CB(1)546/07-08(01)

For information
on 7 January 2008

Legislative Council Panel on Economic Development

New Scheme of Control Agreements With the Two Power Companies

Introduction

The existing Scheme of Control Agreements (SCAs) signed between the Government and each of the two power companies will expire in 2008. At the meeting of the Executive Council on 7 January 2008, the Council ADVISED and the Chief Executive ORDERED that the Government should sign the new SCAs with the two power companies. The Government and the two power companies entered into new SCAs on the same day. This paper sets out the major terms of the new SCAs.

Background

2. The SCAs signed between the Government and CLP Power Hong Kong Limited, ExxonMobil Energy Limited and Castle Peak Power Company Limited (referred to collectively as "CLP" hereafter), and between the Government and Hongkong Electric Company Limited and Hongkong Electric Holdings Limited (referred to collectively as "HEC" hereafter), will expire on 30 September 2008 and 31 December 2008 respectively.

3. Against this background, the Government conducted a two-stage public consultation on the "Future Development of the Electricity Market in Hong Kong" in 2005 and 2006. The general public has 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 when the requisite market conditions are present, and linking the permitted rate of return of the power companies to their meeting the emission caps stipulated under the Air Pollution Control Ordinance (APCO) (Cap. 311) to provide them with further incentive to reduce emissions and to improve the air quality.

4. Based on the public views received during the two-stage consultation, the Government commenced discussion with CLP and HEC in May 2006. After intensive negotiation with the power companies during the latter half of 2007, agreement has been reached with them on the terms of the new SCAs.

Key Changes to the Next SCAs

5. The full set of the SCAs with the two power companies have been uploaded to the website of the Environment Bureau (http://www.enb.gov.hk). A summary of the key changes are set out in paragraphs 6 to 20 below. A comparison table on the key changes to the current SCAs is at Annex.

Core Terms

(a) Duration of the next SCAs

6. The Government is committed to introducing competition to the electricity market in as early as 2018 if the requisite market conditions are present. We have agreed with the power companies that –

(a) the next SCA will be shortened to ten years, with an option exercisable by the Government to extend for five more years, i.e. until 2023, after review of the prevailing market conditions including whether new supply sources are available;

(b) the Government will 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;

(c) recognising that the relatively longer period of time to recoup investments in the power sector is a genuine concern, CLP and HEC will be allowed to earn the same permitted rates of return, as mutually agreed for the new SCAs, up to 2023 on their Average Net Fixed Assets (ANFA) (including those incurred or invested in the eleventh year to the fifteenth year if approved by the Government);

(d) similar to the existing SCA mechanism, an interim review will be carried out every five years to consider all matters under the SCAs including the permitted rate of return. Any changes are to be mutually agreed by the parties; and

(e) the Government and the power companies will discuss the market readiness, potential changes to the electricity regulatory framework and transition issues before 1 January 2016.

7. This arrangement has struck a balance between the interests of the consumers and shareholders of the companies by giving the latter the necessary assurance to continue to invest in electricity supply facilities. If the market conditions permit, the Government will introduce changes in the eleventh year.

(b) Permitted rate of return

8. On the permitted rate of return during the upcoming regulatory period, the power companies demand that the existing 13.5%-15% on the ANFA be maintained given the long recouping period of investments in the power sector and the continued pressure for investing in emission reduction facilities to improve air quality.

9. The Government's original proposal on the permitted rate of return in the range of 7%-11% is derived based on the weighted average cost of capital approach which is a common barometer in overseas markets for determining the rate of return for public utilities. Taking into account the existing asset classification, the Government's proposals result in a single-digit rate of return on ANFA for the power companies.

10. After protracted negotiation, both parties finally agree on a permitted rate of return of 9.99% on ANFA. This agreed rate of 9.99% conforms to the bottom line of a single-digit return as stated by the Government on various public occasions. Based on 2006 figures, the reduced rate of return will cut the annual earning of the two power companies by around $5 billion. The reduction in tariffs based on updated figures will be implemented from 1 October 2008 for CLP and 1 January 2009 for HEC.

11. Separately, the Government proposes and the power companies agree that financial incentives be provided to them for improving their performance in energy efficiency. Also, financial incentives will be provided to them for improvement in operational efficiency, supply reliability and customer services, while disincentives will be included to discourage under-performance. The ceiling is capped at 0.05 percentage point above the rate of return. In monetary terms, the maximum incentives amount to $36 million for CLP and $23 million for HEC, based on 2006 figures.

12. To encourage more usage of Renewable Energy (RE), we propose that investments on RE facilities can earn a rate of 11%. In addition, we propose to provide power companies incentives of additional return according to the following scale –

RE as Percentage of Electricity Generation	Increase in Rate of Return
below 1%	0 percentage point
between 1% and less than 1.5%	0.01 percentage point
between 1.5% and less than 2%	0.02 percentage point
between 2% and less than 5%	0.03 percentage point
5% or above	0.05 percentage point

For every 0.01 percentage point increase in the rate of return, it translates to $7 million for CLP and $5 million for HEC, based on 2006 figures.

(c) Emission performance linkage mechanism

13. As regards linking the permitted rate of return of power companies to their emission performance, we believe that the level of penalty has to bring in sufficiently grave deterrent effect to the power companies. We agree with the

power companies a penalty level of 0.4 and 0.2 percentage points reduction of return on all non-RE fixed assets 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 for CLP and HEC respectively, based on 2006 figures. As a corollary, we have agreed to provide the power companies a relatively smaller financial 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 incentive of $73 million and $47 million for CLP and HEC respectively, based on 2006 figures.

Non-core Terms

(d) Stranded costs

14. With Government's stated intention to introduce competition to the electricity market in as early as 2018 and in line with international practices, we will have to discuss with the power companies on the mechanism on how to treat their assets in the case that they become stranded. Indeed, when overseas electricity markets were opened up, a mechanism was devised to allow power companies to recoup the costs for the assets that became stranded. In this connection, both parties agree that in the event of a change implemented by the Government to the electricity supply market structure that causes material impact to the power companies, they shall recover from the market stranded costs that cannot be mitigated by measures required by the Government. The amount of stranded costs that can be recovered from the market and the mechanism are to be agreed between the Government and the power companies.

(e) Tariff

15. Under the existing SCAs, if the proposed basic tariffs do not exceed those approved by the Executive Council for the relevant year in the prevailing Financial Plan by more than 7%, power companies are entitled to implement the basic tariff rates for the year without the need for Government's approval.

16. We have agreed with the power companies that the existing tariff adjustment mechanism in the new SCAs should be retained but the opportunity will be taken to reduce the approval threshold from 7% to 5%, limiting the room for the companies to adjust their tariffs. The power companies will also be required to disclose their projected basic tariff profile to the public upon approval of the Development Plan by the Executive Council. Through this mechanism, the Government will have a say on the tariffs charged as proposed by the power companies in the Development Plan. Should there be significant changes (exceeding 5% of the approved level), further approval by the Executive Council is required.

(f) Mechanism for treatment of excess generating capacity

17. Under the existing 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 will be removed when demand catches up with generation capacity. We have agreed that under the new SCAs, the deduction from ANFA for excess capacity will be increased from 40% to 50% of the mechanical and electrical equipment costs for CLP, while that for HEC will remain the same. The mechanism will not apply to RE assets, and will cease to apply altogether should there be new supplies in the respective supply areas served by the two companies.

(g) Tariff Stabilisation Fund

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

which is equivalent to about one-month local sales, is set at an appropriate level as the TSF could lose the ameliorating function should the cap be lowered even further. Separately, the interest charge on the average TSF balance will be changed from 8% to short term market interest rates, an arrangement which we consider fair both to consumers and the power companies.

(h) Scheme of Control accounting

19. In the next SCAs, the power companies also propose to introduce certain accounting changes, including extending the asset depreciation period for certain assets to better reflect their useful lives and making reasonable provision to discharge their asset decommissioning obligation. Such changes are in line with the Hong Kong Accounting Standard. There are precedent cases of the Government approving the extension of asset depreciation period. The provision for asset decommissioning obligation will not increase the fixed asset values and thus will not attract permitted return.

(i) Energy efficiency

20. In addition to the financial incentive mentioned in para. 11, both companies agree to set up a loan fund (CLP: $25 million per annum; HEC: $12.5 million per annum) over a five-year period (amounting up to $125 million and $62.5 million in total) to provide loans to non-Government customers to implement energy saving initiatives identified in energy audits to promote energy efficiency. They also agree to set up an education fund (CLP: $5 million per annum; HEC: $2.5 million per annum) for energy efficiency and promotion activities. This fund will be administered by the power companies involving representation from key stakeholders.

Way Forward

21. With the new SCAs in place, there will be continued supply of reliable, safe and efficient electricity supplies at reasonable prices. The Government will proceed with the preparation for the opening up of the electricity market, including the formulation of a new market mechanism and the associated regulatory framework, in the next regulatory period. We will consult the public when a more concrete proposal is available.

Environment Bureau
7 January 2008

Annex

Comparison of Existing SCA Arrangements and Terms Agreed with CLP and HEC

Existing SCA Arrangements	Terms Agreed with CLP and HEC
Core Terms	
1. Duration of Next SCAs	
▪ 15-year fixed term	▪ 10-year term with a Government option to extend for 5 years ▪ same rate of return, as mutually agreed for the next SCAs, on assets of the power companies until end September 2023 for CLP and end December 2023 for HEC (i.e. the 11th to 15th year) ▪ unfettered discretion of Government to introduce changes to the electricity regulatory framework with effect from 1 October 2018 (CLP) and 1 January 2019 (HEC) after taking market readiness and other relevant factors into consideration ▪ changes may include a piece of new legislation to replace the SCA regime ▪ notifying CLP and HEC of any proposed changes to the electricity regulatory framework before January 2016
2. Permitted Rate of Return of Power Companies	
▪ 13.5% on Average Net Fixed Assets (ANFA) with an additional 1.5% for assets	▪ same mechanism as that in existing SCAs ▪ rate of return 9.99%

Existing SCA Arrangements	Terms Agreed with CLP and HEC
financed by shareholders' funds	■ no additional return for assets financed by equity
3. Emission Performance Linkage Mechanism	
■ no such mechanism	■ application of incentive/penalty to the entire ANFA of power companies, excluding renewable energy facilities ■ linkage mechanism will apply annually from 1 January 2009 ■ emission penalty: ➢ exceedance of any emission cap imposed under APCO: ≧30%: 0.4 percentage point reduction of rate of return; ≧10%: 0.2 percentage point reduction of rate of return ■ emission incentive: ➢ overachievement of all emission caps: ≧30%: 0.1 percentage point increase of rate of return; ≧10%: 0.05 percentage point increase of rate of return ■ conditions, in relation to emission caps and project approval, for applying the mechanism

Existing SCA Arrangements	Terms Agreed with CLP and HEC
Non-core Terms	
4. Stranded Costs	
▪ no such issue/mechanism	▪ in the event of a change implemented by the Government to the electricity supply market structure that causes material impact to the power companies, they shall recover from the market stranded costs that cannot be mitigated by measures required by the Government ▪ the amount of stranded costs that can be recovered from the market and the mechanism are to be agreed between the Government and the power companies. Parties may seek to resolve any disagreement through arbitration. ▪ at least 3 years before Government introduces changes to the electricity regulatory framework, discussions will be undertaken between Government and power companies in relation to whether there are stranded costs and, if necessary, the mechanism for their recovery
5. Review of Permitted Rate of Return	
▪ Interim Review every 5 years to consider all matters under SCAs including the permitted rate of return ▪ any changes to be mutually agreed	▪ follow existing SCA mechanism

Existing SCA Arrangements	Terms Agreed with CLP and HEC
6. Tariff	
Approval ▪ if the proposed basic tariffs do not exceed those approved by the Executive Council for the relevant year in the prevailing Financial Plans by more than 7%, power companies are entitled to implement the basic tariff rates for the year without the need for Government approval	▪ Government approval required for tariff adjustment in excess of 5% above the basic tariff level previously approved by the Executive Council in the Development Plan Review, instead of the current 7%
Transparency ▪ no provision requesting power companies to make available information (such as the projected approved basic tariff levels) to the public	▪ power companies to implement improved transparency measures, e.g. disclosure of projected approved basic tariff profile to the public upon approval of the Development Plan
7. Interconnection	
▪ no provision requesting power companies on interconnection	▪ power companies be required to cooperate with Government and render all reasonable assistance, etc. in taking forward a study to be carried out by Government on increased interconnection at an optimum level

Existing SCA Arrangements	Terms Agreed with CLP and HEC
	▪ planning criteria and reliability standards for the interconnected grid will also be reviewed and harmonised
8. Grid Access and Renewable Energy (RE) Development	
▪ no such provision ▪ standard arrangement for RE users to connect to the grid for back-up supply set out by the Electrical and Mechanical Services Department (for systems with capacity at or below 200kW)	▪ grid connection arrangement be standardised for back up power supply for customers with embedded renewable generation in Hong Kong, subject to technical and reasonable terms ▪ special cases, such as spill power from embedded renewables and energy-from-waste, to be considered on a case-by-case basis, on reasonable terms ▪ grid connection/access for RE users/generating facilities using RE should be negotiated between the prospective grid user and the respective power company – Government to assist where necessary and when requested by either party, including assisting in arriving at mutually agreed access charges ▪ incentives be provided for more usage of RE, including investments on RE facilities can earn a rate of return of 11%, and additional increase in rate of return for electricity generation by RE to the following scale: ➢ below 1% of electricity generation: 0 percentage point ➢ between 1% and less than 1.5%: 0.01 percentage point ➢ between 1.5% and less than 2%: 0.02 percentage point ➢ between 2% and less than 5%: 0.03 percentage point ➢ 5% or above: 0.05 percentage point

Existing SCA Arrangements	Terms Agreed with CLP and HEC
9. Mechanism for Treatment of Excess Generating Capacity	
▪ 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 will be removed when demand catches up with generation capacity	▪ deduction from ANFA for excess capacity be increased from 40% to 50% of the mechanical and electrical equipment costs ▪ capacity of renewable generation be excluded from the Test For Excess Generating Capacity and the overall installed capacity ▪ disapplication of the Excess Capacity Adjustment if other electricity supplier is permitted to supply electricity to customers in the area currently served by the companies
10. Incentives on Other Operating and Environmental Performance; and Other New Environmental Initiatives	
▪ no such provision	Incentive/penalty (in rate of return) ▪ energy efficiency: 0.02 percentage point (incentive only) ▪ supply reliability: 0.01 percentage point (both incentive and penalty) ▪ operational efficiency: 0.01 percentage point (both incentive and penalty)

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<tr><th>Existing SCA Arrangements</th><th>Terms Agreed with CLP and HEC</th></tr>
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■ customer services: 0.01 percentage point (both incentive and penalty)

<u>Other new arrangements to promote energy efficiency</u>

■ a loan fund of $12.5 million per annum each year in the case of HEC, and $25 million in the case of CLP to provide loans to non-government customers to implement energy savings initiatives identified in energy audits

■ an education fund of $2.5 million per year in the case of HEC and $5 million in the case of CLP, included in Total Operating Costs, for energy efficiency education and promotion activities will be set up

■ the procedures for administering the above funds shall be subject to the prior written agreement of the Government
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<tr><td colspan="2">11. Tariff Stabilisation Fund (TSF)</td></tr>
<tr><td>■ Development Fund (DF) with a cap of 12.5% of annual local sales, is established to assist in financing the acquisition of new fixed assets and, where necessary, to ameliorate any tariff increase</td><td>
■ TSF will replace DF, and will be operated in the same manner as under the existing SCAs

■ similar to DF, TSF will be maintained for the retention of net revenue in excess of the agreed return for the power company, which when necessary will provide funds to ameliorate the impact of tariff increase for consumers

■ cap on TSF balance be lowered from 12.5% to 8% of annual local sales, with the same cap mechanism of the DF as in the existing SCAs

■ monies in excess of the cap will be returned to consumers in the immediate following year in the form of a one-off rebate or tariff reduction
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Existing SCA Arrangements	Terms Agreed with CLP and HEC
	■ interest charge on the average TSF balance be changed from 8% to one-month Hong Kong Interbank Offered Rate (HIBOR)
12. Scheme of Control Accounting	
■ existing accounting measures	■ similar to existing accounting practice, asset depreciation period for certain assets be extended to better reflect their useful lives ■ reasonable provision for asset decommissioning be made to discharge the asset decommissioning obligation of the companies; such provision will be treated as SCA operating expense and will **not** attract Permitted Return

Environment Bureau
January 2008