

**Confirmed Minutes of the 245th Meeting
of the Advisory Council on the Environment (ACE)
on 12 April 2021 at 2:30 pm**

Present:

Mr Stanley WONG, SBS, JP (Chairman)

Prof Nora TAM, BBS, JP (Deputy Chairman)

Ms Carmen CHAN, BBS, JP

Ms Sylvia CHAN, MH

Ms Ada FUNG, BBS

Ir Samantha KONG

Ms LAM Chung-yan

Prof Alexis LAU, JP

Prof LAU Chi-pang, BBS, JP

Ms Julia LAU

Dr Winnie LAW

Mr Andrew LEE

Prof Kenneth LEUNG, JP

Dr MA Kwan-ki

Dr Jeanne NG

Dr SUNG Yik-hei

Ms Christina TANG

Mr Simon WONG, JP

Dr WONG Kwok-yan

Prof WONG Sze-chun, BBS, JP

Dr Raymond YAU

Mr Owin FUNG, JP (Secretary)

In Attendance:

Ms Celia TAM Principal Information Officer (News), Environmental Protection Department (EPD)

Mr Simon CHAN Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)

Ms Maggie CHIN Assistant Director of Planning / Technical Services (Acting), Planning Department (PlanD)

Ms Becky LAM Chief Executive Officer (CBD), EPD

Miss Sally SHEK Executive Officer (CBD) 1, EPD

Miss Ingrid SUEN Executive Officer (CBD) 2, EPD

In Attendance for Item 3:

Mr WONG Kam-sing, GBS, JP	Secretary for the Environment
Ms Elaine LI	Press Secretary to Secretary for the Environment
Mr Dave HO, JP	Assistant Director (Air Policy), EPD
Dr MAK Shing-tat	Principal Environmental Protection Officer (Mobile Source), EPD
Mr Gary TAM	Principal Environmental Protection Officer (Recycling Upgrade), EPD
Miss LAM I-ching	Senior Administrative Officer (Air Policy), EPD
Mr Joe FONG	Senior Environmental Promotion Manager (Electric Vehicle) 3, EPD

In Attendance for Item 4:

Mr Dave HO, JP	Assistant Director (Air Policy), EPD
Ms Queenie LEE	Principal Assistant Secretary for the Environment (Renewable Energy Review and Development), Environment Bureau (ENB)
Mr Brian LAU	Principal Environmental Protection Officer (Air Policy), EPD
Mr Billy LEUNG	Assistant Secretary for the Environment (Electricity Reviews)1, ENB
Mr Kevin LING	Senior Electrical & Mechanical Engineer (Electricity Market Development1), ENB
Ms Lianna CHI	Senior Treasury Accountant (Financial Monitoring)2, ENB

Action

The Chairman welcomed Members to the meeting in person or by Zoom.

Item 1 : Confirmation of the draft minutes of the 244th meeting on 8 March 2021 (Closed-door session)

2. The draft minutes were confirmed without amendments. To allow sufficient time for Members to consider the draft minutes, the Chairman reminded the secretariat to issue the draft minutes as soon as possible.

Item 2 : Matters arising (Closed-door session)

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

Item 3 : Hong Kong Roadmap on the Popularisation of Electric Vehicles
(ACE Papers 4/2021 and 5/2021)

4. The Chairman referred Members to *ACE Paper 4/2021* which briefed Members on the target, strategies and key measures of the Hong Kong Roadmap on the Popularisation of Electric Vehicles (EV Roadmap). A background note on the subject matter, i.e. *ACE Paper 5/2021*, prepared by the secretariat had been circulated to Members for reference before the meeting.

5. A Member declared that her company was associated with Smart Charge, an EV charging service provider. Another Member declared that she was involved in the Kowloon Motor Bus's plan to construct depots for electric buses (e-buses). A Member declared that he was a representative of the Business Environment Council. The Chairman agreed that all three members mentioned above could continue to participate in the meeting and the discussion of this item.

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

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

6. The Chairman welcomed Mr Wong Kam-sing, Secretary for the Environment to the meeting. Mr Wong briefly introduced the EV Roadmap which set out the long-term policy objectives and plans to promote the adoption of EVs and their associated supporting facilities in Hong Kong. He remarked that the EV Roadmap would guide Hong Kong's future direction to attain zero vehicular emissions and contribute to carbon neutrality before 2050. He welcomed ACE Members to provide their comments on the EV Roadmap. Ms Lam I-ching followed to brief Members on the details of the EV Roadmap with the aid of a PowerPoint presentation.

Targets on EV Adoption

7. A Member enquired about the justifications for setting the target of no new registration of fuel-propelled private cars in 2035 or earlier. Mr Owin Fung

shared that most leading economies in EV adoption had set the targets for 100% zero emission vehicle (ZEV) sales for private cars between 2030 and 2040. As Hong Kong did not manufacture vehicles, it would be prudent to advance in tandem with the global development and set the target in 2035 or earlier. He advised that the Government would take into account the latest technological development, local EV uptake and development of supporting facilities, etc., when reviewing the Roadmap roughly every five years.

8. A Member suggested that the Government might consider setting five-year targets on the market share of electric private cars in Hong Kong to tie in with the review of the EV Roadmap. Mr Wong Kam-sing explained that setting such targets would depend on the technological development of the EV batteries, which relied heavily on the manufacturers of other economies. He added that the ratio of electric private cars among all new private cars would be a useful indicator to review the local EV adoption over the years.

Statistics on EVs

9. In response to a Member's enquiry on the adoption rate of EVs among new private cars in Hong Kong, Mr Owin Fung replied that about 50% of the new private cars in Norway, the economy with the highest EV adoption rate, were electric cars annually. He pointed out that the adoption rate for Hong Kong compared well with other economies.

10. A Member expressed support on the EV Roadmap. To encourage the adoption of EVs, he suggested that the Government should provide statistics on the improvement to air quality as well as the public health brought by the adoption of EVs. Mr Owin Fung responded that the Government would consider gathering and sharing relevant information in the next Review of the Air Quality Objectives.

Electric Commercial Vehicles

11. In reply to a Member's enquiry on the battery capacity for electric commercial vehicles, Mr Owin Fung was optimistic about the rapid technological development on EV batteries. He shared that initial findings of the latest trial of single-deck e-buses showed that the performance of such e-buses was comparable with that of the conventional ones. The New Energy Transport Fund (NET Fund) had also approved funding for the two franchised bus companies to put double-deck

e-buses into trial in the next couple of years.

12. A Member was concerned about the challenges in the adoption of electric taxis (e-taxis). Mr Owin Fung explained that the establishment of a quick charging network alone was inadequate to meet the challenges arising from the high daily mileage of taxis. As the capacity of the EV batteries was limited, the batteries might have to be replaced frequently when used as taxis. This would also increase the operational cost significantly. Despite the battery limitation, Mr Fung said that the Government would still encourage the trade to test out suitable models of e-taxi and keep in view the development of the battery technology that was expected to advance in an extremely fast pace and the problems faced today would be resolved satisfactorily.

13. Notwithstanding the hilly terrain and demanding operational requirement for e-buses to run in particular on the Hong Kong side, a Member was glad to see that a direction to promote adoption of e-buses was set in the EV Roadmap. In reply to the Member's enquiry on the double-deck e-buses to be tested by the franchised bus companies, Mr Dave Ho advised that, according to information from vehicle manufacturers, the battery capacity for new generation of double-deck e-buses could support up to 120 passengers to run for about 200 km after a full charge. Whilst such battery capacity might not meet the requirements of all routes in Hong Kong, the bus companies could still explore deploying these e-buses on shorter routes and less hilly terrain. He further pointed out that the constraints could be overcome in the next couple of years should the battery capacity be able to support 250-300 km after a full charge.

14. In reply to a Member's further enquiry, Mr Dave Ho said that the double-deck e-buses under trial could operate on slopes at around 17 degrees which could suit the gradients of most of the roads in Hong Kong, except the most hilly areas.

15. A Member supported the popularisation of EVs and suggested the installation of solar panels on e-bus and public light buses (PLBs) to help reduce fuel consumption which in return would further cut down roadside emissions and contribute to decarbonisation. Mr Owin Fung shared that franchised bus companies had commenced trials on the installation of solar panels on buses, but the amount of electricity generated from the solar panels was still on the low side and could only support some minor functions.

16. A Member suggested that the Government should also set a timetable for the electrification of coaches or shuttle bus. Mr Owin Fung pointed out that with the support of the NET Fund, the Government were proactively liaising with the operators of coaches and school buses to encourage them to commence trials on electric coaches and buses.

17. In reply to a Member's enquiry about the Government's plan for electric vessels, Mr Dave Ho said that the Government had earmarked \$350 million to provide subsidies to ferry operators for conducting trials on electric ferries from 2023, and were liaising with ferry operators on the design and production of the electric ferries.

18. A Member was supportive of the EV Roadmap and enquired about the electrification plans for other types of vehicles such as motor cycles, heavy goods vehicles and machineries, to tie in with the target of achieving carbon neutrality. Mr Owin Fung said that the Government was exploring with different industries that relied on the use of motor cycles in their business operation to switch to electric motor cycles. Mr Wong Kam-sing said that the NET Fund supported a wide range of vehicles including taxis, PLBs, buses, motor cycles, heavy goods vehicles and non-road vehicles in the use of green transport technology.

Charging Facilities

19. As regards the target of achieving 150 000 parking spaces in private residential and commercial buildings equipped with EV charging infrastructure before 2025, a Member considered that such level of provision might not be sufficient to meet the needs of non-commercial vehicles and suggested the Government to install much more cost-effective 13A electric socket at each parking space. Mr Owin Fung pointed out that the Government had launched a \$2 billion EV-charging at Home Subsidy Scheme (EHSS) last October to subsidise the installation of EV charging infrastructure in carparks of existing private residential buildings. With the charging infrastructure, EV owners could easily install chargers of their choice at their residence. Mr Dave Ho supplemented that under this scheme, the power supply capacity of the charging infrastructure should be able to support simultaneous medium charging, i.e. 32A power supply at all parking spaces.

20. A Member enquired about the plans for charging facilities in addition to those in residential and commercial buildings. While charging facilities in residential buildings would be the primary option for most electric private cars, Mr Owin Fung pointed out that the Government also planned to progressively convert some existing petrol or liquefied petroleum gas filling stations to quick EV charging stations. The Government was also actively identifying other suitable sites including spaces under flyovers with a view to developing a territory-wide quick charging network, mainly for commercial vehicles.

21. A Member suggested that the Government should provide additional financial incentives to vehicle owners, owners' corporations or property management companies to support the popularisation of EVs. Mr Owin Fung advised that the EHSS would provide financial incentives and support to the installation of charging infrastructure in carparks of the existing private residential buildings. Mr Wong Kam-sing remarked that the initial response to the scheme was positive, with nearly 300 applications received since its launch in October 2020, covering around 74 000 parking spaces.

22. A Member suggested that the Government should also review and ensure proper and sufficient fire protection equipment be procured in the carparks with EV charging facilities. Mr Owin Fung said that the EHSS could also cover the enhancement of the fire protection equipment and their installation.

Marketisation of Charging Services

23. A Member was supportive of the EV Roadmap and enquired about the consideration with regard to the proposed timeline of imposing EV charging fees in the government car parks from around 2025. Mr Owin Fung explained that the EHSS, launched in October 2020, would last for about three years. The overall charging infrastructure in Hong Kong would be more mature in around 2025 upon the conclusion of the scheme. The Government would take into account the market needs as well as the development of charging facilities before firming up the actual timing of implementation of EV charging fees in the government car parks.

24. A Member opined that the existing free EV charging at government's carparks might hinder the provision of charging services by the private sector in the long term. Mr Owin Fung explained that the existing practice aimed to provide incentives, among a basket of measures, to promote adoption of EVs when their

development was in a relatively early stage. Mr Fung pointed out that the Government also considered that the EV charging services should not be free when EVs became more popular. As set out in the Roadmap, the Government would impose EV charging fees in the government car parks from around 2025 in order to promote sustainable development of the services and avoid abuse of the EV chargers. Mr Wong Kam-sing stressed that marketisation of charging services would give impetus to the provision of additional charging facilities by the private sector and play an important role in promoting green employment and green economy.

Collaboration with Stakeholders

25. A Member suggested that the Government should collaborate with the Vocational Training Council (VTC) in offering training programmes for EV mechanics and have close dialogue with EV manufacturers so as to facilitate the latter to understand the types of EVs, in particular electric commercial vehicles, to be used in Hong Kong. Mr Owin Fung said that the Government had been working with VTC in the provision of training programmes for EV mechanics. Mr Fung added that the Government was in close collaboration with the manufacturers of PLBs on the requirements of battery capacity and charging facilities for electric PLB to be operated in Hong Kong.

Handling of Retired EV Batteries

26. A Member welcomed that the EV Roadmap provided a concrete timeline and a comprehensive plan for the popularisation of EVs. However, she was more concerned about the Government's plan to handle retired EV batteries and support the recycling industry. Mr Gary Tam advised that the EV battery technology had kept evolving rapidly with new design, material compositions as well as recycling technologies, and the availability of EV batteries information would affect development of their second-life applications. The Government would liaise with EV suppliers and local research institutions to explore suitable options for Hong Kong to legislate a Producer Responsibility Scheme for retired EV batteries in the next couple of years. He said that the Green Tech Fund would also accord priority to proposals that sought to facilitate second-life applications of EV batteries so as to extend their lifespan and optimise their value. He added that the EcoPark had provided spaces for the industry to set up recycling facilities.

Alternatives to EVs

27. Whilst a Member was supportive of the EV Roadmap, he suggested that the Government should at the same time explore advanced technologies, such as autonomous driving, to maximise road utilisation. Mr Owin Fung said a cross-departmental task force had been set up to keep abreast of high-end development of new decarbonisation technologies globally including those on green transport, new energy vehicles and fuel technology.

28. A Member expressed appreciation for the promulgation of the EV Roadmap and considered that electrification of vehicles would contribute to the improvement of roadside air quality. To step up the efforts on environmental protection, the Member suggested, with the support of two other Members, that the Government should draw reference from experiences of other economies in promoting ridesharing or walking, in order to encourage people to minimise the purchase or use of private cars. Mr Owin Fung pointed out that it was the Government policy to encourage general public to use public transport. However, the use of EVs provided a better alternative than fuel-propelled vehicles in case the use of private cars was necessary. He added that there might be difficulty implementing ridesharing in Hong Kong due to land scarcity and heavy road traffic. Mr Wong Kam-sing pointed out that the Government would keep in view the development of new decarbonisation technologies under the inter-departmental task force and formulate forward looking policies accordingly.

Carbon Neutrality and Climate Change

29. A Member enquired about the Government's plan on the use of vehicles to complement the target of achieving carbon neutrality before 2050. Mr Owin Fung said that decarbonisation was a broad issue and a comprehensive plan for addressing climate change and decarbonisation would be set out in the updated *Hong Kong's Climate Action Plan*, to be published later this year. Mr Wong Kam-sing added that the Government welcomed suggestions from different sectors of the society and would explore new decarbonisation options under the inter-departmental task force.

30. In response to a Member's enquiry about the potential adverse impact on the environment that might be brought about by the increase of electricity consumption due to the popularisation of EVs, Mr Wong Kam-sing pointed out

that the Government had a holistic plan to attain carbon neutrality before 2050, which comprised a series of blueprints in addition to the EV Roadmap, including the *Waste Blueprint for Hong Kong 2035* published in February 2021, the *Clean Air Plan for Hong Kong 2035* and the updated *Hong Kong's Climate Action Plan* to be published later this year. The Government would closely monitor and tackle the wide spectrum of environmental issues under different perspectives.

31. To reduce electricity consumption during peak hours, a Member suggested that the Government should take into account the pattern of EV-charging and devise EV charging fees with a view to encouraging charging outside peak hours. Mr Wong Kam-sing said that the progressive rollout of smart meters by the power companies would facilitate the formulation of relevant policies.

Vehicle Scrapping

32. A Member enquired whether the vehicle scrapping industry had sufficient capacity in handling the potential increase in disposal of fuel-propelled vehicles arising from the popularisation of EVs. Mr Owin Fung said that there was no issue so far for the vehicle scrapping industry to handle the scrapping of vehicles under the “One-for-One Replacement Scheme”.

Conclusion

33. The Chairman pointed out that the EV Roadmap had generally incorporated ACE members' views expressed at the ACE meeting in October 2020 and proposed some new key measures including a concrete timeline and the leading role of the Government through the electrification of the government fleet. The Chairman concluded that Members were in general supportive of the EV Roadmap. He thanked the representatives of EPD for their presentation and detailed explanations.

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

Item 4 : Review of the Eighth Technical Memorandum for Allocation of Emission Allowances for Power Plants

(ACE Papers 6/2021 and 7/2021)

34. The Chairman informed that *ACE Paper 6/2021* sought Members' views on

the Government's proposal to reduce emission allowances for power plants starting from 1 January 2026 by way of issuing a new Technical Memorandum (TM) (i.e. the Ninth TM) under Section 26G of the Air Pollution Control Ordinance (Cap. 311) (APCO). A background note on the subject matter, i.e. *ACE Paper 7/2021*, prepared by the secretariat had been circulated to Members for reference before the meeting.

35. Upon the invitation of the Chairman, two Members declared that they were the Chairpersons of the Fisheries Enhancement Fund Management Committee and Marine Conservation Enhancement Fund Management Committee of the Hong Kong Offshore Liquefied Natural Gas (LNG) Terminal Project launched by CLP Power Hong Kong Limited (CLP) and Hongkong Electric Company, Limited (HEC) respectively. Another Member declared that she was working in CLP currently. A Member declared that he was a Member of the Hong Kong Offshore Wind Farm in Southeastern Waters Stakeholder Liaison Group under CLP. The Chairman agreed that the four Members mentioned above could continue to participate in the meeting and the discussion of this item.

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

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

36. Mr Dave Ho made opening remarks and Mr Brian Lau briefed Members on the legal framework and approach adopted in the review of the Eighth TM for allocation of emission allowances for power plants. They sought Members' support on the Ninth TM to further tighten the emission allowances starting from 1 January 2026.

Proposed Emission Allowances

37. The Chairman considered that there was a noticeable difference between the reduction in emission allowances (i.e. -71%) of nitrogen oxides (NO_x) as set out in the TMs and the reduction in actual emissions (i.e. -49%) over the years and enquired how difficult it was to reduce NO_x emissions. Mr Dave Ho clarified that the former figure compared the emission allowances of NO_x set out in the TMs for the period from 2010 to 2024 whereas the latter figure compared the actual emission levels from 2010 to 2020, hence the figures were not directly comparable. However, he noted that the substantial reduction in the actual emission of NO_x

followed closely with the progressive tightening of emission allowances over the years.

38. A Member noted that the reduction in emission allowances of sulphur dioxide (SO₂) and respirable suspended particulates (RSP) for HEC was lower than that of CLP and enquired whether there were any measures to motivate HEC to improve their emission performance. Mr Dave Ho advised that the installation of new gas-fired units and retirement of coal-fired units in HEC had been considered in the last TM (i.e. the Eighth TM). As there was no major change in the generation units and the projected electricity forecast, the improvements in the SO₂ or RSP emissions for HEC in the Ninth TM would not be substantial. For CLP, it was considered that there would be more room for the reduction of SO₂ and RSP emissions in the Ninth TM due to the reduction in local electricity generation as the electricity intake from the Daya Bay Nuclear Power Station would resume to the normal level after the completion of its periodic safety review in 2023 and 2024. In addition, the natural gas supplied via the West-East Gas Pipeline had a lower sulphur content as compared with that supplied from Yacheng gas field before, and therefore could bring along further reduction in SO₂.

39. In response to two Members' enquiry on the possibility to include carbon dioxide (CO₂) in the TM, Mr Dave Ho said that the TM required the two power companies to minimise the emission of air pollutants from their power plants through the adoption of the best practicable means (BPM) in the design and operational management. In view that there was not any proven technology which could reduce the emissions of CO₂ from power plants and the geological formation of Hong Kong which was not suitable for storage of CO₂, it might not be practicable to include CO₂ in the TM at this stage. Having said that, Mr Ho said that the power companies would strive to reduce CO₂ emissions through the adjustment of the fuel mix and the use of renewable energy (RE).

40. A Member enquired about the major differences of the emission allowances for HEC and CLP with regard to SO₂, NO_x and RSP. Mr Dave Ho explained that the differences were mainly due to the different design and performance of emission control devices, such as the desulphurisation and denitrification systems as well as the fuel mix between HEC and CLP. The sulphur content of the coal used by the two power companies was also different. In particular, electricity generation from coal units of CLP was much higher than that of HEC which contributed to the higher emissions of NO_x and RSP in CLP.

Mr Brian Lau supplemented that the emission allowances were set based on the actual emission performance of the generating units used by the power companies. He said that the power companies were required to prioritise the use of generating units with the lowest emissions.

Renewable Energy

41. The Chairman noted from the formulae in calculating emission allowances that the more electricity intake from RE systems, the lower the emission allowances for the power companies would be. He expressed concern that this might reduce the incentives for the power companies to develop RE to avoid the reduction of emission allowances. Mr Dave Ho explained that the formulae were based on the assumption of maximum RE intake and the actual emission allowances would be adjusted according to the actual electricity intake from RE. On the other hand, incentives for power companies to develop RE would be covered by the Scheme of Control Agreements (SCAs).

42. In response to a Member's enquiry on whether there were other measures to enhance RE intake for HEC and CLP as well as the progress of construction of wind farms by the two power companies, Ms Queenie Lee advised that under the current SCAs, financial incentives would be provided to the two power companies based on the share of RE in electricity generation of the power companies and the number of new connections of RE systems to the power grid. On the development of the two possible offshore wind farm projects, it was previously assessed that the combined cost of development would be over \$10 billion to provide less than 1.5% of Hong Kong's total electricity consumed. With technological advancement which might enhance the cost-effectiveness of the projects, the Government would maintain close communication with the two power companies to re-examine the two wind farm proposals.

43. Two Members enquired about the differences between the two power companies' estimated electricity intake from distributed RE systems in the Ninth TM, in particular the significant growth of CLP's estimation as compared with the Eighth TM vis-à-vis a lower estimation made by HEC. Another Member also observed that CLP's Feed-in Tariff Scheme had contributed to its projected increase in electricity intake from RE but such could not be found in HEC's case. Ms Queenie Lee explained that the conditions to develop RE in CLP's service area were more favorable. For example, the waste-to-energy facilities of the

Government were mostly located in CLP's service area; and village houses with higher potential to develop distributed RE were also mostly located in the New Territories. Comparatively, there were more geographical constraints on the development of RE on Hong Kong Island.

44. The Chairman and a Member suggested that the Government should explore enhancing the interconnection between the electricity grids of the two power companies. The Member opined that this might provide an opportunity for HEC to increase its electricity intake from RE resources by obtaining electricity of RE sources from the Mainland China through the Clean Energy Transmission System (CETS). Ms Queenie Lee said that the two power companies' electricity grids were currently inter-connected. Under the current SCAs, the Government would commission a study with the power companies to look into the arrangement for strengthening the existing interconnection. Meanwhile, the Government would also give consideration to enhancing regional cooperation in clean energy.

Environmental Implications

45. A Member pointed out that the carbon emissions for HEC was much higher than CLP in 2020 and highlighted the importance of reducing CO₂ emissions for HEC with a view to attaining carbon neutrality. Another Member enquired about the measures under the current SCAs that might help achieve the target of carbon neutrality by 2050. Ms Queenie Lee agreed that it was important to reduce carbon emissions from electricity generation. The Government had seen to it that the two power companies would improve the fuel mix for electricity generation by replacing coal-fired units with gas-fired ones, and adopting more clean energy such as RE. The Government would also explore regional cooperation options and keep in view of the latest decarbonisation technologies such as the use of green hydrogen.

46. A Member enquired about information or statistics on the improvement of public health brought by the reduction of emissions from power plants. Mr Dave Ho advised that the health benefits due to the reduction of emissions from all air pollution sources including power plants had been considered in the last review of the Air Quality Objectives completed in end 2018.

47. The Chairman and a Member enquired whether the emission allowances set out in the Ninth TM would attain the air quality guideline values (AQGs) of the

World Health Organization (WHO). Mr Dave Ho said that, as a result of the efforts to reduce NO_x emissions from different sources including power plants and motor vehicles in the past years, ambient nitrogen dioxide levels in the territory broadly met the AQG. He anticipated that the WHO AQG for SO₂ could be met through sustained efforts in reducing emissions from the power plants as well as marine vessels in Hong Kong. Mr Ho said that RSP and ozone level in Hong Kong were however subject to influence from regional air pollution and had yet to meet the WHO AQGs. Long-term regional cooperation was required to reduce the regional background levels of RSP and ozone.

Conclusion

48. The Chairman summarised the views made by Members and concluded that Members were in general supportive of the Ninth TM. He thanked the representatives of ENB and EPD for their presentation and detailed explanations.

(Apart from Mr Dave Ho, the presentation team left the meeting at this juncture.)

Internal Discussion Session (Closed-door session)

Proposed Emission Allowances

49. A Member observed that there was a noticeable gap between the actual emissions and the emission allowances, and suggested to set more ambitious emission allowances for the power companies to further lower their emissions. The Chairman pointed out that a balance should be struck to allow sufficient buffer to cater for any fluctuations on the emission levels or for any special events. Mr Dave Ho explained that decent buffer was provided in the emission allowances for the First TM as the feasibility of retrofitting emission control devices then was uncertain. He opined that the gap between the emission allowances and actual emission level was much smaller in the recent years. Since failure to maintain the actual emissions within the emission allowances set out in the TM would be liable to penalty, a reasonable and realistic level of emission allowances should be adopted taking into account the past performance of the generating units of the power companies under varying operating conditions which sometimes could be out of the control of the power companies, such as fluctuations in electricity demand, breakdown of emission control devices, etc. Nonetheless, he stressed that there had been encouraging results in the reduction of actual emissions since

the First TM.

50. A Member noted that while the level of electricity generation of HEC was much lower than that of CLP, the emission allowance of SO₂ for HEC was higher than CLP. She therefore suggested that the Government should urge HEC to reduce SO₂ emissions by sourcing coal with low sulphur content. Mr Dave Ho advised that the variations in the emission performance of HEC and CLP were due to the differences in emission control devices, desulphurisation and denitrification systems of their generating units. He pointed out that HEC had been gradually using more low-emission coal and its fuel mix would further improve over time.

Use of Renewable Energy

51. A Member opined that the Government should urge HEC to make more efforts in promoting the use of distributed RE systems as HEC's estimated electricity intake from distributed RE systems had decreased from 5 gigawatt hour (GWH) in the Eighth TM to 4 GWh in the Ninth TM. Another Member remarked that the emissions of the existing generating units would level off ultimately, and thus suggested that the Government should target at setting a higher requirement on electricity intake from RE sources in future TMs. He also suggested that HEC should install more solar panels on Islands District. Mr Dave Ho advised that due to the geographical constraint of HEC, the capacity for HEC to develop distributed RE system was rather limited as most parts of the Islands District was under CLP's service area. He said that HEC had been supporting RE through installing solar panels at its power station and operating a wind turbine on Lamma Island.

52. In response to a Member's suggestion about deploying solar panels on sea surface, the Chairman advised that there were pilot projects of deploying floating photovoltaic (FPV) system in local reservoirs. However, there might be concern about placing FPV system on sea surface as the environment was sometimes less stable.

53. Given the geographical constraints of developing RE locally, a Member shared his experience of the transfer and deployment of electricity supply from clean energy sources across different provinces in China and enquired about the possibility of and plans for importing more clean energy to Hong Kong through the enhanced CETS. Mr Dave Ho said that he would ask ENB to provide more information after the meeting.

[Post-meeting notes: The information on CETS was passed to Members for reference on 21 April 2021.]

54. Mr Owin Fung concluded that despite the constraints in developing RE in Hong Kong, the two power companies had been actively exploring the latest fuel technologies in the world such as hydrogen fuel. The Government would publish *the updated Hong Kong's Climate Action Plan* later this year which would provide a comprehensive plan for achieving carbon neutrality before 2050 and address various environmental issues.

55. The Chairman concluded the discussion and invited ENB to consider taking on board the views and suggestions made by Members during the discussion.

Item 5 : Any other business (Closed-door session)

EIA Report not selected by EIASC for submission to ACE

56. The Chairperson of the EIASC reported that since the last Council meeting, EIASC received the Executive Summary of the Environmental Impact Assessment (EIA) report on “Yuen Long Barrage Scheme” which the Subcommittee had not selected for discussion. The Executive Summary of the EIA report had been circulated to EIASC Members upon commencement of the public inspection period, with the relevant hyperlinks copied to non-EIASC Members for information. Individual Members were advised to provide their comments, if any, on the EIA report directly to the DEP within the public inspection period. Given that the EIA report had not been selected by EIASC for presentation and discussion, the Chairperson concluded that EPD would take that ACE had no comments on the EIA report under section 8(3)(b) of the EIA Ordinance.

Item 6 : Date of next meeting (Closed-door session)

57. The next meeting was scheduled for 10 May 2021 (Monday). Members would be advised on the agenda in due course.

ACE Secretariat
April 2021