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Panel on Economic Development
Meeting on 13 December 2016

Updated background brief on annual tariff reviews with the two power companies

Purpose

This paper sets out the background of the Government's annual tariff reviews with the two power companies and summarizes the major views and concerns of members raised in the past discussions of the Panel on Economic Development ("the Panel") in the Fifth Legislative Council.

Regulation of electricity supply in Hong Kong

2. Electricity supply in Hong Kong is regulated through the Scheme of Control Agreements ("SCAs") signed between the Government and individual power companies, namely, The Hongkong Electric Company Ltd. ("HEC")[1] which supplies electricity to customers on the Hong Kong Island, Ap Lei Chau and Lamma Island; and CLP Power Hong Kong Ltd. and Castle Peak Power Company Ltd.[2] (referred to collectively as "CLP" hereafter) which jointly supply electricity to customers in Kowloon and the New Territories including Lantau, Cheung Chau and some outlying islands. The two SCAs set out the rights and obligations of the power companies and provide a framework for the Government to monitor the power companies' financial affairs and technical performance.

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[1] HEC is a subsidiary of Power Assets Holdings Limited.

[2] CLP Power Hong Kong Ltd. is a subsidiary of the CLP Holdings Limited. Castle Peak Power Company Ltd. is a joint venture between CLP Power Hong Kong Limited (70%) and China Southern Power Grid International (HK) Co., Limited (30%).

The Government entered into the current SCAs with the power companies on 7 January 2008 for a term of 10 years[3].

3. As the current SCAs between the Government and the two power companies will expire in 2018, the Administration launched a three-month public consultation in March 2015 to solicit public's views on the future development of the electricity market. The Administration briefed the Panel on the views received during the public consultation on 23 November 2015.

Tariff adjustment mechanism

4. Electricity tariff charged by the two power companies is made up of two components, namely, the basic tariff and the fuel clause charge ("FCC"), the total of which is the net tariff rate. The basic tariff covers operating expenses, standard fuel charges and return[4] to the power companies while FCC reflects the changing price of fuels and is borne by consumers and payable to the power companies on a cost-pass-through basis.

5. Under the current SCAs, the power companies have to submit development plans ("DPs"), which outline the capital projects to be implemented by the power companies and the projected basic tariff rates for each of the five years covered by DPs, for the approval of the Executive Council ("ExCo"). In the tariff review conducted in each of the following years concerned, no further approval from ExCo is required for the adjustment if the basic tariff rate proposed by the power companies for a year covered by the DP does not exceed the projected basic tariff rate approved for that year by more than 5%. On the other hand, the power companies can make adjustments to their FCCs to reflect the cost of fuels consumed by them for electricity generation, and approval from ExCo is not required. The major elements of the approved 2014-2018 DPs of the power companies are listed in **Appendix I**.

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[3] The Government had the option to extend the current SCAs for five more years, i.e. until 2023.

[4] Under the current SCAs, the return of the power companies is capped at a permitted rate 9.99% based on their average net fixed assets.

6. With a view to implementing the 2020 Fuel Mix [5], ExCo approved another capital project of HEC on 13 September 2016 for the construction of a new gas-fired generating unit. Details of the proposal are provided in the Legislative Council Brief issued by the Environment Bureau on 23 September 2016 (File Ref: ENB CR 2/4576/08 (16) Pt.18).

7. To ensure that tariff adjustment is reasonable, the Administration is responsible for playing a gate-keeping role to control cost relating to the basic tariff. To this end, the Administration should ensure that any necessary developments and service improvements of the power companies would proceed within the scope of the approved DPs. It should also vet the expenditure items, including capital investment, of the two companies to screen out items that are excessive, premature or unnecessary, under the tariff review mechanism every year.

8. Furthermore, the Administration would use the two power companies' Tariff Stabilization Fund ("TSF") [6] to mitigate pressure of tariff increase, and the Fuel Clause Recovery Accounts ("FCAs") [7] to tackle sharp fuel cost increase due to the expiry of existing fuel supply contracts or fluctuations in supply. It would also examine whether any special income of the two companies can be used to offset cost increase.

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[5] The Government announced in the public consultation on the Future Development of the Electricity Market in March 2015 that, as part of its measures to meet the pledged environmental targets for 2020 (i.e. to reduce the carbon intensity by 50-60% by 2020 compared to 2005; and to reduce the emissions of sulphur dioxide by 35-75%, nitrogen oxides by 20-30% and respirable suspended particulates by 15-40% by 2020 compared to 2010), local electricity generation by natural gas should be increased to around 50% of the total fuel mix for electricity generation by all power companies in Hong Kong with effect from 2020.

[6] The purpose of TSF 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. The current cap on TSF balance is 5% of the annual total revenues from local sales of electricity.

[7] FCA is an account maintained by the two power companies through which the differences between the standard fuel charges (included in the basic tariff) and actual fuel prices incurred are returned to or recovered from consumers by means of a rebate or a surcharge each year.

9. The following table shows the changes of overall tariff charged by the two power companies in recent years –

		CLP (Cents/unit)				**HEC** (Cents/unit)			
		Basic tariff	**Fuel clause charge**	**Rebates**	**Average net tariff**	**Basic tariff**	**Fuel clause charge**	**Rebates**	**Average net tariff**
#	2009	77.4	11.8	0	**89.2**	94.5	25.4	0	**119.9**
#	2010	80.1	11.5	0	**91.6**	94.5	25.4	-0.1	**119.8**
#	2011	80.1	14.1	0	**94.2**	93.0	30.2	-0.1	**123.1**
#	2012	84.2	17.8	-3.3	**98.7**	93.9	37.0	0	**130.9**
#	2013	84.0	22.4	-1.7	**104.7**	94.4	40.2	0	**134.6**
#	2014	88.4	22.4	0	**110.8**	101.8	33.1	0	**134.9**
#	2015	87.2	27.0	0	**114.2**	102.6	32.3	0	**134.9**
*	2016	88.9	24.3	0	**113.2**	105.5	27.9	0	**133.4**

Sources: # Administration's paper (LC Paper No. CB(4)727/14-15(01)).
* HEC and CLP's papers (LC Paper Nos. CB(4)305/15-16(06) and (07)).

Views previously expressed by the Panel

10. Electricity tariff has all along been a matter of contention and members of the Panel have expressed views and concerns over a range of issues at the annual briefings on tariff reviews, including –

(a) the need of raising tariff despite substantial profits from the two power companies;

(b) higher rate of tariff charged by HEC as compared to CLP;

(c) setting up of a tariff determination mechanism;

(d) introducing electricity suppliers from the Mainland to enhance competition with a view to lowering the tariff;

(e) implementing increased interconnection between the two power companies to minimize investment on new generating units;

(f) enhancing the monitoring of the power companies' investment on generation facilities, treatment of excessive generating capacity, and sales of surplus electricity to the Mainland;

(g) enhancing transparency by urging the two power companies to disclose financial information related to tariff reviews;

(h) separating power generation and transmission to facilitate market entry and competition;

(i) exercising greater versatility by the two power companies in handling the coal procurement contracts in the interests of customers;

(j) monitoring and controlling the timing of FCC adjustments made by the two power companies;

(k) the need to strike a balance between commitment to environmental protection and cost control;

(l) using the TSF reserve to offset the fuel cost increase, or opting not to achieve the maximum permitted rate of return;

(m) stepping up the promotion of energy saving initiatives and adopting various measures, such as setting "hard targets" on electricity consumption; and

(n) sourcing cheaper gas supplies or importing less costly alternative fuels such as nuclear energy, liquefied natural gas or shale gas to reduce the pressure on tariff increase.

Tariff adjustment of the two power companies for 2016

11. At the Panel meeting held on 15 December 2015, members deliberated on matters relating to tariff adjustments of the two power companies for 2016. Major concerns were elaborated in ensuing paragraphs.

12. The Panel noted that for 2016, HEC would reduce its net tariff by 1.5 cents per unit while CLP would reduce the average net tariff by 1 cent per unit. Members considered that in the light of the recent drop in fuel cost, there were rooms for the two power companies to further lower the electricity tariffs. As there were significant surplus in FCAs, rebate should also be provided to customers accordingly. Some members commented that the two power companies had always overestimated the fuel prices and urged the Administration to regularly inspect their FCAs.

13. The Administration explained that fuel prices were volatile which made accurate fuel cost forecast difficult. In addition, the increased use of natural gas in future due to the tightened emissions standards and the need to build more gas-fired units were all factors for maintaining positive balance in FCA. Nevertheless, the Administration would engage an independent energy consultant to examine the estimates made by the two power companies.

14. A suggestion was raised on shortening the intervals of reviewing the fuel costs so that the tariff could be timely adjusted in response to the fuel cost change. The Administration replied that although it was open to the proposal, some businesses might be of the view that if tariff adjustments were too frequent, fluctuations in tariff would cause uncertainty to their business operation.

15. Some members urged the Administration to formulate strategies and measures to reduce emissions from power generation to ensure that Hong Kong could achieve the emission reduction targets by 2020 as set out in the Paris Agreement.

16. The Administration explained that it had set a target to reduce carbon intensity by 50 to 60% in 2020 as compared to the level in 2005. This target would be achieved mainly through the fuel mix, energy conservation in the built environment, transportation and waste reduction. To reduce emissions from power supply, the Administration would take the opportunity of negotiating with the two power companies on the new SCAs to step up the effort, having regard to the results of the previous consultations on fuel mix and the future development of the electricity market in Hong Kong.

Council questions

17. At the Council meetings on 17 October 2012, 23 January 2013, 23 October 2013, 3 and 24 June 2015, and 25 November 2015, Dr Hon Kenneth CHAN, Hon TANG Ka-piu, Hon CHAN Hak-kan, Hon James TIEN and Hon WONG Kwok-hing raised questions about the electricity tariffs covering, among others, measures to reduce electricity tariff, provision of electricity charge subsidy by the Government, the impact of using solar energy and lowering the permitted rate of return on the tariff, and the Government's policy on introducing competition to the electricity market. Hyperlinks to the relevant written replies from the Administration are provided in **Appendix II**.

Latest developments

18. The Administration and the two power companies will brief the Panel on the tariff reviews for 2017 at the meeting on 13 December 2016.

References

19. A list of the relevant papers which are available on the LegCo Website (http://www.legco.gov.hk) is at **Appendix II.**

Council Business Division 4
Legislative Council Secretariat
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Appendix I

The 2014-2018 development plans of the power companies

On 10 December 2013, the Government approved the 2014-2018 development plans ("DPs") of The Hongkong Electric Company Ltd. ("HEC") and CLP Power Hong Kong Ltd. and Castle Peak Power Company Ltd. ("CLP") with the features below:

(a) HEC's Development Plan (effective from 1 January 2014 to 31 December 2018 ("HEC DP Period")) –

(i) capital projects for a total estimated capital expenditure ("CAPEX") of $13 billion which would be incurred during the HEC DP Period. This CAPEX includes $3 billion, approved on a provisional basis, for construction of a new gas-fired power plant unit ("L10");

(ii) the average basic tariff rate would increase by 7.1 cents/kWh, or 7.5% to 101.8 cents/kWh with effect from 1 January 2014;

(iii) the projected levels of basic tariff rate for the HEC DP Period would increase on average by 1.1% per annum if the Government had issued the confirmation to HEC for it to commence the proposed L10 project[1], or by 0.9% without such confirmation;

(b) CLP's Development Plan (effective from 1 January 2014 to 30 September 2018 ("CLP DP Period")) –

(i) capital projects for a total estimated CAPEX of $34.1 billion would be incurred during the CLP DP Period. These include upgrading the efficiency of three units of combined-cycle gas turbine at Black

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[1] The Government issued a written confirmation to HEC in November 2015 confirming the construction of L10, which was expected to commence operation in 2020.

Point Power Station, and extending the useful lives of its generating plants at Castle Peak A, Castle Peak B, Black Point Power Station and Penny's Bay Power Station for five years;

(ii) the average basic tariff rate would increase by 4.2 cents/kWh or 5.0%, to 88.4 cents/kWh with effect from 1 January 2014; and

(iii) the projected levels of basic tariff rate for the CLP DP Period would increase on average by 1.8% per annum.

Appendix II

List of relevant papers

Issued by	Meeting date/ Issue date	Paper
Panel on Economic Development	27 February 2012 (Item III)	Minutes
	10 December 2013 (Item IV)	Background brief Legislative Council Brief - 2014-18 Development plan and 2014 tariff review of the two power companies Minutes
	27 May 2015 (Item III)	Administration's paper on public consultation on the future development of the electricity market
	23 November 2015 (Item IV)	Administration's paper on future development of the electricity market Minutes
	15 December 2015 (Item IV)	Background brief Presentation materials provided by The Hongkong Electric Company Ltd. ("HEC") Presentation materials provided by CLP Power Hong Kong Ltd. ("CLP") Minutes Supplementary information provided by CLP Supplementary information provided by HEC Minutes
	26 January 2016 (Item V)	Minutes

Issued by	Meeting date/ Issue date	Paper
Council Meeting	17 October 2012	Written reply by the Secretary for the Environment to a question on "Measures to Facilitate Reduction in Electricity Tariffs" raised by the Dr Hon Kenneth CHAN Ka- lok
	23 January 2013	Written reply by the Secretary for the Environment to a question on "Electricity Expenditure of Government Departments and Public Organizations, Government's Subsidies on Electricity Expenditure for Specific Industries, and Electricity Tariffs" raised by Hon TANG Ka-piu
	23 October 2013	Written reply by the Secretary for the Environment to a question on "Use of Solar Energy to Generate Electricity" raised by Hon CHAN Hak-kan
	3 June 2015	Written reply by the Secretary for the Environment to a question on "Electricity Tariffs" raised by Hon TANG Ka-piu
	24 June 2015	Written reply by the Secretary for the Environment to a question on "Future Development of the Electricity Market" raised by Hon James TIEN
	25 November 2015	Written reply by the Secretary for the Environment to a question on "Provision of Electricity Charges Subsidy" raised by Hon WONG Kwok-hing

Issued by	**Meeting date/ Issue date**	**Paper**
Environment Bureau	10 December 2013	Legislative Council Brief on 2014-18 Development Plan and 2014 tariff review of the two power companies
	23 September 2016	Legislative Council Brief on proposal of constructing a new gas-fired generating unit by the Hongkong Electric Company, Limited to implement the 2020 fuel mix (File Ref: ENB CR 2/4576/08(16) Pt.18)
CLP	28 July 2015	CLP Customers Receive Special Fuel Rebate