

**立法會**  
**Legislative Council**

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**Panel on Economic Services**

**Minutes of special meeting  
held on Friday, 30 June 2006 at 10:45 am  
in the Chamber of the Legislative Council Building**

- Members present** : Hon James TIEN Pei-chun, GBS, JP (Chairman)  
Hon Jeffrey LAM Kin-fung, SBS, JP (Deputy Chairman)  
Ir Dr Hon Raymond HO Chung-tai, S.B.St.J., JP  
Hon Fred LI Wah-ming, JP  
Dr Hon LUI Ming-wah, SBS, JP  
Hon CHAN Kam-lam, SBS, JP  
Hon SIN Chung-kai, JP  
Hon Howard YOUNG, SBS, JP  
Hon Abraham SHEK Lai-him, JP  
Hon Vincent FANG Kang, JP  
Hon Andrew LEUNG Kwan-yuen, SBS, JP  
Hon WONG Ting-kwong, BBS  
Hon Ronny TONG Ka-wah, SC  
Hon TAM Heung-man
- Members attending** : Hon Emily LAU Wai-hing, JP  
Hon WONG Kwok-hing, MH
- Members absent** : Dr Hon David LI Kwok-po, GBS, JP  
Hon LAU Chin-shek, JP  
Hon Miriam LAU Kin-ye, GBS, JP  
Hon CHIM Pui-chung  
Hon Albert Jinghan CHENG  
Hon KWONG Chi-kin

**Public officers attending** : Ms Eva CHENG  
Permanent Secretary for Economic Development and Labour (Economic Development)

Mr Howard LEE  
Deputy Secretary for Economic Development and Labour (Economic Development)

Mr Harry LAI  
Chief Electrical and Mechanical Engineer (Electricity Team)

**Attendance by invitation** : The Hongkong Electric Co., Limited

Mr C T WAN  
Director & General Manager (Corporate Development)

Mr Neil D McGee  
Group Finance Director

Mr Steve NG  
Deputy Chief Accountant

CLP Power Hong Kong Limited

Mr S H CHAN  
Planning Director

Mr T K CHIANG  
Regulatory Strategy Manager

ExxonMobil Energy Limited

Mr Richard CHU  
Business Strategy Manager

Consumer Council

Mrs CHAN WONG-Shui  
Chief Executive

Mr Victor HUNG  
Chief Research & Trade Practices Officer

Hong Kong Energy Studies Centre, Hong Kong Baptist University

Professor Larry CHOW Chuen-ho  
Director

Ms Vienne CHAU  
Project Co-ordinator

British Chamber of Commerce

Ms Jo WILSON  
Chair of Business Policy Unit

Greenpeace China

Miss Gloria CHANG Wan-ki  
Campaigner

Miss Frances YEUNG Hoi-shan  
Campaigner

Association of Engineering Professionals in Society

Ir YIM Kin-ping  
Senior Vice Chairman

Civic Party

Mr Albert LAI Kwong-tak  
Vice-Chairman

Hong Kong Institution of Engineers

Ir Dr LO Wai-kwok  
Vice-President

Center for Public Policy Studies, Lingnan University

Professor HO Lok-sang  
Director

Clear the Air

Ms Annelise CONNELL  
Chairperson

Individual

Mr LAI Chi-lap, Albert  
Councilor, Yau Tsim Mong District Council

**Clerk in attendance** : Ms Connie SZETO  
Chief Council Secretary (1)6

**Staff in attendance** : Ms Debbie YAU  
Senior Council Secretary (1)1

Mr Anthony CHU  
Council Secretary (1)2

Ms Michelle NIEN  
Legislative Assistant (1)9

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Action

**I. Future Development of the Electricity Market in Hong Kong  
Arrangements to Cater for New Supply Sources**

Submissions from organizations/individuals attending the meeting

LC Paper No. CB(1)1844/05-06(02) — Consumer Council

LC Paper No. CB(1)1879/05-06(01) — British Chamber of Commerce

LC Paper No. CB(1)1844/05-06(03) — Greenpeace China

LC Paper No. CB(1)1844/05-06(04) — Association of Engineering  
Professionals in Society

LC Paper No. CB(1)1215/05-06(03) — Civic Party

LC Paper No. CB(1)1879/05-06(02) — Hong Kong Institution of Engineers

LC Paper Nos. CB(1)1856/05-06(01) — Professor HO Lok-sang  
& 1907/05-06(02) Director, Center for Public Policy  
Studies, Lingnan University

LC Paper No. CB(1)1879/05-06(04) — Clear the Air

Submissions from organizations/individuals not attending the meeting

LC Paper No. CB(1)1844/05-06(05) — The Real Estate Developers  
Association of Hong Kong

LC Paper No. CB(1)1844/05-06(0) — Kowloon City District Council

LC Paper No. CB(1)1844/05-06(07) — Federation of Hong Kong  
Industries

LC Paper No. CB(1)1844/05-06(08) — Mr KWOK Chun-wah, MH  
Sham Shui Po District Councilor

LC Paper No. CB(1)1856/05-06(02) — Advisory Council on the  
Environment

LC Paper No. CB(1)1879/05-06(03) — Dr Raymond So Wai-man, Ph.D  
Associate Professor, Department of  
Finance, The Chinese University of  
Hong Kong

Other relevant papers for the meeting

LC Paper No. CB(1)1856/05-06(03) — Information paper provided by the  
Administration

LC Paper No. CB(1)1567/05-06(01) — Information paper on “Future  
Development of the Electricity  
Market in Hong Kong: Views  
received during the Stage II Public  
Consultation” provided by the  
Administration

LC Paper No. CB(1)829/04-05(01) — Information paper on “Future development of the electricity market in Hong Kong : Stage I consultation” provided by the Administration (with public consultation paper annexed)

LC Paper No. CB(1)626/05-06(01) — Information paper together with the Consultation Paper on Future Development of the Electricity Market in Hong Kong – Stage II Consultation provided by the Administration

The Chairman advised that the special meeting was convened to receive views from the two power companies and interested parties on the arrangements to cater for new supply sources in the development of the future electricity market in Hong Kong. The Chairman sought members’ view on the request of Mr Albert LAI Chi-lap, a Councilor of Yau Tsim Mong District Council, to present his views to the Panel. Members noted that Mr LAI had shown up and put forward his request just before the commencement of the meeting. Members agreed that Mr LAI’s request be allowed.

Meeting with the two power companies and deputations

*The Hongkong Electric Co., Ltd. (HEC)*

2. Mr C T WAN, Director & General Manager (Corporate Development) of HEC highlighted the salient points on HEC’s submission as follows:

- (a) HEC agreed with the Government’s view that it was prudent not to predicate the future development of Hong Kong’s electricity market on supply from the Mainland. Citing recent newspaper reports on electricity supply situation in the Mainland, HEC noted that there were serious power shortages in South China. According to the Mainland’s eleventh five-year plan, there were 22 000 low-efficient and high-polluting small-scale power plants, including many small diesel generating plants installed at Hong Kong investor-owned factories in Guangdong due for decommissioning. If this plan was implemented, it was unlikely that South China could have any surplus electricity to supply to Hong Kong in the near future. Reliability of electricity supply to Guangzhou, Shenzhen and Dongguan were also substantially lower than that in Hong Kong where customers experienced less than ten minutes of power interruption per year. Regarding tariff level, commercial rates at Guangzhou and Shenzhen were higher than that in Hong Kong, while the percentages of household expenses incurred for

electricity consumptions in those cities are higher than that of Hong Kong. All these facts demonstrated that supply from the Mainland would not help meeting the Government's policy objectives, viz. adequate and reliable electricity supply, minimizing environmental impacts and acceptable tariff; and

- (b) HEC wished to explore the use of renewable energy (RE) in electricity generation in both Hong Kong and overseas. In Hong Kong, HEC had officially commissioned the territory's first commercial-scale wind turbine in February 2006. However, HEC drew the public's attention to the fact that electricity generated from wind turbine was unpredictable, uncontrollable and intermittent in nature. It was not prudent to rely on wind power for providing reliable and adequate electricity supply. Moreover, the public should also be aware of the topographical limitations of the territory and the higher tariffs in exploiting RE resources for electricity generation.

*(Post-meeting note: The submission of HEC tabled at the meeting was circulated to members on 3 July 2006 vide CB(1)1907/05-06(01)).*

*CLP Power Hong Kong Ltd.*

3. Mr S H CHAN, Planning Director of CLP gave a power-point presentation on CLP's views as follows:

- (a) CLP's current performance had already met the Administration's objectives in future electricity market development by providing reliable electricity supplies, charging reasonable tariff and minimizing the impact on the environment. CLP understood the necessary conditions for opening up the electricity market and did not object to open competitive electricity markets. Drawing on the experiences in the markets in Australia, the United States and Canada, the pace and mode of market liberalization should tie in with the circumstances of the respective markets. Detailed planning and preparation for opening the market was essential to achieve the desired results. Given the small market of Hong Kong, discussion on opening the market should focus on its integration with South China. At present, South China was still facing serious energy shortage problem. Moreover, significant differences in market structure, technological development, regulatory regime, environmental performance and commercial operation, etc. existed. Before the conditions for the open market matured, introduction of new players on an ad hoc basis would undermine the orderly development of a regional competitive electricity market and lead to unclear accountability and responsibility among power companies, jeopardizing supply reliability;

- (b) Several overseas jurisdictions had undergone restructuring in their electricity supply industries in the past 15 years. The effects and results of market liberalization varied. Whilst there had been efficiency gains in some markets, concerns about the negative impact on investment incentives had been raised. Moreover, power failure had resulted in some markets after liberalization like the blackout in California. Insufficient investment incentives would affect supply reliability. CLP outperformed other developed countries such as the United Kingdom, the United States, Australia and New Zealand in supply reliability because of its forward looking planning and maintenance and excellent management and operations; and
  
- (c) Overseas experience shown that market liberalization might not lead to reduction in tariffs. In the case of Ontario, market liberalization had caused great fluctuation in tariffs resulting in government intervention in fixing the tariffs, in effect abandoning market opening. Tariffs in Hong Kong had been very competitive among the international cities. Cities having lower tariff also had much lower supply reliability. CLP had frozen tariffs and rebated about \$3 billion since 1998. Electricity prices in Mainland cities were not much lower than Hong Kong. In Guangzhou and Shenzhen, while their residential tariffs were lower than CLP, their commercial and industrial tariffs were comparable to those charged by CLP. However, the lower tariffs were achieved at the expense of reliability of supply. Given CLP's high supply reliability and good environmental performance, CLP's customers were enjoying excellent services at value for money tariffs. CLP's tariffs were also affordable to local customers. In general, expenses on electricity only accounted for 1.9% of the monthly household expenditure.

*(Post-meeting note: The power-point presentation material tabled by CLP was circulated to members on 3 July 2006 vide CB(1)1844/05-06(01)).*

*Consumer Council (CC)*

4. Mrs CHAN Wong-Shui, the Chief Executive of CC presented CC's views as follows:

- (a) Competition in the electricity market would be the driving force in enhancing economic efficiency in the provision of electricity services. It was logical for a highly successful open market economy like Hong Kong to apply competitive processes in the delivery of services to enhance efficiency;



- (b) CC considered that an incremental approach should be adopted in liberalizing the electricity market. The regulatory regime should include a designated agency to oversee the introduction of competition into the electricity sector. The agency should be responsible for monitoring infrastructure development, providing competitive safeguards such as access for new entrants to existing infrastructure on reasonable terms through enacting legislation, and maintaining retail prices;
- (c) As a preliminary step, CC agreed with maintaining the framework of Scheme of Control Agreement (SCA). Provisions in the SCA commencing 2008 should include the Government's power to approve all development plans and tariff adjustments, RE requirements, a review of the permitted rate of return every five years, and disclosure of more information by the power companies to enhance transparency. There should also be legal obligation for the existing power companies to implement an interconnected power system including increased interconnection between them and providing grid access for new suppliers;
- (d) CC considered it essential to monitor the retail price of electricity when the market liberalized. In particular, new suppliers would pick more profitable customers, say commercial customers, thus disadvantaging the residential customers. To avoid the problem, consideration should be given to impose universal service obligation to all suppliers or to introduce price freezes for residential customers at the onset of competition.

*Hong Kong Energy Studies Centre  
Hong Kong Baptist University*

5. Professor Larry CHOW, Director of Hong Kong Energy Studies Centre, Hong Kong Baptist University pointed out that from his study of liberalization in electricity markets overseas, there was no unqualified success in market reforms. The common objectives of the reforms were to enhance market efficiency by introducing more competition and to privatize the power firms which were previously subsidized by governments. Concern had been raised about providing suppliers with investment incentives when the market liberalized. It was because there would be no fixed client base and clients would only choose the suppliers based on the tariffs charged by them. Given the fact that electricity could not be stored after it had been generated, there would be a problem in coordinating the supply of different suppliers in an open market. On the issue of interconnection between suppliers, overseas experience indicated that more interconnection in the power grids would be prone to a higher rate of failure in supply. Due to the small market in Hong Kong, opening the market should focus on integration with South China. If new supply sources from South China were

introduced into Hong Kong, it was estimated that tariffs could be reduced by 10% to 15% in the long run. Nonetheless, the public needed to consider the benefit of lower tariff alongside the risk of lower reliability in supply.

*British Chamber of Commerce*

6. Ms Jo WILSON, Chair of Business Policy Unit, British Chamber of Commerce said that the Chamber was of the view that the present timing was not right for introducing new suppliers from the Mainland. On the question of opening up the electricity market to Mainland suppliers, it was imperative to ensure a level playing field for all market participants, and that reliability and safety supply would not be compromised. She agreed that more research needed to be undertaken to explore new sources of power. Strict conditions and provisions reinforcing the Government's energy objectives of reliability, safe and efficient power supply with minimized impact on the environment, and at a reasonable cost should be formulated for all suppliers in the market. Ms WILSON was of the view that the existing 15-year term of SCA should be maintained since any shorter period would be difficult for the power companies to make long-term investment plans. In particular, it was necessary for the power companies to plan for increased use of RE, and cleaner fuels in power generation. She expressed concern that if the negotiation on the new SCAs was delayed, there would be adverse implications on the power companies and local businesses which had to face more uncertainties.

*Greenpeace China*

7. Miss Gloria CHANG, Campaigner of Greenpeace China highlighted the salient points of Greenpeace China as follows:

- (a) Greenpeace China supported the Government's direction in opening the electricity market in Hong Kong and considered the target of liberalizing the market by 2018 reasonable and should provide sufficient time for making the necessary preparations. There were two major principles in opening the market. First, measures should be introduced to discourage electricity generation by coal and the development of alternative fuels capable of minimizing pollution. Second, there should be enhanced regional co-operation facilitating new supply sources and addressing pollution in electricity generation. It was necessary for the Administration to draw up clear objectives and a timetable for implementation in opening the market. The setting up of an independent energy authority and enactment of an electricity law would be essential to the success. During the transitional period between 2008 and 2018, incentives should be introduced to encourage the increasing use of RE and attracting new suppliers to enter the market under a clear and transparent regulatory regime; and

- (b) On the development of RE, Greenpeace China considered that co-operation between Hong Kong and the Mainland should be enhanced to improve the social, economic and the natural environment of the region. A “green electricity” system should be implemented to complement the Government’s proposed emissions trading scheme.

*Association of Engineering Professionals in Society*

8. Ir YIM Kin-ping, Senior Vice Chairman of Association of Engineering Professionals in Society (AEPS) highlighted the salient points of AEPS’ submission as follows:

- (a) The existing regulatory regime for the electricity market was effective and should be maintained. On liberalization of the local electricity market, given the different legal framework, environmental standards and business environment between Hong Kong and the Mainland, the Government should create a level playing field in the market ensuring genuine competition before any new suppliers from the Mainland access the market. Mainland suppliers required improvement, especially in terms of reliability and safety in supply. Any sudden change to the local electricity market would have a great impact on the employees of the two power companies. As regards the proposal on increasing interconnection, the issues of cost-effectiveness and impact on tariff should be considered alongside possible benefits; and
- (b) There were physical constraints for Hong Kong to develop RE and deploy RE for electricity generation. Consideration should be given to subsidizing RE users to promote the usage.

*Civic Party*

9. Mr Albert LAI, Vice-Chairman of Civic Party presented the salient points in the submission as follows:

- (a) There were three major issues related to liberalization in the electricity market. Firstly, a strategy promoting competition should be formulated with clear objectives and a timetable for implementation. Secondly, a regulatory regime with appropriate incentives and punitive measures should be set up to ensure suppliers’ compliance with the regulatory requirements and their corporate responsibilities. Lastly, there was a need to ensure transparency and accountability of the regulatory authority. In this connection, an independent energy authority needed to be established. Before the authority was set up, the Energy Advisory Committee (EAC) could discuss and advise the Government on the power companies’ capital investment proposals and financial plans.

The discussion by EAC should be conducted in open sessions. The public should be allowed access to relevant information and give views on related matters;

- (b) Tariffs should be determined in 2008 by reference to a reasonable return on the equity for shareholders of the power companies. It was proposed that the rate of return be set on Average Net Fixed Assets at 7%, benchmarking the rate of return on equity to the average return for similar companies in overseas markets. The current electricity tariff would then be reduced by around 20%. A tariff adjustment mechanism capable of adjusting tariffs both upward and downward linked to movement in consumer price indices should be put in place. Gains in productivity and efficiency should be shared between the power companies and the consumers; and
- (c) It was undesirable to set different rates of return for different types of assets. A better and more effective alternative to reduce emission was to require the power companies to pay a surcharge based on the level of emission.

*Hong Kong Institution of Engineers*

10. Ir Dr LO Wai-kwok, Vice-President of Hong Kong Institution of Engineers (HKIE) highlighted the salient points of the submission as follows:

- (a) HKIE was of view that the current regulatory regime was adequate in ensuring reliable, safe and efficient electricity supply in Hong Kong. Higher environmental standards should be imposed on new electricity plants in future;
- (b) The electricity market in Hong Kong was not large enough to introduce sufficient players for a meaningful and thorough competition;
- (c) The existing grid network of the two power companies did not cater for importing electricity from the Mainland. It was not envisaged that new supply sources from the Mainland could be introduced in the near future. Interconnection could not replace the need for new generation units because Hong Kong must have its own generation capacity to ensure reliability and security in electricity supply rather than heavily relied on the Mainland for supply;
- (d) Given the unreliable nature of RE and local geographical constraints, only small to medium scale RE applications were feasible in Hong Kong. HKIE agreed that the development of RE should be kept under constant review and the Government should consider measures to

encourage the use of RE in electricity generation. The public should be made aware that the use of RE would have impact on tariffs; and

- (e) Importation of RE from the Mainland would exclude residents there to enjoy cleaner energy and a better environment. If the reserved electricity capacity was also imported from the Mainland, it would have an adverse impact on the local electricity industry and employees working in the sector.

*Professor HO Lok-sang, Director of the Centre for Public Policy Studies, Lingnan University*

11. Professor HO Lok-sang said that the current regulatory regime had failed to encourage operation efficiency of and investments by the power companies as returns were guaranteed. Three important aspects should be examined in considering liberalization in the market, i.e. reliability and stability of supply, protection of interests for consumers and investors of power companies, and a level playing field in the market. Consideration should be given to introducing competition at the “bidding” stage. Interested parties could be invited to bid for the right to supply electricity in the next 15 years after the expiry of the current SCAs. The successful bidders would have to pay for the undepreciated assets of the two power companies. Proposals that could increase the market efficiency should be considered, such as to allow CLP to take over HEC or vice versa, or a third company taking over the entire power supply function.

*(Post-meeting note: The summary of the presentation of Professor HO was tabled and circulated to members vide CB(1)1907/05-06(02) on 3 July 2006.)*

*Clear the Air*

12. Ms Annelise CONNELL, Chairperson of Clear the Air said that in 1996 CLP had offered to supply electricity to Hong Kong Island but the offer was declined by the Government. HEC created 80% more pollution than CLP yet its tariff was 30% higher than CLP. The Government should ensure a level-playing field for consumers and between HEC and CLP. HEC should not be treated more favourably than CLP. On promoting demand side management by power companies, the new SCAs should include energy saving measures, such as encouraging users to reduce their electricity demand by charging users with higher tariffs at peak demand periods. By way of illustration, Ms CONNELL pointed out that in California, the measures implemented after the power failure had saved around 20% of electricity.

*Mr Albert LAI Chi-lap, Councilor of Yau Tsim Mong District Council*

13. Mr Albert LAI Chi-lap considered that it was not the right timing to open the electricity market in Hong Kong. The public was concerned about the reliability and safety in importing electricity from the Mainland, in particular, Mainland suppliers

would only focus on making profits from the sale of electricity to Hong Kong. Mr LAI expressed concern that in order to supply electricity to Hong Kong, more nuclear power plants would need to be built in South China, thus giving rise to concern about the threat to public health in Hong Kong. Mr LAI pointed out that HEC and CLP had maintained good performance in their services by achieving high level of reliability and safety in electricity supply. They had stepped up efforts in reducing emissions by using ultra-low sulphur content coal in electricity generation and installing emission reduction facilities. It was unlikely that any new suppliers could have better performance.

#### Brief response by the Administration

14. Upon invitation of the Chairman, the Permanent Secretary for Economic Development and Labour (Economic Development) (PS/ED) said that the views expressed by deputations at this meeting had echoed those received during the Stage II Consultation Paper on the Future Development of the Electricity Market in Hong Kong (the Stage II Consultation) on the Government's plan and proposals regarding the arrangements to cater for new supply sources. She said that it was the Government's objective to further liberalize the local electricity market and introduce competition among service providers in the long run. The Government had proposed in the Stage II Consultation Paper to continue the existing economic regulation by means of a new bilateral agreement signed between Government and each of the two power companies, and to make necessary preparations for opening up the market in the next ten years after 2008. The Government would initiate and draw up the regulatory framework regarding the grid access for new supply sources in the long run. This might include the setting up of a new regulatory authority to develop the technical standards to ensure the integrity of the power grid, and to regulate the access charge. Moreover, the Government would pursue enhancing the interconnection between the two incumbent power companies, including requiring them to plan for increased interconnection. It would develop an appropriate regulatory framework in light of possible changes in market conditions and with reference to overseas experience, including to work out the details for the establishment of the new regulatory authority and to proceed with all the necessary preparations for the implementation of the new framework.

#### Discussion

##### *Preparations for liberalizing the electricity market*

15. Noting the deputations' view that market liberalization was the right direction for the future development of the local electricity market, Mr CHAN Kam-lam sought their views on how the process should proceed. In particular, Mr CHAN noted that the existing market was already an open one as the power companies did not enjoy franchises in their operation.

16. Given the small market size of Hong Kong, Professor HO Lok-sang of Lingnan University considered that it might be more efficient for one single company to provide electricity service in Hong Kong. However, consideration might be given to opening the market of electricity generation where new suppliers could enter the industry to supply electricity to their customers using the transmission and distribution networks owned by HEC and CLP.

17. Miss Gloria CHANG Wan-ki of Greenpeace China highlighted the need for the Government to include an express clause in the new SCAs outlining the mechanism, procedures and timing for new suppliers to enter the electricity market. As the existing power grids were private properties of the two power companies, the Government should ensure that there would be a level playing field for the existing and the new market participants, in particular with regard to negotiation of access charges to the grids by third parties. She considered that the Government should not adopt a passive role by offering assistance only where necessary and when requested by parties concerned.

18. Mr Fred LI stated that the Democratic Party (DP) was supportive to liberalize the local electricity market. He however expressed concern about the possibility for introducing new supply sources from the Mainland in the long run. In particular, Mr LI noted that the existing interconnector system between CLP and HEC via submarine cables was for emergency backup and sharing of reserve capacity. He was concerned that when new sources from the Mainland were introduced into Hong Kong, they could only be connected to CLP's grid for supply to the customers in the New Territories and Kowloon, and HEC would continue to monopolize the supply in its existing service area.

19. While supporting in principle to open up the electricity market in Hong Kong, Ir Dr LO Wai-kwok of HKIE said the Institution had highlighted the need to resolve technical problems involved, such as compatibility of systems of different suppliers. Given that too many new suppliers might affect grid safety and supply reliability, HKIE considered it necessary for the Government to maintain a fair and effective regulatory regime under which the responsibility and accountability for infrastructure planning and supply reliability would be clearly set out.

20. Mrs CHAN WONG-Shui of CC re-iterated CC's views of adopting an incremental approach to liberalize the market and the need to balance the interests of stakeholders in achieving the benefits of efficient and low cost service to consumers through a mix of regulatory initiatives and measures to promote open competition. Accordingly, CC considered that administrative oversight by the Government, in addition to initiatives to introduce competition and open up the market in a progressive manner was the best solution. CC considered that the new SCAs should place obligations on the current incumbents to implement an interconnected power system, with the ultimate purpose of setting an environment conducive to allowing other competing generators to supply power into their grids.

21. Miss TAM Heung-man was concerned about policies and measures to be devised to prepare for market liberalization, including setting up of an independent energy authority and the formulation of an overall energy policy.

22. PS/ED said that in introducing competition to the market of electricity generation, third-party connection/access to the power grids, i.e. transmission and distribution networks, of the existing two power companies could help avoid duplication of infrastructure involving costly investment. To ensure that there would be a level playing field for all market participants, the Government had proposed in the Stage II Consultation Paper to review the need to draw up new regulatory framework for the future market including the setting up of a separate regulatory authority to prepare for grid access for other new supply sources in the long run.

23. Mr Albert LAI Kwong-tak of Civic Party highlighted the important role of the future independent energy authority in monitoring the performance of the two power companies and new market players, and the need of enhancing the public accountability of the authority to ensure its credibility. The authority should be responsible for overseeing the various regulatory aspects including ensuring a level playing field for all service providers, determining electricity tariffs, enforcing environmental requirements, as well as promoting energy efficiency and conservation.

24. Mr WONG Kwok-hing agreed with CC's views that a legislation should be enacted to provide for the new regulatory regime and the setting up of a regulatory body in order to safeguard market competition. The legislation should give statutory right to new entrants to access the power grids owned by the existing power companies on reasonable terms. He also agreed with CC's views on the need for the regulatory body to govern tariffs and that tariff for residential consumers should be frozen at the onset of competition.

25. Mrs CHAN WONG-Shui of CC supplemented that in addition to legislation, certain requirements, such as increased interconnection between the two power companies could also be included in the new SCAs to encourage market competition.

26. The Deputy Secretary for Economic Development and Labour (Economic Development) (DS/ED) said that as highlighted in the Stage II Consultation Paper, to ensure the reliability and safety of the power grids in pursuing grid connection for RE users and grid access for all generating facilities using RE, the Government would work with the power companies to develop a set of fair and transparent guidelines setting out arrangements among various parties in respect of accounting and settlement of power transactions, demarcation of responsibilities, accountability and liability, etc. As regards the new regulatory framework for the future market, the Government had indicated that this might be implemented through enactment of legislation and the setting up of a separate regulatory authority to oversee the new regime. On the concern about tariff regulation, DS/ED said that according to overseas experience, it would be



necessary to strike a balance in order not to discourage investment incentives of power suppliers. The Administration had proposed that under the new SCAs, Government's approval would be required for all tariff adjustments to ensure they were cost-justified, reasonable and affordable to consumers. Indeed the proposed lower permitted rate of return of 7% to 11%, if implemented, should result in lower tariff, in the order of 10% to 20% calculated on the basis of 2006 data.

27. Mr Ronny TONG noted that despite the power companies had expressed concerns about supply reliability and aggravating air pollution problem with more suppliers in the market, they were not against opening up the local electricity market. In this connection, he enquired about the Administration's plan to ensure supply reliability and the environmental performance of the existing power companies and new entrants to the market. Mr TONG re-iterated the importance to make available as soon as possible relevant standards and requirements of the new regulatory regime to potential suppliers to enable them to make necessary preparation in entering the electricity market.

28. PS/ED re-iterated the need to draw up a regulatory framework with provisions on grid access by new supply sources to ensure supply reliability and to minimize the environmental impact. She highlighted the need to adopt a progressive approach in liberalizing the local electricity market as the new regulatory framework would involve the development of safety, environmental and economic regulations. DS/ED added that the market structure might be different after liberalization. At present, the electricity industry in Hong Kong was characterized by vertical integration where the two power companies owned and operated the entire electricity supply chain, including production, transmission and distribution of electricity to customers in their respective supply areas. It was envisaged that when the market liberalized, new power suppliers would generate electricity and use the power grids owned by CLP and HEC to transmit and distribute electricity to their customers. As such, it was necessary to ensure proper coordination of different parties to ensure supply reliability and to avoid duplication of infrastructure development. The Administration had proposed to make preparations for grid access for other new supply sources and enhanced interconnection with Guangdong Province, which covered both technical and regulatory aspects, such as conducting power system planning and utilization studies, power flow assessments, as well as preparing for the relevant legislative framework. DS/ED assured members that the Administration would finalize the safety standards and environmental requirements for new supply sources during the next bilateral agreement period. PS/ED supplemented that it would take time to study and consider the details. She said that the Government would consult relevant experts and the two power companies in working out these requirements.

*Timetable for liberalizing the electricity market*

29. Mr CHAN Kam-lam enquired about the Administration's timetable in finalizing the new bilateral agreements with the two power companies. He was of the

view that a clear timetable would provide the power companies with certainty in taking forward their infrastructure investments. Notwithstanding the arduous nature of the task involving numerous highly complicated issues, PS/ED said that the Administration would try its best endeavour to finalize the new agreements with the power companies. It remained the Administration's target to complete the task within 2007.

30. Ms Emily LAU expressed the Frontier's support for an early introduction of new supply sources into Hong Kong. On the Administration's proposal of working out the relevant arrangements to cater for new supply sources within the ten-year period of the next bilateral agreements, while she noted that some deputations considered a ten-year term too short, there was an option to extend the period for five years. In such case, Ms LAU was concerned that market liberalization could not materialize until 2023, i.e. the target 2018 plus a five-year extension in the duration of the bilateral agreements. She further sought the views of the two power companies and deputations on the timing for opening up the electricity market in Hong Kong.

31. PS/ED said that the Government had proposed in the Stage II Consultation Paper that the future bilateral agreements be on a ten-year term with an option to extend by another five years to provide greater flexibility in responding to future market development. She highlighted the series of complicated issues involved in liberalizing the electricity market, including the provisions of grid access for new supply sources, the setting up of the future regulatory authority, the preparation for enhanced interconnection and the formulation of relevant legislative framework, etc. As such, the Administration considered it appropriate and prudent to make use of the next agreement period to work out the future regulatory framework.

32. Ms CHAN WONG-shui of CC agreed with the Administration's target of finalizing a new regulatory regime for the future market during the next ten-year agreement period with a view to catering new supply sources by 2018.

33. Professor Larry CHOW Chuen-ho of Baptist University cautioned that Hong Kong should take five to ten years' time to monitor the development of liberalized electricity markets overseas before deciding on the way forward for Hong Kong. He pointed out that liberalization of the electricity markets of California and Ontario had resulted in chaos. It was necessary for the Administration to examine related issues and problems for the benefit of Hong Kong. He added that given the complex issues involved in market liberalization, some overseas economies had taken eight to ten years to work out the regulatory framework for an open market.

34. While supporting the development of a regional competitive electricity market in the long run, Mr S H CHAN of CLP considered that market liberalization was just one of the means rather than the ultimate aim in meeting the Government's policy objectives of ensuring reliable, safe and efficient energy supply to the public at reasonable prices while minimizing environmental impact. He said that while CLP

maintained an open mind on the issue of market liberalization and supported that the Government should proceed the matter with prudence having regard to the circumstances in Hong Kong and South China, it had advocated for a 15-year term for the bilateral agreement in view of the long-term nature of the electricity industry where asset lives were in the order of 30 years or more. A longer term bilateral agreement would be essential for CLP in making necessary infrastructure investment to meet the growing demand of the community.

35. Sharing CLP's view, Mr C T WAN of HEC stressed that both HEC and CLP had met the objectives of Government's policy by complying with the requirements in the current SCAs. Both had achieved outstanding performance in many aspects when benchmarked with their counterparts overseas. Mr WAN stressed that market liberalization should not be the pre-requisite nor the necessary means to achieve the Government's policy objectives. He pointed out that power companies had to undertake higher risks under a bilateral agreement with a ten-year term. HEC considered it appropriate to maintain a 15-year term for the new bilateral agreement.

*The development of renewable energy in electricity generation*

36. Referring to a survey conducted by the Census and Statistics Department which indicated that 63.6% of the 8 000 households interviewed were supportive of introducing more RE to Hong Kong, Miss TAM Heung-man sought deputations' views on the development of RE in the local electricity market.

37. Mr Albert LAI Kwong-tak of Civic Party considered that to encourage the use of RE in electricity generation, priority should be given to new suppliers using RE in accessing the power grids. The Government should also formulate policies conducive to the development of RE in Hong Kong so that potential suppliers could make early preparation.

38. Miss Gloria CHANG Wan-ki of Greenpeace China said that while the public was concerned about higher tariffs as a result of using RE for electricity generation, it was important to note the social cost of the deteriorating air pollution problem caused by electricity generation using coal and natural gas. Despite the relatively higher production costs involving the use of RE, this would benefit the entire society over a medium and long term. Miss CHANG added that the use of RE for electricity generation was increasingly common in European countries. For instance, in Denmark, an economy with population and economic development similar to Hong Kong, about 20% of the country's power needs was met by wind energy. She urged the Government to make reference to successful experience of overseas economies in using RE for electricity generation. In view of the topographical constraints and limitations in Hong Kong to the application of RE, Miss CHANG urged the Government to explore cooperation within the region in developing RE for electricity generation with a view to improving the regional air quality.

39. The Deputy Chairman expressed the Liberal Party (LP)'s concern about the negative impact of the deteriorating air pollution problem in Hong Kong on the health of the general public. He added that LP had urged the business sector in Hong Kong and the manufacturing enterprises in Guangdong Province to step up environmental protection measures in tackling the regional air pollution problem. He further considered that the Government's target of having 1% to 2% of local power needs met by RE by 2012 was too conservative vis-à-vis 5% in the Mainland. In this connection, he enquired about details of proposed measures to encourage power companies to increase the use of RE, including strengthening communications with the Mainland authorities in exploring cooperation in this area, and expediting land allocation for construction of RE infrastructure and emission reduction facilities in Hong Kong.

40. On the target for the development of RE in Hong Kong, Mrs CHAN WONG-Shui of CC agreed that there was room to increase the use of RE in electricity generation and considered that the Government's target of 1% to 2% in this respect should represent the minimum level and the concerned parties should try their endeavour to achieve more than the target. She expected that the target would rise with gradual advancement in RE technology.

41. DS/ED explained that the said target was set in the First Sustainable Development Strategy for Hong Kong promulgated in May 2005, which had been drawn up after taking into account the topographical constraints of Hong Kong and views expressed during public consultation. To encourage the development and application of RE in electricity generation in Hong Kong, DS/ED said that the Stage II Consultation Paper had proposed to give RE infrastructure a higher rate of return than other assets of the power companies.

42. As regards the Government's efforts in promoting RE development and application in Hong Kong, as well as tackling the regional air quality problem, DS/ED said that all along, the Environmental Protection Department (EDP) had maintained ongoing discussion on related issues with concerned Mainland authorities. For instance, the Government had initiated discussion on the proposal of implementing an emission trading scheme between Hong Kong and Guangdong Province, which would encourage power plants in the region to enhance their emission reduction facilities. PS/ED added that the Administration recognized the need to provide incentives for power companies to improve their environmental performance. She however highlighted that public views collected during the Stage II Consultation were divided as to whether the cost of implementing emission reduction measures should be shared by customers.

43. Mr SIN Chung-kai noted that in Japan, in order to encourage the use of RE, buy-back arrangement were provided by power companies to RE users using solar panels for generating electricity. He asked whether such arrangement also existed in the regulatory regimes of other economies. He also urged the Administration to

consider including provisions on buy-back arrangement in the new bilateral agreements to encourage the use of RE by small scale suppliers.

44. Miss Gloria CHANG Wan-ki of Greenpeace China said that notwithstanding topographical constraints and limitations in Hong Kong in applying RE, it was viable for suppliers of small and medium scale to utilize natural resources to produce electricity for their own use or supply to other users in a limited scale. She noted that the Electrical and Mechanical Services Department had developed a set of “Technical Guidelines on Grid Connection of Small-scale Renewable Energy Power Systems” to facilitate grid connection for RE users. To further encourage the use of RE, Greenpeace China was of the view that priority in grid access should be given to new suppliers which used RE for electricity generation. On the sale of RE generated electricity, Miss CHANG said that economies like Japan, the United States and those in Europe had put in place arrangements to facilitate the development of such a market including setting up authorities to certify electricity generated from RE sources. It had been observed that consumers in these economies were willing to pay more for electricity generated from RE sources.

45. Ir YIM Kin-ping of AEPS opined that to promote the use of RE, the Government should devise measures to encourage the use by users, such as residential estates and schools. It should also consider providing further economic incentives, such as subsidies or tax concession for investment in RE infrastructure and providing rebates to RE users.

46. Professor Larry CHOW Chuen-ho of Baptist University cautioned about the public’s acceptance of higher tariffs for electricity generated by RE by highlighting the findings of a government survey that despite most respondents expressed support for the introduction of RE, only a small proportion of them indicated that they were willing to pay higher electricity tariff.

47. DS/ED affirmed the Government’s commitment of promoting the development and application of RE in electricity generation in the future regulatory regime. However, he said that it was not in line with Government policy to offer tax concession for assets acquired by companies. To achieve the objective, the Government would work with the power companies and relevant experts to modify the technical guidelines to cater for RE systems, and to improve the technical codes developed for grid connection for RE users.

*Environmental performance of the power companies*

48. Noting that the sales volume of CLP’s electricity to Guangdong Province had increased four folds since 1999, Mr Fred LI called on CLP to stop selling electricity to Guangdong Province with a view to reducing air pollution in Hong Kong.

49. Mr S H CHAN of CLP said that customers would indeed benefit from the sale of electricity to Guangdong Province. Firstly, 80% of the net profits so generated would be transferred back to CLP's local customers through rebates. Secondly, as enterprises in Guangdong Province were facing serious shortage of energy, without the sale from CLP, they had to rely on the supply from old power plants using low quality coal and diesel for electricity generation, thus further aggravating the regional air pollution problem since diesel was even more polluting than the coal used by CLP in electricity generation. On the contrary, as CLP's power plants were subject to more stringent environmental control than its counterparts in Guangdong Province, the sale of electricity to the Province would help address the regional air polluting problem. Lastly, a lot of enterprises operating in the Pearl River Delta area were indeed Hong Kong enterprises. The sale of electricity to Guangdong Province would help address the energy shortage problem faced by these enterprises, thus indirectly contributing to Hong Kong's economy.

50. In reply to Mr Fred LI's further enquiry about the emission reduction requirement on power plants in Guangdong Province, Mr S H CHAN of CLP said that as he understood, installation of desulphurization systems was only confined to large power plants. There were hundreds of small scale power plants of very low generation capacity which had been using diesel or high sulphur coal for electricity generation. As there was still a serious shortage of electricity supply in Guangdong Province, it was unlikely that these small power plants could be decommissioned in the short term.

51. In this connection, Miss Gloria CHANG Wan-ki of Greenpeace China pointed out that the relevant Guangdong authorities had required power plants of 1 000 MW or above to be installed with desulphurization systems by end 2006 when none of the generating units of CLP were equipped with such systems.

52. In response to the Chairman's enquiry about whether the power companies had encountered problems in land allocation for construction of desulphurization systems to their generation units, both Mr C T WAN of HEC and Mr S H CHAN of CLP confirmed that HEC and CLP had already secured land for such purpose.

53. While appreciating the efforts of the power companies in ensuring the reliability and safety in electricity supply, Mr Vincent FANG urged the power companies to step up measures to minimize pollution to enhance protection for the health of the general public. In particular, he urged CLP to expedite the installation of desulphurization systems without further delay. To minimize pollution in electricity generation, he further suggested that CLP should be required to use the proceeds of the electricity sale to Guangdong Province to enhance its emission reduction facilities.

54. The Deputy Chairman expressed concern about the social cost as a result of air pollution. Miss Gloria CHANG Wan-ki of Greenpeace China considered that a responsible government should strive to safeguard the health of its people. She said that a study had shown that the social cost of air pollution in Hong Kong reached as

high as \$20 billion a year. Moreover, according to the information released by EDP, the total volume of electricity sold by CLP to Guangdong Province only met 1% of the latter's total electricity consumption. However, the sale had attributed to 13% of the emission of sulphur dioxide in Hong Kong, thus it was doubtful whether the sale of electricity to Guangdong Province was cost-effective.

55. Mr S H CHAN of CLP highlighted the environmental performance of CLP which had outperformed many other power companies in the world. He said that CLP had expedited the projects of retrofitting four coal-fired generating units with flue gas desulphurization systems which was expected to be completed in phases from 2009 onwards. The coal-fired generating units were also installed with electrostatic precipitators which removed 99.4% of particulates. It had also introduced the use of ultra-low sulphur coal in electricity generation and accelerated the construction of the liquefied natural gas receiving terminal. These efforts would enable CLP to achieve the emission reduction target.

#### Date of next meeting and subject for discussion

56. The Chairman said that members agreed at the meeting held on 29 May 2006 to discuss two of the four major topics listed in Hon SIN Chung-kai's letter dated 23 May 2006 (LC Paper No CB(1)1598/05-06(01)), viz. liberalization of the electricity market, environmental regulations in the future electricity market. After discussion, members agreed to hold the next special meeting by end of September 2006 to meet with deputations on the subject of environmental regulations in the future electricity market electricity generation. Members also agreed to invite interested parties to submit their written views and/or attend the special meeting. An invitation notice would also be posted at the Council website for this purpose.

*(Post-meeting note: With the concurrence of the Chairman, the next special meeting will be held on 25 September 2006, at 10:45 am. The notice and agenda for the meeting was issued to members vide LC Paper No. CB(1)1912/05-06 on 3 July 2006. Members were also informed of the list of interested parties to be invited for written submission and/or attending the special meeting vide LC Paper No. CB(1)2056/05-06 on 25 July 2006.)*

## **II. Any other business**

57. There being no other business, the meeting ended at 12:45 pm.