立法會 Legislative Council

LC Paper No. CB(4)1387/16-17 (These minutes have been seen by the Administration)

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Panel on Economic Development and Panel on Environmental Affairs

Minutes of joint meeting held on Saturday, 29 April 2017, at 8:30 am in Conference Room 3 of the Legislative Council Complex

Members present: Members of the Panel on Economic Development

* Hon Jeffrey LAM Kin-fung, GBS, JP (Chairman) Hon James TO Kun-sun

* Hon WONG Ting-kwong, SBS, JP Hon Starry LEE Wai-king, SBS, JP

* Hon Paul TSE Wai-chun, JP

* Hon LEUNG Kwok-hung Hon Michael TIEN Puk-sun, BBS, JP

* Hon Frankie YICK Chi-ming, JP

* Hon WU Chi-wai, MH Hon YIU Si-wing, BBS

* Hon Kenneth LEUNG

* Hon Dennis KWOK Wing-hang

* Hon Martin LIAO Cheung-kong, SBS, JP Dr Hon CHIANG Lai-wan, JP

* Hon CHU Hoi-dick Hon Jimmy NG Wing-ka, JP Hon Holden CHOW Ho-ding

* Hon SHIU Ka-fai Hon CHAN Chun-ying Hon LUK Chung-hung Hon Jeremy TAM Man-ho

* Dr Hon YIU Chung-yim

Members of the Panel on Environmental Affairs
Hon Tanya CHAN (Chairman)

Dr Hon Junius HO Kwan-yiu, JP (Deputy Chairman)

Hon LEUNG Yiu-chung

Hon Tommy CHEUNG Yu-yan, GBS, JP

Hon CHAN Hak-kan, BBS, JP

Hon CHAN Chi-chuen

Hon KWOK Wai-keung

Dr Hon Fernando CHEUNG Chiu-hung

Hon Andrew WAN Siu-kin

Hon HO Kai-ming

Hon HUI Chi-fung

Hon Nathan LAW Kwun-chung

Members absent: Members of the Panel on Economic Development

Hon Alvin YEUNG (Deputy Chairman)

Hon WONG Kwok-kin, SBS, JP

Hon Mrs Regina IP LAU Suk-vee, GBS, JP

Hon Claudia MO

*Hon Steven HO Chun-yin, BBS

*Hon Charles Peter MOK, JP

Dr Hon KWOK Ka-ki

Hon Christopher CHEUNG Wah-fung, SBS, JP

*Dr Hon Elizabeth QUAT, JP

*Ir Dr Hon LO Wai-kwok, SBS, MH, JP

Hon CHUNG Kwok-pan

*Hon Kenneth LAU Ip-keung, MH, JP

Members of the Panel on Environmental Affairs

Dr Hon Priscilla LEUNG Mei-fun, SBS, JP

Hon MA Fung-kwok, SBS, JP

Hon LEUNG Che-cheung, BBS, MH, JP

Hon KWONG Chun-yu

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Public Officers attending

Agenda item II

Ms Christine LOH, JP

Acting Secretary for the Environment

Mr Donald TONG, JP

Permanent Secretary for the Environment

^{*}Also members of the Panel on Environmental Affairs #Also members of the Panel on Economic Development

Ms Queenie LEE

Principal Assistant Secretary for the Environment (Electricity Reviews)

Ms Esther WANG

Principal Assistant Secretary for the Environment (Financial Monitoring)

Mr Alan CHOW

Chief Electrical and Mechanical Engineer

(Electricity Team)

Related organizations

Agenda item II

CLP Power Hong Kong Limited

Mr Paul POON Managing Director

Ms Quince CHONG, JP

Chief Corporate Development Officer

Mr Joseph LAW

Senior Director - Planning and Development

The Hongkong Electric Company Limited

Mr C T WAN

Managing Director

Mr T C YEE

General Manager (Corporate Development)

Ms Mimi YEUNG

General Manager (Public Affairs)

Clerk in attendance: Ms Shirley CHAN

Chief Council Secretary (4)5

Staff in attendance: Ms Shirley TAM

Senior Council Secretary (4)5

Ms Lauren LI Council Secretary (4)5

Ms Zoe TONG Legislative Assistant (4)5

Miss Mandy LUI Clerical Assistant (4)5

Action

I. Election of Chairman

Mr Jeffrey LAM, Chairman of the Panel on Economic Development ("EDev Panel"), said that Ms Tanya CHAN, Chairman of the Panel on Environmental Affairs, suggested that the Chairman of the EDev Panel should preside over the joint Panel meeting. The Panels agreed that Mr LAM would conduct the joint meeting in accordance with paragraph 22(k) of the House Rules.

II. New Scheme of Control Agreements with the two power companies

(LC Paper No. CB(4)925/16-17(01) — Administration's information paper on new Scheme of Control Agreements with the two power companies

LC Paper CB(1)876/16-17(01) CB(1)890/16-17 (01)

Nos. — Letter from Hon HUI Chi-fung and to the Panel on Environmental Affairs dated 24 April 2017 proposing discussion on the new Scheme of Control Agreements between the Government and the two power companies, and the Administration's response (Chinese version only)

LC Paper No. CB(4)937/16-17(01) — Letter from Hon LUK
Chung-hung to the Panel on
Economic Development dated
26 April 2017 proposing
discussion on the new Scheme
of Control Agreements with the

two power companies (Chinese version only)

LC Paper No. CB(4)941/16-17(01) — Paper on the Scheme of Control
Agreements with the two power
companies prepared by the
Legislative Council Secretariat
(background brief))

Other relevant paper

(LC Paper No. CB(4)941/16-17(02) — Submission from WWF-Hong Kong received on 27 April 2017 (Chinese version only))

Presentation by the Administration and the power companies

- 2. At the invitation of the Chairman, <u>Acting Secretary for the Environment</u> ("Ag. SEN") and <u>Permanent Secretary for the Environment</u> ("PSEN") briefed the Panels that on 25 April 2017, the Government signed the new Scheme of Control Agreements ("SCAs") with each of the two power companies and the key changes to the current SCAs included the duration and permitted rate of return ("RoR"), promotion of energy efficiency and conservation ("EE&C"), promotion of renewable energy ("RE"), and control on Fuel Clause Recovery Account ("FCA") balance. Details were set out in LC Paper No. CB(4)925/16-17(01).
- 3. Mr C T WAN, Managing Director of The Hongkong Electric Company Ltd. ("HEC") and Mr Paul POON, Managing Director of CLP Power Hong Kong Ltd. ("CLP"), gave remarks about the new SCAs on behalf of their companies.

(*Post-meeting note*: The power-point presentation material provided by the Administration was issued to members vide LC Paper No. CB(4)951/16-17(01) on 2 May 2017.)

Discussion

Duration and RoR

4. <u>Mr CHAN Hak-kan</u> appreciated the efforts made by the Government on the SCA negotiation. However, he considered that lengthening the SCA term from the current 10 years to 15 years was an unwise decision which might weaken the bargaining power of the Government in the next 15 years. <u>Mr LUK Chung-hung</u> shared a similar view.

- 5. PSEN explained that as all of the existing coal-fired generating plants ("coal plants") would reach the end of their useful life in the next decade or so and the Government had set a carbon intensity reduction target for 2030, the Government needed the cooperation of the power companies to make investments in the next decade or so to replace the coal plants with gas-fired generating units ("gas units") or generating facilities using non-fossil fuels. As a gas unit would cost several billion dollars on capital expenditure and operate for about 30 years or more which was well beyond the term of the SCAs, it would be of paramount importance to provide a relatively stable and certain environment for the power companies to make such long-term investments, so as to assure the reliability and stability on electricity supply. Therefore, a 15-year SCA term was considered appropriate.
- 6. Ag. SEN added that the duration of all SCAs with the two power companies prior to the current ones was 15 years. The term of the current SCAs was shortened to 10 years, with an option exercisable by the Government to extend for five more years, i.e. till 2023. When compared to the current SCAs under which the power companies would be entitled to earn a return based on an RoR of 9.99% till 2023, the new SCAs would bring an immediate reduction in permitted RoR to 8% when they took effect in 2018/2019.
- 7. Mr LUK Chung-hung commented that the SCA framework had enabled the power companies to make substantial profits in the past, as their annual tariff adjustments were only subject to the approval by the Executive Council if the basic tariff rate proposed by the power companies for a year exceeded the projected basic tariff covered by the approved Development Plans by more than 5%. In fact, both companies had yielded the maximum permitted returns for years. To this end, he enquired if the Government had ever strived to negotiate a lower permitted RoR as the permitted RoR suggested by the Government's consultant was 6% 8%.
- 8. Ag. SEN said that the consultancy study commissioned by the Government during the 2013 Mid-term Review of the current SCAs suggested that the Government could consider reducing the permitted RoR to the range of about 6% 8%. The Government had also undertaken to commission a further study to update the appropriate permitted RoR taking into account the changes in economic conditions. The consultant had completed the further study in 2016 and recommended an upward adjustment to the permitted RoR range i.e. to 7% 9% from the one previously suggested. The Government had made substantial efforts on the negotiation and the current level was considered acceptable.
- 9. Mr Kenneth LEUNG said that the 8% permitted RoR was quite high for a commercial company taking into account the current low-interest rate

environment. Since the power companies earned the permitted RoR based on their average net fixed assets ("ANFA"), he sought further information about the way to derive ANFA under the new SCAs.

- 10. Principal Assistant Secretary for the Environment (Electricity Reviews) ("PAS(ER)") responded that the 8% permitted RoR under the new SCAs was considered acceptable when compared to that adopted in some other jurisdictions, for example, 9.5% in Macao and 6%-9% in Australia. She also said that the calculation of ANFA under the new SCAs remained the same as that under the current SCAs.
- 11. <u>Mr LEUNG Yiu-chung</u> pointed out that the current electricity tariff was too high according to the views of the public. Noting the Government's estimation that the reduction of permitted RoR to 8% would result in a tariff decline of above 5% from the commencement of the new SCA term if all other relevant factors (including fuel costs) remained unchanged, he was concerned if such tariff reduction would actually take place.
- 12. <u>Mr CHAN Chi-chuen</u> enquired if the tariff reduction could not be achieved during the new SCA term, what measures would be adopted by the Government to protect the customers' interests.
- 13. Ag. SEN explained that electricity tariffs charged by the power companies were made up of the Basic Tariff and the Fuel Clause Charge ("FCC"). Since fuel prices could fluctuate significantly, it was not possible to guarantee that the future tariffs would fall in the next SCA period. The estimated tariff decline of above 5% was worked out on the assumption that all other relevant factors remained unchanged. Mr Paul POON of CLP remarked that if the new permitted RoR was applied, the annual earnings of CLP would drop by \$2.1 billion based on 2016 figures. Mr C T WAN of HEC said that the reduction of permitted RoR would, according to the Administration's paper to Legislative Council ("LegCo"), cut the annual earnings of HEC by \$1.0 billion.
- 14. Mr Holden CHOW considered it reasonable to lengthen the SCA term so as to provide a relatively long and stable environment for the power companies to make long-term investments to replace their retiring coal plants. However, he was concerned that the power companies had used to drive up the Basic Tariffs by raising their capital expenditure, and ultimately led to persistent high tariffs. Taking into account the need of using more natural gas for power generation in future, he was worried that electricity tariff would continue to rise during the next SCA period. Sharing a similar view, Mr CHAN Hak-kan expected that replacing coal plants by gas units would pose heavy pressure on the tariffs in the next SCA period.
- 15. <u>PSEN</u> explained that during the Government's Public Consultation on

the Future Fuel Mix for Electricity Generation conducted in 2014, a majority of respondents supported the option of using more natural gas for local electricity generation instead of importing electricity from the Mainland. In fact, increasing use of more expensive and cleaner natural gas for power generation would exert heavy pressure on tariffs in the next SCA period. Nevertheless, the Government would continue to play the gate-keeping role in monitoring closely the capital investment proposals submitted by the power companies under their Development Plans.

- 16. <u>Mr Paul POON of CLP</u> added that apart from the impact of capital expenditure of constructing new gas units, the tariff level was also affected by various factors including the use of more expensive natural gas for power generation.
- 17. Mr C T WAN of HEC explained that it was difficult for the company to forecast the future tariff level, which was affected by various factors including operating expenses, capital investment, fuel prices, and electricity sales. On capital investment, all of HEC's eight coal plants and one gas unit would retire by 2032, and thus the company would need to make substantial investment. It was also required to increase the use of natural gas, from currently about 33% to 55% in 2022. In any case, the company would strive to control the costs as far as practicable.

Control on FCA balance

- 18. Sharing other members' view, <u>Ms Tanya CHAN</u> considered it too optimistic to forecast a tariff decline of above 5% as a result of the RoR reduction, having regard to the fuel costs fluctuation. Noting that the Government would strengthen the control on FCA balance, she enquired about the details of such measure.
- 19. <u>PAS(ER)</u> said that currently the FCC would be reviewed and set at the annual tariff review exercise. In order to ensure that the actual fuel costs borne by the power companies would be reflected in tariffs in a timely manner and to avoid accumulation of large surplus balances in the power companies' FCAs, the Government had agreed with the power companies that a more frequent FCC adjustment would be adopted in the new SCA period. The exact frequency of adjustment would be worked out later with the power companies.
- 20. Mr CHAN Hak-kan cast doubt on the effectiveness of the control on FCA balance, given that fuel price forecasting would become more difficult as more natural gas would be used in local fuel mix during the new SCA period. He considered that imposing a cap on FCA balance would be a better approach.

21. <u>Ag. SEN</u> explained that fuel costs for electricity generation were currently paid by consumers on a pass-through basis. Imposing a cap on FCA balance would have implication on the pass-through arrangement as there might be insufficient FCA balance to recover the fuel costs incurred by the power companies when the international fuel prices kept on a rising trend. <u>PSEN</u> supplemented that the Government considered that a more frequent FCC adjustment would be conducive to enhancing the control on FCA balance. It would work out the detailed arrangement with the power companies.

Promotion of EE&C

- 22. <u>Dr YIU Chung-yim</u> supported the new SCAs and opined that efforts should be made by the Government and the power companies in putting forward various incentives for promoting energy saving and environmental protection. He asked whether a time-of-use tariff or a progressive tariff rate would be introduced under the new SCAs so as to enhance energy saving by customers, in particular at times of critical peak demand. He also enquired if subsidies would be provided for electrical installations or charging facilities under the new Community Energy Saving Fund.
- 23. Ms Quince CHONG, Chief Corporate Development Officer of CLP replied that to facilitate the demand side management, CLP provided the meter online service which enabled their commercial customers to access the latest load profile data online and managed their energy consumption and demand so as to achieve better energy efficiency. In addition, various events, such as energy saving competition, were held to enhance energy saving of the commercial sector. For residential customers, public education was conducted through television commercials and videos as well as the Power Your Love programme. Mr Paul POON of CLP added that on time-of-use rates, CLP had incorporated for years the bulk tariff and the large power tariff systems for larger businesses and organizations. CLP hoped to apply similar tariff systems on residential customers with smart meters in future, so as to provide timely energy consumption information.
- 24. Mr C T WAN of HEC said that HEC had implemented the maximum demand tariff with a higher tariff rate to lower energy consumption during peak period. The company also offered free energy audits for non-residential customers to help them identify ways to save energy at their premises. Audited customers were eligible to apply for interest-subsidized loans to help implement energy saving initiatives. HEC also carried out various educational programmes, such as the Smart Power Campaign, which sought to promote energy efficiency and low carbon lifestyle among the public. These measures would be further promoted during the new SCA period.

- 25. Mr WU Chi-wai noted that a new five-year energy saving target would be introduced under the new SCAs to drive the power companies' performance on energy saving, and the power companies would also introduce demand response programmes for their customers. He enquired about the details of these initiatives, including the target customers of demand response programmes and their current electricity consumption level.
- 26. PAS(ER) replied that the demand response programmes were new initiatives to help reduce maximum demand on the basis of which the generating capacity of the power companies was planned, i.e. a reduction in maximum demand could bring about, in the long term, a lower requirement for investment in new generation or network resources and in turn, lower tariff impact. The power companies would implement the programmes whereby their customers (usually a selected group covering a significant portion of their total sales) would be rewarded for reducing their demand when needed. For example, commercial and industrial customers might agree with power companies that, at times of critical peak demand, the power companies might require these customers to switch off or adjust the setting of their electrical equipment so as to reduce electricity demand, in return for financial rewards from the power companies.
- 27. <u>Mr Paul POON of CLP</u> supplemented that CLP had been running similar demand response programmes. For example, with the agreement of its customers, CLP might adjust the setting of customer's equipment of some shopping malls during high consumption days so as to achieve energy saving without affecting the operation of the facilities.

Control on excess generating capacity

- 28. <u>Dr Fernando CHEUNG</u> pointed out that as electricity tariffs were related to the expenditure of the power companies instead of permitted RoR, the drop of permitted RoR would not bring about the reduction of future tariff. In particular, the power companies had used to make excessive investment to drive up the tariffs. As a result, the power supply was highly reliable in Hong Kong, at the expense of the environment and customers' affordability. To this end, he suggested that a cap should be set on the reserve capacity of both companies.
- 29. Ag. SEN explained that given the high density of skyscrapers in Hong Kong, a reliable and stable electricity supply and an appropriate level of reserve capacity were of paramount importance to Hong Kong. Nevertheless, the Government had been closely monitoring the capital investment projects proposed by the two power companies to avoid excessive, premature and/or unnecessary investments. As the existing coal plants would gradually retire in the next decade or so, it was envisaged that the reserve capacity of the power

- companies would drop to about 30% by around 2022. This level was considered appropriate to ensure the reliability of electricity supply in Hong Kong. <u>PAS(ER)</u> supplemented that each jurisdiction had to take into account the design of its electricity supply systems and generating units as well as its circumstances in considering the appropriate level of reserve capacity. In fact, the reserve capacity adopted in overseas jurisdictions varied widely from about 20% to 90% according to the Government's study.
- 30. Mr CHAN Chun-ying noted that the measure to control excess generating capacity would be strengthened under the new SCAs. He enquired about the mechanism for determining excess generating capacity.
- 31. <u>PAS(ER)</u> said that at present, 50% of the net asset value of mechanical and electrical equipment relating to new generating facility found to be excessive upon commissioning to meet the latest electricity demand would be excluded from the power companies' ANFA for calculating the permitted return until the demand caught up with generation capacity. Under the new SCAs, the power companies agreed that the percentage of net asset value of mechanical and electrical equipment to be excluded from ANFA would be increased from 50% to 100% such that they would have to take on a larger share of the financial consequence resulting from their demand forecast.
- 32. Mr Paul TSE said that it was indeed difficult to balance the trilemma of ensuring reliability, environmental performance and affordability on the power supply in Hong Kong. He appreciated the efforts of the Government and the two power companies in reaching the new SCAs with new initiatives. However, he doubted if the measure for controlling excess generating capacity would become a disincentive for the power companies to promote energy saving, as the latter would probably lower the electricity demand and hence making the power companies more likely to have excess generating capacity.
- 33. Mr C T WAN of HEC said that it was a tough work to estimate the electricity demand in Hong Kong, in particular on the Hong Kong Island with high fluctuation in energy consumption. HEC had once failed to make a correct projection on the electricity demand during the outbreak of the Severe Acute Respiratory Syndrome in 2003, when the local economy as well as the electricity consumption dropped drastically. Hence, part of the net asset value of mechanical and electrical equipment relating to new generating facility found to be excessive upon commissioning to meet the demand had been excluded from its ANFA. The projection of electricity demand would become even more complicated in future, as the electricity consumption would not only be affected by customers' demand, but also affected by the power generated by private RE producers. The company was still considering the approach on this matter.

34. Mr Paul POON of CLP said that among the new initiatives under the new SCAs, demand response program would have direct impact on the system maximum demand of the company. CLP would explore the way forward and strike a balance to reduce the maximum demand, and meet the consumption level so as to sustain the reliability on power supply.

Promotion of RE and environmental protection

- 35. Mr Kenneth LEUNG noted that Feed-in Tariff ("FiT") would be introduced under the new SCAs so that the power generated by the private sector could be sold to the power companies at a rate higher than the normal electricity tariff rate to cover the costs of investment in the RE systems and generation. He asked whether any target would be set on the volume of RE generated by the private sector and timetable for the introduction of FiT scheme.
- 36. Ag. SEN replied that since the FiT scheme was new to Hong Kong, it was difficult to gauge the public response to the scheme and the potential of such market. In fact, according to overseas experience, it was common to test the market's response at the beginning of FiT adoption without setting a specific adoption target. Instead of setting a target, incentives would be provided to the power companies to encourage them to facilitate their customers to develop more RE under the new SCAs. The Government would work out the detailed arrangement with the power companies so that such initiative could be implemented as early as practicable in the next SCA period.
- 37. <u>Ms Tanya CHAN</u> relayed the support of some green groups for the FiT initiative, and considered that the FiT rate should be set at a level attractive to the public so as to encourage potential RE producers to invest in RE facilities, such as solar panels.
- 38. Ag. SEN explained that the FiT initiative had been widely adopted by other jurisdictions to promote distributed RE. FiT payment would in general cover part of the costs of investment in the RE systems and generation by private companies or home owners, though it would not be realistic to set a FiT rate that could fully recover all the relevant costs. Having said that, the Administration would take into account the views put forward by the green groups when setting the FiT rate and ensure that such rate would be set at a level that could incentivize public participation in the FiT scheme.
- 39. Mr HUI Chi-fung welcomed the introduction of FiT. He said that although the cost of developing solar systems had been decreasing, the cost of such investment was still substantial and hence the breakeven period would be very long. If the FiT rate was not attractive enough, such initiative might become unsuccessful.

- 40. <u>Mr WU Chi-wai</u> shared a similar view. He enquired about the expected number of corporations and organizations prepared to purchase RE certificates and strategies to be adopted to drive this market. <u>Mr Kenneth LEUNG</u> also enquired about details of RE certificate schemes.
- 41. Ag. SEN said that the Government would collaborate with some green groups and encourage potential RE producers to invest in RE systems through the provision of FiT payment. Some environmentally conscious international companies could buy RE certificates sold by the power companies for units of electricity generated from RE sources (including those under FiT), so that they could claim their operation or activities carbon-free. Currently it was difficult to assess the public response to both schemes, but the introduction of both schemes would enhance public awareness of the need to protect environment and in turn encourage more participation in the schemes. The Government would further work with the power companies on the detailed arrangements for the schemes and update Members of the progress at a later stage.
- 42. Mr CHU Hoi-dick noted that the current incentive arrangement in relation to RE would be revamped so that a maximum adjustment of 0.05% of RoR would be offered to the power companies if RE generated by them or their customers in their respective service area reached the minimum of 5% of total volume of electricity generated by the respective power company in Hong Kong. He cast doubt if such incentive would be attractive enough to encourage the power companies to strive for achieving the maximum target, since RE producers could be considered as their business competitors.
- 43. Mr C T WAN of HEC responded that HEC had been making efforts on promoting RE development. For example, apart from the first commercial-scale wind turbine commissioned in 2006, the company also installed a large thin-film photovoltaic system at Lamma Power Station, altogether producing over 2 million units of clean electricity, or about the energy consumption of 200 households, each year. Although HEC wished to expand its RE development, it would review this matter further having regard to the environmental constraints of Hong Kong Island.
- 44. <u>Mr Paul POON of CLP</u> said that CLP had been making much effort on strengthening RE development. For example, to promote waste-to-energy, it had been working ahead to install power generating facilities on the West New Territories Landfill site to utilize landfill gas as fuel for power generation. However, although the new incentives were attractive to CLP, the implementation results of RE development would be hinged on various factors, including the public participation.

- 45. <u>PSEN</u> supplemented that to encourage the power companies to further promote the development of RE, incentives would also be offered to the power companies for making a preset number of new connections of RE systems to the power grids, and additional incentives would be offered if a preset number of these systems generate electricity regularly. Moreover, to facilitate connection of distributed RE systems to the power grids, the liabilities for owners of distributed RE systems to the power companies' grid systems would be capped at a certain level.
- 46. The Chairman pointed out that the physical environment of Hong Kong indeed posed constraints on RE development. In considering the installation of solar panels on buildings, any possible impact on structural safety of the buildings should be properly evaluated beforehand. Apart from the public participation, the Government should have a role in RE development in Hong Kong. Mr CHAN Hak-kan considered that measures to promote RE development should be further strengthened under the new SCAs.
- 47. <u>PSEN</u> said that in promoting RE development in Hong Kong, the Government would make the best use of its waste-management facilities which turned waste into energy, including sludge treatment facility, integrated waste management facility, and a number of organic waste treatment facilities.

Emission Performance Linkage Mechanism

- 48. <u>Mr CHAN Hak-kan</u> expressed concern on emissions from power generation. He considered that the terms of the new SCAs could not effectively help reduce the emissions.
- Mr Paul TSE noted that under the emission performance linkage mechanism ("EPLM") in the SCAs signed in 2008, the two power companies would be awarded up to 0.1% financial incentives for outperformance in relation to reducing emissions or imposed up to 0.4% penalty for underperformance. With the effective operation of the Technical Memoranda under the Air Pollution Control Ordinance (Cap. 311) in emission control, the Government proposed the removal of EPLM during the 2013 Mid-term Review. CLP agreed to the removal while HEC did not. He was concerned about the effectiveness of the Mid-term Review which would be subject to the mutual agreements between the Government and the power companies.
- 50. Mr C T WAN of HEC said that HEC attached great importance to minimizing emissions, and it had reduced about 70% of the emission from power generation in the past nine years. It had agreed to remove EPLM under the new SCA.

Market development

- 51. Mr LEUNG Yiu-chung expressed concern about the late introduction of competition in the electricity market which had been raised by the public for about two decades, and it would be delayed further if the Government only commenced the preparatory work in the next SCA period. He considered that the new SCAs would continue to allow the power companies to monopolize the electricity market with a guaranteed profit, and cast doubt if the Government had played an effective role in safeguarding the interests of customers.
- 52. Ag. SEN said that during the Public Consultation on the Future Development of the Electricity Market conducted in 2015, most respondents were of the view that the current regulatory arrangement by way of contractual agreements with the power companies was an effective tool and should be continued in achieving the energy policy objectives. She stressed that under the SCAs, mechanisms had been put in place to allow the Government to examine the investment proposals of the power companies to avoid any excessive, premature or unnecessary investments.
- 53. Mr CHAN Chun-ying noted that the Government would undertake the preparatory work, including conducting relevant studies in respect of grid access and enhanced interconnection, as well as requiring the power companies to provide segregated generation and non-generation cost data, during the next SCA period to pave the way for introducing potential new suppliers in future. He asked about the reasons for taking such a long time for relevant work, and if a concrete timetable and a list of key milestones to be achieved at different stages within the period were available to facilitate the public to monitor the progress. He also suggested that the Government should provide interim reports to LegCo on this matter.
- 54. <u>Mr WU Chi-wai</u> enquired if the segregation of generation and transmission/distribution businesses of the two power companies would be implemented by 2033, or subject to further discussion with the power companies by the end of the new SCA period.
- 55. <u>PAS(ER)</u> said the Government planned to discuss with the two power companies to open up their power grids for access by potential new players, and to jointly conduct a study with them during the next SCA period to work out the detailed arrangements for such grid access. The study would cover issues relating to the financial arrangements (e.g. the principles and formulae for determination of access fees), technical arrangements (e.g. the criteria for connection, development of a detailed access code, system planning and expansion, etc.) and legal and regulatory arrangements (e.g. the demarcation of responsibilities and liabilities of various parties).

- 56. On enhanced interconnection, <u>PAS(ER)</u> said that the Government would commission a study with the power companies to look into the detailed arrangements for strengthening the interconnection between the Mainland and Hong Kong, as well as that between the existing grids in Hong Kong. The Government would take forward the study as soon as possible after the commencement of the new SCAs and consult the public on the way forward as appropriate.
- 57. <u>Ms Tanya CHAN</u> considered that the need for enhanced interconnection between the existing grids in Hong Kong would arise before the end of the new SCAs in 2033, having regard to the tightening of emission targets and the environmental constraints of the Hong Kong Island in meeting such targets.
- 58. Ag. SEN replied that the transmission networks of the two power companies had been interconnected to a certain extent and enhancing their interconnection further would incur additional substantial upfront investment amounting to over \$10 billion based on a rough estimate, which would lead to significant impact on tariff without bringing concrete benefits to the consumers in the near term. Nevertheless, the situation might be different in the longer term. If it was decided that electricity from the Mainland would be imported in future, the two existing local power grids might then have to be better connected.
- 59. In considering the way to balance the affordability and environmental protection on power supply, the Chairman considered that using more nuclear power might be an option that the Administration should consider further. Although there might be safety concern on nuclear power, he said that the technique adopted for building nuclear plants was much advanced nowadays. He also pointed out that electricity bought from the Mainland, if any, might be generated from a mix of fuels, including nuclear energy.
- 60. Mr LEUNG Kwok-hung expressed grave concern about the safety of using nuclear power, although it might be a clean fuel for electricity generation. Having regard to the nuclear incident in Fukushima of Japan in 2011, he asked about the Government's view on increasing use of nuclear power for electricity generation in future.
- 61. Ms Tanya CHAN raised objection to further increasing the use of nuclear energy in Hong Kong, and considered that the Government should focus on the RE development taking into account the experiences of other jurisdictions. In fact, many countries had been competing among themselves on green initiatives so as to conserve the environment and some green groups had been working along this direction in Hong Kong. She called on the Government to bring about more initiatives to facilitate the RE development.

Action - 17 -

62. Ag. SEN responded that nuclear power was a clean fuel for electricity generation without emission and Hong Kong had been importing nuclear power from the Daya Bay Nuclear Power Station since 1994. Currently nuclear power accounted for about 25% of Hong Kong's total fuel mix. Although there was safety concern on nuclear power following the Fukushima incident in 2011, some countries such as France and the United States had their own plans regarding the development of nuclear power having regard to their specific circumstances. She also stressed that in addition to nuclear power, the Mainland had been developing various kinds of fuel sources, including RE, and such development should be taken into account when considering the possibility of importing power from the Mainland to Hong Kong in the long run.

Other issues

- 63. Mr CHAN Chi-chuen noted that interim reviews would be conducted to consider any modifications to the new SCAs with changes to be mutually agreed. He asked about the effectiveness and scope of the reviews, and how far could the modifications address the situation if any targets established under the new SCAs could not be achieved.
- 64. <u>PSEN</u> said that similar to the mechanism under the current SCAs, interim reviews would be carried out every five years to consider all matters under the SCAs, including the power companies' performances in respect of RE development and promoting EE&C.
- 65. Mr LEUNG Yiu-chung expressed concern that some landlords of sub-divided flat units ("SDU") were overcharging their tenants on the use of electricity as the latter did not have individual electricity meters. As a result, these SDU households were actually paying more than the standard tariffs. He asked about the measures to protect these disadvantaged people. He also asked about the arrangement of electricity supply for households on Po Toi Island.
- 66. <u>The Chairman</u> relayed the concerns of the small and medium enterprises regarding the high electricity tariff, and called on the Government and the power companies to provide tariff subsidies to them.
- 67. <u>Ag. SEN</u> said that although the new SCAs would not be the appropriate avenue to address the problem faced by SDU households, part of the funds under the new Community Energy Saving Fund to be established by the power companies under the new SCAs would be used to support the disadvantaged groups, and the Government would work out the detailed programmes with the power companies in due course.

Action - 18 -

68. Mr LUK Chung-hung relayed the concerns about manpower succession raised by the staff associations of the power companies, and their suggestions of setting up apprenticeship schemes, increasing the pay scale, enhancing the performance evaluation mechanism, and improving the salary and benefits for new employees. He also called on the management of HEC to have face-to-face communication with the staff union of the company.

III. Any other business

69. There being no other business, the meeting ended at 10:38 am.

Council Business Division 4
<u>Legislative Council Secretariat</u>
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