

**立法會**  
**Legislative Council**

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**Panel on Environmental Affairs**

**Minutes of policy briefing**  
**held on Tuesday, 12 October 2021 at 10:45 am**  
**in Conference Room 3 of the Legislative Council Complex**

- Members present** : Hon Vincent CHENG Wing-shun, MH, JP (Chairman)  
Hon WONG Ting-kwong, GBS, JP  
Hon CHAN Hak-kan, SBS, JP  
Hon Steven HO Chun-yin, BBS, JP  
Hon Frankie YICK Chi-ming, SBS, JP  
Hon KWOK Wai-keung, JP  
Hon Elizabeth QUAT, BBS, JP  
Ir Dr Hon LO Wai-kwok, GBS, MH, JP  
Dr Hon Junius HO Kwan-yiu, JP  
Hon SHIU Ka-fai, JP  
Hon Tony TSE Wai-chuen, BBS, JP
- Members absent** : Hon Paul TSE Wai-chun, JP (Deputy Chairman)  
Hon Kenneth LAU Ip-keung, BBS, MH, JP
- Public Officers attending** : **For item I**
- Mr WONG Kam-sing, GBS, JP  
Secretary for the Environment
- Mr TSE Chin-wan, BBS, JP  
Under Secretary for the Environment

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Mrs Millie NG, JP  
Permanent Secretary for the Environment (Acting)/  
Director of Environmental Protection (Acting)/  
Deputy Secretary for the Environment

Dr Samuel CHUI, JP  
Deputy Director of Environmental Protection (1)  
Environmental Protection Department

Mr Raymond WU  
Deputy Director of Environmental Protection (2)  
Environmental Protection Department

Mr Owin FUNG  
Permanent Secretary for the Environment (Acting)/  
Director of Environmental Protection (Acting)/  
Deputy Director of Environmental Protection (3),  
Environmental Protection Department

Mr Bruno LUK, JP  
Deputy Director of Environmental Protection (Waste  
Reduction Policy)  
Environmental Protection Department

**Clerk in attendance :** Ms Angel SHEK  
Chief Council Secretary (1)1

**Staff in attendance :** Mr Jason KONG  
Senior Council Secretary (1)1

Miss Mandy POON  
Legislative Assistant (1)1

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**I. Briefing by the Secretary for the Environment on the Chief Executive's 2021 Policy Address**

(LC Paper No. CB(1)1394/ — Administration's paper on "2021 Policy  
20-21(01) Address — Policy initiatives of  
Environment Bureau: Environmental  
protection"

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Relevant papers

The Chief Executive's 2021 Policy Address (*issued on 6 October 2021*)

The Chief Executive's 2021 Policy Address Supplement (*issued on 6 October 2021*)

Briefing by the Administration

With the aid of a PowerPoint presentation, the Secretary for the Environment ("SEN") briefed members on the key environmental initiatives in the Chief Executive's 2021 Policy Address ("2021 Policy Address").

*(Post-meeting note: The PowerPoint presentation materials were circulated to members on 12 October 2021, vide LC Paper No. CB(1)1422/20-21(01).)*

Discussion

Decarbonization in electricity generation

*Targets and tariff implications*

2. Mr Tony TSE said that he was supportive of the announcement of the Hong Kong's Climate Action Plan 2050 ("Climate Action Plan 2050") and the general direction of setting a medium-term decarbonization target. However, he expressed concern whether the announced medium-term target (which was reducing Hong Kong's total carbon emissions by half against the 2005 level before 2035) would be too aggressive, and whether the business sector and the general public would be willing and able to afford the costs of implementing related decarbonization measures. In particular, he asked how the Administration would gain public acceptance of the likely higher electricity tariffs resulting from the use of cleaner but more expensive energy, and ensure the viability of the electricity industry amid the rising cost for electricity generation.

3. Mr Frankie YICK envisaged that achievement of the "net-zero electricity generation" target (i.e. carbon neutrality in electricity generation) under Climate Action Plan 2050 would necessitate a major change in the fuel mix for electricity generation, which would put upward pressure on electricity tariffs. At the same time, there was potential for cost savings through the adoption of energy conservation practices. As a means to promote energy conservation, he considered that the Administration should provide rough estimates of the following at today's prices for public reference: (a) projected electricity tariff levels on the premise that Hong Kong would move towards net-zero electricity

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generation, and (b) cost savings that could be brought about by different energy conversation practices.

4. Mr KWOK Wai-keung considered the setting of the "net-zero electricity generation" target a positive development. However, he shared the concern about the pressure on electricity tariff increase. He called on the Administration to enhance public engagement in the formulation of measures for decarbonizing the electricity sector.

5. SEN, the Under Secretary for the Environment ("USEN") and the Permanent Secretary for the Environment (Acting)/Director of Environmental Protection (Acting)/Deputy Secretary for the Environment ("PSEN(Atg)/DEP(Atg)/DSE") responded that:

- (a) Climate Action Plan 2050 was science-based and implementation of the strategies promulgated therein would help Hong Kong fulfil its responsibilities to reduce carbon emissions as an advanced city;
- (b) the Government's energy policy objectives were to ensure safe, reliable and efficient energy supply at reasonable prices while minimizing the environmental impact caused by the production and use of energy. The stable electricity supply in Hong Kong amid the recent global fuel shortage had demonstrated the strength of Hong Kong's energy policy;
- (c) decarbonization came with a price. It was unavoidable that Hong Kong would need to invest a substantial amount of capital to build the infrastructure required for the production, reception and storage of zero-carbon energy, which would inevitably put upward pressure on electricity tariffs;
- (d) the Administration would carefully manage the transition to net-zero electricity generation to prevent sharp spikes in electricity tariff levels. At the same time, the Administration would continue to strengthen public education on energy conservation and promote the use of new technologies to enhance energy efficiency, which could lead to cost savings and help mitigate the impact of tariff increases. Currently, energy savings tips for homes and offices were provided on a government website;
- (e) when weighing the options for the low-carbon transformation of the electricity sector, the Administration would take into account factors such as the reliability of the potential energy sources, stability of electricity supply, and ability of the public to afford electricity costs.

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The Administration would seek to adopt the most cost-effective options for achieving the two major targets, namely ceasing the use of coal for daily electricity generation by 2035 ("zero-coal target") and net-zero electricity generation before 2050; and

- (f) the Administration would review the next Development Plans of the two power companies in due course. It was expected that more concrete information on the projected tariff implications of short to medium-term decarbonization measures would be available after completion of the review.

6. Mr Tony TSE pointed out that the CLP Group had recently announced its plan to phase out coal-fired generation assets by 2040. He asked whether this plan was at odds with the aforementioned zero-coal target for 2035 in Climate Action Plan 2050.

7. SEN clarified that the plan announced by the CLP Group was related to its global assets, not just those in Hong Kong. As far as CLP Power Hong Kong Limited's generating units in Hong Kong were concerned, the existing timetable for those units' retirement as agreed between the Government and the power company was broadly in line with the zero-coal target in Climate Action Plan 2050.

*Renewable energy development*

8. Mr Tony TSE noted that the Government and the two power companies were reviewing wind farm development proposals. As the proposal of developing an offshore wind farm in Hong Kong's southeastern waters had been studied for over a decade but yet to be taken forward, he enquired why Hong Kong lagged behind some other places in harnessing wind energy.

9. SEN explained that different strategies had been adopted by different places for renewable energy ("RE") development having regard to the places' characteristics. Hong Kong had relatively limited potential for developing large-scale RE due to its geographical factors, scarce land resources and dense population. It was considered more appropriate for Hong Kong to invest in RE after relevant technologies had become mature, in order to better ensure the cost effectiveness of the RE projects and stability of electricity supply. As there had been breakthroughs in the development and applications of wind energy technologies in recent years, the Administration considered it an opportune time now to review wind farm development proposals. SEN assured members that the Administration was determined to increase the share of RE in Hong Kong's fuel mix for electricity generation, and would take advantage of the previous study on offshore wind farm to expedite the review.

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*Energy conservation and green buildings*

10. Mr Tony TSE enquired whether the Administration would subsidize projects for upgrading the energy efficiency of existing private buildings (especially residential buildings), with a view to achieving the long-term targets of reducing the electricity consumption of commercial buildings by 30% to 40% and that of residential buildings by 20% to 30% by 2050. He suggested that the Administration should further promote the replacement of electromechanical meters of residential premises by smart meters to facilitate better management of electricity consumption.

11. SEN advised that in accordance with the Scheme of Control Agreements, the two power companies organized programmes that subsidized building owners to enhance the energy efficiency performance of building services installations for communal use. In addition, the Administration had established partnership with major stakeholders in the built environment under the "4T" framework, namely target, timeline, transparency and together. 4T partners were encouraged to set their energy saving targets and timelines. The 4T Partnership would be upgraded to Carbon Neutrality Partnership to tie in with decarbonization efforts.

12. PSE(Atg)/DEP(Atg)/DSE supplemented that the Administration regulated the energy efficiency performance of building services installations through the implementation of the Building Energy Codes. The codes were reviewed once every three years to align with the latest international standards. In recent years, the Administration had been encouraging building owners to conduct retro-commissioning projects to identify operational improvements that could save energy.

13. Mr Tony TSE pointed out that under the existing mechanism, for new developments, only underground car parks would be fully disregarded from gross floor area ("GFA") calculation (provided that the parking spaces were electric vehicle ("EV") charging-enabled). As underground car parks generally consumed more electricity for lighting and ventilation compared with above-ground car parks, he suggested that the GFA exemption should be extended to above-ground car parks in new developments for the promotion of green buildings and energy saving. SEN responded that he would relay the suggestion to the Development Bureau.

*Green transport*

*Promoting popularization of electric vehicles*

14. Noting that just about 20% of newly-registered private cars ("PCs") in the first half of 2021 were electric PCs ("e-PCs"), Ir Dr LO Wai-kiwok considered it

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necessary for the Administration to further promote the local adoption of e-PCs, with a view to achieving the target of ceasing new registration of fuel-propelled and hybrid PCs in 2035 or earlier. As the Mainland was one of the global market leaders in EV production, he opined that the Administration should promote the introduction of Mainland-manufactured EV models into Hong Kong to widen consumer choice. To facilitate the electrification of public transport vehicles, he urged the Administration to cut red tape and expedite the development of relevant charging facilities. In particular, he considered it necessary to develop roadside charging piles for electric public light buses ("e-PLBs"), as PLB operators generally did not have depots for overnight charging of their vehicles.

15. SEN and the Permanent Secretary for the Environment (Acting)/Director of Environmental Protection (Acting)/Deputy Director of Environmental Protection (3) responded that the Administration endeavoured to promote the diversification of the supply of new energy vehicles ("NEVs") to the local market. Regarding the potential introduction of Mainland-manufactured EVs into Hong Kong, the Administration had been discussing relevant issues with the EV manufacturers and their associated suppliers. While right-hand drive EV models were generally manufactured at a later stage compared with their left-hand drive counterparts, some of those manufacturers/suppliers had indicated plans to supply EVs to Hong Kong. It was envisaged that an e-PC model recently introduced by a Mainland manufacturer had the potential to be tested out for application as electric taxi under a trial scheme in Hong Kong. The charging requirements of different types of public transport vehicles varied. Electric buses were mainly charged at bus depots. The charging requirements of electric taxis were similar to those of e-PCs, and the Administration would provide a charging network for electric taxis. As regards the pilot scheme on e-PLBs, the Administration would focus on green PLBs first as they ran on fixed routes that were relatively short. The Administration planned to install charging facilities at PLB termini or public transport interchanges, and would explore the feasibility of installing roadside charging facilities for those PLBs.

16. Mr Frankie YICK pointed out that car parks with 60% or more parking spaces in open area were currently ineligible for the EV-charging at Home Subsidy Scheme ("EHSS"). He suggested that the Administration should flexibly allow them to apply for subsidies at lower levels that were calculated in proportion to the numbers of their indoor parking spaces.

17. SEN responded that EHSS was very well received and the number of parking spaces covered by the applications was way higher than the original target. The Administration would conduct a review of the scheme in due course having regard to the experience gained from the implementation of the Scheme.

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*Trial of hydrogen fuel cell vehicles*

18. Ir Dr LO Wai-kwok and Mr Frankie YICK considered that the plan to test out hydrogen fuel cell buses and heavy vehicles was in the right direction. Mr Tony TSE called on the Administration to promote the replacement of conventional commercial vehicles with NEVs. He enquired whether the green hydrogen technologies (i.e. production of hydrogen through RE-powered electrolysis of water) were mature enough for transport applications.

19. PSEN(Atg)/DEP(Atg)/DSE responded that hydrogen fuel cell vehicles were gaining traction, especially in applications as medium to large vehicles as well as medium-haul and long-haul vehicles. Compared with typical lithium-ion batteries used in EVs, hydrogen fuel cells had a greater energy storage density, which could support longer driving ranges and heavier loads. Refuelling of hydrogen-powered vehicles might also be significantly quicker than recharging of EVs. The Administration would test out hydrogen fuel cell buses and heavy vehicles, with a view to promoting the local applications of a diversified range of zero-carbon energy.

20. As it would take some time to conduct the trials of hydrogen fuel cell vehicles, Mr Frankie YICK suggested that the Administration should consider the introduction of commercial vehicles powered by natural gas as an interim measure. He pointed out that such vehicles had been widely adopted in the Mainland and were sold at reasonable prices. SEN responded that the Administration was studying the suggestion.

*Recycling of retired electric vehicle batteries*

21. Mr Frankie YICK urged the Administration to introduce a producer responsibility scheme ("PRS") on retired EV batteries expeditiously in order to support the recovery and recycling of the products as well as curb illegal export activities. He expected that the financial burden on vehicle owners arising from such a PRS would be at an acceptable level. In addition, he suggested that the Administration should also consider introducing a PRS on waste tyres.

22. SEN affirmed that the Administration had plans to introduce a PRS on retired EV batteries. When formulating the relevant proposal, the Administration would also consider whether the PRS for retired EV batteries would have any interfacing issues with other related products.

*Steering, coordination and monitoring of decarbonization efforts*

23. Ir Dr LO Wai-kwok said that the environmental industry welcomed the announcement of Climate Action Plan 2050. He expressed strong support for the



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establishment of the Office of Climate Change and Carbon Neutrality under the Environment Bureau ("ENB"). He asked about the work progress and membership composition of the Climate Change Working Group on Infrastructure, and suggested that the Administration should enhance publicity of its work in strengthening the resilience of Hong Kong's infrastructure to extreme weather.

24. SEN advised that the Climate Change Working Group on Infrastructure was established in 2016 under the leadership of the Civil Engineering and Development Department. The working group coordinated the efforts of works departments to combat adverse effects of climate change on Hong Kong's infrastructure. It had analysed the resilience of existing government critical infrastructure, projections on the effects of climate change based on international data, etc.; and had suitably revised the parameters on sea level, rainfall and wind speed for the design of government infrastructure in the relevant design standards. The working group would report its work plans and progress to the Steering Committee on Climate Change and Carbon Neutrality chaired by the Chief Executive.

25. Ms Elizabeth QUAT expressed support for the policy initiatives in the area of environmental protection in 2021 Policy Address, as well as the strategies and measures promulgated in Climate Action Plan 2050 for moving towards carbon neutrality. She called on the Administration to ensure good interdepartmental coordination in its decarbonization efforts, and expedite the implementation of relevant measures as far as practicable.

26. Dr Junius HO opined that ENB/the Environmental Protection Department ("EPD") should enhance its capability in public communication. As far as Climate Action Plan 2050 was concerned, ENB/EPD should disseminate information on relevant key performance indicators to facilitate public monitoring of decarbonization progress.

27. SEN responded that Hong Kong was among the earliest cities in Asia to take actions to combat climate change, and its carbon emissions had already peaked in 2014 through the implementation of a series of measures. The carbon intensity target for 2020 set out in the Hong Kong's Climate Action Plan 2030+ had been achieved, and the Administration was confident that the target for 2030 was also achievable. He assured members that ENB/EPD would strengthen publicity of decarbonization initiatives.

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Waste management

*Preparation for municipal solid waste charging*

28. The Chairman noted that EPD would take over the management of refuse collection points ("RCPs") and household waste collection from the Food and Environmental Hygiene Department ("FEHD"), bringing the collection, recycling, delivery and treatment of waste under the same umbrella. He sought elaboration on the plan and implementation timetable for the initiative, and the division of work between the two departments in future.

29. SEN responded that the implementation of municipal solid waste ("MSW") charging was expected to bring about waste reduction and an increase in the overall quantity of recyclables recovered. This in turn would lead to a change in the manpower and hardware requirements of waste management and resource recovery. The Administration considered that bringing the various aspects of waste management under the same umbrella would create added synergy.

30. The Deputy Director of Environmental Protection (Waste Reduction Policy) ("DDEP(WRP)") said that the planning for and implementation of the take-over initiative would involve complex issues. FEHD currently had different types of contract for a wide range of municipal services, such as waste collection, RCP management, street cleansing and pest control. Some of these existing contracts covered multiple types of service. As EPD would only take over the management of RCPs and household waste collection from FEHD, the two departments would need to work out arrangements for those contracts as well as manpower redeployment. The Administration would consult the employees concerned during the formulation of the implementation proposal. SEN added that as a rough estimation, the initiative would be implemented progressively from 2023 onward.

31. Ms Elizabeth QUAT relayed the concerns of the property management and cleaning services sectors about the operational details of MSW charging, as some companies had already been asked to accept certain provisions related to the supply of designated garbage bags in the contracts signed with building owners.

32. DDEP(WRP) responded that the Administration would issue guidelines to key stakeholders, including the property management and cleaning services sectors, on the operational arrangements of MSW charging. During the preparatory period for the implementation of MSW charging, the Administration would maintain close communication with those stakeholders for the development of the guidelines.

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*Support for recycling industry development*

33. Dr Junius HO pointed out that as announced in 2021 Policy Address, additional land of about 150 hectares would be provided for innovation and technology use to develop the San Tin Technopole. He suggested that ENB should explore with the Innovation and Technology Bureau measures for promoting the development of recycling plants in the San Tin Technopole, so as to achieve synergy with reindustrialization efforts. In addition, he urged the Administration to support the upgrading of the local recycling industry's operational standards.

34. SEN and the USEN responded that the Administration had been supporting the upgrading of the recycling industry's operational standards through the Recycling Fund. The provision of central collection services for waste plastics and food waste through government contracts could also support the development of downstream recycling businesses, which could contribute to Hong Kong's reindustrialization. As mentioned in Climate Action Plan 2050, the implementation of decarbonization measures could create green economic opportunities. The Administration would explore ways to achieve synergy between the development of green industries and reindustrialization.

35. Ms Elizabeth QUAT said that according to the observation of some local recyclers, the service providers of some recyclables collection points under GREEN@COMMUNITY (i.e. the rebranded community recycling network) had stopped the collection of some recyclables after their internal targets had been met. She asked how the Administration would tackle this problem. She considered that the Administration should give priority consideration to the procurement of locally-recycled products as well as services provided by home-grown recycling businesses.

36. SEN and DDEP(WRP) responded that a monthly target for the collection of recyclables was set in the contract signed with each GREEN@COMMUNITY service provider, and bonus payment would be made to the service provider if the target was exceeded. The Administration would follow up the issue raised by Ms Elizabeth QUAT with GREEN@COMMUNITY service providers. Ms QUAT commented that GREEN@COMMUNITY service providers were mostly non-profit-making organizations, and bonus payments might not be a strong incentive for them to go the extra mile. She therefore suggested that the Administration should, through other methods, encourage or require GREEN@COMMUNITY service providers to collaborate with other stakeholders in the community on resource recovery, with a view to boosting the recycling rates of local recyclables.

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*Regulation of disposable plastic tableware*

37. Mr KWOK Wai-keung asked whether there was scope for advancing the introduction of the Scheme on Regulation of Disposable Plastic Tableware, given that the proposal was generally well received by the community.

38. SEN advised that the Administration was examining and considering the views collected during the relevant public consultation exercise. The Administration would seek to initiate the legislative procedure as early as possible, and would explore the feasibility of advancing the scheme's introduction.

*Nature conservation policies*

39. Mr Steven HO noted that as announced in 2021 Policy Address, the Administration was considering the establishment of three wetland conservation parks in the proposed Northern Metropolis, which would involve resumption of private wetlands and fish ponds. He pointed out that the Ramsar Site and the Deep Bay Wetland outside Ramsar Site, on which some of the wetlands and fish ponds concerned were located, were listed as priority sites for enhanced conservation under the New Nature Conservation Policy. Non-governmental organizations ("NGOs") might apply for funding from the Government for entering into management agreements ("MAs") with landowners for the conservation of the priority sites. Over the years, with funding support from the Environment and Conservation Fund and subsequently the Countryside Conservation Funding Scheme, an NGO had been carrying out two MA projects on the two sites for the conservation of fish ponds. The NGO provided a financial incentive for fish pond owners to drain down their fish ponds regularly in order to provide feeding and roosting grounds for waterbirds. Mr HO opined that this conservation approach was rather backward and could not ensure that fish pond owners could get a fair share of the economic benefits resulting from the enhanced conservation of the sites. For example, while the said NGO could organize revenue-generating activities such as eco-tours around the priority sites, fish pond owners were normally disallowed from carrying out similar activities; and the financial incentive provided by the NGO to fish pond owners was substantially less than the grants it obtained from the Government. He therefore urged the Administration to review and update the conservation policies, with a view to striking a balance between nature conservation, the sustainable development of the aquaculture industry, and the interests of landowners.

40. SEN responded that the development of the Northern Metropolis would provide opportunities for the implementation of innovative conservation policies and measures. The Administration would endeavour to strike a balance between

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enhancing the conservation of ecologically-important sites and other considerations, including the sustainable development of relevant industries, and would maintain close dialogues with stakeholders for the formulation of a win-win strategy.

41. The Deputy Director of Environmental Protection (2) supplemented that some of the fish ponds within the proposed development areas of the Northern Metropolis were deserted. It was expected that through resumption and restoration of the fish ponds, the environmental capacity of the area could be enhanced, which could benefit the long-term development of the aquaculture industry. The Administration would later conduct a strategic consultancy study on the mode of conservation and operation of the proposed wetland and nature parks.

42. Mr Steven HO further commented that the economic output of aforementioned fish ponds had been suppressed over the years by the existing conservation policies. Therefore, when the Administration evaluated the levels of compensation to be offered to fish pond owners for land resumption, it should take into account the cumulative impact of the conservation policies, but not just the market value of the land. While the development of the Northern Metropolis might revitalize those fish ponds and create new business or job opportunities, the Administration should seek to engage the local communities or fisheries organizations (instead of outsiders such as NGOs) in the operation of the new businesses.

43. Dr Junius HO shared the concern that the existing conservation policies might have benefited middlemen more than the local communities in some cases. He urged the Administration to adopt a new conservation approach that could better ensure the sustainable development of the land and communities concerned.

44. SEN responded that the Countryside Conservation Funding Scheme provided financial support to NGOs and villagers to carry out conservation projects in the remote countryside. Project proponents were required to implement the approved projects in collaboration with villagers. Some of the proponents of approved projects were organizations formed by representatives of the local communities.

45. USEN emphasized that one of the objectives of the proactive conservation policy to be adopted for the wetlands and fish ponds in the Northern Metropolis was to raise their aquaculture productivity and hence support the sustainable development of the aquaculture industry. The Administration would adopt an open attitude towards the mode of management of the wetlands and fish ponds, and maintain close communication with stakeholders in this regard.

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*Marine emissions*

46. Mr Frankie YICK urged the Administration to formulate the technical and safety requirements/regulations and complete other preparatory work for the development of offshore liquefied natural gas ("LNG") bunkering facilities as early as possible (say within two years), so as to maintain the competitiveness of Hong Kong's bunkering services in the maritime sector.

47. SEN responded that the Administration would work closely with stakeholders on the introduction of offshore LNG bunkering and explore the possibility of expediting relevant preparatory work.

**II. Any other business**

48. There being no other business, the meeting ended at 12:10 pm.

Council Business Division 1  
Legislative Council Secretariat  
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