

**立法會**  
**Legislative Council**

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**Panel on Environmental Affairs**

**Minutes of special meeting  
held on Wednesday, 22 September 2010, at 9:00 am  
in Conference Room A of the Legislative Council Building**

- Members present** : Hon Audrey EU Yuet-mee, SC, JP (Chairman)  
Hon CHAN Hak-kan (Deputy Chairman)  
Ir Dr Hon Raymond HO Chung-tai, SBS, S.B.St.J., JP  
Hon WONG Yung-kan, SBS, JP  
Hon Miriam LAU Kin-ye, GBS, JP  
Hon Andrew CHENG Kar-foo  
Hon Jeffrey LAM Kin-fung, SBS, JP  
Prof Hon Patrick LAU Sau-shing, SBS, JP  
Hon KAM Nai-wai, MH  
Hon Cyd HO Sau-lan  
Hon CHAN Kin-por, JP  
Hon Tanya CHAN  
Hon Albert CHAN Wai-yip
- Member attending** : Hon WONG Kwok-hing, MH
- Members absent** : Hon James TO Kun-sun  
Hon LEE Wing-tat  
Hon CHEUNG Hok-ming, GBS, JP
- Public officers attending** : **For item I**  
  
Mr Edward YAU  
Secretary for the Environment  
  
Mr Carlson K S CHAN  
Deputy Director of Environmental Protection (3)

Mr MOK Wai-chuen  
Assistant Director (Air Policy)  
Environmental Protection Department

Mr S W PANG  
Principal Environmental Protection Officer  
(Air Policy)  
Environmental Protection Department

**For item II**

Mr Edward YAU  
Secretary for the Environment

Ms Vivian LAU  
Deputy Secretary for the Environment

Miss Mary TSANG  
Assistant Director (Cross-Boundary & International)  
Environmental Protection Department

Dr Sherman FONG  
Senior Environmental Protection Officer (Cross  
Boundary)  
Environmental Protection Department

**Clerk in attendance** : Miss Becky YU  
Chief Council Secretary (1)1

**Staff in attendance** : Mrs Mary TANG  
Senior Council Secretary (1)2

Miss Mandy POON  
Legislative Assistant (1)4

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Action

- I. Review of the Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences**  
(LC Paper No. CB(1) 2841/09-10(01) — Administration's paper on review of the Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences

LC Paper No. CB(1) 2841/09-10(02) — Paper on Technical Memorandum for Allocation of Emission Allowances in respect of Specified Licence prepared by the Legislative Council Secretariat (updated background brief))

The Secretary for the Environment (SEN) briefed members on the findings of the review of the Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences (TM), and the proposal to issue a new TM (Second TM) to reduce the emission allowances for power plants for the emission years from January 2015.

### Scope for tightening the emission caps

2. Mr Jeffrey LAM enquired whether two power companies were able to comply with their respective emission caps under the First TM for the emission years from 2010 and if not, whether measures were in place to ensure compliance. SEN said that a carrot and stick approach had been adopted to encourage the two power companies to meet the 2010 emission caps. Under the Scheme of Control Agreement, power companies would be awarded 0.05 to 0.1 percentage point in permitted return as an incentive for “over-achieving” the emission caps. On the other hand, non-compliance with the emission caps would result in the reduction of permitted rate of return. The two power companies had since made strenuous efforts to meet the emission reduction targets, particularly in respect of sulphur dioxide. A number of flue gas desulphurization facilities had been commissioned for completion in 2010. It was expected that with the coming into operation of these desulphurization facilities, both power companies could be able to comply with the emission caps.

3. Mr KAM Nai-wai expressed support for further tightening of emission caps on the power plants after 2010 to bring about improvements in air quality. Noting that the CLP Power Hong Kong Limited (CLP) would be able to increase the local electricity generation by natural gas from the current level of about 10 900 GWh to about 16 430 GWh and the Hongkong Electric Co. Ltd. (HEC) from about 3 680 GWh to about 4,060 GWh with the additional supply of natural gas from the Mainland in the coming few years, he enquired whether the difference in scale of increase between the two power companies was attributable to the different capacities of their gas-firing generation units and if so, whether there was room for expansion of these generation units. Expressing similar views, Mr CHAN Kin-por sought elaboration on the substantial difference in the extent of increase in reliance on natural gas for power generation of 50% for CLP and only 10% for HEC. Mr CHAN Hak-kan also questioned if there was further scope for tightening the emission caps after 2015 given that both power companies would have made the full use of their existing gas burning capacity by then. There might be a need for new power generators and/or increased supply of natural gas for power generation to achieve further tightening of emission allowances.

4. In response, SEN said that the two local power companies could make full use of their existing gas burning capacities with the availability of additional supply of natural gas. The scale of increase of the two power companies in local electricity generation by natural gas had taken into account the scope for maximizing the use of the existing gas-firing generation units. SEN added that the tightening of emission caps in 2015 would require further improvements in emission performance. The overall share of natural gas in the combined fuel mix of the two power companies for local electricity generation would be raised from the anticipated 39% in 2010 to about 52% in 2015, which would be broadly the same as the proposal in the Air Quality Objectives Review to raise the power sector's fuel mix ratio to 50% for natural gas. Further discussion would need to be held on the fuel mix ratio of natural gas for 2020 in the context of the on-going public consultation on Hong Kong's climate change strategy.

5. Ms Miriam LAU noted that whether the two power companies could meet the emission caps would very much hinge on the timely availability of replacement natural gas to be delivered under the Memorandum of Understanding on Energy Co-operation (MOU). Given that there was also great demand for natural gas in the Mainland, she was concerned about the reliability of supply of natural gas to Hong Kong under MOU. She enquired about the duration of supply of natural gas under MOU. Miss Tanya CHAN also enquired about the interfacing arrangements to facilitate the increased use of natural gas for power generation, and whether more gas-fired generators would be installed to replace those coal-fired generators which would be approaching the end of their service lives by 2020. SEN assured members that there would be an adequate supply of natural gas for Hong Kong under MOU which provided for the arrangements for supply of natural gas to Hong Kong over the next 20 years. With the completion of the West-East Natural Gas Pipeline in 2013 to ensure a timely availability of replacement natural gas, the overall share of natural gas in the combined fuel mix of the two power companies would be raised from the current 39% to 52% in 2015. Meanwhile, coal-fired generators which would be reaching the end of their service lives would be replaced by gas-fired generators or other generators using cleaner fuels. Besides, the two power companies were not expected to mainly rely on the use of natural gas in the next 30 to 40 years given the emergence of new forms of power generation.

6. Referring to the Consultation Document on Hong Kong's Climate Change Strategy and Action Agenda (Consultation Document), Mr CHAN Kin-por noted that the overall share of natural gas in the combined fuel mix of the two power companies was 23% in 2009. The figure was different from that in the Administration's paper on the Review of TM which stated that the overall share of natural gas in the combined fuel mix of the two power companies for local electricity generation would be increased from 39% in 2010 to about 52% in 2015. He sought elaboration on the discrepancy. The Deputy Director of Environmental Protection (3) (DDEP(3)) said that by 2015, coal accounted for about 40% in the fuel mix for the overall electricity consumption in Hong Kong, natural gas for about 40% and nuclear electricity imported from the Mainland for about 20%. Insofar as electricity produced within Hong Kong was concerned, the share of natural gas in the combined fuel mix of the

two local power companies would be increased from the current 39% to about 52% in 2015, which would incidentally be in line with the 50% recommended in the Air Quality Objectives Review. To further reduce greenhouse gas emissions, the Consultation Document proposed revamping the fuel mix for electricity generation to 50% nuclear, 40% natural gas, less than 10% coal and 3%-4% renewable energy by 2020. SEN added that the 52% share of natural gas in 2015 as set out in the discussion paper referred to the fuel mix for local electricity generation. Taking into account the increased share of nuclear electricity imported from the Mainland, the fuel mix of natural gas was expected to be around 40% in 2020.

7. Ir Dr Raymond HO declared interest as the Chairman of the Safety Committee of the Daya Bay Nuclear Power Plant. Given the volatility of the fuel market and Hong Kong's reliance on the import of natural gas, he was concerned that local electricity generation would be affected in the event of inadequate fuel supply. He considered it necessary that a more reliable fuel mix should be worked out. SEN said that with the setting of medium and long-term targets, the emission caps imposed in the past years were achievable. Continued efforts would be made to ensure a reliable supply of electricity using cleaner fuels.

8. Ms Miriam LAU noted that compliance with the emission caps could be adversely affected should there be significant deviations in respect of specific quality levels of power plant fuels and specific growth rates in local electricity demand. Under section 26K of Air Pollution Control Ordinance (Cap. 311) (APCO), additional emission allowances might be issued to cover any excess emissions due to events which could not reasonably be foreseen and were beyond the control of both power companies even with all due diligence to prevent the occurrence of such events. She enquired about the measures which would be taken to ensure that the allocation of additional emission allowances was not necessary. SEN said that the requirement to meet the emission caps had posed a great challenge to the two power companies. The two power companies had adopted a cautious approach in complying with the emission caps. The further tightening of emission caps under the Second TM would pose an even greater challenge. Apart from allowing a lead time of at least four years under section 26G(4) of APCO for the power companies to gear themselves up before the proposed emission caps took effect, a long-term policy on the increase in the use of natural gas for power generation would be worked out to facilitate compliance by the power companies. This included the timely availability of replacement natural gas to be delivered under the MOU following the commissioning of the West-East Natural Gas Pipeline in 2013. It was believed that both power companies should be able to fully comply with the emission caps.

#### Emission allowances for possible new electricity works

9. Ir Dr Raymond HO enquired about the arrangements for new entrants who came in the electricity generation after the commencement of a TM, particularly the allocation of not more than one percent of the total emission allowances under that TM. DDEP(3) said that the current allocation method in the First TM for making an allocation of not more than one percent of the total emission allowances of the power

sector in respect of each of the specified pollutants for possible new electricity works should be retained in relation to the emission years from 1 January 2015. Given that all new power generation units in Hong Kong were required to use natural gas or cleaner fuels, their emission performance would likely be much better than the two existing power companies which still had coal-fired generation units. Hence, the quantity of emission allowances required for these new electricity works would be small and would have little impact on the overall emission levels of Hong Kong. The proposed emission allowances should be sufficient to allow new entrants to start a reasonably sized business of about 300 MW. The emission allowances would be updated regularly.

### Tariff implications

10. Mr KAM Nai-wai enquired whether the Administration had assessed the implications of increased use of natural gas for power generation by the two local power companies on electricity tariff. Mr CHAN Kin-por was particularly concerned that CLP, with the significant increase in the use of natural gas for power generation, would have a higher tendency to increase electricity tariff. Their views were shared by Mr Jeffrey LAM. SEN said that as achieving the proposed emission caps did not involve any new capital investment, there should not be any implications on electricity tariff resulting from increase in fixed assets. Given the volatile fuel market conditions and that the tightened emission caps would take effect only in 2015, it would not be possible to provide a reliable estimation of the tariff implications until the cost of natural gas to be imported was available. The power companies would present their tariff assessment to the Administration in accordance with the prevailing regulatory mechanism under the Scheme of Control Agreement. At present, the unit cost for electricity generated using coal was between 40 cents to 60 cents while that for natural gas was 70 cents to 90 cents.

11. While welcoming the tightening of emission allowances for power plants, Mr CHAN Hak-kan was concerned the community at large had to bear the additional cost arising from the increased use of natural gas for electricity generation as in the case of the environmental levy on plastic shopping bags, control on idling engines, as well as rationalization of bus routes etc. He questioned the Administration's commitment in taking forward environmental initiatives, and whether consideration could be given to providing subsidies to low to middle-income families to offset the expected increase in electricity tariff arising from the increased use of natural gas for power generation. SEN said that the use of public money to subsidize electricity tariff would not be considered. He added that under the Scheme of Control Agreement signed in 2008, the permitted rate of return for the two power companies had been reduced from 13.5%-15% to 9.99% of the Average Net Fixed Assets. As a result, consumers had been paying less for electricity. To lower the cost incurred from the supply of natural gas, the Administration would adopt prudent financial principles in the investments on the West-East Natural Gas Pipeline. Mr CHAN however pointed out that despite the reduction in permitted rate of return for the two power companies, the electricity tariff had been on the rise. Ms Miriam LAU echoed that consumers had not been paying less for their electricity following the

signing of the Scheme of Control Agreement in 2008. They were expected to pay more with the increased use of natural gas for power generation.

### Renewable energy

12. Ms Cyd HO noted with concern that renewable energy (RE) was not included in the fuel mix for power generation, and that no incentive had been put in place to encourage the development of RE. Referring to pie chart on page 43 of the Consultation Document which set out Hong Kong's fuel mix for power generation in 2009 and 2020, SEN said that while the fuel mix for 2009 was 54% coal, 23% natural gas and 23% nuclear, the fuel mix for the year 2020 would be 50% nuclear, 40% natural gas, less than 10% coal and 3% to 4% RE. The changes in fuel mix were expected to bring about improvements in air quality and reduction in emission of greenhouse gas.

13. Professor Patrick LAU enquired about the progress of development of RE, and whether incentives would be provided to encourage its development. SEN said that there were time, cost and space consideration in the development of RE. While efforts had been made to develop RE in Hong Kong, there were limitations in the scale of development. The two local power companies had been conducting feasibility studies and environmental impact assessments on the development of offshore wind farms, as well as setting up photovoltaic panels for generating electricity. An example was the photovoltaic system of 550 kW installed by HEC at its Lamma power station to generate electricity for domestic use. Power companies would be allowed a higher permitted rate of return for RE on account of the higher investments.

### Energy conservation

14. Ms Cyd HO enquired about the efforts made in improving energy efficiency and conserving energy, which in her view were more cost-effective in reducing emissions, particularly when the existing emission reduction potentials of the two power companies had already been maximized. SEN said that under the Scheme of Control Agreement, the two local power companies were required to provide funding for implementing energy efficiency projects. Meanwhile, efforts had been made to improve energy efficiency and funding in the order of \$450 million had been allocated for the implementation of Buildings Energy Efficiency Funding Schemes. So far, 4 000 buildings had been allocated funding to improve energy efficiency performance. Public awareness on the need for energy conservation had since been improved through continuous publicity efforts. This had explained why the said Schemes were so well received.

### Distribution of Cash Coupons for Compact Fluorescent Lamps Scheme

15. The Chairman drew members' attention to LC Paper No. CB(1) 2884/09-10(01) which set out the Administration's decision to shelve the Distribution of Cash Coupons for Compact Fluorescent Lamps (CFLs) Scheme

(CFL Scheme), since the distribution of cash coupons for CFLs using public funding was not in line with the “user pays” principle. Given that it had all along been the Government's policy to provide financial incentives to encourage the switch to more environment-friendly products and practices, such as the Liquefied Petroleum Gas Taxi Conversion Scheme and the \$3.2 billion scheme to encourage the early replacement of pre-Euro and Euro I diesel commercial vehicles, she failed to see why public money could not be used to fund the CFL Scheme. Her view was shared by Mr Albert CHAN. SEN said that there was general support for the CFL Scheme on account of the electricity savings from the use of the more energy efficient CFLs. However, there was concern that the distribution of cash coupons for CFLs to encourage the replacement of incandescent light bulbs with CFLs would have impact on electricity tariff. Given the scale of funding which amounted to over \$200 million, it was not considered appropriate to finance the CFL Scheme using public funds or the Environment and Conservation Fund (ECF). There were also calls for the two power companies to fund the CFL Scheme, but this was not covered under the Scheme of Control Agreement. As the Administration had taken forward a low carbon policy, including various measures to help promote the use of energy efficient lamps, it had decided to shelve the CFL Scheme. Meanwhile, ECF would continue to provide funding support for educational, research, technology demonstration and other projects and activities relating to environmental protection and nature conservation, including energy efficiency.

16. The Chairman recalled that the Panel passed a motion at its meeting on 2 November 2009 to urge the Administration to improve the CFL Scheme by expanding the coverage of the coupons to other energy-saving products, funding the implementation of the Scheme direct, and ensuring that the burden of electricity tariff on the public would not be increased. It was regretted that the Administration had decided to shelve the CFL Scheme. She remained of the view that public funds should be used to provide financial incentives to promote energy-saving products.

#### Legislative timetable

17. The Chairman enquired about the legislative timetable for the Second TM, and the progress of implementation of the emissions trading scheme. SEN said that with members' support, the Administration planned to submit the new Second TM to the Legislative Council under section 37B(1) of APCO at the start of the new legislative session. As regards the emissions trading scheme for greenhouse gases, SEN advised that this should more appropriately be discussed in the context of the public consultation on climate change strategy.

## **II. Public Consultation on Hong Kong's Climate Change Strategy and Action Agenda**

(LC Paper No. CB(1) 2833/09-10(01) — Administration's paper on Public Consultation on Hong Kong's Climate Change Strategy and Action Agenda)

18. The Deputy Secretary for the Environment (DS for Env) gave a power-point presentation on the public consultation being conducted by the Administration on Hong Kong's climate change strategy and action agenda for the coming decade.

*(Post-meeting note: A set of the power-point presentation materials was circulated to members vide LC Paper No. CB(1) 2893/09-10(01) on 22 September 2010.)*

19. Noting that the proposals presented in the Consultation Document on Hong Kong's Climate Change and Action Agenda (the Consultation Document) were drawn up from the consultancy study commissioned by the Environmental Protection Department (EPD) in 2008, Miss Tanya CHAN requested for a copy of the report on the consultancy study. Given the many consultancy studies commissioned by EPD over the years, including the Air Quality Objectives Review, she emphasized the need to ensure that these studies were compatible with each other. As measures to tackle climate change might straddle a number of bureaux and departments, there might be a need to set up an inter-departmental working group to oversee the progress. SEN said that while the Consultants had carried out a series of topical studies, which formed the basis of the proposals in the Consultation Document, the consultancy study had yet to be completed. Hence, a report was not available for the time being. In preparing the Consultation Document, relevant bureaux and departments had been consulted, and an inter-departmental working group had been set up to coordinate Administration's efforts in combating climate change. He further assured members that the emission reduction measures proposed under the Air Quality Objectives Review were compatible with that in the Consultation Document, both of which were instrumental to the development of a green economy.

#### Joining hands to combat climate change

20. Given the drastic climate changes over the years, Mr Jeffrey LAM supported the need for measures to tackle the problem, and urged the Administration to take on board the proposals put forward by the business community on the development of low carbon economy. He also agreed that Hong Kong stood as one with the Mainland in combating climate change. Apart from Guangdong, he hoped that Hong Kong could foster closer cooperation with other neighboring provinces, such as Guangxi, Hunan, and Fujian, to encourage early implementation of emission reduction measures. SEN said that the Mainland had been very proactive in meeting the challenge of climate change. At the United Nations Climate Change Conference 2009 held in Copenhagen last year, China announced a voluntary national target to reduce carbon intensity by 40% to 45% by 2020 as compared with the 2005 level. As an international city, the Administration proposed in the Consultation Document that Hong Kong could adopt a progressive voluntary carbon intensity reduction target of 50% to 60% by 2020 as compared with the 2005 level. This would demonstrate Hong Kong's commitment and determination to join in the international efforts to combat climate change. In achieving the proposed target, regional cooperation in reducing greenhouse gas (GHG) emissions was essential. This was made possible

through the signing of the Memorandum of Understanding on Energy Co-operation in 2008 and the Framework Agreement on Hong Kong/Guangdong Co-operation in 2010, the latter of which laid a foundation for both sides in seeking to incorporate the related environmental initiatives into the 12th Five-year National Plan. The regional cooperation would also enable the business and industrial sectors on both sides to foster closer ties in developing a low carbon economy.

21. While agreeing to the need for a carbon intensity reduction target for Hong Kong, Miss Tanya CHAN opined that this should be proportional to the Gross Domestic Product. SEN said that if the proposed carbon intensity reduction target could be achieved, the total GHG emissions would be reduced from 42 million tonnes in 2005 to 28 - 34 million tonnes in 2020. This would compare favorably with the targets set by some major industrialized economies.

### Hong Kong's climate change strategy and measures

#### *Maximizing energy efficiency*

22. Ir Dr Raymond HO was concerned whether Hong Kong could achieve the proposed carbon intensity reduction target by 2020. To promote energy efficiency, he suggested that the District Cooling System (DCS) to be provided at the Kai Tak Development should also be applied to other newly developed areas, including West Kowloon. Miss Tanya CHAN considered that efforts should also be made to promote green buildings and green roofs. Mr WONG Kwok-hing echoed that more greening measures should apply to noise barriers, pavements and public housing estates. SEN said that the Administration had all along been taking the lead in implementing environmental initiatives to combat climate change. He agreed with members on the need to extend DCS to other newly developed areas. In fact, all Government buildings/facilities within the Kai Tak Development would subscribe to DCS. Given that substantial reduction in GHG emissions could be achieved through improving energy efficiency of buildings, the Administration had introduced a Bill to mandate compliance with the Building Energy Codes (BECs). The Bill was being scrutinized by the Legislative Council. Of the some 1 000 existing buildings which complied with BECs, over 70% were Government buildings. SEN added that apart from energy efficiency, the concept of green buildings would also include the use of more environment-friendly building designs/materials, the implementation of which might require amendments to existing building legislation and standards. Meanwhile, the Environment and Conservation Fund had been providing funding support to schools and non-governmental organizations to undertake greening projects.

#### *Greening road transport*

23. Ir Dr Raymond HO expressed concern about the slow progress in increasing public reliance on mass transport. He asked if this was attributable to the lack of publicity and educational efforts. SEN said that a package of measures was being worked out to reduce the emissions from the transport sector. It was worth noting that the car ownership rate of 83 per 1000 inhabitants in Hong Kong was way lower

than most international cities.

*Promoting use of clean fuels for motor vehicles*

24. While welcoming the proposed climate change strategy and action agenda, Mr WONG Kwok-hing considered it necessary for the Administration to set an example for the public to follow. For instance, a plan should be put in place to replace the Government vehicle fleet with liquefied petroleum gas (LPG) and electric vehicles by phases over the next 10 years. To encourage the switch to the more environment-friendly LPG and electric vehicles, efforts should be made to provide more LPG filling stations and charging facilities. Given that the transport sector in Hong Kong accounted for about 18% of GHG emissions, Mr CHAN Kin-por was disappointed at the lack of measures in the Consultation Document to deal with pre-Euro and Euro I heavy diesel vehicles, which were the major source of GHG emissions. He enquired about the extent of reduction in GHG emissions to be achieved with the replacement of these polluting vehicles. SEN said that the Administration was looking at ways to reduce vehicular emissions through the use of more environment-friendly vehicles, such as electric vehicles, to reduce the reliance on fossil fuels. In this connection, the Administration had been replacing its vehicle fleet with more environment-friendly vehicles. More charging facilities would be provided to tie in with the introduction of electric vehicles to Hong Kong.

*Turning waste to energy*

25. Ir Dr Raymond HO supported the early implementation of waste-to-energy policy, and the use of incineration to treat waste. SEN said that he looked forward to members' support in the development and operation of Integrated Waste Treatment Facilities.

*Revamping fuel mix for electricity generation*

26. Mr CHAN Kin-por noted that the share of nuclear energy in the fuel mix for power generation in Hong Kong would be increased from 23% in 2009 to 50% in 2020. He asked if this was based on the plans to build more nuclear power plants in Guangdong and if so, whether measures would be put in place to allay public concerns about the risk associated with the operation of nuclear plants. Ms Cyd HO considered it necessary for the Administration to provide more information on the use of non-fossil fuels, notably nuclear energy, in meeting local electricity demand. This included risk assessment, safety, cost implications, reliability of supply, disposal of nuclear wastes etc. There was also a need to explain whether the means to strengthen regional cooperation in the Pearl River Delta Region would include the development of nuclear power plants in the Region. Ir Dr Raymond HO also questioned if the Mainland could supply sufficient nuclear energy to meet the increased share of nuclear energy for power generation in Hong Kong in 2020. He further enquired about the impacts on local power companies if they had to replace their coal-fired generators as a result of the decreased share of coal in the fuel mix for power generation from 54% in 2009 to less than 10% in 2020. Given that the Consultation Document did not

contain much information on the latest nuclear development in the Mainland, in particular the risk associated with the operation of nuclear power plants, Mr KAM Nai-wai agreed with other members that more information should be provided in this respect. SEN said that the Daya Bay Nuclear Power Plant had been a steady source of electricity supply for Hong Kong since its inception in 1994. New nuclear power plants would be commissioned in Guangdong in the next few years, and if similar operation and management arrangements were adopted, there would be closer monitoring on the safety and transparency of operation of these plants to allay public concerns. He added that to meet the change in fuel mix for local power generation, there would be a need to replace coal-fired generators with newer generators using cleaner fuels.

#### Adaptation to climate change

27. Mr KAM Nai-wai found the summary of vulnerabilities and the proposed framework of adaptation options in paragraph 5.64 of the Consultation Document very useful as it set out the possible impacts of climate change on the key vulnerable areas of Hong Kong and adaptation options. He was particularly concerned about the impact of climate change on human health, and requested that more information should be provided on the subject. Expressing similar views, Ms Cyd HO emphasized the need for more elaboration on adaptation options to deal with the risks associated with climate change, particularly on those more vulnerable sectors or areas. More protection should be provided for workers working outdoors who were exposed to extreme weather conditions brought about by climate change. The Senior Environmental Protection Officer (Cross Boundary) said that while the effects of climate change were inevitable, effective adaptation would help minimize future damages and strengthen capacity to respond to adverse impacts. On the area of human health, the Consultants had recommended strengthening of the monitoring mechanism and contingency planning on health and safety implications of climate change on local population, especially those disadvantaged groups. The inter-departmental working group would follow up the adaptation options.

#### Way forward

28. Mr KAM Nai-wai held the view that some of the key consultation points, particularly in respect of the proposed carbon intensity reduction target, in the Consultation Document were difficult to comprehend. Ms Cyd HO opined that the consultation period should be extended from three months to six months to tie in with the completion of the consultancy study, which formed the basis of the Consultation Document. SEN said that the public consultation aimed to gauge views on the need for a climate change strategy, and whether the proposed carbon intensity reduction target was acceptable. Whether the consultation period should be extended would be subject to feedback from the public.

29. Given that the subject of climate change and reduction of GHG emissions had been repeatedly discussed by the Legislature over the years, Mr Albert CHAN said that a summary of the discussions might be useful. Reference to overseas experience in

meeting the challenge of climate change should also be included. The Chairman said that various information papers on climate change were readily available. Besides, the Panel would definitely follow up the Consultation Document in the next legislative session, and would invite deputations to express their views. The LegCo Secretariat would also prepare background briefs on specific subjects to facilitate discussion.

Admin 30. In concluding, the Chairman requested the Administration to provide the report of the consultancy study once available. It should also provide more information, in particular on the use of non-fossil fuels in meeting local electricity demand. She held the view that the base year for the proposed carbon intensity reduction target of 50% to 60% should be set at 1990 rather than 2005, in line with the Kyoto Protocol. Instead of adopting a carbon intensity reduction target, consideration should be given to setting a reduction target for total GHG emissions. SEN responded that in setting a target, the Administration had to ensure that it was acceptable and technically achievable. The proposed carbon intensity reduction target of 50% to 60% for Hong Kong fitted well with the National Target of 40% to 45%. As a result, the projected per capita GHG emissions of Hong Kong would be one of the lowest when compared with major industrialized economies.

### **III. Any other business**

31. There being no other business, the meeting ended at 11:25 am.