

By post and by fax at 3151 7052

5 June 2015

Clerk to Panel on Economic Development  
Legislative Council Secretariat  
Legislative Council Complex  
1 Legislative Council Road  
Central Hong Kong

[Attn: Miss Shanice LOK]

Dear Miss LOK

**Public Consultation on the Future Development of the Electricity Market in Hong Kong**

Regarding the meeting of the Panel of Economic Development on the captioned subject, we are pleased to provide herewith our views and suggestions on the subject for your consideration.

Thank you.

Yours sincerely



Ir Victor CHEUNG Chi Kong  
President  
The Hong Kong Institution of Engineers

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VCKC/WC/ML

**Enclosure**

**Legislative Council - Panel on Economic Development  
Views from the Hong Kong Institution of Engineers on the  
Public Consultation on the Future Development of the Electricity Market**

**Overview**

The Hong Kong Institution of Engineers (HKIE) aspires that the Government and the public, through more opinions exchange over the current Consultation, would be able to come up with a strategic energy policy translating into concrete action plans in the mid- and long-term for the electricity market, in particular to the elements of electricity generation and consumption. We would like to elaborate our concerns and views in the ensuing paragraphs for consideration.

**The Situation**

*Electricity Market and Scheme of Control*

2. The HKIE agrees that Hong Kong has been enjoying high quality electricity supply. Even further enhancement opportunities abound, the current regulatory framework over the supply of electricity by the power companies is considered effective and its merits should never be neglected. Hong Kong being a metropolitan with some 62,000 lifts and 8,700 escalators as well as numerous other equipments operating for our business, information technology, safety and health sectors etc., reliability in electricity supply is a definite requisite for Hong Kong to survive and thrive. We expect that the future development of electricity market must secure such high reliability.
3. The HKIE welcomes any constructive initiatives in enhancing the market environment for electricity, and believes that sound rationale and further data should be made available to facilitate deeper understanding of the situation and deliberation by the stakeholders, especially the public. For development of electricity market, we trust that Hong Kong should trek prudently and avoid drastic change in market regulation, and that competition should only serve to enhance the objectives of energy policy.
4. Electricity is an essential type of public utilities and we appreciate that the public would expect higher transparency in monitoring the market and its players (i.e. the power companies). However, the HKIE also understands that power generation and transmission involve significant commitment and risk taking on the part of the power companies. They would have to plan for adopting new technologies and new system. Hence, we expect the Government to propose more measures that would establish a good mechanism for future tariff review, while there will be more benchmarking measures and objective referencing data for the public to determine other financial matters relating to rate of returns and cost etc. involved in the negotiation of Scheme of Control Arrangement (SCA).
5. After all, we believe that the spirit and current practice of SCAs made with the power companies should be maintained at least in the short- and mid-term, but agree

that there is room for further improvement. For stability of the market and healthy development of electricity supply without affecting the interests of the consumers and the community at large, a term of 10-year duration of the SCA is considered acceptable.

#### *Sources of Generating Electricity*

6. The HKIE has expressed that Hong Kong should not pursue import of energy in the future fuel mix during the previous consultation on the subject. Instead, the HKIE agrees higher use of natural gas for local power generation and further proposes that we should always leverage on engineering technologies to pursue other sources of clean and efficient electricity generation, with the driving aim of better environmental protection and energy efficiency as well as public health.

7. With respect to the use of natural gas for electricity generation, the HKIE is concerned that striving for stable supply at reasonable price of it is essential in order not to affect the affordability of the consumers.

8. In addition to the use of natural gas, the HKIE as a professional body in engineering would earnestly advocate the Government to pursue with power companies and other sectors in identifying more energy generation options with the use of modern technology. For charting the way forward, in-depth studies shall be carried out to examine the technical feasibility, cost-effectiveness and other issues (e.g. social implications) for different energy generation options.

9. Having such concerns in mind, we are also aware that there could be practical difficulty or more corresponding arrangements to be addressed for Hong Kong to have wider engagement in pursuing renewable energy (RE) and distributed power generations with high energy efficiency. The possibly higher cost for generating RE may make it a less desirable choice purely from financial point of view. Also, for distributed power generations, there is still much to do on the infrastructures for addressing the reflux of electricity to the grid, which will involve clarification and agreements on the technical, regulatory and financial arrangements. Furthermore, the intermittent and less stable nature of power supply by RE may also require back-up and stand-by arrangements, which could lead to concern of resources redundancy.

#### *Consumption Perspective*

10. We should never overlook the demand side of power when speaking of electricity market. While affordability of consumers is one of the major concerns, the HKIE believes that the consumers should also be provided with more options in respect of their use of electricity.

11. Hong Kong should also have sufficient measures of demand-side management which would be essential to not just relieve the pressure on electricity reserves and supply reliability during peak hours, but also address the imminent issue of sustainable development with due concern on the environmental protection. The HKIE aspires that there can be more measures launched by the Government to drive for better demand-side management of electricity.

## Energy Policy

12. The HKIE always agrees that reliability, safety, environmental protection, and affordability are the four major policy objectives that Hong Kong should observe in the future electricity market development. However, the HKIE further opines that Hong Kong should develop a holistic vision that can properly and effectively put these four objectives into tangible actions for the long-term benefits of society.

13. We expect that there should be better and clearer alignment of Hong Kong energy policy with the electricity market development and the regulatory framework on the electricity market. This is especially essential when Hong Kong is to strive for sustainable development and combat climate change, and to keep pace with technology advancement in the global context.

14. Under the backdrop of these concerns and for active pursuit of excellence for Hong Kong in sustaining world-class electricity supply quality, the HKIE would like to put forward our recommendations as follows for consideration:

## Recommendations

15. The HKIE regards that Hong Kong should take the opportunity to conduct in-depth studies to explore the feasibility of various initiatives taking into account Hong Kong specific objectives, needs and constraints, such as

- giving more impetus for the power companies to enhance infrastructure to facilitate reflux of electricity generated from distributed power generations
- joining with power companies to leverage on new engineering technology in actively increasing the proportion of electricity generated from RE
- encouraging the power companies to study the feasibility of wider electricity use options for the consumers (such as differential tariff for peak/non-peak hours, and an alternative for consumers to purchase the electricity generated from RE)
- encouraging the power companies to study in collaborating with relevant sectors the feasibility of distributed power generations and demand-side management options
- reviewing the performance indicators to reinforce not just reliability but also the capacity of the power companies to adopt more energy efficient options for the benefits of the environment and the community at large

16. The HKIE recommends that the Government should further study the practicability of installing co-generations and tri-generations at public facilities (such as hospitals and government offices). The Government should also take the lead in working with professional bodies and institutions in looking for ways for designing and implementing energy efficient and demand-side management options on the use of electricity, such as constructing feasible thermal reserves plants to facilitate shifting electricity usage off the peak hours.

17. With regard to the natural gas, the HKIE suggests the Government to seriously look into construction of Liquid Natural Gas (LNG) Terminal to help managing the stable supply of natural gas which is essential for Hong Kong future electricity

generation.

18. In looking forward to the future, the HKIE believes that Hong Kong may explore other possible steps in electricity market development without compromising the present outstanding performances in respect of safety, reliability, affordability and environmental protection. For instance, in the future green fields and new development areas, the Government should progressively add in more RE and distributed power generations and may allow other forms of market regulations. The Government should also encourage the stakeholders to retrofit their system with better energy efficiency. However, we opine that Hong Kong should take creative steps in the electricity market development more for the purpose of enhancing environmental performances rather than just focusing on the competition itself.

19. Above all, the HKIE would like to invite the Government to provide more information, data, and grounds for the public to deliberate on the future electricity market development so that informed decisions and agreements can be reached to meet the expectations of all stakeholders.