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Panel on Economic Development
Meeting on 24 November 2008

Background Brief on
New Scheme of Control Agreements with the power companies

Purpose

This paper sets out the background and outlines the details on the new Scheme of Control Agreements signed between the Government and each of the two power companies, and summarize Members' concerns on related issues.

Regulatory regime for the electricity supply sector in Hong Kong

2. Electricity supply in Hong Kong has all along been provided by the private sector. The Hongkong Electric Company Ltd. (HEC)[1] supplies electricity to customers on the Hong Kong Island, Ap Lei Chau and Lamma Island, while CLP Power Hong Kong Ltd. and Castle Peak Power Company Ltd (CAPCO)[2] (referred to collectively as "CLP" hereafter) jointly supply customers in Kowloon, the New Territories and some outlying islands.

3. To protect consumers' interests, the Government regulates the safety, environmental and economic aspects of electricity supply. Economic regulation is exercised through the Scheme of Control Agreements (SCAs) signed between the Government and the individual power companies. The SCAs are not franchise and they do not provide exclusive rights to the power companies to supply electricity. They 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. Key features of the SCAs which contribute to achieving the Government's policy objective of providing reliable, safe and efficient electricity supply at reasonable prices include:

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[1] HEC is a subsidiary of the Hongkong Electric Holdings Limited.

[2] CLP Power Hong Kong Ltd is a subsidiary of the CLP Holdings Limited. CAPCO is a joint venture generating company established between CLP Power and ExxonMobil.

(a) an obligation for the power companies to provide sufficient facilities to meet present and future electricity demand;

(b) an obligation for the power companies to supply electricity at lowest possible cost; and

(c) provision for periodic financial review and annual tariff review by the power companies and for annual audit of the technical and financial performances of the power companies.

4. As the previous SCAs with the two power companies were due to expire in 2008[3], in order to gauge public views on the electricity market in Hong Kong, the Administration conducted a two-stage public consultation on the "Future Development of the Electricity Market in Hong Kong" in 2005 and 2006. According to the Administration, the general public expressed support for the Government's stance on the core terms of reducing the permitted rate of return of the power companies to lower the electricity tariffs charged to customers, shortening the duration of the next SCAs to allow for the introduction of competition, and linking the permitted rate of return of the power companies to their meeting the emission caps stipulated under the Air Pollution Control Ordinance (Cap. 311) so as to provide them with further incentive to reduce emissions and to improve the air quality.

Members' views and concerns

5. All along, Members have been very much concerned about the development of the electricity market in Hong Kong. In the last term, the LegCo has passed two motions, viz. "SCAs of the two power companies and the long-term energy policy" and Opening up the electricity market"; and raised a number of questions on the subject. Details are in the hyperlink shown in the references.

6. The Panel on Economic Services[4] discussed with the Administration about Stage I and Stage II consultation on the future development of electricity market in Hong Kong at the meetings on 28 February 2005, 23 January 2006 and 30 March 2006. The Administration also briefed the Panel on the views received during Stage II consultation at the meeting on 29 May 2006. Members exchanged views with the Administration and deputations at the meetings on 30 June 2006 and 25 September 2006 in respect of arrangements to cater for new supply sources and environmental regulation in the future electricity market. They expressed concerns on the Administration's preparations and timetable for opening up the electricity market, the development of renewable energy (RE) in electricity

[3] The previous SCAs with CLP and HEC were due to expire on 30 September 2008 and 31 December 2008 respectively.
[4] The Panel on Economic Services was renamed as the Panel on Economic Development with effect from the 2007-2008 session.

generation, the environmental performance of the power companies and measures to reduce emissions from power generation.

7. Emissions from power plants leading to air pollution in Hong Kong have all along been a cause of public concern. The Panel on Environmental Affairs discussed issues relating to air pollution of electricity generation at the meeting on 25 October 2004, environmental aspects of the financial plans of the two power companies and measures for the power companies to meet the emission reduction targets by 2010 at the meetings on 29 September 2005 and 23 January 2006, and environmental aspects of the Stage II consultation paper at the meeting on 27 March 2006. More details are available from the hyperlink in the references.

Key changes to the new SCAs

8. After intensive negotiation with the power companies during the latter half of 2007, the Administration reached agreement with them on the terms of the new SCAs. On 7 January 2008, the Executive Council advised and the Chief Executive ordered that the Government should sign the new SCAs with HEC and CLP. The Administration subsequently briefed members of the Panel on Economic Development on 8 January 2008 on the provisions of the new SCAs entered with the two power companies at a special meeting. The key changes to the next SCAs and members' concerns expressed at the special meeting are outlined in the ensuing paragraphs.

Permitted rate of return and tariff

9. Under the new SCAs, it was agreed that during the upcoming regulatory period, the permitted rate of return would be 9.99% on the Average Net Fixed Assets (ANFA) of the power companies. Based on the 2006 figures, the reduced rate of return would cut the annual earning of the two power companies by around $5 billion. The reduction in tariffs based on the updated details would be implemented from 1 October 2008 for CLP and 1 January 2009 for HEC. Meanwhile, to encourage more usage of Renewable Energy (RE), investments on RE facilities by the power companies could earn a rate of 11%. Moreover, financial incentive of additional return would be provided to the power companies according to the percentage of electricity generated from RE.

10. The existing tariff adjustment mechanism in the new SCAs would be retained but the approval threshold was reduced from 7% to 5%, thereby limiting the room for the companies to adjust the tariffs. The power companies would also be required to disclose their projected basic tariff profile to the public.

11. A member commended the work of the Administration in bringing down the permitted rate of return from 13.5% - 15% to a single-digit of 9.99%. While others expressed disappointment about the small reduction, these members were

concerned that with the rising volatility in the international fuel prices and the onset of inflation in Hong Kong, the benefit of tariff reduction arising from a lowered permitted rate of return would be quickly eroded.

12. Some members queried the use of ANFA as the basis for calculating the permitted return since the method appeared to encourage over-investment by the power companies. Citing CLP's proposal to construct the billions-worth Liquefied Natural Gas (LNG) Receiving Terminal as an example, a member warned that it might be an attempt by the power company to enlarge the asset base to reap more profits. These members urged the Administration to exercise effective control over capital investments of the power companies. To facilitate public monitoring, some members considered that the Administration and the power companies should disclose information on the levels of ANFA of the two power companies.

13. As investments in RE facilities would be counted towards ANFA, a member expressed concern that the power companies might broaden their asset base by increasing investment in these facilities. Another member held the view that the financial incentive for the power companies to increase the usage of RE in power generation was not adequate in consideration of the high investment cost of the facilities.

14. Panel members stressed the need for the Administration to monitor closely the Development Plans of the two companies to ensure their capital investments were justified and meant for electricity business in Hong Kong, so that the envisaged tariff reduction amounting to $5 billion could be materialized.

Duration of the new SCAs and stranded costs for the power companies

15. The Government indicates its commitment to introducing competition to the electricity market in as early as 2018 subject to the market conditions. Under the new SCAs, the duration of the new SCAs was shortened to ten years, with an option to extend for five more years, i.e. until 2023. The Administration would have unfettered discretion to introduce changes to the electricity regulatory framework, starting 1 October 2018 for CLP and 1 January 2019 for HEC after taking market readiness and other relevant factors into consideration. The changes may include the introduction of legislation to replace the SCA regime. However, both companies would be allowed to earn the same permitted rates of return up to 2023, in view of the relatively longer period of time to recoup investments in the power sector.

16. In the event of a change implemented by the Government to the electricity supply market structure that causes material impact to the power companies, it was agreed that in line with the international practices, the power companies could recover from the market the costs for the assets that became stranded. The amount and the mechanism were to be agreed between the Government and the power companies.

17. Members in general welcomed the Administration's plan to introduce competition to the electricity market. However, they considered that if the Administration's intention was to introduce new supply sources by 2018, it should make early preparation as potential new market players would need to commence planning within the next four to five years. Hence, members were disappointed to note that the Government would not notify the power companies until 2016 if it decided to make changes to the electricity regulatory framework. Members opined that it was necessary for the Administration to draw up a clear roadmap for the opening up of the electricity market with implementation time-table, devise an appropriate regulatory framework allowing grid access by new suppliers and make prior arrangements to facilitate the separation of electricity generation from transmission and distribution services.

Emission performance linkage mechanism

18. As regards linking the permitted rate of return of power companies to their emission performance, the Government believes that the level of penalty has to bring in sufficiently grave deterrent effect to the power companies. The Administration agreed with the power companies that a penalty level of 0.4 and 0.2 percentage point of return on all non-RE fixed assets would be reduced for exceedance of any of the emission caps of ≥30% and ≥10% respectively. In monetary terms, they are equivalent to a maximum penalty of $290 million and $186 million respectively for CLP and HEC respectively, based on 2006 figures. As a corollary, the power companies would be provided with a small incentive for their over-achievement of all the emission caps (0.1 and 0.05 percentage points increase of rate of return for over-achievement of ≥30% and ≥10% respectively). This is equivalent to a maximum of incentive of $73 million and $47 million for CLP and HEC respectively, based on 2006 figures.

19. Members were concerned about the persistently poor emission performance of the power companies which ranked low in comparison with other power plants in the world. Members therefore did not consider it appropriate to use the existing emission performance of the power companies as the basis for setting the emission caps to be achieved under the new SCAs.

Mechanism for treatment of excess generating capacity

20. Under the previous SCAs, a portion (40% for CLP and 50% for HEC) of the net asset value on machinery 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 company's ANFA for calculating the return. Penalty would be removed when demand caught up with generation capacity. Under the new SCAs, the portion for CLP would be increased from 40% to 50% while that for HEC would remain the same. The mechanism would not apply to RE assets, and would cease to apply altogether should there be new

supplies in the respective supply areas served by the two companies.

21. Some members considered that the mechanism for treatment of excess generating capacity unfair to customers because they were held responsible for the mistakes in the forecast of generating capacities made by the power companies. They considered that the power companies should bear a larger portion of the responsibility.

Tariff Stabilization Fund

22. Under the new SCAs, the Development Fund (DF) was replaced by Tariff Stabilisation Fund (TSF). Similar to the DF, TSF would be maintained for the retention of net revenue in excess of the agreed return for the power company, which would provide funds when necessary to ameliorate the impact of tariff increase for consumers. In view of the public's concern about the over-accumulation of funds, the cap on TSF balance would be lowered from 12.5% to 8% of annual local sales, with the same cap mechanism of the DF as in the existing SCAs.

23. At the Panel meeting on 8 January 2008, members noted that the balance in CLP's DF as at 30 September 2008 would be transferred to the new TSF. They also noted that CLP would continue to transfer to TSF 80% of the profit generated from the electricity sale to the Mainland to provide benefits for local customers.

24. A LegCo question on electricity tariff was raised at the Council meeting on 27 February 2008 after the Government had signed the new SCAs with the two power companies. It was mainly concerned about the Administration's measures to be put in place to ensure that the power companies would reduce electricity tariffs according to the new SCAs. It also urged the Government to study the introduction of competition to the electricity market as soon as possible with a view to providing more room for the downward adjustment of electricity tariffs.

Recent developments

CLP's 2008 Development Plan and tariff adjustment

25. On 23 September 2008, the Executive Council approved CLP's Development Plan covering the period from 1 October 2008 to 31 December 2013 (the 2008 Development Plan). According to the Plan, CLP has, pursuant to the new SCA, reduced its average basic tariff by 10% (or 8.6 cents/kWh) for the period between 1 October 2008 and 31 December 2009. However, the reduction in basic tariff has been partly offset by an increase of 5.9 cents/kWh in fuel clause charge to cover the rising fuel cost. As a result, the average net tariff has been reduced by 2.7 cents/kWh, from the current rate of 91.1 cents/kWh to 88.4 cents/kWh, representing a reduction of 3% from its current level.

26. According to the Administration, it has critically reviewed the need, timing and budget of the capital projects proposed by CLP under the 2008 Development Plan. After lengthy discussion, CLP has agreed to substantially reduce its original proposed capital expenditure in the Development Plan period by 30% to $39.9 billion.

CLP's proposed construction of LNG Receiving Terminal and the Memorandum of Understanding (MoU) on energy co-operation

27. Members have expressed concern on various occasions about CLP's proposal to construct the LNG Receiving Terminal at South Soko Island, worrying that it has to be included as assets under the SCA for calculating the permitted return for the company. According to the information provided by the Administration on 30 June 2008, even if the LNG terminal is to be built, it would likely be treated as a gas infrastructure and monitored under a separate regulatory regime independent of the SCA for the electricity business.

28. On 28 August 2008, the Government announced that it had reached a consensus with the Mainland authorities concerned on the latter's continuous supply of nuclear electricity and natural gas to Hong Kong in the coming two decades. The consensus was marked by the signing of a MoU. The Chief Executive said at the signing ceremony that the sustained supply of clean energy from the Mainland would greatly reduce the need for Hong Kong to build a LNG terminal within the territory, and that the resulting reduction in capital investment by the power company concerned would relieve the pressure for electricity tariff increases. CLP has subsequently dropped this project and excluded the project from its revised 2008 Development Plan.

29. At the meeting of the Economic Development Panel on 14 October 2008, members expressed concern that despite an estimated 9% reduction in electricity tariff would be made by CLP after its new SCA took effect on 1 October 2008, the actual reduction was not as much as envisaged. The Administration and CLP have been invited to brief the Panel on 24 November 2008 on the reasons for failing to bring down the electricity tariff to the expected level.

References

30. A list of relevant papers with their hyperlinks can be found from:
http://www.legco.gov.hk/database/english/data_es/es-future-development-electricity.htm.

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