



香港工程師學會

THE HONG KONG INSTITUTION OF ENGINEERS

香港銅鑼灣記利佐治街1號金百利9字樓
9/F Island Beverley, No 1 Great George St, Causeway Bay, Hong Kong
電話 Tel +852 2895 4446 傳真 Fax +852 2577 7791
hkie-sec@hkie.org.hk www.hkie.org.hk

會長 黃國禮 工程師 太平紳士
President Ir WONG Kwok Lai JP
ISO BSc FHKIE R.P.E.
CEng FICE FCIWEM
president@hkie.org.hk

CB(1)2218/05-06(02)

By Post and By Fax at 2869 6794

11 September 2006

Clerk to Panel
Panel on Economic Services
Legislative Council Secretariat
3rd Floor Citibank Tower
3 Garden Road Central
Hong Kong
(Attn: Ms Debbie YAU)

Dear Ms Yau

LegCo Panel on Economic Services – Views on environmental regulation in the future electricity market in Hong Kong

Thank you for your letter of 25 July 2006 inviting us to put forth our views on the captioned subject.

The Institution has considered the proposed environmental regulation as set out in the Stage II Consultation paper and is pleased to provide herewith our views and observations on the issues of concern for consideration and discussion at the Panel meeting on 25 September 2006.

Yours sincerely

Ir WONG Kwok Lai
President

Encl.

Enclosure

LegCo Panel on Economic Services

**Summary of views of the Hong Kong Institution of Engineers
on environmental regulation in the future electricity market in Hong Kong**

General

1. The Hong Kong Institution of Engineers (HKIE) refers to the Stage II Consultation Paper on Future Development of the Electricity Market in Hong Kong where it sets out a proposed framework for the future electricity market upon expiration of the existing Scheme of Control Agreements (SCA) in 2008.
2. HKIE notes this submission is to give views on the part of environmental regulation and other related matters for the regulatory arrangements in the future electricity market.

Environmental Regulation

3. HKIE opines the current mandatory licensing arrangement as the environmental regulation for the future electricity market is satisfactory and effective for improving the environmental performance of power companies in Hong Kong and should be kept.
4. HKIE acknowledges the communal aspirations for the lowering of emission. HKIE agrees with such but views for all intents and purposes, to allow sufficient time for power companies to meet progressive intermediate targets on emission cap is more desirable as to ensure technical and economical viability and to effectively contribute to the improvement of the air quality on regional basis.
5. HKIE believes that end-users of an affluent society like Hong Kong should also contribute to the cost for having a better environment, possibly partly on user-pay basis. This belief followed the rationale of end-users of the fresh water were also required to shoulder part of the environmental cost of discharge. However, should contribution were not to be based on a linear scale, the Administration might have to identify and tackle major sources of air pollution to carry out the obligation effectively and fairly.
6. HKIE views the power companies should be encouraged to make optimal use of the existing coal-fired plants by upgrading to an attainable environmental performance, instead of outright de-commissioning. Idling of existing useful machinery and unnecessary procurement of new machine would create environmental waste, contrary to our purpose.

7. In long terms, a balanced fuel-mix strategy for Hong Kong is essential and important.

8. HKIE proposes that all new plants and supply sources should comply to the most recent criteria of environmental control and their induction to the grid was to be assessed as a whole in term of fuel strategy and overall regional environmental performance.

Rate of Return of Investing on Renewable Energy and Emission Reduction Facilities

9. HKIE supports the proposal to introduce more Renewable Energy (RE) onto our system. HKIE wishes to caution relying of RE to substantially mitigate the pollution problem may not be practical in Hong Kong due to its topographical constraints. Further, limitation on its application should not be overlooked.

10. HKIE also wishes to point out the unit cost of RE production is higher than that of conventional methods of generation. To provide extra incentives to the power companies on RE generation investment would elevate the tariff further upwards.

11. HKIE also views since both RE and emission reduction facilities are environmental protection measures, they should be entitled to the same level of Rate of Return (ROR).

12. In fact, emission reduction facilities, such as FGD, are proven to be very cost effective for power plants to reduce emissions. HKIE views the proposed lower ROR for these facilities may distort decisions in taking on the most optimal investment in curtailing emissions.

13. HKIE does not support directly linking the permitted ROR on all fixed assets of the power companies to their achievement of the emission caps stipulated in the Specified Process Licences (SPLs).

14. The permitted ROR should be set at a level to enable investors to earn a fair return on the investment taking into consideration the alternative investment options and the risk involved in the current business. On the other hand, compliance to emission cap is an issue associated with the operating environment and not the business itself. Directly linking the two together is not appropriate.

15. In addition, under the current Air Pollution Control Ordinance, power companies are already subject to financial penalty for failing to meet emission caps. Hence HKIE wishes to point out that reducing the ROR further upon failure to meet emission cap will simply introduce “double-penalty” to the power companies. HKIE opines this arrangement is not fair to the operators and will increase the investment risk of these companies, unnecessarily jeopardizing the stability and security of the electricity infrastructure.

16. HKIE has reservation of the combination of the proposed 10 years and the permitted 7-11 percent ROR being adequate for an industry of capital intensive in nature with long pay back period, to encourage the operators investing timely and adequately to safe guard against the degradation of supply reliability in future.

17. HKIE views the Administration has turned a otherwise straight forward proposal overly complicated by suggesting different ROR for equipment, albeit all operating as an integral system and meant to serve the same purpose and by suggesting overlapping consequential penalties on one environmental aspect of performance.

18. HKIE agrees new target of the appropriate emission cap is to be decided. HKIE also agrees it is pertinent to review the permitted ROR of the industry. But they are separate issues and should not be intertwined.

Emission Trading Scheme

19. Any Emissions Trading Scheme (ETS) to be devised should be fair, equitable and transparent, and should allow public oversight. The success of an ETS depends on large-scale regional and thorough coverage.

20. Without a detailed scheme, HKIE could not evaluate further. But based on what had been published, HKIE wishes to caution as below:

- (a) Selecting isolated points for emission trading has no significant bearing of the overall improvement on the environment in Hong Kong.
- (b) ETS with GunagDong Province involves monitoring and verification across two jurisdictions, each with different standards.
- (c) ETS in the region should only be adopted when difficulties in mitigating the emission problem are overcome and allocation of emission caps credibly established.
- (d) Administrative cost needed to monitor and enforce an ETS regime between different jurisdictions should not be underestimated, in particular where an independent and credible enforcement and monitoring mechanism is to be established to ensure market fairness and due compliance.
- (e) Public support is needed to implement the ETS to its full benefit. To enhance due understanding by the public, prompt delineation of other overseas experience would be beneficial.

21. However, ETS can only be regarded as one of means to facilitate the mitigation of the cross-boundary pollution problem. The scheme itself cannot be considered as the final solution. In the near term, HKIE suggests that the Administration should ensure local operators to continue their investment in emission reduction facilities and to employ cleaner fuel, instead of heavily relying on trading emission quota

22. HKIE hence proposes to reserve ETS only as a stop-gap option for meeting shortfalls of emission reduction level by local power utilities. If otherwise, ETS could be used as an escape route, upon certain payment of which, the operators would have choices to ignore investment in emission reduction. HKIE also believes that, by investing in environmental mitigation facilities and employing cleaner fuel, Hong Kong should be able to resolve its own emission problem.

Conclusion

23. The Administration should take a holistic approach in addressing the issue and should have a comprehensive road map to tackle all major sources of air pollution that include the power sector, transportation and industrial undertakings of the region.

24. A clear policy of fuel strategy is essential so that prompt and timely consideration of the future role of many of the existing coal-fired plants could be drawn.

25. The SCA should simply stipulate the set of emission criteria that had to be met as well as criteria of other performance and requirement.

26. A straight forward ROR on capital investment should be introduced.

27. Environmental protection is the obligation of everyone – government, utilities and the public. Local environmental problem is local responsibility and should best be solved locally. The notion of shifting pollutants to a nearby region, itself with supply scarcity and pollutants abundance is not a genuine proposition of environmental protection and would be a detriment to achieve a sustainable development.