

立法會
Legislative Council

LC Paper No. CB(1)55/15-16
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by the Administration)

Ref : CB1/PL/EA

Panel on Environmental Affairs

**Minutes of special meeting
held on Tuesday, 29 September 2015, at 2:45 pm
in Conference Room 1 of the Legislative Council Complex**

- Members present** : Hon CHAN Hak-kan, JP (Chairman)
Dr Hon Kenneth CHAN Ka-lok (Deputy Chairman)
Hon James TO Kun-sun
Hon TAM Yiu-chung, GBS, JP
Hon Vincent FANG Kang, SBS, JP
Hon WONG Ting-kwong, SBS, JP
Hon Cyd HO Sau-lan, JP
Dr Hon Priscilla LEUNG Mei-fun, SBS, JP
Hon Paul TSE Wai-chun, JP
Hon Steven HO Chun-yin, BBS
Hon Frankie YICK Chi-ming, JP
Hon WU Chi-wai, MH
Hon Charles Peter MOK, JP
Hon Kenneth LEUNG
Hon Dennis KWOK
Hon Christopher CHUNG Shu-kun, BBS, MH, JP
- Members absent** : Hon CHAN Kin-por, BBS, JP
Hon Albert CHAN Wai-yip
Hon Michael TIEN Puk-sun, BBS, JP
Hon CHAN Han-pan, JP
Hon KWOK Wai-keung
Dr Hon Elizabeth QUAT, JP
Ir Dr Hon LO Wai-kwok, SBS, MH, JP
Hon Tony TSE Wai-chuen, BBS

Public Officers attending : For item I

Ms Christine LOH, JP
Under Secretary for the Environment

Mr Vincent LIU, JP
Deputy Secretary for the Environment

Mr Andy HO
Chief Electrical & Mechanical Engineer
(Electricity Team) (Acting)
Environment Bureau

Mr Andrew LAI, JP
Deputy Director of Environmental Protection (3)
Environmental Protection Department

Mr MOK Wai Chuen, JP
Assistant Director (Air Policy)
Environmental Protection Department

Mr Dave HO
Principal Environmental Protection Officer (Air Policy)
Environmental Protection Department

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

Staff in attendance : Ms Doris LO
Senior Council Secretary (1)1

Ms Mandy LI
Council Secretary (1)1

Miss Mandy POON
Legislative Assistant (1)1

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I. Review of the Fourth Technical Memorandum for Allocation of Emission Allowances for Power Plants

(LC Paper No. CB(1)1260/14-15(01) — Administration's paper on "Review of the Fourth Technical Memorandum for Allocation of Emission Allowances for Power Plants"

LC Paper No. CB(1)1260/14-15(02) — Updated background brief on "Technical Memorandum for Allocation of Emission Allowances in respect of Specified Licences" prepared by the Legislative Council Secretariat)

Briefing by the Administration

At the invitation of the Chairman, the Deputy Director of Environmental Protection (3) ("DDEP(3)") briefed members on the Administration's proposal to further reduce emission allowances in respect of the three specified pollutants, i.e. sulphur dioxide ("SO₂"), nitrogen oxides and respirable suspended particulates, for power plants starting from 1 January 2020 by way of issuing a new Technical Memorandum ("TM") (i.e. the Fifth TM) under section 26G of the Air Pollution Control Ordinance (Cap. 311). He said that in order to meet the statutory requirement on the issuance of a TM at least four years before the commencement of the emission year that it would take effect, the Administration planned to submit the Fifth TM to the Legislative Council ("LegCo") for negative vetting in late October 2015 (i.e. at the Council meeting of 28 October 2015). Subject to the approval of LegCo, the Fifth TM would commence before the end of 2015 and the revised emission allowances would take effect from 1 January 2020. He added that tightening the emission allowances in 2020 would dovetail with the air pollutant emission reduction plan for the Pearl River Delta region up to 2020 that was jointly drawn up with the Guangdong government.

2. DDEP(3) remarked that as stipulated in the Third TM, the emission allowances should be reviewed at least once in every two years. During the scrutiny of the Fourth TM by LegCo last year, the Administration had

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undertaken to initiate a review of the emission allowances again in 2015 to take into account the latest developments, including the outcomes of the public consultation on future fuel mix for electricity generation in Hong Kong. Since CLP Power Hong Kong Limited ("CLP") was undertaking an Environmental Impact Assessment ("EIA") study for installing additional gas-fired electricity generation units ("gas-fired units") to increase the use of natural gas for power generation, the Administration would prepare another TM next year if CLP's plan was firmed up.

Discussion

Emission caps for the two power companies under the Fifth TM

3. Given that compared to the levels in the Fourth TM, the emission allowances in respect of the three specified pollutants under the Fifth TM for the Hongkong Electric Company, Limited ("HEC") would be reduced by 26-29%, whereas that for CLP would be reduced by 9-12%, Mr Steven HO sought elucidation about the discrepancies between the emission caps for the two power companies.

4. DDEP(3) responded that in making the emission allocations, the Administration had taken into account three considerations, i.e. the best practicable means for preventing the emission of a specified type of pollutant, whether the emission of that type of pollutant would be, or be likely to be, prejudicial to health, as well as the attainment and maintenance of any relevant air quality objective. He said that in determining the new emission allowances for HEC, the Administration had factored in the projected reduction in electricity demand on Hong Kong Island in 2020 and the commissioning of a new gas-fired unit in 2019 which would enhance HEC's emission reduction efficiency. Given the steady electricity demand in Kowloon and the New Territories, the reduction for CLP would be contingent upon the continuation of additional nuclear power import from Daya Bay Nuclear Power Station ("DBNPS").

5. DDEP(3) further advised that as the addition of gas-fired units by CLP would depend on the outcome of the EIA study which was underway, thus the potential effect of these new units on emission reduction by the power company would not be reflected in the Fifth TM. Instead, this would be taken into account in the review for the next TM in 2016 when more information on the capacity and timing of completion of the gas-fired units would be available.

6. Mr Steven HO further enquired whether, apart from installing new gas-fired units, the two power companies had explored other means, such as

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using low-emission coal or optimizing existing power generation units and emission control devices to maximize emission reduction efficiency. DDEP(3) agreed that using low-emission coal would generate less pollutants and SO₂ in particular. However, such coal had relatively low heat content and its ash would accelerate the wear and tear of a coal-fired generation unit. He assured members that to meet the challenge of upholding high performance in emission reduction by the two power companies, the Administration would keep abreast of technology development and discuss with the power companies the feasibility to introduce advanced emission reduction technologies as appropriate.

Import of nuclear energy

7. Mr WU Chi-wai enquired about CLP's plan for importing additional nuclear power from DBNPS for reducing location generation, as well as the alternative source of nuclear power or contingency plan in the event of the cessation of DBNPS's operation. The Deputy Secretary for the Environment ("DSEN") advised that in addition to the original agreement to import 70% of the electricity output of DBNPS, CLP had made arrangement with DBNPS to import an additional 10% (i.e. reaching 80% in total) of nuclear power up to 2018 as an interim measure. It was expected that this supply level could be continued after 2018. He remarked that in high electricity demand period in summer time, the supply level in fact would exceed 90% of DBNPS's output.

Increased proportion of natural gas in the fuel mix and tariff implications

8. In view of the plan to increase the proportion of natural gas generation to around 50% in 2020, Mr WU Chi-wai expressed concern over the susceptibility of electricity tariffs to the price volatility of natural gas as well as to the capital investments in constructing additional gas-fired generation units. He enquired about whether the power companies would import natural gas from international sources and avoid over reliance on mainland sources. The Chairman agreed that diversifying the sources of supply could help stabilize the price of natural gas at a reasonable level for power generation in Hong Kong. He opined that a proper balance should be maintained between the pursuance of cleaner air and the affordability of electricity tariffs by the general public.

9. DSEN responded that the power companies had been exploring different sources of natural gas supply. The Administration would assess the merits of new natural gas supply proposals submitted by the power companies having regard to the energy policy objectives of safety, reliability, affordability and environmental performance of electricity supply. He remarked that replacing coal with natural gas coupled with the capital

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investments in constructing gas-fired units to replace the retiring coal units would inevitably have tariff implications. That said, under the existing mechanisms under the Scheme of Control Agreements ("SCAs") signed by the Government with the two power companies, the Government would continue to scrutinize investment proposed by the power companies, and safeguard consumers' interests from any premature commissioning of new gas-fired units by the power companies.

Use of renewable energy

10. Mr Christopher CHUNG was disappointed that the Administration had put little emphasis on the promotion of the use of renewable energy ("RE") for power generation in the review of the Fourth TM, and did not show any commitment to the long-term development of RE. Given that neighbouring cities like Shenzhen, which shared similar geographical environment with Hong Kong, had been extensively researching into and exploring the use of solar power, Mr CHUNG queried whether the Administration had set any targets or drawn up a roadmap for the greater use of RE in Hong Kong.

11. The Under Secretary for the Environment ("USEN") assured members that the Administration had all along been keeping an open mind on how to further promote the development of RE. Incentives had been provided to the two power companies under SCAs to encourage the development and use of RE. Among the various forms of RE, she noted that solar power and wind power might not have high potential for large-scale development in the territory due to physical constraints.

12. DSEN pointed out that the cost of RE for electricity generation, which was notably higher than that of conventional electricity generation, was another major issue of concern. He said that the Administration welcomed the development of distributed RE which was technically more feasible in Hong Kong, and the Government had also been taking the lead in the adoption of RE. For instance, it had been installing photovoltaic ("PV") systems in government buildings. To encourage installation of PV systems in private buildings, there were existing measures to facilitate the connection of these systems to the power grids. USEN supplemented that the Administration had also implemented specific measures to promote waste-to-energy as a source of electricity supply.

13. Noting that RE would only contribute to 1%-2% of the fuel mix, the Chairman opined that the proportion was too low. He urged the Administration to continue explore various forms of RE, including the use of restored landfills for developing solar plants. In this regard, USEN advised

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that currently, all the 13 restored landfills had been developed or identified for recreational land uses.

Reduction in electricity consumption

14. Mr WU Chi-wai pointed out that apart from advancement in technology and revamping the fuel mix for power generation, reducing electricity consumption would be an important means to achieve further emission reduction. He suggested setting energy conservation targets for the power companies and including such requirements in the next TM (i.e. Sixth TM), so as to press the power companies to step up efforts in energy conservation. He also expressed disappointment that the current TM had not set any requirements on energy conservation for the power companies.

15. DSEN advised that in setting the emission caps for the two power companies, the Administration had already taken into account the projected local electricity consumption in the next few years. The electricity demand of Hong Kong Island was expected to decrease as there would be no major growth in demand arising from infrastructure developments in the period while the energy efficiency and conservation initiatives introduced by the Government would help reduce electricity consumption. On the other hand, there would be a slight increase of around 1% in the local electricity demand in Kowloon and the New Territories having regard to various infrastructure developments and growth in these areas.

16. DSEN further advised that the current SCAs provided the two power companies with financial incentives in respect of energy saving and energy audits to incentivize them to promote energy efficiency performance. In view of the expiry of the current SCAs in 2018, the Administration launched on 31 March 2015 the Public Consultation on the Future Development of the Electricity Market in Hong Kong. It was analyzing the views collected and would commence discussion with the power companies on the regulatory arrangements for the electricity market, including how the power companies should help promote their energy efficiency performance.

17. USEN supplemented that the Administration had been working on both the supply and demand sides with various mechanisms in place to promote energy efficiency. As the scope of TMs was to set emission caps for power plants in respect of specified pollutants through upgrading the environmental performance of power generation units and using cleaner fuel mix, it would be more appropriate to consider how power companies should be asked to help promote energy saving in the context of the SCAs.

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18. DDEP(3) agreed that power demand side management was an important part of energy conservation. He said that the Administration attached great importance to the promotion of energy efficiency and energy saving through education and community-wide campaigns. As and when such promotional efforts could help reduce electricity demand, the Administration would take this into account when reviewing the emission allowances for power plants. DSEN drew members attention to the "Energy Saving Plan for the Built Environment 2015~2025+" published by the Environment Bureau in May 2015, which set the new target of reducing Hong Kong's energy intensity by 40% by 2025.

Consultation with the Panel on new TMs

19. Noting that the Administration had for several times (i.e. in 2010, 2012 and 2015) requested for special meetings to be held during recess of LegCo to consider new TMs, and some Panel members were not able to join the meetings due to overseas visits or other commitments, the Chairman urged the Administration to consider consulting the Panel on new TMs before or after the recess to facilitate members' participation in the discussion. USEN responded that the Administration would take the suggestion into account as far as practicable. However, as for this year, the Administration was working under a tight schedule to consult the Panel and then the Advisory Council on the Environment with a view to submitting the Fifth TM to LegCo for negative vetting by the end of October, having regard to the statutory requirement to allow at least four years' lead time before the TM would take effect in early 2020. It was therefore not practicable to defer consultation with the Panel to its first regular meeting scheduled for late October.

Concluding remarks

20. Summing up, the Chairman said that members did not object to the Administration's proposal of submitting the Fifth TM to LegCo for negative vetting.

II. Any other business

21. There being no other business, the meeting ended at 3:24 pm.