For discussion
on 12 October 2018

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ITEM FOR FINANCE COMMITTEE

HEAD 137 – GOVERNMENT SECRETARIAT : ENVIRONMENT BUREAU
Subhead 700 General non-recurrent
New Item "Electricity Charges Relief Scheme"

Members are invited to approve a new commitment of $8,700 million for providing electricity charges relief for eligible residential households over a period of five years.

PROBLEM

In accordance with the new Scheme of Control Agreements (new SCAs) concluded in April 2017, the Executive Council approved the 2018-2023 Development Plan (new DPs) of the two power companies [1] on 3 July 2018. Under the approved new DPs [2], the power companies will significantly increase the use of natural gas for power generation to help achieve the carbon intensity reduction target for 2030 [3] to combat climate change and improve the local air quality. The use of more expensive natural gas together with the necessary capital investment will lead to considerable rise in electricity tariff during the new DP Period. We need to alleviate the impact of tariff increase on households during the transitional period.

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1 The two power companies are CLP Power Hong Kong Limited and Castle Peak Power Company Limited (hereinafter referred to collectively as "CLP"), and The Hongkong Electric Company, Limited (HKE).

2 CLP's new DP covers the period from 1 October 2018 to 31 December 2023 while HKE's new DP covers the period from 1 January 2019 to 31 December 2023 (the new DP Period).

3 We have pledged to reduce carbon intensity by 65% to 70% by 2030 compared with 2005 and to achieve energy intensity reduction by 40% by 2025 using 2005 as the base.

PROPOSAL

2. We propose to grant each residential electricity account[4] a maximum total relief of $3,000 over 60 months (i.e. $50 per month) to alleviate the increase in electricity charges of eligible domestic households commencing from 1 January 2019.

JUSTIFICATION

3. The new SCAs are the greenest SCAs ever offering key features on promoting energy efficiency and conservation (EE&C) and renewable energy. These key features include the introduction of feed-in tariffs, expansion of the EE&C programmes to enhance the energy efficiency of a wider coverage of buildings, implementation of demand response programme, etc. These will not only contribute to our efforts in meeting the carbon intensity reduction target for 2030 but also our energy intensity reduction target for 2025 to combat climate change and improve air quality. Pursuant to the new SCAs, the two power companies submitted their new DPs to tie in with the expiry of the respective current DPs. The new DPs include a fleet of necessary capital projects which will help enhance the reliability and security of our electricity supply, improve our air quality and combat climate change, and assist in turning Hong Kong into a smart city.

4. Unlike in the past 20 years when there have been no plant replacements by both power companies, about ten coal-fired generating units (coal units) of the power companies will reach their scheduled retirement life between 2020 and 2030. To ensure a stable and reliable electricity supply, there is a need to replace these coal units. As electricity generation accounts for about 70% of Hong Kong's carbon emission, the main vehicle to achieve our carbon intensity reduction target will be phasing down coal-fired electricity generation in the coming decade and replacing them with natural-gas and non-fossil fuel sources. For the new DP Period, the two power companies will construct four new gas-fired generating units[5] to replace five coal units scheduled for retirement. As a result, the overall gas-fired generation of the power companies will increase from the

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4 By "residential electricity account", we are referring to accounts of the power companies where domestic tariff applies.

5 In order to achieve the target of increasing the ratio of local gas-fired electricity generation to about 50% of the total fuel mix by 2020, two of the new gas units projects have been approved during the current DP period.

present of 26% for CLP and about 34% for HKE to both around 50% in 2020 and further to over 50% for CLP and about 70% for HKE by 2023. As natural gas is much more costly than coal and the oil price has increased by around 40% since the signing of the SCAs in 2017, the increased use of natural gas will inevitably impose a higher tariff pressure in the new DP Period.

5. As we will be relying heavily on natural gas in electricity generation in future and CLP and HKE only have two and one gas pipeline(s) respectively at present, the two power companies plan to jointly build an offshore liquefied natural gas (LNG) terminal for commissioning in 2021. This project is very important as it will enhance the diversity and security of our gas supply, and ensure more stable power supply for Hong Kong. It will also enable the power companies to have direct access to the international LNG market, thus strengthening their power in negotiating competitive gas pricing and help reduce the tariff pressure.

6. Apart from this project, the two power companies will replace their electromechanical meters by smart meters with backend facilities in phases. This will help energy saving by providing instant power consumption information to customers, and achieve operational cost savings through remote meter reading and implementation of demand response schemes. The project will help turn Hong Kong into a smart city and enable consumers to save energy and hence reduce their tariff bills.

7. The increasing use of cleaner but more expensive natural gas in electricity generation together with the necessary capital investment will push up tariff in the new DP Period. The tariff impact is particularly obvious in 2020 as a result of the step change in fuel mix, which may reach a high single digit increase. To alleviate the impact of tariff increase on residential households during this transitional period in moving to a lower carbon future, the Environment Bureau (ENB) proposes to grant each residential electricity account an electricity charges relief of $3,000 over the new DP Period. While the actual electricity tariff is likely to be different from the current projected figure owing to various factors (e.g. actual fuel costs) over the new DP Period, this one-off electricity charges relief is a fixed amount and will not be changed if the actual electricity charges turn out to be different from expected.

8. Based on the power companies' projected average Net Tariff Rates (after rebates) in the new DP Period, the electricity charges relief is estimated to cover roughly the projected cumulative tariff increase over the new DP Period for about half of the households in Hong Kong.

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9. We propose to inject a maximum relief amount of $3,000 into eligible residential accounts over 60 months. Specifically, we will credit $50 to each residential account with CLP and HKE in existence on the first day[6] of each month for 60 consecutive months, commencing from 1 January 2019. The credit can only be used for the purpose of offsetting billed charges for electricity consumed under the same account and will reduce the amount demanded in the electricity bills issued by the power companies to their residential customers. Any unused credit in a month can be carried forward to cover billed electricity charges under the same account[7] up to the expiry date of the new DPs, i.e. 31 December 2023.

FINANCIAL IMPLICATIONS

10. Based on the some 2.7 million residential electricity accounts registered with the two power companies as at end 2017 and the projected growth of customer accounts in the new DP Period, we estimate that the total amount of relief involved will be $8,700 million. The estimated cash flow of the proposal is as follows –

Financial Year	$ million
2018-19	425
2019-20	1,705
2020-21	1,730
2021-22	1,750
2022-23	1,770
2023-24	1,320
Total	**8,700**

The exact requirements and annual cash flow will depend on factors including the number of eligible accounts and their respective electricity consumption level. ENB will absorb the staffing and administration costs arising from the implementation of the electricity charges relief scheme.

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6 Where a change of account holder occurs on the first day of the month, the customer taking up the account will be entitled the credit. In respect of any one meter, only one account will be eligible for the relief in a month.

7 Residential electricity account holders living in (i) public rental housing (PRH) units of the Hong Kong Housing Authority (HA) or the Hong Kong Housing Society (HS); and (ii) squatters, who will be moved to PRH units of HA/HS owing to redevelopment and major repairs/improvement works and the Government's development clearance exercises respectively, will be allowed to carry forward their unused relief amounts to their new electricity accounts on removal within the new DP Period.

PUBLIC CONSULTATION

11. We consulted the Legislative Council Panel on Economic Development on 4 July 2018. While some Members expressed support for the electricity charges relief scheme in principle, some requested additional information to facilitate their consideration of the funding proposal. Some Members raised concern on how the Government would assist the community to deal with the tendency of tariff increase in the longer term as more clean and costly energy would be used to transit to a low carbon future.

BACKGROUND

12. Pursuant to the new SCAs, the two power companies submitted their new DPs to tie in with the expiry of the respective current DPs. While the increasing use of cleaner but more expensive natural gas in electricity generation and the capital projects of the two power companies will bring earlier and better environmental benefits to Hong Kong, they will inevitably lead to considerable rise in the electricity tariff during the new DP Period. We need to consider means to alleviate the impact of tariff increase on households during this transitional period.

Environment Bureau
October 2018