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Panel on Environmental Affairs

Meeting on 22 May 2023

Background brief on the Scheme of Control Agreements with the two power companies prepared by the Legislative Council Secretariat

Purpose

This paper provides background information on the Scheme of Control Agreements ("SCAs") signed between the Government and the two power companies, namely The Hongkong Electric Company, Limited and HK Electric Investments Limited (referred to as "HEC" collectively), and CLP Power Hong Kong Limited and Castle Peak Power Company Limited (referred to as "CLP" collectively). It also summarizes the major views and concerns expressed by Members during the discussions on the subject matter by the relevant committees of the Legislative Council ("LegCo") in recent years.

Background

Regulation of electricity supply in Hong Kong

2. Electricity supply in Hong Kong is regulated through SCAs. SCAs set out the rights and obligations of the power companies and provide a framework for the Government to monitor their financial affairs and technical performance. As required under SCAs, the power companies have to submit to the Government their Development Plans relating to the provision and future expansion of their electricity supply systems. Development Plans are subject to the approval by the Executive Council.

Electric tariff components and adjustment mechanism

3. Electricity charges in Hong Kong have two major components, namely the Basic Tariff Rate and the Fuel Clause Charge ("FCC"), and they are known as the Net Tariff Rate collectively. The Basic Tariff Rate covers the operating expenses, standard fuel charges and return to a power company. FCC reflects the changing price of fuels and is borne by consumers and payable to a power company on a cost-pass-through basis. The difference between standard cost of fuels and the actual cost of fuels is captured in the Fuel Clause Recovery Accounts ("FCAs") and power companies can pass on to customers by adjusting their FCCs.[1] The Net Tariff Rates of any particular year may be reduced if the power companies offer special rebates, which are ad hoc in nature. A table showing the electricity tariffs in 2023 and previous years is in **Appendix 1**.

4. Pursuant to SCAs, the Government conducts tariff reviews with the two power companies respectively in October each year. As a gatekeeper, the Government seeks to eliminate unnecessary capital and operating expenditures of the power companies and contain tariff increases. To achieve this purpose, the Government examines factors such as the power companies' operating and capital expenditures, fuel prices, cost control and productivity enhancement measures, balances of FCAs and the Tariff Stabilisation Funds,[2] and permitted rate of return.

Current Scheme of Control Agreements

5. The current SCAs with HEC and CLP commenced in January 2019 and October 2018 respectively, and are effective until 31 December 2033. The current SCAs contain features on promoting energy efficiency and conservation and renewable energy, including the introduction of feed-in tariffs, expansion of energy efficiency and conservation programmes to enhance the energy efficiency of buildings, implementation of demand response programmes,[3] etc. Compared with the previous SCAs, the permitted rate of return on the power companies' average net assets has been

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1 FCAs are accounts maintained by the two power companies through which the differences between the standard fuel charges (included in the Basic Tariff Rates) and actual fuel prices incurred are returned to or recovered from consumers by means of a rebate or a surcharge each year.

2 The purpose of Tariff Stabilisation Funds is to accumulate the excess of net revenues of the power companies over the permitted return, so as to provide funding, where necessary, to ameliorate the impacts of tariff increases on consumers.

3 Under a demand response programme, selected customers are rewarded for reducing their electricity demand when needed.

lowered from 9.9% to 8% under the current SCAs.

6. A more frequent FCC adjustment mechanism has been adopted under the current SCAs, which covers all types of fuel used by the power companies for electricity generation. In accordance with the mechanism, during the annual tariff review, an FCC rate will be determined with the two power companies (taking into account the projected fuel costs for the coming year and the use of FCA balances (e.g. utilizing surplus balance to lower the FCC or bearing deficit balance to defer the recovery of fuel costs)). Starting from March each year, the power company will largely adjust the FCC monthly based on the previous three-month average of actual prices or costs of fuel consumed ("monthly fuel cost adjustment"). This mechanism is intended to more timely reflect the actual cost of fuels and smoothen out short term fluctuations as a result of significant market volatility in fuel prices.

Major views and concerns expressed by Members

7. Issues relating to SCAs, annual tariff review and fuel mix for electricity generation were discussed by the relevant Panels in recent years.[4] Related issues were also brought up during the examination of the Estimates of Expenditure in recent years. Members' major views and concerns are given in the ensuing paragraphs.

<u>Government's role in stabilizing electricity tariffs</u>

8. Members stressed that the Government should play a more proactive role in containing tariff increases and alleviating the financial burden on the public. They made the following suggestions:

(a) a new mechanism should be introduced such that annual adjustment to electricity tariffs would be capped at a certain rate (e.g. Hong Kong's inflation rate for the year), and any excess chargeable by the two power companies as permitted by SCAs would be met by government subsidies;

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4 Issues relating to energy supply and safety, including SCAs and annual tariff reviews, which were formerly within the purview of the Panel on Economic Development of LegCo, are now under the purview of the Panel on Environmental Affairs ("EA Panel") after the terms of reference of the two Panels were amended in October 2022. The 2023 tariff review and monthly fuel cost adjustment mechanism were discussed at the meetings of EA Panel on 22 November 2022 and 27 March 2023 respectively.

(b) the Government and the two power companies should take the opportunity of the interim review in 2023 to modify SCAs to enhance the profit control and/or the monthly fuel cost adjustment mechanism, so as to better demonstrate the companies' commitment to corporate social responsibility; and

(c) the Government should introduce more competition to the electricity market.

9. The Administration advised that:

(a) the current SCAs would remain effective until December 2033. All changes to the SCAs would have to be mutually agreed between the Government and the power companies. Any fundamental changes to the regulatory regime for the electricity market should be introduced in the next regulatory period. The Administration would examine the need to revise the regulatory regime to enhance competition in the run-up to 2033;

(b) given the commercial nature of Hong Kong's electricity market and that the power companies were making profits each year, the Administration did not consider it appropriate to offer regular, large-scale subsidies to electricity tariffs. To alleviate the economic pressure on the public, which was exacerbated by the recent energy crisis, the Government provided one-off electricity charges subsidy to eligible residential electricity accounts;

(c) Hong Kong's electricity supply was among the most stable in the world, and its electricity tariffs remained competitive among comparable economies, even during the energy crisis. In contrast, some electricity providers in other economies had faced operating difficulties, which had resulted in power supply interruptions or required government intervention. These reflected the merits of Hong Kong's regulatory framework for electricity supply. Under this framework, the Government critically examined capital expenditures of the power companies to avoid excessive or unnecessary investments. At the same time, as the power companies were entitled to reasonable returns on their investments, they were obliged to make sufficient investments to ensure service reliability and operational safety;

(d) despite the above, the Administration recognized that the recent energy crisis had exposed a limitation of the monthly fuel cost adjustment mechanism, which allowed the power companies to fully pass the impact of global fuel price spikes onto consumers. To address the issue, the Administration would explore with the two power companies a proposal to request the companies to shoulder more social responsibility and absorb part of fuel cost increases in case of extreme volatility of the global fuel market; and

(e) the Administration endeavoured to import more clean energy from the Mainland, which could help stabilize fuel costs for electricity generation. Connection with the Mainland's power network would be enhanced for the purpose. In addition, the Administration would continue to promote energy efficiency and conservation through public education and publicity efforts.

<u>Fuel cost management</u>

Fuel procurement by power companies

10. Members enquired whether and how the two power companies had managed their fuel costs in the best interest of electricity users, the forecast for fuel costs and strategies for preventing or minimizing further FCC spikes. Members also suggested that the Administration and the two power companies should prepare contingency plans to prevent fuel supply interruptions due to external factors.

11. CLP advised that it had a diversified fuel mix, which included natural gas, coal, nuclear energy and renewable energy. Nuclear energy imported from Daya Bay Nuclear Power Station constituted about a third of its fuel mix. With a more stable price than that of coal or natural gas, nuclear energy had helped smooth out fuel cost increases. Currently, there were two major sources of natural gas supply to CLP, namely the gas fields in the South China Sea (through the China National Offshore Oil Corporation) and the Second West-East Gas Pipeline (through PetroChina International Company Limited). CLP had entered into long-term contracts with suppliers in order to ensure a stable supply of natural gas at reasonable prices. In addition, CLP purchased coal from the global market through tenders to ensure fuel price competitiveness.

12. HEC advised that currently, natural gas and coal each constituted about half of HEC's fuel mix, and its natural gas was mainly purchased from Australia and Qatar. HEC endeavoured to purchase fuels at reasonable prices, and had entered into long term contracts with fuel suppliers to reduce

price fluctuations. As the prices of natural gas and coal had increased by over twofold and around fivefold respectively in the past two years according to international indices, HEC's fuel cost had inevitably been driven up. Nevertheless, HEC was able to purchase fuels at very competitive prices. HEC would closely monitor the international situation and maintain communications with its fuel suppliers to ensure sufficient and reliable fuel supply. It also maintained a fuel reserve in Hong Kong to prepare for contingencies.

13. CLP and HEC further advised that the offshore liquefied natural gas ("LNG") terminal jointly developed by the two power companies was expected to be commissioned in mid-2023. The facility would enable the two companies to purchase competitively-priced LNG directly from the global market.

14. The Administration advised that it encouraged the two power companies to maintain diversified fuel supply to ensure reliability of electricity generation. If global fuel prices continued to rise in the year ahead, then the Administration would discuss other methods for containing FCC increases with the power companies.

Time lag between market prices of fuels and monthly fuel cost adjustment

15. Members sought explanation on the time lag between market prices of fuels and MFA, and the operation of FCAs.

16. CLP explained that the pricing formulas in its natural gas contracts were linked to the average oil price in the preceding months (varying from three months to nine months between different contracts). This led to a time lag between market indices and CLP's import prices of natural gas. On top of this, the monthly fuel cost adjustment mechanism took into account the average fuel prices over the preceding three months, resulting in a further time lag. The difference between the actual cost of fuel and the fuel cost billed to customers was captured in FCA. Such differences would be returned to or recovered from customers through FCC adjustments. A surplus or deficit balance might be maintained by FCA. In the 2023 tariff review, CLP agreed to bear a considerably large deficit balance in its FCA in order to suppress FCC increase. HEC advised that the time lag between its import prices of fuels and monthly fuel cost adjustment was generally six to eight months.

17. Members suggested that the Administration study measures for enhancing the monthly fuel cost adjustment mechanism, so that changes in market prices of fuels could be reflected in FCCs in a timelier manner. The

Administration indicated that it would explore the suggestion with the power companies.

Government's monitoring of fuel procurement

18. Members enquired whether the Administration had monitored the two power companies' fuel procurement practices. There were queries as to whether the recent huge increases in FCCs were in line with the spirit of SCAs, which stipulated that the two power companies should assure the Government that their services were "provided at the lowest cost which is reasonable in the light of financial and other considerations".

19. The Administration advised that before entering into long-term contracts with fuel suppliers, the two power companies would submit the terms of the proposed contracts to the Administration for its review. The Administration would engage a consultant to examine the contract terms, and would only approve the contracts if the terms were reasonable. Pursuant to the current SCAs, each power company was permitted to earn a return of 8% of the total value of its average net fixed assets for the year, and its fuel costs could be passed onto consumers by way of FCCs. To ensure that proposed FCC adjustments were in strict compliance with SCAs, the Government carefully scrutinized supporting information provided by the two power companies.

Alleviating tariff increase pressure

20. At its meeting on 22 November 2022, the Panel on Environmental Affairs ("EA Panel") passed a motion urging the Administration to suppress tariff increases and set aside part of the permitted returns to alleviate tariff increase pressure. The Administration was also requested to raise the subsidy amount under the Electricity Charges Subsidy Scheme to relieve the economic pressure on the grassroots, while the two power companies should take the actual social and economic circumstances into consideration and adjust their profit margins.[5]

Future fuel mix for electricity generation

21. Members suggested increasing the share of nuclear energy in Hong Kong's fuel mix for electricity generation, which could serve a dual purpose of decarbonization and stabilizing tariff levels. In this regard, the Administration should discuss with relevant parties in the Mainland the

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5 As one of the relief measures under the 2023-2024 Budget, each eligible residential electricity account is granted a subsidy of $1,000. The current arrangement of distributing electricity charges relief of $50 a month to each eligible residential electricity account is extended to the end of 2025.

supply of more nuclear energy to Hong Kong through China Southern Power Grid. Members also urged the two power companies to formulate roadmaps for low carbon transformation expeditiously, so as to enable timely achievement of the "net-zero electricity generation" target and assessment of tariff implications of the use of zero carbon energy.

22. The Administration advised that in deciding the future fuel mix for electricity generation, it would strive to achieve Hong Kong's decarbonization targets and energy policy objectives. The share of nuclear energy would likely increase in future to progress towards net zero electricity generation. The Administration would also request the two power companies to submit proposals relating to the development and use of zero carbon energy for its consideration.

Council questions

23. Members raised questions about electricity tariffs and fuel mix for electricity generation at various Council meetings in recent years. The questions and the Administration's replies are hyperlinked in **Appendix 2**.

Latest development

24. The Administration will conduct an interim review of the SCAs with the two power companies in 2023 and consult EA Panel on the interim review at the meeting on 22 May 2023.

Relevant papers

25. A list of relevant papers is set out in **Appendix 2**.

Council Business Division 1 and Public Complaints Office
Legislative Council Secretariat
16 May 2023

Appendix 1

Electricity tariffs in 2023 and previous years

<table>
<tr><th rowspan="2"></th><th colspan="4">CLP Power Hong Kong Limited
(cents/kWh)</th><th colspan="4">The Hongkong Electric Company, Limited
(cents/kWh)</th></tr>
<tr><th>Basic Tariff Rate</th><th>Fuel Clause Charge</th><th>Rebates</th><th>Average Net Tariff Rate</th><th>Basic tariff</th><th>Fuel Clause Charge</th><th>Rebates</th><th>Average Net Tariff Rate</th></tr>
<tr><td>2013</td><td>84.0</td><td>22.4</td><td>-1.7</td><td>104.7</td><td>94.4</td><td>40.2</td><td>0</td><td>134.6</td></tr>
<tr><td>2014</td><td>88.4</td><td>22.4</td><td>0</td><td>110.8</td><td>101.8</td><td>33.1</td><td>0</td><td>134.9</td></tr>
<tr><td>2015</td><td>87.2</td><td>27.0</td><td>0</td><td>114.2</td><td>102.6</td><td>32.3</td><td>0</td><td>134.9</td></tr>
<tr><td>2016</td><td>88.9</td><td>24.3</td><td>0</td><td>113.2</td><td>105.5</td><td>27.9</td><td>0</td><td>133.4</td></tr>
<tr><td>2017</td><td>92.2</td><td>21.0</td><td>0</td><td>113.2</td><td>108.9</td><td>23.4</td><td>-21.9</td><td>110.4</td></tr>
<tr><td>2018 (Jan-Sep)</td><td>94.5</td><td>22.0</td><td>-1.1</td><td>115.4</td><td rowspan="2">109.1</td><td rowspan="2">23.4</td><td rowspan="2">-20.0</td><td rowspan="2">112.5</td></tr>
<tr><td>2018 (Oct-Dec)</td><td>91.0</td><td>27.8</td><td>-1.1</td><td>117.7</td></tr>
<tr><td>2019</td><td>91.0</td><td>27.8</td><td>0</td><td>118.8</td><td>101.3</td><td>23.4</td><td>-4.6</td><td>120.1</td></tr>
<tr><td>2020</td><td>92.2</td><td>30.8</td><td>-1.2</td><td>121.8</td><td>102.0</td><td>24.8</td><td>-0.4</td><td>126.4</td></tr>
<tr><td>2021</td><td>93.7</td><td>28.1</td><td>0</td><td>121.8</td><td>109.0</td><td>17.4</td><td>0</td><td>126.4</td></tr>
<tr><td>2022</td><td>93.7</td><td>38.6</td><td>-3.4</td><td>128.9</td><td>109.0</td><td>27.3</td><td>-1.0</td><td>135.3</td></tr>
<tr><td>2023</td><td>93.7</td><td>62</td><td>-1.3</td><td>154.4</td><td>114.5</td><td>82.5</td><td>0</td><td>197.0</td></tr>
</table>

Appendix 2

Scheme of Control Agreements with the two power companies
List of relevant papers

Date	Event	Paper
29 April 2017	Joint meeting of the Panel on Economic Development ("EDEV Panel") and Panel on Environmental Affairs ("EA Panel")	Administration's information paper on "New Scheme of Control Agreements with the Two Power Companies" (LC Paper No. CB(4)925/16-17(01)) Minutes of meeting (LC Paper No. CB(4)1387/16-17)
4 July 2018	EDEV Panel special meeting	Legislative Council Brief on 2018-2023 Development Plans and 2019 Tariff Review of the Two Power Companies (File Ref: ENB CR 1/4576/08 (18) Pt.28, ENB CR 2/4576/08 (18) Pt.27) Minutes of meeting (LC Paper No. CB(4)1586/17-18)
4 November 2019	Policy briefing-cum-meeting of the Panel on Financial Affairs	Administration's paper on "Electricity Charges Subsidy" (LC Paper No. CB(1)53/19-20(04)) Minutes of meeting (LC Paper No. CB(1)280/19-20)
10 December 2019	EDEV Panel meeting	Administration's paper on "Electricity Charges Subsidy for Non-residential Customers" (LC Paper No. CB(4)163/19-20(01)) Minutes of meeting (LC Paper No. CB(4)468/19-20)
6 April 2020	Special meeting of the Finance Committee ("FC") for examination of Estimates of Expenditure 2020-2021	Written questions raised by Members and the Administration's replies (Reply serial numbers: ENB159 and 211)

Date	Event	Paper
10 November 2020	EDEV Panel special meeting	PowerPoint presentation materials on "Tariff Review 2021" provided by The Hongkong Electric Company, Limited (LC Paper No. CB(4)84/20-21(01)) PowerPoint presentation materials on "2021 Tariff Review" provided by CLP Power Hong Kong Limited (LC Paper No. CB(4)84/20-21(02)) Supplementary information provided by The Hongkong Electric Company, Limited (LC Paper No. CB(4)84/20-21(03)) Supplementary information provided by CLP Power Hong Kong Limited (LC Paper No. CB(4)84/20-21(04)) Administration's follow-up paper (LC Paper No. CB(4)272/20-21(01)) Minutes of meeting (LC Paper No. CB(4)398/20-21)
13 April 2021	Special meeting of FC for examination of Estimates of Expenditure 2021-2022	Written question raised by Member and the Administration's reply (Reply serial number: ENB067)
22 November 2022	EA Panel meeting	PowerPoint presentation materials provided by The Hongkong Electric Company, Limited (LC Paper No. CB(1)781/2022(04)) PowerPoint presentation materials provided by CLP Power Hong Kong Limited (LC Paper No. CB(1)781/2022(05)) Supplementary information provided by The Hongkong Electric Company, Limited (LC Paper No. CB(1)781/2022(06))

Date	Event	Paper
		Supplementary information provided by CLP Power Hong Kong Limited (LC Paper No. CB(1)781/2022(07)) Background brief on “Annual tariff reviews with the two power companies” prepared by the Legislative Council Secretariat (LC Paper No. CB(1)781/2022(08)) Minutes of meeting (LC Paper No. CB(1)922/2022)
27 March 2023	EA Panel meeting	Administration’s paper on “Overview on Fuel Clause Charges of the two power companies” (LC Paper No. CB(1)236/2023(03)) Background brief on “Fuel Clause Charges of the two power companies” prepared by the Legislative Council Secretariat (LC Paper No. CB(1)236/2023(04))
13 April 2023	Special meeting of FC for examination of Estimates of Expenditure 2023-2024	Written questions raised by Members and the Administration’s replies (Reply serial numbers EEB(E):120, 122, 147 and 148)

Hyperlinks to relevant Council questions:

Date	Council Question
23 October 2019	Council question (oral) on fuel mix for electricity generation
6 May 2020	Council question (written) on fuel mix for electricity generation
2 November 2022	Council question (oral) on alleviating the burden of electricity tariffs on members of the public as well as small and medium enterprises
14 December 2022	Council question (written) on adjustment of electricity tariff

Date	Council Question
8 February 2023	Council question (oral) on alleviating financial burden on members of public
15 March 2023	Council question (oral) on use of clean energy for electricity generation