

**Confirmed Minutes of the 262<sup>nd</sup> Meeting  
of the Advisory Council on the Environment (ACE)  
on 5 February 2024 at 2:30 p.m.**

**Present:**

Prof John CHAI, BBS, JP (Chairman)  
Prof Kenneth LEUNG, JP (Deputy Chairman)  
Ms Carmen CHAN, BBS, JP  
Dr Sylvia CHAN, MH  
Ms Ada FUNG, BBS  
Ms Linda HO  
Dr Theresa KWONG  
Prof Alexis LAU, JP  
Prof Dennis LEUNG  
Mr Simon NG  
Mr Daryl NG, SBS, JP  
Mr Albert SU, MH, JP  
Ms Christina TANG  
Prof Dan TSANG  
Dr Raymond YAU  
Dr William YU

**Absent with Apologies:**

Mr Alan LO, JP (Secretary)  
Mr Eric HO  
Mr Alex KWAN  
Prof WONG Kam-bo  
Dr WONG Kwok-yan, MH

**In Attendance:**

Mr FONG Kin-wa, JP	Deputy Director of Environmental Protection (1), Environmental Protection Department (EPD)
Mr Simon CHAN	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Mr Kevin NG	Chief Town Planner / Technical Services, Planning Department (PlanD)
Miss Lorraine YAN	Principal Information Officer, Environment and Ecology Bureau (EEB)
Ms Karen CHEK	Chief Executive Officer (CBD), EEB
Miss Sally SHEK	Executive Officer (CBD) 1, EEB
Miss Avynn WONG	Executive Officer (CBD) 2, EEB

**In Attendance for Item 3:**

Mr Bruno LUK, JP Deputy Director of Environmental Protection (Waste Reduction), EPD  
Mr Kenneth CHENG Assistant Director of Environmental Protection (Waste Management), EPD  
Mr David LAI Principal Environmental Protection Officer (Waste Management and Strategy), EPD  
Mr Philip LEE Principal Environmental Protection Officer (Territorial Control), EPD

**In Attendance for Item 4:**

Dr Kenneth LEUNG Principal Assistant Secretary for Environment and Ecology (Air Policy), EEB  
Dr Sunny CHEUNG Principal Environmental Protection Officer (Air Policy), EEB  
Mr Louis CHAN Senior Environmental Protection Officer (Air Policy) 3, EEB

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Action

The Chairman welcomed all to the meeting and informed Members that apologies of absence had been received from Mr Eric Ho, Mr Alex Kwan, Prof Wong Kam-bo and Dr Wong Kwok-yan.

**Item 1 : Confirmation of the draft minutes of the 261<sup>st</sup> meeting held on 6 November 2023 (Closed-door session)**

2. The draft minutes of the last meeting were confirmed without any proposed amendments.

**Item 2 : Matters arising (Closed-door session)**

3. There were no matters arising from the minutes of the last meeting.

**Item 3 : Proposal to Establish a Common Legislative Framework for Producer Responsibility Schemes (ACE Paper 2/2024)**

4. The Chairman invited Members to refer to *ACE Paper 2/2024* which sought Members' views on the Product Eco-responsibility (Amendment) Bill 2024 for the establishment of a common legislative framework for producer responsibility schemes (PRSs) applicable to different products (regulated products).

5. A Member declared that his company was engaged by EPD to conduct research on PRS-related policies of other places as well as stakeholders engagement

exercises on PRS. The Chairman considered that Mr Ng could stay to participate in the discussion, and there was no other view.

*(The presentation team joined the meeting at this juncture.)*

### **Presentation cum Question-and-Answer Session (Open session)**

6. With the aid of a PowerPoint presentation, Mr Bruno Luk briefed Members on the background and details of the proposed common legislative framework as well as the implementation of PRSs with the “market-led approach”.

#### *Scope and Operational Details*

7. Members expressed their support to the proposed common legislative framework. Mr Bruno Luk indicated that the proposed framework would speed up the legislative process for new PRSs as the operational details could be set up in the subsidiary legislation at a later stage. Addressing a Member’s query, Mr Luk explained that stakeholders including manufacturers, importers, wholesalers, retailers and consumers should share the responsibility for recycling the used products under PRS. For suppliers which might be the manufacturers or importers of the regulated products, they would be required to meet the recovery targets, if any, for the products sold.

8. With regard to a Member’s question about the recovery targets, Mr Bruno Luk took the proposed PRS on plastic beverage containers and beverage cartons as an example and remarked that the Government would impose a lower recovery target in the beginning and gradually progress to about 60% to 70%, which was a level comparable to other mature economies such as Europe. Two other Members reminded that when drawing references from other places, the Government should take into account the differences between Hong Kong and other places, in particular the market size, land mass and amount of recyclables etc.

9. While the recycling arrangements could be market-led, two Members stressed the importance of providing adequate support to help stakeholders such as the suppliers or recyclers meet the recovery targets while sustaining their businesses. Mr Bruno Luk was optimistic about the supply of recyclables for the local recycling trade as the suppliers would be motivated to provide incentives for the public to return the recyclables to meet the recovery targets. He also considered that the local recycling trade was already equipped with the technology and capacity required to meet the recovery targets. Mr Luk added that the legislation would provide a provision for the Government to take up the collection or recycling services at charges under exceptional circumstances such as when the market failed to operate on its own.

10. A Member sought more operational details including the licensing requirements for recycling operators. The Member suggested and another Member

echoed that the Government should put in place appropriate measures or requirements to ensure that the recycling operators would enhance the environmental performances and minimise carbon footprints in their operation. One of the two Members furthered that the Government should protect the competitiveness of those operators who made investments in enhancing the environmental performances of their operation. Mr Bruno Luk advised that EPD would consider imposing relevant requirements on environmental performances for the licence.

11. On a Member's enquiry about the implementation of the PRS for the "second-" or "third-life" electric vehicle (EV) batteries, Mr Kenneth Cheng highlighted the difficulty in tracing the usage of recycled EV batteries and remarked that details of the PRS for retired EV batteries would be devised in consultation with the trade. Two other Members further asked whether consumers would be required to pay for the recycling of EVs upon purchasing or disposing of the EVs and the arrangements for online shopping. In view of the variations among products, one of the above Members suggested that the Government should consult the ACE on the proposed subsidiary legislation for different regulated products. Mr Bruno Luk assured that EPD would consult the ACE on details of individual PRSs before submitting the subsidiary legislation to the Legislative Council (LegCo).

12. A Member asked whether a large part of the responsibility under the PRS would ultimately be shifted to the consumers. For example, the suppliers might impose a surcharge on the regulated products which could be recuperated as a rebate upon the return of the recyclables. However, the consumers might have recycled the relevant items through other channels such as the recycling facilities of their housing estates. With reference to his experience in the PRS of Singapore, another Member echoed that consumers' burden might increase with the implementation of PRS.

13. Apart from the provision of rebate, a Member suggested that the Government should encourage and facilitate the provision of alternatives such as refill stations with a view to minimising waste generation in the first place. While acknowledging the difficulty for all distributors to provide refill services, Mr Bruno Luk replied that the Government would liaise with the suppliers to explore the possibility.

#### *Enforcement and Compliance*

14. A Member expressed concern about the monitoring mechanism to ensure compliance with the recovery targets. Mr Bruno Luk explained that a registered supplier was required to submit periodic returns to EPD with detailed information on the distribution and recycling of the regulated products. Such details would need to be audited by an independent auditor to ensure their accuracy.

15. Pointing out that a recycler might be engaged to collect and recycle the regulated products of different suppliers, a Member asked if there were measures to

avoid double counting or to differentiate the products recycled for different suppliers. Another Member encouraged the establishment of a credible data tracking mechanism to enhance data transparency, to avoid double counting and to facilitate the evaluation of the effectiveness of the PRS. Mr Bruno Luk replied that statistics on the regulated products distributed and recycled under the relevant PRSs would be made available to the public.

16. Considering that the cost of recycling might be lower in other places than in Hong Kong, two Members enquired if there were any export control to protect the interests of local recyclers which could help promote local circular economy. Mr Bruno Luk responded that Hong Kong was bound by the Basel Convention to control the import, export and transit of hazardous waste and regulated waste plastics. For retired EV batteries, the Government would devise appropriate import and export control measures having regard to the supply of the recyclables and the capacity of the local recycling industry.

17. A Member was concerned that there might not be adequate deterrence since the fines at levels 5 and 6 for non-compliance were insignificant in some cases in comparison with the recycling cost involved. He suggested that the Government should put in place an effective penalty system with appropriate economic incentives with a view to ensuring compliance.

#### *Publicity and Public Education*

18. Four Members shared the view that the Government should strengthen publicity and education efforts to facilitate the communication among all parties involved in the PRS. To solicit support from the general public, the Government should promote the benefit of shifting from “government-led approach” to “market-led approach”. Two of the above Members and another Member proposed that the publicity messages should be conveyed in a simple and easy-to-understand manner with illustrations of practical examples. One of the above Members highlighted that the Government should raise public awareness of the ban of disposal of waste lead-acid batteries, EV batteries as well as waste vehicle tyres at the landfills. Mr Bruno Luk thanked Members for their suggestions.

#### *Implementation Timetable*

19. The Chairman enquired and Mr Bruno Luk confirmed that the PRS on plastic beverage containers and beverage cartons would be the first PRS to be implemented under the common legislative framework as the Government had been liaising with the trades on the matter for years. Mr Luk advised that the Government would introduce the subsidiary legislation for the PRS on beverage containers and beverage cartons to the LegCo once the amendment bill on the common legislative framework was passed. The Chairman suggested that the Government should minimise the time gap between the introduction of the common legislative framework and the subsidiary legislation with a view to facilitating the

public's understanding of the implementation of PRS for individual products as soon as possible.

*(A Member joined the meeting during the Question-and-Answer Session of Item 3.)*

### **Internal Discussion Session (Closed-door)**

20. Sharing his experience in the implementation of PRS in Singapore, a Member pointed out that it would take time to liaise and achieve a consensus with the trades. Another Member indicated that the implementation of PRS in Hong Kong had been discussed for over two decades and the matter should proceed without further ado. Having said that, the Member highlighted the importance of clear communication with the public on the implementation details before the commencement of PRS.

21. Two Members observed that the trades only began to get a consensus on the PRS on beverage containers recently and it would take time to firm up the implementation details. One of the above Members opined that the ACE might focus its advice from the perspective of high-level direction on environmental policies and measures while other platforms such as the Environmental Campaign Committee, Environment and Conservation Fund or EPD's Green Outreach team would help knock out the implementation details. In the absence of details on individual PRS at this stage, another Member was worried about the public's reception of the proposal.

22. A Member opined that the relevant government bureau or department such as Development Bureau or Planning Department should consider allocating more land for the recycling industry with a view to supporting local recycling trade.

23. As the Chairman of the Waste Management Subcommittee (WMSC), a Member suggested that the WMSC should meet more frequently with a view to providing timely advice to the Government on various waste management policies and initiatives such as municipal solid waste (MSW) charging and PRSs. He added that a subcommittee meeting should be held as soon as possible to discuss MSW charging and another one to be held before the subsidiary legislation on PRS was introduced to the LegCo. He added that a site visit to the EcoPark would help Members provide more in-depth comments on the recycling infrastructures. The Chairman supported the Member's suggestions and asked the Secretariat to follow up with EPD accordingly.

ACE  
Secretariat  
& EPD

*(A Member left the meeting during the Internal Discussion Session of Item 3.)*

*(The presentation team left the meeting at this juncture.)*

**Item 4 : Proposal to Regulate and Phase Down Hydrofluorocarbons for Implementation of the Kigali Amendment to the Montreal Protocol (ACE Paper 3/2024)**

24. The Chairman invited Members to refer to *ACE Paper 3/2024* which sought Members' views on EEB's proposals to regulate and phase down the production and consumption of hydrofluorocarbons (HFCs) in Hong Kong, in order to fulfill Hong Kong's obligations upon the application of the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer.

25. There was no declaration of interest by Members.

*(The presentation team joined the meeting at this juncture.)*

**Presentation cum Question-and-Answer Session (Open session)**

26. With the aid of a PowerPoint presentation, Dr Kenneth Leung briefed Members on the control strategies to regulate and phasedown HFCs as well as the related legislative amendment.

*The Proposal*

27. Members were supportive of the Government's proposal to regulate and phase down HFCs. In response to a Member's enquiry, Dr Kenneth Leung indicated that low global warming potential (GWP) alternatives were already available in the market, particularly in the advanced economies. He added that the proposed list of Restricted Equipment and their respective GWP limits were drawn up taking into account the GWP limits imposed by other places and the availability of alternatives in the market. Another Member highlighted that adequate supply of alternatives would be key to the successful introduction of the regulation.

28. A Member questioned the reasons for not adopting a stricter standard for the GWP limit of water-cooled chiller which was ten times higher than that of Singapore. Dr Kenneth Leung explained that the GWP limit imposed should be practicable and the Government would closely monitor the global market and update the GWP limits as and when appropriate. He shared with Members that there was limited supply of alternatives in the market that could meet the GWP limit of Singapore.

29. A Member was concerned about other toxicity or environmental problems brought by the low-GWP alternatives. Dr Kenneth Leung indicated it was widely accepted in the global market that the low-GWP alternatives could be used safely provided that adequate safety precautionary measures were in place. He added that the Electrical & Mechanical Services Department (EMSD) was examining the safety aspect over the use of different types of refrigerants with reference to the international standards / practice. The Member suggested that the Government

should provide a list of recommended and safe alternatives for the stakeholders' reference.

### *Recycling and Disposal*

30. To address the Chairman's and a Member's questions, Dr Kenneth Leung said that there was currently no local recycling facility for refrigerants. He pointed out that, while for refrigerants with single component, the recycling process would be simpler, but for blended refrigerants with multiple components, the recycling process would be much more complicated and costly. He believed that local recycling of refrigerants with single component would be possible in the future.

31. A Member asked for the proper way to handle Restricted Equipment which were no longer supported by refrigerants that were subject to phasedown control. Dr Kenneth Leung replied that the PRS on Waste Electrical and Electronic Equipment provided a convenient means for proper disposal of domestic appliances. As for larger equipment for commercial uses, use of reclaimed refrigerants, which were not subject to the phasedown control, offered an option.

### *Enforcement and Compliance*

32. Two Members doubted that the one-year time gap between the prohibition of import and sale of high GWP Restricted Equipment might give the retailers leeway to import and keep stock of high GWP products for sale later. Dr Kenneth Leung opined that, based on the previous consultation exercise, the trade would unlikely keep a large size of stock as storage would be costly.

33. A Member suggested that EPD should expand the scope of the Toxic Substances Monitoring Programme to cover more substances. Dr Kenneth Leung responded that EPD had regular assessments on different toxic substances and would conduct more detailed monitoring on substances exceeding the safety standards as and when necessary.

34. A Member sought information on the enforcement of venting of refrigerant in private premises. Dr Kenneth Leung indicated that owners of Regulated Equipment would be required to register their equipment with EPD and engage Registered Refrigerant Handling Contractors for carrying out any Scheduled Refrigerant handling work such as maintenance, refrigerant decanting or decommissioning of the Regulated Equipment under the proposed legislation. He added that the contractors would also be required to submit the work record to EPD afterwards. Any person who allowed the Scheduled Refrigerant to release into the atmosphere would be subject to penalty.

35. A Member expressed concern about the compliance of small-scale operators in the process of replenishing refrigerant for domestic air-conditioners. Another Member echoed and remarked that the public might not know whether a technician



was qualified for the task. Dr Kenneth Leung indicated that EMSD had already trained a few thousands of qualified technicians for handling refrigerants with safety concern in domestic air-conditioners in the past few years and would continue to do so.

36. In response to two Members' question about the enforcement plan for online shopping, Dr Kenneth Leung advised that the import, manufacture, supply and sale of Restricted Equipment exceeding the GWP limits would be prohibited under the proposed legislation. Online shopping would also be covered.

#### *Publicity and Public Education*

37. A Member reminded the importance of effective publicity and communication work to convey the new regulation and implementation details to the public. Two other Members suggested that the Government should devise a simple and easy-to-understand labelling system with grading to facilitate the public's understanding. One of the above Members added that the Government should raise public awareness on the matter so that consumers could avoid purchasing appliances which might not be supported by adequate refrigerants in the future. Dr Kenneth Leung agreed that wide publicity would be rolled out and label indicating the date for the ban of sale would be required to alert the customers of the products which might become restrictive in subsequent maintenance.

38. A Member suggested that the Government should publish reports on the durability and percentage of leakage of the Restricted Equipment to help the public select products with better environmental performance. Dr Kenneth Leung opined that such information was not available as the refrigerant circuits in small-scale home appliances were hermetically sealed at factory and there should not have leakage problem under proper installation and maintenance. Another Member furthered that the Government should put in place policies or measures to promote product durability.

39. The Chairman proposed that the Government may also consider an objective of the proposed regulation would be to lower Hong Kong's scope one carbon emission and to provide estimated statistics in support. Dr Kenneth Leung replied that EPD would look into the details and provide relevant information to LegCo at the next stage.

#### *Conclusion*

40. The Chairman concluded the discussion and invited the Government representatives to take on board the suggestions of Members.

*(A Member left the meeting during the Question-and-Answer Session of Item 4.)*

*(The presentation team left the meeting at this juncture.)*

**Item 5 : Report on the 38<sup>th</sup> Nature Conservation Subcommittee Meeting (ACE Paper 4/2024)**

41. On the invitation of the Chairman, the Nature Conservation Subcommittee (NCSC) Chairman reported the key discussions at the 38<sup>th</sup> NCSC Meeting involving two agenda items on “Strategic Feasibility Study on the Development of Wetland Conservation Parks (WCPs) System” and “Updates on the Monkey Contraceptive / Sterilisation Programme: Findings from the Population Viability Analysis”. NCSC Members generally welcomed the proposal to establish the WCPs System as well as AFCD’s work on the management of wild monkeys. Members’ suggestions and key discussions were summarised in *ACE Paper 4/2024*.

**Item 6: Any other business (Closed-door session)**

*Environmental Impact Assessment (EIA) Reports not selected by EIA Subcommittee (EIASC) for submission to ACE*

42. The EIASC Chairman reported that since the last ACE Meeting, the EIASC received the Executive Summary of two EIA reports, namely “Widening of Yuen Long Highway (Section between Lam Tei and Tong Yan San Tsuen)” and “Northern Link” which were not selected for discussion. The Executive Summary of the relevant EIA reports had been circulated to EIASC Members upon the commencement of the public inspection period, with the relevant hyperlinks copied to non-EIASC Members for information. Members were advised to provide their comments, if any, on the EIA reports directly to the Director of Environmental Protection within the respective public inspection period. Given that the EIA reports had not been selected by EIASC for presentation and discussion, the EIASC Chairman informed Members that EPD had taken that the ACE had no comments on the EIA reports under section 8(3)(b) of the EIA Ordinance.

*EIA report on “San Tin / Lok Ma Chau Development Node”*

43. The EIASC Chairman reported that the EIA report on San Tin / Lok Ma Chau Development Node had been selected by EIASC Members for discussion at the next EIASC meeting on 18 March 2024. The project proponent would organise a site visit for Members. EIASC Members’ recommendations on the EIA report would be submitted to the ACE for consideration at its meeting on 22 April 2024. The Chairman invited Members to attend the site visit and meetings as far as possible.

44. There was no other business for discussion at the meeting.

**Item 7: Date of next meeting (Closed-door session)**

45. Members would be advised on the agenda in due course.

46. The Chairman took the opportunity to extend an early greeting to Members for a happy and prosperous Lunar New Year.

47. There being no other business, the meeting ended at 5:45 pm.

**ACE Secretariat  
April 2024**