

**For information
on 27 June 2005**

Legislative Council Panel on Economic Services

**Future Development of the Electricity Market in Hong Kong :
Views received during the Stage I Public Consultation**

Purpose

This paper informs Members of the views received during the Stage I public consultation on the future development of the electricity market after the current Scheme of Control Agreements (SCAs) expire in 2008.

Background

2. The existing SCAs between the Government and the two power companies will expire in 2008. We have taken the opportunity to review the development of the post-2008 electricity market, and studies have been conducted on a wide range of complex subjects including economic, technical and regulatory issues. The objective of the review is to ensure that Government's policy objective will be met : that the public can continue to enjoy reliable, safe and efficient electricity supply at reasonable prices, while minimising the impact on the environment caused by the generation and use of electricity.

3. We completed our initial studies and started Stage I - first of a two-stage public consultation process earlier this year, when we sought the public's views on the issues and options identified for the future development of the electricity market. The public consultation document was also provided to the Legislative Council Panels on Economic Services and Environmental Affairs on the day it was released (31 January 2005) and discussed at the ES Panel meeting on 28 February 2005. The three-month consultation period ended on 30 April 2005.

Response to Stage I Consultation

4. We have received a total of 766 written submissions from different sectors of the community, and in addition, 175 messages through the dedicated discussion forum on EDLB's website and the Public Affairs Forum of the Home Affairs Bureau.

5. The written submissions were put forward by individuals, political parties, trade and industry organisations, professional institutions, green groups, power companies, the Consumer Council, etc. All the submissions have been put on the EDLB's website for public perusal.

6. As expected, while views were diverse, reliable and safe supply was the consensus priority, with regulatory arrangement and competition in the electricity market being the more popular issues. A summary of the views put forward in the submissions is at the Annex, the gist of which is as follows –

A. Objectives

- Most of the views received considered reliability and safety of electricity supply to be the most important and should continue to be the objective in the future development of the electricity market. Some considered reasonable tariffs and minimising environmental impact important.

B. Return

- Views were divided on the appropriate level of return for the power companies, with relatively more seeing the current rate as high and should be lowered.
- Some suggested that rate of return might be linked to the cost of capital or with some suitable economic indicators. Only a small number considered that the return of the power companies might be based on performance. Some suggested incentives be based on improvements in operational efficiency and/or service quality, and some proposed rewards for improvements in environmental performance.

- Relatively more of the respondents supported an asset-base approach for determining the rate of return.
- Views were divided on the review period. Some considered the current 15-year period adequate, while others suggested that it be shortened to better reflect the prevailing economic situation.

C. Tariffs

- Most of the respondents expressing views on this issue considered the current tariff level reasonable, and only a few held the opposite view.
- Some suggested that electricity tariffs be linked to economic indicators, more flexible tariff plans be devised by the power companies, or enhanced transparency in the tariff review mechanism.

D. Increased Interconnection

- Most of the views received did not support increased interconnection, out of concerns that it might affect supply reliability and increase tariffs.
- Others opined that increased interconnection would enable more efficient use of the power companies' resources, increase market competition and facilitate customer choice of suppliers.

E. New Supply Sources

- On import of electricity from the Mainland, many respondents expressed reservation for fear that the supply reliability might be affected and surplus electricity might not be available in the short term. Those who supported import opined that supply from the Mainland could lead to lower tariffs or provide consumer with choice of electricity suppliers.

- Respondents generally supported the introduction of renewable energy (RE). Some worried that the higher costs of RE might lead to increase in electricity tariffs.

F. Grid Access for Third-party Users

- Only a few respondents commented on this issue, and views were divided.
- The two power companies expressed strong reservation based on technical, legal and liability considerations.

G. Regulatory Arrangement

- Most of the views received were supportive of the current SCA-type of arrangement or other bilateral agreement arrangements.
- Some suggested certain modifications/improvements to the current regime. Some suggested that the SCA-type arrangement might be adopted pending the setting up of a legislative regulatory framework, or an open market in the long run.

H. Institutional Set-up

- Only a few respondents offered views on this issue, and views were divided.
- A few respondents suggested the independent authority should oversee the entire energy market.

I. Competition

- Most of the respondents expressed reservation on introducing competition into the electricity market.

J. Other Issues Raised

- Some respondents suggested that the electricity supply sector should improve environmental performance and step up efforts to promote energy efficiency and conservation.
- Some put forward suggestions relating to the technical aspects of the electricity supply industry, such as power system planning and operation, etc.

Way Forward

7. We will take into account the views received during the Stage I consultation to map out the framework for the future development of the electricity market, which we will put out for views under Stage II of the consultation process.

Views Sought

8. Members are invited to note the views received during the Stage I consultation.

Economic Development and Labour Bureau
20 June 2005

**Future Development of the Electricity Market in Hong Kong :
Summary of Views Received during the Stage I Public Consultation**

A. Objectives (80% of the respondents expressed views on this issue: 73% individuals; 7% others)

- Amongst those who offered views on this issue, 62% considered reliability and safety of electricity supply most important and should be maintained in the future electricity market. Some also considered other objectives such as minimising environmental impact [16%] and reasonable tariffs [10%] important.
- There were also suggestions to include as objectives incentive for investment, improving efficiency, clear responsibility and obligation, environmental protection, energy efficiency and conservation and sustainable development.

B. Return for the Power Companies

- (i) Based on Investment (12% of the respondents expressed views on this issue: 9% individuals; 3% others)
 - Views were divided on the appropriate level of return for the power companies. 35% of the respondents including most of the political parties and trade and industry organisations, considered the current permitted rate of return too high and should be lowered. 21% considered the current rate of return reasonable.
 - Some of the political parties and trade and industry organisations suggested that the rate of return might be lowered to about 6% to 10%.
 - On the base for determining the rate of return, 13% supported the asset-base approach, 3% suggested alternative approaches such as the equity-base approach might be considered.

- Some respondents also suggested that the rate of return of the power companies could be linked to economic indicators [14%] or be determined by other approaches such as the cost of capital [13%].
 - For the review period, 15% considered the current 15-year review period adequate, while 14% suggested that the review period be shortened to better reflect the prevailing economic situation.
 - The two power companies considered that the current permitted rate of return, the adoption of the asset-base approach for determining the return and the 15-year review period reasonable, and had reservations in adopting alternative approaches for determining the return in view of the uncertainties involved. They opined that given the long-term nature of investment in electricity supply infrastructure and fuel sourcing, the electricity supply sector required a stable and certain operating environment that was conducive to long-term investment.
- (ii) Based on Performance (4% of the respondents expressed views on this issue: 2% individuals; 2% others)
- 53% of the respondents who offered views on this issue suggested that incentives such as bonus and penalty be provided based on the power companies' operational efficiency and/or improvements in service quality. 45% also proposed that rewards be granted for improvements in environmental performance, e.g. investment in environmental protection initiatives, using alternative energy sources such as cleaner fuels, promoting energy efficiency and conservation and demand side management.
 - The two power companies were of the view that while incentives on efficiency improvements could be considered, performance-based regulation would not be suitable for Hong Kong because experience in overseas electricity markets indicated that this form of regulation would encourage under-spending with

power companies' cutting back on necessary system maintenance and upgrading. They opined that mechanism to control overspending was already in place under the current regulatory regime, viz., the excess capacity adjustment mechanism, to guard against any excessive investment by the power companies.

C. Tariffs (26% of the respondents expressed views on this issue: 22% individuals; 4% others)

- 69% of the respondents who offered views on this issue, primarily individuals, considered the current tariff levels reasonable, comparable with those in overseas electricity markets, and only accounted for a small percentage of their income/expenditure. 5% considered the current tariff level high.
- Some of the respondents who offered views on this issue also suggested that the transparency in the tariff setting mechanism be enhanced [7%], tariffs be linked to economic indicators [5%], and more flexible tariff plans such as time of use tariffs be further developed by the power companies [4%].
- The two power companies considered the current tariff levels reasonable and compared favourably with those in overseas cities. They did not support linking tariffs to local consumer price indices and opined increasing transparency in the tariff setting mechanism should be balanced against the need for the power companies to keep commercially sensitive information confidential.

D. Increased Interconnection (11% of the respondents expressed views on this issue: 8% individuals; 3% others)

- 62% of the respondents who offered views on this issue, primarily individuals, did not support increasing interconnection between the two power companies or with the Mainland. They were concerned that increasing interconnection might affect the reliability of supply and lead to increase in tariffs due to the substantial costs involved.

- 21% held different views, mainly the political parties, trade and industry organisations, major consumers and green groups, and reckoned that increasing interconnection would enable more efficient use of the resources by the power companies, increase market competition and facilitate customer choice of electricity suppliers.
- Professional bodies in general held an open view on increasing interconnection and suggested that considerations be given to issues such as costs and benefits, system efficiency, etc.
- The two power companies expressed reservation on increasing interconnection. They were of the view that the costs involved would outweigh the potential benefits, there was little merit in introducing a third party to provide and operate any new interconnector, and that an increase in interconnection capability might not be able to enable customer choice, as a competitive market had not yet emerged.

E. New Supply Sources (22% of the respondents expressed views on this issue: 19% individuals; 3% others)

- 66% of those who expressed views on this issue did not support or expressed reservation on importing electricity from the Mainland. They were concerned about the possible impact on the reliability of electricity supply and that surplus electricity might not be available in the Mainland for supply to Hong Kong in the short term. Some green groups were concerned about the possible environmental impact associated with the supply of power from the Mainland, citing, for example, the difficulty in controlling the environmental performance of power supply facilities outside Hong Kong.
- 8% of the respondents who expressed views on this issue supported import of more power from the Mainland. They were of the view that import could lead to lower tariffs or facilitate customer choice.

- The professional institutions suggested that relevant legal, commercial, environmental and technical issues be resolved prior to considering importing more power from the Mainland.
- The two power companies opined that further reliance on power import from the Mainland might not be beneficial, having regard to the possible impact on the reliability of supply, environmental concerns, differences in the legal framework and regulatory arrangements between Hong Kong and the Mainland, high transmission costs, etc.
- 26% of the respondents who expressed views on this issue supported the introduction of renewable energy (RE) sources for environmental reasons. 1% expressed reservation that the higher costs of RE sources might lead to increase in electricity tariffs.
- The two power companies were positive to the introduction of RE for power generation, but cautioned that practical issues and related costs and benefits should be carefully assessed.
- Some specific views on how RE might be sourced included -
 - the power companies be required to purchase a certain percentage of their electricity generated from RE sources;
 - the power companies be required to allocate a fixed percentage of their revenue for development of RE; and
 - incentives and suitable sites be provided by the Government to encourage the development of RE.

F. Grid Access for Third-party Users (5% of the respondents expressed views on this issue: 3% individuals; 2% others)

- 51% of the respondents who expressed views on this issue, mainly the political parties, trade and industry

organisations, professional bodies, major consumers and green groups, supported grid access. They considered that grid access could facilitate the development of RE and other local energy sources, entry of new electricity suppliers, future introduction of competition and customer choice of suppliers.

- 31% who did not support or expressed reservation on grid access were mainly concerned about the possible impact on supply reliability and the uncertainties in achieving any economic benefits due to the levy of network charges.
- The power companies did not consider mandatory grid access feasible, given the small size of electricity market, the scarcity of land for construction of electricity supply facilities and the lack of indigenous resources in Hong Kong. They also opined that many complex issues would have to be resolved before mandatory grid access could be considered, such as the formulation of reliability, safety and technical standards for grid access, determination of charges for grid access, property rights of the power grids, delineation of liability, dispute resolution mechanism and the need to provide for an independent system operator.

G. Regulatory Arrangement (42% of the respondents expressed views on this issue: 39% individuals; 3% others)

- 71% of the respondents who expressed views on this issue, primarily individuals, favoured future regulation to be made through either the current SCA-type arrangement or a similar bilateral arrangement, saying that such a regulatory arrangement had been proven to be effective in meeting the energy policy objective. 20% of the respondents suggested certain modifications/improvements to the SCAs, such as increasing the transparency of the regulatory regime, shortening the review period, and placing more emphasis on environmental protection.

- 5% suggested adopting a legislative approach for future market regulation.
- 2% suggested an SCA-type of arrangement pending the setting up of a legislative regulatory framework or an open market in the longer term.

H. Institutional Set-up (6% of the respondents expressed views on this issue: 4% individuals; 2% others)

- Views were divided on this issue, with 39% considered that the existing institutional arrangements should continue, 15% opined the responsibilities of relevant government bureaux/departments responsible for energy should be rationalised, and 39% supported an independent regulatory authority should be set up. Those who preferred the status quo, primarily individuals, considered the current arrangements adequate, simple and effective with relatively low administrative costs, and changing the existing arrangements might lead to more red-tape and waste of public resources.
- The political parties, major consumers, green groups generally favoured the setting up of an independent regulatory authority.
- Some also suggested that the future independent regulatory authority should have broader terms of reference to oversee other energy-related matters.

I. Competition (57% of the respondents expressed views on this issue: 52% individuals; 5% others)

- 89% of the respondents, primarily individuals, expressed reservation on introducing competition into the electricity market. 6% of the respondents supported increasing competition in the electricity market, some of whom suggested a gradual process. The main concerns with introducing competition included -
 - the significant risks involved such as the possible impact on the reliability of supply; and

- competition would only benefit “large consumers” at the expense of “small consumers”.
- The two power companies had reservation on introducing competition into the electricity market. They considered that “suitable market conditions” for introducing competition were not yet present, and that competition might lead to lower quality of electricity supply, more complex market structure, etc.
- The trade unions of employees in the power companies were concerned that job security might be affected, when competition is to be introduced.

J. Other Issues

- There were some other suggestions, mainly from the green groups, concerning environmental issues which included -
 - setting up/tightening emission standards and targets;
 - addressing environmental issues in a regional and an international context;
 - introducing levies on emissions and emissions caps; and
 - stepping up demand side management and energy efficiency and conservation programmes.
- There were also some suggestions related to the technical aspects of the electricity supply industry, such as implementing coordinated power system planning, as well as the operational aspects of the industry, such as reviewing reliability standards or supply rules for the future electricity market.