

立法會
Legislative Council

LC Paper No. CB(1)266/15-16
(These minutes have been seen
by the Administration)

Ref : CB1/SS/3/15/1

**Subcommittee on Fifth Technical Memorandum for Allocation of Emission
Allowances in Respect of Specified Licences**

**Minutes of first meeting
held on Tuesday, 10 November 2015, at 4:30 pm
in Conference Room 3 of the Legislative Council Complex**

Members present : Hon Kenneth LEUNG (Chairman)
Hon Cyd HO Sau-lan, JP
Hon CHAN Hak-kan, JP
Hon Dennis KWOK
Hon TANG Ka-piu, JP

Member absent : Hon WU Chi-wai, MH

**Public Officers
attending** : **For item II**

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

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

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

Mr Donald NG
Principal Assistant Secretary for the Environment
(Electricity Reviews)
Environment Bureau

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

Staff in attendance : Miss Winnie LO
Assistant Legal Adviser 7

Ms Mandy LI
Council Secretary (1)1

Miss Mandy POON
Legislative Assistant (1)1

I. Election of Chairman

Ms Cyd HO, the member with the highest precedence among those who were present at the meeting, presided over the election of the Chairman of the Subcommittee. She invited nominations for the chairmanship of the Subcommittee.

2. Mr Kenneth LEUNG was nominated by Mr CHAN Hak-kan and the nomination was seconded by Mr Dennis KWOK. Mr Kenneth LEUNG accepted the nomination. There being no other nominations, Mr Kenneth LEUNG was declared Chairman of the Subcommittee.

3. Members agreed that there was no need to elect a Deputy Chairman.

II. Meeting with the Administration

(S.S. No. 5 to Gazette No. 43/2015 — Fifth Technical Memorandum
for Allocation of Emission
Allowances in Respect of
Specified Licences

*(issued by the Environmental — Legislative Council Brief
Protection Department in
October 2015)*

LC Paper No. LS4/15-16 — Legal Service Division Report

LC Paper No. CB(1)131/15-16(01) — Background brief prepared by the Legislative Council Secretariat)

Discussion

4. The Deputy Director of Environmental Protection (3) briefed members on the Fifth Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences ("Fifth TM").

5. The Subcommittee deliberated (index of proceedings attached at the **Annex**).

III. Any other business

Invitation of public views

6. Members agreed to post a notice on the website of the Legislative Council ("LegCo") to invite views from the public on the Fifth TM. Members also decided that the Subcommittee would meet with deputations to receive views on the Fifth TM at the second meeting.

(Post-meeting note: The notice was posted on the LegCo website on 11 November 2015 and invitation letters were sent to green groups and the two existing power companies on the same day.)

Date of next meeting

7. The Chairman said that he would work out the date of next meeting with the Clerk and inform members accordingly.

(Post-meeting note: With the concurrence of the Chairman, the second meeting was scheduled for Tuesday, 17 November 2015 from 8:30 am to 11:00 am to meet with deputations and the Administration. The notice of meeting was issued to members vide LC Paper No. CB(1)149/15-16 on 11 November 2015.)

Legislative timetable

8. Members noted that the scrutiny period of the Fifth TM would expire at the Council meeting of 25 November 2015, and that the deadline for giving

notice of amendment to the Fifth TM was 18 November 2015 if the scrutiny period was not extended. To allow more time for the Subcommittee to examine the Fifth TM, members agreed that the Chairman should move a motion at the Council meeting of 18 or 25 November 2015 to extend the scrutiny period of the Fifth TM to 16 December 2015.

(Post-meeting note: The motion moved by the Chairman to extend the scrutiny period of the Fifth TM to 16 December 2015 was passed at the Council meeting of 18 November 2015.)

9. There being no other business, the meeting ended at 5:19 pm.

Council Business Division 1
Legislative Council Secretariat
8 December 2015

**Subcommittee on Fifth Technical Memorandum for Allocation of
Emission Allowances in Respect of Specified Licences**

**Proceedings of the first meeting
on Tuesday, 10 November 2015, at 4:30 pm
in Conference Room 3 of the Legislative Council Complex**

| Time marker | Speaker | Subject(s) | Action required |
|---|--|--|------------------------|
| <i>Agenda Item I - Election of Chairman</i> | | | |
| 000504 - 000643 | Ms Cyd HO Mr CHAN Hak-kan Mr Kenneth LEUNG Mr Dennis KWOK | Election of Chairman | |
| <i>Agenda Item II - Meeting with the Administration</i> | | | |
| 000644 – 000752 | Chairman | Opening remarks | |
| 000753 - 001624 | Chairman Administration | Briefing by the Administration on the Fifth Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences ("Fifth TM") | |
| 001625 - 002846 | Chairman Mr CHAN Hak-kan Administration | <p>The Chairman and Mr CHAN enquired about –</p> <ul style="list-style-type: none"> (a) the feasibility of setting emission caps for PM_{2.5} (fine suspended particulates) in respect of power plants under TMs; (b) whether the Administration would consider more proactive ways to de-carbonize emissions from power generation, including setting limits for carbon emission from power plants; (c) the feasibility of importing more nuclear power by CLP Power Hong Kong Limited ("CLP") from the Daya Bay Nuclear Power Station ("DBNPS"), say, up to 100% of DBNPS's output; and (d) assessment of the potential impact on electricity tariffs arising from the further tightening of the emission allowances for power plants by the Fifth TM. <p>The Administration responded that –</p> <ul style="list-style-type: none"> (a) unlike the measurement of ambient PM_{2.5} concentrations, there was no established method for measuring the PM_{2.5} concentrations in a stack where water droplets were present. Local power | |

| Time marker | Speaker | Subject(s) | Action required |
|-----------------|--|--|-----------------|
| | | <p>plants had adopted wet flue-gas desulphurization systems to reduce sulphur dioxide emission and the treated flue-gas was wet. The water droplets could dissolve some of PM2.5, rendering these particles not collected by the PM2.5 particle-sizing device for measurement. Without a reliable measurement method, it was not feasible to set limits on PM2.5 emission from local power plants;</p> <p>(b) there was currently no practicable technology available for controlling carbon dioxide ("CO₂") emissions from power generation and CO₂ reduction could only be achieved by adjusting the fuel mix;</p> <p>(c) the 80% of nuclear output from DBNPS being imported was an average figure. According to CLP, there would be operational difficulties with an even higher level of nuclear power import from DBNPS; and</p> <p>(d) electricity tariffs were determined having regard to a number of factors such as the fuel mix plan for 2020, the future fuel costs and the permitted rate of return on assets of the power companies. As the Administration would discuss the future regulatory arrangements with the power companies, it was premature at this stage to provide a meaningful assessment of the tariff implications for 2020 and beyond.</p> | |
| 002847 - 003958 | Chairman Mr TANG Ka-piu Administration | <p>Mr TANG sought information on –</p> <p>(a) whether the two power companies could increase the use of low-sulphur coal for power generation, and whether the Administration would assess the cost-effectiveness in quantifiable terms of using more low-sulphur coal vis-à-vis natural gas respectively for the power companies to attain the emission caps under the Fifth TM;</p> <p>(b) whether the Administration would consider strengthening the interconnection of the power grids owned by the two power companies, with a view to enhancing the cost-effectiveness in the deployment of the existing power generation units;</p> <p>(c) whether the prices of natural gas imported through China's Second West-East Natural Gas</p> | |

| Time marker | Speaker | Subject(s) | Action required |
|-------------|---------|---|-----------------|
| | | <p>Pipeline would be adjusted in tandem with the downward trend of international fuel prices in the recent period and the extent of adjustment, if any; and</p> <p>(d) whether the Government would consider negotiating long-term agreements with the jurisdictions/enterprises concerned to purchase natural gas at low prices.</p> <p>The Administration advised that –</p> <p>(a) low-sulphur coal had relatively lower electricity output and its burnt residues would accelerate the wear and tear of the mechanical parts of a coal-fired power generation unit ("coal-fired unit"). Moreover, the supply of low-sulphur coal was limited and uncertain as it could be procured from certain countries/regions only and not globally. Taking into account the service life of existing coal-fired units and the technical difficulties of further extending the service life of retiring units in the long run, a more realistic and long-term solution was to increase the use of natural gas to reduce emissions from power plants;</p> <p>(b) the transmission grids of CLP and the Hongkong Electric Company, Limited had been interconnected since early 1980s. The interconnection was already serving the functions of providing mutual support between the two power grids, reducing the reserve capacity each power company required, and allowing economy power interchange between the companies;</p> <p>(c) the relevant supply contract on import of natural gas by CLP from China's Second West-East Natural Gas Pipeline contained provisions for fuel price adjustments taking into account the international fuel price movements. As the pricing information was commercially sensitive, the Administration could not disclose the information for members' reference; and</p> <p>(d) international fuel prices were already taken into account when it considered new fuel contracts and electricity tariff adjustments proposed by the power companies. The Administration also sought advice from an independent energy consultant in scrutinizing fuel contracts to ensure that they were in line with international fuel market trends and practices.</p> | |

| Time marker | Speaker | Subject(s) | Action required |
|--------------------|----------------------------|---|------------------------|
| 003959 - 004853 | Chairman Administration | <p>In reply to the Chairman, the Administration advised that Hong Kong's greenhouse gas emissions in 2012 was 43.1 million tonnes of Carbon Dioxide or about six tonnes per capita, which was relatively low compared to other developed economies. Electricity generation remained the largest source of local greenhouse gas emissions (mainly in the form of CO₂) in Hong Kong, accounting for some 68% of the total in 2012.</p> <p>The Chairman sought elaboration on –</p> <ul style="list-style-type: none">(a) the Administration's action plan to facilitate access by distributed renewable energy ("RE") facilities to the power grids; and(b) the feasibility of applying in the electricity sector the "carbon capture and storage" technology, i.e. trapping CO₂ produced by power plants and then storing it. <p>The Administration responded that –</p> <ul style="list-style-type: none">(a) there were concerns on the liability that had to be borne by owners of distributed RE systems that were connected to the grid. The Administration had invited views on related issues during the Public Consultation on the Future Development of the Electricity Market launched on 31 March 2015. It would take into account the public views received in considering how to facilitate access by distributed RE facilities to the power grids; and(b) the Administration was aware of the emerging "carbon capture and storage" technology to sequester CO₂ emissions. As this technology commonly involved injection of CO₂ into the ground such as deep geological formations or declining oil fields, it was questionable for it to be deployed in Hong Kong having regard to its physical constraints, let aside the substantial energy and storage costs concerned. Before a more practicable technology was identified to measure and store CO₂ emitted from power generation, it would not be feasible to set emission caps for CO₂ in TMs. | |

| Time marker | Speaker | Subject(s) | Action required |
|---|----------------|--|--|
| <i>Agenda Item III – Any other business</i> | | | |
| 004854 - 005104 | Chairman | Invitation of public views Legislative timetable and arrangement to seek extension of the scrutiny period of the Fifth TM Meeting arrangements | The Clerk to take action as paragraph 6 of the minutes |

Council Business Division 1
Legislative Council Secretariat
8 December 2015