 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Electricity Development
☐ Urgent ☐ Return Receipt

Gents,

Upon the above subject, I have the follow comments:

1. The open market may jeopardize the reliability of electricity supply as demonstrated in the black out in USA, Canada, Sweden, UK & KL. It should not allow to re-occurs in HK.

2. The 100% capacity tie between HEC & CLP is not practical as both side required building more generating units to support the other side. If only import from Kowloon to HK, it may affect the reliability of electric supply in HK island. The electric network stability in CLP & main land China is not secure enough as seen from the past record.

3. Scheme of Control is a good tool to attract the investment so that the electricity system can be timely upgrade & maintain. The return rate may be revised according to GDP as to reflect the market expectation.

Winfield

香港電燈有限公司(港燈)是世界上歷史最悠久的電力有限公司之一,於一八九零年 12 月 1 日開始運作致現時,由一九九零年起所有電力由南丫發電廠供應至香港島,南丫發電廠生產的電力經由輸電網輸往港島,採用地底電纜輸配電力,即使遇著惡劣天氣,及颱風時仍可確保電力供應穩定,電纜由 275kv 降至 132kv 及 11kv 輸電,港燈採用 11kv 環形方式供電,遇有電纜停用或其他故障,,電力會隨即由另一分區電力站供應,電壓由 11kv 降至 380kv/220kv,所以不單爲客戶提供可靠性高效率及充足電力供應,在各方面運作上不斷尋求突破,務求爲客戶提供最稱心的服務,客戶在市場上必然對港燈建立信心,爲求安定進步不選擇加入外界因素勁增而寧客戶感覺停電擔擾之心,因此希望維持現狀

WONG CHI KUEN

To: Economic Development and Labour Bureau
2/F, Central Government Offices, Main & East Wings
Lower Albert Road, Central, Hong Kong

From: Wong Hong Kwong

My view on "The Future Development of the Electricity Market in Hong Kong"

I would like to express my view on the consultation paper on Future Development of the Electricity Market in Hong Kong.

Hong Kong is a very densely populated city heavily depending on a reliable electricity supply to maintain the life of the HKSAR safely, effectively and economically. Hong Kong is the busiest city in the world. The residential and commercial buildings are getting higher and higher. The train transportation network is getting bigger and bigger. Many infrastructures supporting the economic of the HKSAR will also commission soon. All these facilities require a very reliable electricity supply.

We enjoyed very much on the current supply reliability. Seeing the blackout events in other countries, we are proud of our supply reliability in the HKSAR. As an electrical engineer by profession, I studied the reports of the year 2003 overseas blackout incidents. It could be concluded that the causes of the blackout were due to the following reasons:

- Poor maintenance, including power line clearances to trees, electrical plant/protection relays, control computers.
- Difficult to control the power flow across the interconnection network. A simple electrical fault in one utility led to series of cascade events that ultimately blacking out the system affecting other utilities.
- Difficult to have a good coordination among the utilities on planning and operation of the power system in the complicated interconnected power network.
- Difficult to set clear responsibilities among various power companies/stakeholders in the interconnection network.

The Scheme of Control system has been operating very well in Hong Kong with incentives to ensure the two power companies building strong power system networks and sufficient generation plant to ensure the supply reliability. In the overseas deregulated market, the generation companies will build power stations based on their investment interest only but not on optimizing the network arrangements. This has caused transmission companies difficulties to plan power network ahead to match the generation sources. This caused many bottle necks in the power network, what they called constraints.

Building new circuits meeting future development requirements would need a long time frame. To ensure a reliable power system, I don't want to see such un-coordinated planning that would result network constraints in Hong Kong.

KM Wong

2005/04/27 09:33 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Views on Future Development of the Electricity Market in Hong Kong Stage I Consultation
☐ Urgent ☐ Return Receipt

Dear Sirs,

Re: Views on the consultation paper regarding the above subject

I believe maintaining of reliability and safety of electricity supply in Hong Kong are more crucial to us. Hong Kong is an international financial centre and modern city. The main factor for success is that Hong Kong has a stable electricity supply. Although the current electricity bills accounts for a certain part of household expenditure, the public doesn t need to worry electricity supply reliability. I can t imagine how much will suffer for financial and economic loss if there is any power failure in HK. Besides, I am happy I have never encountered any blackouts (like New York City in 2003) in Hongkong.

I know that the current Scheme of Control Agreement is functioning well to achieve the policy objective, while there is no feasible plan to develop a competitive market in short to medium term. So, the current SCA doesn't need to be changed if it works now.

Regards,

WONG Ka Ming

27 April 2005

"Leo Wong"

20/04/05 08:19 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comments on the consultation paper for HK Electricity Market (stage 1)
☐ Urgent ☐ Return Receipt

Dear Sir,

Please find attached the comments on the consultation paper for Hong Kong Electricity Market (stage 1) for your consideration.

Regards,



Wong, Kwok Fai Comments on consultation (stage 1).doc

Dear Sir,

Comments on Consultation Paper on Future Development of The Electricity Market in Hong Kong (Stage I Consultation)

After reading the consultation paper, I would like to respond as follows.

I think everyone in Hong Kong will agree that the role of electricity in modern city life is not just simply a commodity but an essential life-supporting component. We cannot imagine how we can live without electricity in such a densely populated city overcrowding with so many high-rise buildings (e.g. no lift for vertical transportation or no air-conditioning in summer time). Hong Kong people, sometimes, take it too granted that they will have a reliable power supply whenever and wherever they want. However, the existing supply reliability is not a 'must' if there is no effective mechanism to ensure adequate investment in power infrastructure. I think the current SCA regime has done an excellent job in this aspect for Hong Kong over the past 40 years.

Everything comes with price. Is it realistic to ask for a cheaper tariff while, at the same time, you keep enjoying the same or even better quality of supply reliability and customer services ? There is no free lunch in real world. Actually, two facts should be bear in mind : (1) current tariff level is not high (only 2% of our expenditure as revealed in the consultation paper); (2) we enjoy an excellent customer services and supply reliability from the two power companies. What do the facts imply ? They prove that the current SCA regime succeeds in inducing investors to invest in power infrastructure continuously such that the supply reliability level can be maintained to meet the growing electricity demand while the consumers can enjoy a reasonable and affordable tariff. Of course, a fair and appropriate return should be provided for the investors in order to compensate the risks they bear. In short, the SCA can balance the long-term interest between consumers and investors. As such, why can't the SCA regime be kept when the track record of the regime is so well proven ?

Someone, especially those opportunistic politicians, always claim that Hong Kong should deregulate its electricity market to allow customer choices, power importing from China and tariff reduction. I think these politicians are misleading us and they underestimate all the possible risks and costs involved in the deregulation.

First, to make competition possible, sufficient capacity of interconnection between the two power companies and sufficient market players are the two pre-requisites. However, I don't think Hong Kong, as a small market without other natural resources, can fulfill any one of the above pre-requisites in order to get success in the deregulation reform.

Then, how about to import the power from China ? I don't think this approach can work as well. As pointed out in the consultation paper, the availability of surplus power from Mainland China is quite uncertain in the short to mid-term. Even if there is such real surplus, would the tariff charged by this imported power be competitive when wheeling charge for long-distance transmission is taken into account ? More important is that there is no guarantee in the supply reliability for this imported power.

Third, deterioration of supply reliability is not uncommon in many of the deregulated markets due to the lack of investment in the power industry. The massive U.S.-Canada blackout incident in 2003 was a well-known example showing the drawbacks of market deregulation. Once a deregulated market has gone wrong, could it be easy to revert to pre-deregulated condition ? I think it would be costly, if not impossible, to do so. Can Hong Kong, as a major financial hub, take risk from any reform failure ? The answer is obvious.

Lastly, please think about in your daily life and business operation, do we require to worry about any problem with electricity supply ? No, because the SCA defines clearly the accountability and responsibility for the electricity system within each power company' s supply territory. But in a deregulated market, who can you blame on when there is power interruption ? No-one, just same as the case of U.S.-Canada blackout in 2003.

In conclusion, I support the current SCA regime should be retained while some improvements can be considered and incorporated.

Yours faithfully,

Wong, Kwok Fai
Email :

20 April 2005

就香港電力市場未來發展的意見

由諮詢文件顯示，內地尤其廣東，短期至中期，電力供應是明顯不足的，而廣東的發電廠有很多都是低效益高污染的火力發電廠，若果由這些電廠輸入電力到港，只會令珠三角地區污染問題加重，這些電廠實應淘汰。再者由內地到港是有一定距離，投資於輸電網絡的費用一定會由用戶承擔，還有最近出現的新投資者亦未有任何切實可行方案輸電到港。由此可知，輸入電力是不可能令電費下調，而且會帶來環境污染，供電不穩定和不可靠等問題，相反現行 SCA 在合理及可負擔的電費下，卻能提供穩定、可靠和環保的電力供應，所以現行 SCA 是應繼續維持下去。

Wong Siu Ming

21-04-2005

WAI TAT WONG

2005/04/30 11:40 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comment on the Consultation Paper on future development of electricity market in Hong Kong
☐ Urgent ☐ Return Receipt

After reviewing the captioned consultation paper, please find my opinions and suggestion as follows.

1. In my opinion, a reliable and safe electricity supply is my most vital consideration. It will great affect the economic development of Hong Kong and living of Hong Kong people.
2. If we go for de-regulation, the power company will spent less money to refurbish or upgrade/improve the power system in order to cut cost. The reliability of the power system will reduce. USA is a good example to illurstrate it.
3. De-regulation do not necessary come with electricity tariff reduction. Hong Kong market is too small and it may not get the benefit from de-regulation
4.I will say that the current electricity tariff is acceptable. It is only a small percentage of the total household expenditure.

Hence, I suggest to remain the current Scheme of Control Agreements.

Wong Wai Tat
30/4/2005

香港中環下亞厘畢道
中區政府合署中及東座貳樓
經濟發展及勞工局

敬啓者:

我們作爲香港的市民及中華電力的電力客戶,對於香港未來電力市場的發展欲提供以下意見:

1. 作爲星斗市民,我們所期望的是穩定可靠的電力供應,並隨時滿足我們的需求,香港目前享有世界級的供電力服務,將有亦應如此;

2. 中電的電價自1998年起一直維持不變,期間更爲客戶提供了6次的電費回扣,香港市民以中等水平的電價享有可靠程度甚高的電力供應,價格較紐約、倫敦、巴黎和東京等大城市的電價更便宜;

3. 環保的表現是香港電力供應商要承擔的重要的責任之一,電力公司要採取開放的態度,履行對社會的承諾,以環保的原則營運,力求臻善,爲客戶提供電力服務,並將相關資料公開。

4. 行之有效的制度使香港擁有國際水平的電力供應,保持現狀是最好的方法,無須刻意爲改變而改變,若然要改變現行的制度,必須保証要能維持現有的供電質素及清楚界定不同的責任及釐定他們的角色。

謝謝

For and on behalf of 客戶
WORLDPART PROPERTY MANAGEMENT LIMITED
和栢物業管理有限公司

Authorized Signature(s)



Wu June

2005/04/26 09:05 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: To:EDLB
☐ Urgent ☐ Return Receipt

To EDLB

I found satisfactory on the performance of the power company which supplies us a reliable electricity power. I am in doubt of the power supply reliability when the grid in HK links up with that in Mainland China. The power always runs out in summer in China!! How can I sleep without air conditioning in a summer night? So, keep the existing electricity market arrangement and NO blackout please.

Name:Wu Siu Yin

世界自然(香港)基金會
香港中環纜車徑一號
No.1 Tramway Path,
Central, Hong Kong

WWF Hong Kong
電話 Tel : (852) 2526 1011
傳真 Fax: (852) 2845 2734
wwf@wwf.org.hk
www.wwf.org.hk

FACSIMILE TRANSMISSION

To: Economic Development and Labour Bureau — Your Ref. No.:

From: Dr. Alan Leung — Your Fax No.: 2868 4679

Date: 5 May 2005 — Page(s): (Including this page)

Subject: **Future Development of the Electricity Market in Hong Kong – Stage I Consultation**

Dear Sir,

WWF would like to submit the following comments on the Stage I public consultation for the Future Development of the Electricity Market in Hong Kong for your consideration.

1.1 Policy Objective

Climate change is arguably our most pervasive environmental problem, with the potential for major harm to habitats, biodiversity, food systems, economies and human life. As such, promotion of clean energy, such as renewable energy, and energy conservation and efficiency should be clearly stated in the Energy Policy Objective. The transition from fossil fuel to clean power should be a matter of urgency.

3B Protecting the Environment

Emission Cap

WWF supports the imposition of emission caps for air pollutants as a mechanism to control the type and quality of fuel being used for power generation. The principle of the emission cap should be based on the lowest baseline of an advanced society, not some criteria that are convenient for the power companies. Installation of equipment with proven technology to reduce pollutant emission, namely the flue-gas desulphurization equipment, should be installed in all coal-fired plants without further delay.

Emission targets for carbon dioxide should also be imposed on the basis of the precautionary principle since low-carbon fuel (e.g. natural gas) and carbon-free fuel (e.g. wind and solar) are available, and the technology on the enhancement of energy efficiency and CO_2 reduction technologies (e.g. CO_2 capture and co-firing biomass with coal) are also available.

世界自然(香港)基金會
香港中環纜車徑一號
No.1 Tramway Path,
Central, Hong Kong

WWF Hong Kong
電話 Tel : (852) 2526 1011
傳真 Fax: (852) 2845 2734
wwf@wwf.org.hk
www.wwf.org.hk

Renewable Energy

A commitment as a fixed percentage of the gross revenues should be mandated to be invested in renewable energy technology. The interconnective capability of the power grid should be increased and third-party access to the grid should be made mandatory. This is essential to the development of independent power producers using renewable energy and providing clean choices for customers on offer from the market.

Demand-side management and energy conservation

The power companies should have a commitment on the development of energy efficiency and conservation technologies. The government should also have a solid commitment to promote energy conservation and provide incentives to private sectors to invest on energy saving and application of renewable energy.

Thanks for your kind attention.

Yours truly,

Dr. Alan Leung
Senior Conservation Officer

"Y C Man"

24/04/05 10:53 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Future Development of The Electricity Market in Hong Kong - Stage I Consultantion
☐ Urgent ☐ Return Receipt

Dear sir/madam,

Future Development of The Electricity Market in Hong Kong - Stage I Consultantion

Being a power system engineer in both local and overseas power utilities over decades, I have some reservations on issues of increasing interconnection capacity and discontinuation of the current Scheme of Control Arrangements:

i) Power system operation and control are not simple issues that could be managed by engineers and computers easily. The complexity of a massive interconnected system is beyond the current states of technologies can manage. The recent massive power outage in North America, Europe and Australia are evidences indicating that a massive interconnected system is not well behave and often beyond the expectation of engineers. The current Southern China Grid is with over 50,000 MW installed capacity and with some overhead lines over 1000 kilometers long. Disturbances, such as fault and lightning, could cause troubles to the Southern China Grid, and disturbances could propagate to Hong Kong. As a result of the disturbance, both local power systems within Hong Kong could be blackout within fraction of second if the interconnection capacity between the two local power systems is being increased. If the two local power systems in Hong Kong are self-reliance by themselves and without rely on interconnection for massive power interchange, such blackout could be avoided.

ii) Without Scheme of Control Arrangements, power companies in Hong Kong may be reluctant to continue their investment on their power systems. Power companies may continue to operate the power system up to and beyond the system can handle in order to save money. Even minor disturbance to the system, the system could be collapse. The massive blackout in North America is an example which demonstrated the reluctance of power utility to continue investment on its power system.

Therefore, **I support the continuation of current Scheme of Control Arrangements, oppose increase in interconnection capacity and any change in elecricity market**.

———————

Y. C. Man P. Eng.



"Y C Wong"

24/04/05 04:18 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Stage I consultation on post 2008 electricity markets arrangements
☐ Urgent ☐ Return Receipt

Dear Sir,

My comments on the titled subject are as follows:

1. Reliability and safe of electricy supply are my prime concerns. I'm satisfied with the current standard of services and the electricity tariff is considered to be reasonable.

2. 13.5% SCA return on investment and 15 years of regulatory period are essential for encouraging the power companies to invest continually in order to improve system reliability and reduce environmental impacts.

3. Interconnection of the two power companies in Hong Kong and even Mainland China may incur an increase in electricity tariff and reduce in reliability. Blackouts similiar to that happened in North America are highly undesirable.

Regards.

YC Wong

我認爲可行政策的目標最重要是有可靠、安全和穩定的電力供應，這是非常重要的。我不想因爲聯網而影響電力供應的可靠性、穩定性和安全。

再講香港開放電力市場便會降低電費，這只是猜測，事實如何仍然是要視乎新的管制法則。特區政府可能會避重就輕，保持現狀，只是將兩電的固定資產回報率稍爲降低。如此，政府便毋須爲開放市場而傷腦筋，同時市民的電費負擔可減輕，兩電亦容易向股東交代，此安排均討好各方。

發展電力市場的投資龐大且風險高，難以想像有人願意在本港這個成熟發展市場「另起爐灶」。本港電力市場發展成熟，單是輸電一關已不易打破，投資額及風險不成比例，難以理解在這情況下仍有人願意投資。

同時基於土地資源及環保問題，在本港很難覓地興建發電機組，即使在內地設廠，現時內地嚴重缺電，除非有政治因素介入，否則應不會容許內地電廠只輸電給本港使用。

而且本港並不具備開放電力市場的條件，一方面因未來10年內地都不會有能力售電予本港；即使成事，長途輸送電力成本不菲，效益成疑。如本地有新電力公司加入競爭，估計電費減幅也有限，根據數據顯示，珠三角在未來25年，每年電力增長約8%，所以預計未來10年內地「無可能」有剩餘電力售予本港，即使成事，高昂的傳輸費用未必合乎成本效益，對減電費的幫助不大。而且現時內地缺電情況仍然嚴重，未必有能力向香港售賣電力。所以開放市場未必對消費者有利，電費不一定會下調。而且香港要開放電力市場，或有多個電網共同輸電，未必一定對消費者有利，電費也不一定因爲有競爭而下調。

開放電力市場，理論上似乎對消費者及社會有利，但根據過往十年的外國經驗，開放市場實際風險很大，很少成功例子，從海外電力市場的經驗所知，電力公司因電力市場開放後會減少投資於電力系統上，因而引致供電的可靠性下降。２００３年美加大停電便是一個好的例子，香港是不能因電力開放而引致像美加一樣之大停電重演。

我認爲電力市場對本港的重要性，因而本人會全力支持現有的管制計劃。

Yours,
YK Fong
24th April, 2005

"Lam Tsz Chung"

2005/04/29 11:44 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: electricitycomments
☐ Urgent ☐ Return Receipt

本人覺得本港的電力公司服務水平很好和可靠，在香港很少遇到大停電，在環保方面兩間電力公司都做得很好。由於電訊市場的開放帶來很多投訴，本人不想類似的情形在電力市場見到。由於香港地方細小，要找合適地方興建發電廠有困難，所以我不贊成開放電力市場，同時開放電力市揚會帶給我們日常生活有些不方便，例如掘路次數會增加。保持現狀，開放電力市場是不適合香港。

Y.K. Lam

OR Yuk-kwan

25/04/05 11:11 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Views on the Electricity Market Review
☐ Urgent ☐ Return Receipt

Dear Sirs,

I have some views on the Consulatation Paper:-

1. As you mentioned HK is a densely populated city, the residental flat is normally up to 30 - 40 floors. Reliability of electricity is a must and is also a vital.

2. Interconnection with other suppliers means to average their reliability with us. The Chinese officals always say China is a developing country, do you think they have better or same reliability of electricity as us. In China most places suffer from lack of electricity.

3. If you offer a saving of some money per month that will enough for us to buy a lunch and will put us in a risk of lost of electrcity supply I think all of us will say NO.

4. Please consider how many extra manpower the Fire Service or Police will have to mobilize if there just some more blackout incidents (not to mentioned major one just like those happened in other countries recently)

Thanks.

Y. K. Or
25-4-2005

"ylkwan"

2005/04/29 10:05 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Stage I Consultation on Future Development of the Electricity Market in Hong Kong - Submission to express views & comments
☐ Urgent ☐ Return Receipt

Having studied the Stage 1 Consultaion Paper, I would like to express my views and comments as below:

Many Hong Kong people take for granted that electricity is available whenever you switch on the button. This is because we enjoy highly reliable electricity supply in Hong Kong. Without reliable electricity, Hong Kong cannot be a first class city and an international financial center. Reliable electricity is also of prime importance to my daily life and my family. I can't imagine how I can sleep without air conditioning in summer.

In conclusion, I consider the existing SOC should be continued to ensure prosperity of Hong Kong as well as the lifing standard of Hong Kong citizens.

Regards,

YL Kwan



"Yik"

2005/05/01 06:50 PM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Fw: Will open the electricity market means lower tariff?
☐ Urgent ☐ Return Receipt

I believe that open the market not only cannot help lowering the electricity tariff but also cause a lot of environment problems and inconveniences to the public. The reasons are follows:

1. There are more than 10 utilities in Hong Kong laying their own cable, pipings and ducts in the ground. By opening the electricity market, new investor definitely required laying new cables to the ground in order to build up their supply network. This will increase disturbance to the public.

2. New supplier only focus their business on commercial districts, domestic users could not enjoy the benefit of opening the market. The tariff may end up become higher as the domestic users need to subsidize commercial users.

3. Introducing new power supplier will generate more pollution to the environment. We need to pay the price for our health and environment in exchange. It is not worthy to do so.

My personal view is that the existing electricity suppliers in Hong Kong are well developed and providing a very reliable supply. The tariff is within a reasonable limit in comparing with other major cities. I trust that there is no necessity to open the electricity market in Hong Kong.

Y. Lam

L Kevin

To: electricitycomments@edlb.gov.hk
cc:
Subject: Will open the electricity market means lower tariff?
☐ Urgent ☐ Return Receipt

2005/04/30 11:53 PM

I believe that open the market not only cannot help lowering the electricity tariff but also will introduce a lot of environment problems and cause inconvenience to the public. The reasons are as follows:

1. New supplier only focus their business on commercial districts, domestic users could not enjoy the benefit of opening the market. There would be a situation that domestic users may need to subsidize commercial users. Therefore, the electricity tariff cannot be lowered.

2. Introducing new power supplier will generate more pollution to the environment. We need to pay the price for our health and environment in exchange. It is not worthy to do so.

3. The existing Hong Kong electricity companies are well established and proved to be a reliable supply with a reasonable tariff in comparing with other major cities.

4. There are more than 10 utilities in Hong Kong laying their own cable, pipings and ducts in the ground. By opening the electricity market, new investor definitely required laying cables to the ground in order to build up their supply network. This will increase disturbance to the public.

Y. Lam

"ymlai"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: views on Consultation Paper
☐ Urgent ☐ Return Receipt

2005/04/26 11:00 PM

After browsing the Consultation Paper, I would like to express my views as follows:-

- Electricity is an item related to everyone daily life. Unlike other commodities, failure of electricity even in a second would create tremendous impact to the community and affect the safety to the public in worst case.
- Reliable electricity supply relies on adequate capacity of supply which is the result of timely investment of power company. The current SCA has successfully encourage the power companies to invest in network infrastructure.
- I am satisfied with the reliability of supply in Hong Kong and quality of services offered by the existing power company. Besides, the price of tariff is reasonable compared with my other necessary expenses. To open the market would not necessarily result in reduction of tariff but absolutely deteriorate the reliability of electricity supply in HK as learned from lessons in overseas

In view of the importance of electricity to Hong Kong, I am in full support of the current SCA regulation.

Thanks

YM Lai

Yun Mei Leung

25/04/05 10:58 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: comment on electricity
☐ Urgent ☐ Return Receipt

Dear Sir,

I live and work in the
Hong Kong Island. I fell very comfortable with the
highly reliable electricity supply and the good customer services rendered to me by the Kong Kong Electric.

In the past eight years, Hong Kong has had too much problems and quarrels arising from numerous reforms. As could be seen from the media, Europe and North America had suffered various serious blackouts and outages as a result of their electricity market reforms. I think this time we should learnt from their bad experiences and reject any drastic reforming of the local electricity market

In short, I think the local electricity supply companies have been doing very well under the current scheme of control and I could hardly accept any drastic changes that would bring in possible new instability, like electricity blackout, to Hong Kong.

Regards
YM Leung

"kenneth chu"

23/04/05 11:55 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: COMMENTS TO ELECTRICITY CONSULTATION
☐ Urgent ☐ Return Receipt

本人對於第一階段諮詢文件內所言之政策目標「可靠的電力供應，對香港的經濟發展和民生至爲重要」，非常贊同。

作爲一個香港市民，能夠已擁有可靠的電力供應，實感自豪。任何時間的停電，即使是數分鐘，都會非常不便。當我在報章上得知其他地區發生停電或缺少電力，我就會非常感激本港兩間電力公司對市民的貢獻。比其他地區，本港的電力市場規模很小。我不相信加入新競爭者後，電費能大幅減價，而同時又保持現有供電的可靠性。加入競爭者反而令市場不穩定，最終電力供應的可靠性，誰會受惠？

因此，我很希望行之已久的利潤管制計劃，能夠繼續，使到非常可靠的電力供應，可以維持。

Y. S. Chu



2005/04/30 01:04 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: 致經濟發展及勞工局
☐ Urgent ☐ Return Receipt

致經濟發展及勞工局：

你好，本人希望就電力市場未來發展提交意見。本人只是一普通市民，但有見本港空氣污染越來越嚴重，實在希望在2008年和電力公司訂立新協議時，要求現有電力公司及新加入之電力投資者，減少使用污染度高、排放大量溫室氣體的煤作爲發電燃料。另外，本人深信要長遠解決問題，必需加快使用可再生能源，如風力及太陽能。事實上，香港使用可再生能源的比例極低，十分落後。

本人建議應合理但進取地和電力公司訂立本港發電之可再生能源比例，本人認爲在2010 年達到 5 %（請你想想，寫番你心目中的數字）是合理的水平，希望貴局可以切實考慮，爲保護地球，維護本港空氣質素而努力。

市民
Yan Sau Woon Clare

Best Wishes,
Clare Yan Sau Woon

Yan Yan Chung

2005/04/30 07:44 AM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Comment on Stage 1 Consultation Paper for Electricity Supply
☐ Urgent ☐ Return Receipt

My comment on the Stage 1 Consultation for Electricity Supply is as follows:-

A reliable electricity supply is very important to Hong Kong SAR. The existing SCA makes the two electricity companies providing adequate and reliable electricity to Hong Kong citizens. In this connection, I hope that this scheme can be continued so that Hong Kong SAR have same reliable electricity as usual.

Also I do not believe that the addition of competitor in the electricity market will make the electricity fee having a great decrease due to the electricity market in Hong Kong is very small. Moreover, above-mentioned addition of competitor will cause the increase of costs and all these costs will be paid by Hong Kong SAR citizens.

This message is sent by a citizen in Hong Kong SAR

26th April 2005

Economic Development and Labour Bureau,
Government of the Hong Kong Special Administrative Region

Dear Sir,

Future Development of the Electricity Market in Hong Kong
Stage 1 Consultation

After reading the consultation paper in respect of the above topic, I have the following opinions:

1. We need reliable electricity supply to maintain Hong Kong as the leading financial center in the Far East. In face of completing by other cities, such as Shanghai and Singapore, we may lose the leading position for any blackout, even in a few minutes. Furthermore, reliable electricity supply supports comfortable life as we are living now, I cannot imagine if there is no air-conditioner in summer or no lift for the people who lives in the multi-level apartments.

   As current SCA can provide us highly reliable electricity supply with affordable tariff, I cannot see any reason to change it.

2. In respect of the Institutional set-up, existing approach has already maintained an efficient and effective control over the electricity companies. To form a single agency within the Government or a separate regulatory will against the principle of 'small Government' and only increase the Government's officials and expenditure that ultimately bore by Hong Kong people.

   Thank you for your attention.

Your Faithfully,

Yan Yik Yiu

There is a growing number of customer complaints in the deregulated telecom market. I don't want the same to happen in the electricity market.

NAME: TEE KIN SHUN

"Tony KT Yeung"

26/04/05 12:38 AM

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Opinions on Stage 1 Consultation Paper
☐ Urgent ☐ Return Receipt

Dear Sirs,

I refer to the stage 1 consultation paper published and would like to express my opinions as follows,

1. Under the current SCA regime, both electricity suppliers in Hong Kong are performing well with high supply reliability and affordable electricity tariff.

2. The electricity market in Hong Kong is too small to enable effective competition. Deregulation in other countries told us that deregulation may not guarantee lower tariff. In fact, the consumer are exposed to higher tariff fluctuation/risk.

3. Deregulation of electricity market would reduce investment incentive of supply company and would jeopardize the electricity supply reliability in the long run as revealed from the experiences of many other deregulated markets. Being an international commercial and financial city, supply reliability and availability are of utmost important to Hong Kong and I don't see we could have a better reliability when our network are heavily interconnected with mainland China.

4. In conclusion, I don't see there is any real benefit that could be brought about through deregulation or introducing a more complicated market rules. I would like to see a reduction in electricity tariff but not at the expense of reliability and availability. The current SCA is simple and performing well and I think that it should be maintained.

Yeung Kwong Tung Tony

Economic Development and Labour Bureau
2/F., Central Government Office,
Main and East Wing,
Lower Albert Road,
Central,
Hong Kong.

Dear Sirs,

Future Development of the Electricity Market in Hong Kong
Stage 1 Consultation

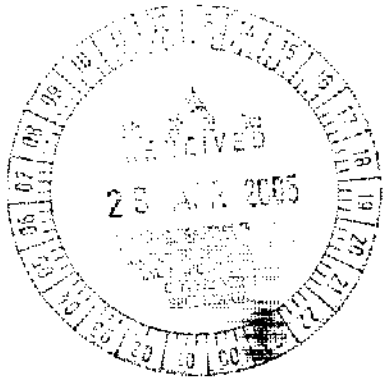
I am a citizen living in Hong Kong Island for more than 40 years. I would like to express my personal views about the future development

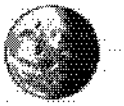
First of all, the most important matter should be the maintenance of a highly reliable electricity supply in Hong Kong. In past several years, I hadn't experience any supply interruptions to my flat. From the newspaper, there were several blackouts in other countries, the most significant case was the US-Canada blackout in 2003. I can't imagine the situation if there is any blackout out incidents in Hong Kong.

Regarding the tariff, I think all general citizens are glad to have a lower rate. However, if the decrease in rate is at the expense of a reliable electricity supply, I think all citizens are willing to pay a little more in order to maintain a highly reliable electricity supply. Further, compare with my daily expense in transportation, the expense in electricity tariff was not significant and it was affordable. I think other citizens will have similar feelings.

To encourage electricity suppliers to provide and maintain a highly reliable supply, I think the existing Scheme of Control Arrangement should be a good and simple method to be maintained with some adjustment of permitted rate of return.

Yu Fai Ming, Thomas
24th April, 2005





2005/04/29 11:46 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: My Comment on the stage I consultation for HK Electricity
☐ Urgent ☒ Return Receipt

My Comment on the stage I consultation for HK Electricity

The past experiences of many advanced foreign countries showed that deregulation or open of electricity market would not give the users long term benefits. Oppositely vicious competitions would lead to disaster, liked the case of blackout in California,USA. Hong Kong does not have enough conditions and resources to open the electricity market. Electricity Industry is different from other industry such like telecom. Electricity Industry required large and long term investments to establish a flawless network. Hong Kong is a small area with limited land. It is impossible for other electricity companies to construct new networks. For the power stations situated in Hong Kong boundary, the Hong Kong Government can control and supervise the power companies-- production in comply with the rule of environmental protection. If power station constructed outside Hong Kong boundary, HKSAR would have no power and ability to control these suppliers. Even the new competitors can lower the generation price by power stations which situated outside Hong Kong boundary, long transmission cost would be a question. In addition Hong Kong have affected by the serious air pollution from Canton recenty. The Lack of electricity supply of mainland china leads to many generators which do not meet the standard of environmental protection, still operated. If Hong Kong was supplied by these power plants, I believed the problem of air pollution would get worse in both Canton and Hong Kong.

The open of electricity market in Hong Kong might lead to serious retrenchment of workers in existing power Industry, liked the open market of telecom in Hong Kong. At that time, unemployment rate would rise. The chain reaction would lead to instability of the Hong Kong community. I expect the public utilities would not move to -§North-- liked the other previous famous Hong Kong enterprises.

Hong Kong is a world class city. The stability of electricity is very important. Electricity is a very sensitive thing. Any small incident happened along the network would lead to instability of electricity. The worst case is black out of large area. Hong Kong cannot suffer from this impact. Moreover open of electricity market and fully without government interference would lead to the electricity prices higher and higher by agreement of power companies. Based on disadvantages of deregulation or open electricity market in Hong Kong, the present structure is more suitable for Hong Kong.

Yu Kam Wing
(Hong Kong Citizen)

FAX: 2868 4679

To : Economic Development and Labour Bureau
Subject : Stage I Consultation Paper on Electricity Market

After reviewing the subject paper, I would like to express my view that being a resident in Hong Kong I enjoy the stability of electricity supply here especially comparing the time I were living in Canada. I will not agree to setting up interconnection with PRC's network, as they do not have surplus to export at present. In fact, they should require import to meet their demand. Furthermore, we do not want to see the chain effect happened in US/Canada & Europe repeated in HK/PRC just because of a failure in one place caused a blackout in all interconnected cities.

I look forward to viewing the 2nd paper on related issue.

Yours sincerely,

Yuk Wan Yeung
20th April 2005

"yukamfai"

To: <electricitycomments@edlb.gov.hk>
cc:
Subject: Comment on the stage I consultation for HK Electricity
☐ Urgent ☐ Return Receipt

2005/04/30 11:58 PM

Comment on the stage I consultation for HK Electricity

Hong Kong electricity market is not suitable for fully open. Open electricity market would lead to loss of interference to power companies. Even the price of electricity would lower at beginning, finally the price might get higher as they wish. In addition government could not force power companies on reduction of pollution. Actually lowered the price of electricity might encourage to waste of energy. Hong Kong is an advanced city in the world, the trend of environmental protection is very important. So, I disagreed to open the Hong Kong electricity market.



Ken Yung

10/03/05 04:15 PM

To: electricitycomments@edlb.gov.hk
cc:
Subject: Scheme of Control - Public Consultation
☐ Urgent ☐ Return Receipt

Dear Sir,

I have read the whole consultation document from the government about public consultation of electricity market and SOC mechanism.

I would advise the following points for your consideration in formulating the future regulatory regime.

1. Reliable electricity supply is a key to Hong Kong's financial and commercial activities, infrastructure developments and quality of life.
2. High supply reliability will rely on continuous upgrading of supply network, best practices of operation and maintenance of equipment, usage of advanced technologies, etc.
3. Electricity tariff should be comparable to other metropolitan cities similar to Hong Kong, a well balance of supply reliability and electricity cost should be targeted.
4. Power companies should be closely monitored and scrutinized by the Regulator. Adequate checking mechanisms for investments, operating costs and tariffs of the power companies should be in place to safeguard customers' interests.
5. Future regulatory system by Government should assure the power companies to provide reliability and high quality power supply, reasonable and affordable tariffs (good value for money), excellent customer services, significant productivity and environmental improvements, etc.
6. Any changes to the regulatory framework should serve the long-term interest of Hong Kong.

Kind regards,

Yung Chiu Hung