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For discussion

Future Development of the Electricity Market in Hong Kong (Stage II Consultation)

Introduction

This paper informs Members of the Stage II Consultation on the future development of the electricity market in Hong Kong after the existing Scheme of Control Agreements (SCAs) expire in 2008.

Background

Stage I Consultation

2. The existing SCAs[1] between the Government and each of the two power companies will expire in 2008. We have carried out detailed studies on the future development of the electricity market after the expiry of the existing SCAs and have made reference to experiences in overseas electricity markets. We launched Stage I of a two-stage consultation exercise on 31 January 2005 to seek the views of the public on possible options and various issues relating to the future development of the electricity market after 2008.

3. A discussion paper on the Stage I Consultation was presented at the meeting of the Advisory Council on Environment on 14 March 2005 to brief Members on the outlines of the Stage I Consultation Document. After the three-month consultation period which ended on 30 April 2005, we received 941 responses from different sectors of the community.

[1] The SCA with CLP Power Hong Kong Limited, ExxonMobil Energy Limited and Castle Peak Power Company Limited (referred to collectively as "CLP" hereafter) will expire on 30 September 2008 and that with the Hongkong Electric Company Limited and Hongkong Electric Holdings Limited (referred to collectively as "HEC" hereafter) on 31 December 2008.

Stage II Consultation

4. We have since carefully reviewed comments received during the Stage I Consultation and conducted further studies on the financial aspects of economic regulation and the supply/demand situation in the Mainland. We have also consulted the Energy Advisory Committee. We have now mapped out the proposed post-2008 regulatory arrangements for the electricity market, and our proposals were put out for public consultation under Stage II of the consultation exercise vide the Consultation Paper at the Annex.

The Proposed Post-2008 Regulatory Regime

5. The proposed future regulatory regime aims –

(a) to achieve the policy objective as regards reliable, safe and efficient supply at reasonable prices;

(b) to further the environmental objectives promulgated in the 2005 Policy Address –

(i) to require the power companies to install effective emission reduction facilities to achieve emission reduction targets, as a precondition for licensing;

(ii) to explore options to avoid the costs of installing emission reduction facilities being passed onto consumers as far as possible;

(iii) to ask for the use of renewable energy (RE) to generate electricity; and

(iv) to ask for the implementation of demand side management; and

(c) to address the short-comings of the current arrangement.

6. Detailed proposals and justifications for the proposed arrangements are set out in Chapter 2 of the Consultation Paper. In gist –

(a) Our recent contacts with the Guangdong authorities and our study suggest that it would be prudent at this stage not to predicate the future development, at least in the short term, of the electricity market in Hong Kong on supply from the Mainland. We **propose** to prepare the ground for possible new supply sources from the Mainland (vide paragraph 2.10

of the Consultation Paper) and to make arrangements with regard to grid access and interconnection (as set out in paragraphs 2.19 to 2.26 of the Consultation Paper).

(b) To ensure and facilitate the introduction of RE, with the view to meeting the 1 to 2% RE target by 2012 set out in the First Sustainable Development Strategy promulgated by Government in May 2005, we **propose** that, in addition to public education, arrangements be made in the future regulatory regime to provide financial incentives in the form of a relatively higher rate of return for RE infrastructure and bonus payment for using RE to the power companies (vide paragraphs 2.46 and 2.58 of the Consultation Paper). In parallel, we also request the power companies to provide grid access for RE systems (vide paragraphs 2.21 to 2.22 of the Consultation Paper) to promote the use of RE.

(c) We **propose** to continue to regulate safety and environmental aspects of electricity supply by existing legislation which may be updated as necessary.

(d) Having regard to the prevailing situation of the electricity market, we **propose** to continue the existing practice of exercising economic regulation by means of bilateral agreement signed between the Government and each of the power companies. These agreements will include the following new features –

(i) the agreements will be for ten years, with an option to extend for another five years, subject to a review before the end of the 10^{th} year to ascertain whether it is appropriate to continue economic regulation by a bilateral agreement approach having regard to the prevailing market conditions;

(ii) the agreements will include specific provisions to require all development plans relating to electricity supply and tariff adjustments to be approved by the Government; and the key components for determining the permitted rate of return to be reviewed, and the permitted rate of return to be adjusted where appropriate, every five years, to reflect the prevailing economic conditions, having regard to the energy policy objective, the need to provide a stable regulatory environment for long-term investments and the potential implications on tariffs;

(iii) return for each power company will be based on both average net fixed assets and performance. With regard to the latter, there will be financial incentives in the form of bonus payment to encourage power companies to improve performance in energy conservation, demand side management, operational efficiency or service quality. Disincentives will be included where appropriate to discourage under-performance.

In the case of emission reduction, the permitted rate of return on all fixed assets of the power companies will be linked to their achievement of the emission caps stipulated in the Specified Process Licences issued under the Air Pollution Control Ordinance, and reduced if they do not achieve the emission caps. A "bonus" return will be provided for "over-achievement" against the caps;

(iv) different rates of return between 7% and 11% will be applied to different types of assets to reflect the different investment risks associated with the different operations in the supply chain and to further our policy objectives of minimising the impact on the environment and encouraging the development of RE. Thus we **propose** –

(1) a higher rate of return for RE infrastructure than all other assets;

(2) a lower rate of return for generation assets than RE infrastructure;

(3) a further lower rate of return for transmission & distribution assets than (1) and (2) above; and

(4) the lowest rate of return for emission reduction facilities to avoid the costs of these facilities being passed onto consumers as far as possible;

(v) seeking the agreement of the two power companies to provide connection/access to their grids for other supply sources to promote the use of RE and to facilitate entry of new electricity suppliers, including possible new supply sources from the Mainland;

(vi) requesting the two power companies to jointly take forward and plan for increased interconnection at an "optimum" level, to reap the benefits of reserve capacity sharing and coordinated generation planning, and to provide flexibility to take forward emission reduction projects which necessitate temporary outage of certain generation facilities; and

(vii) tariff will include costs for making available supply (operating costs and fuel charges) and the agreed return (but not necessarily up to the highest percentage) to the company for providing the service, while having regard to the affordability of the consumers.

(e) We **propose** to retain the current institutional arrangement with responsibilities for economic, safety and environmental regulation undertaken respectively by the Economic Development and Labour Bureau, the Electrical and Mechanical Services Department, and the Environment, Transport and Works Bureau and the Environmental Protection Department. We will keep under review the need to set up a separate regulatory authority, with representation from various stakeholder groups including consumers, investors, academics and experts, trade unions, etc, and prepare the ground work for such a new setup in the future.

Way Forward

7. We invite the public to view the Consultation Paper on the website[2] of the Economic Development and Labour Bureau and forward their comments to us on or before 31 March 2006. We will consider the views received during the Stage II Consultation and consult the Panel again before finalising the regulatory arrangements for the electricity market after 2008.

Views Sought

8. We welcome any views and comments from Members on the Consultation Paper.

Economic Development Branch
Economic Development and Labour Bureau
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[2] http://www.edlb.gov.hk/edb