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Enclosure

**Legislative Council Bills Committee  
Views from the Hong Kong Institution of Engineers  
on the Air Pollution Control (Amendment) Bill 2008**

1. The Hong Kong Institution of Engineers (HKIE) refers to the Air Pollution Control (Amendment) Bill 2008 and the attached Legislative Council Brief (Paper) and is pleased to offer our views as below.

**General**

2. The Institution supports Government's proposal of amending the Bill to cap the emissions of sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and respirable suspended particulates (RSP) from the power sector in 2010 and beyond.
3. HKIE has grave reservation on introducing, even for the sake of facilitating, the use of emissions trading as a means to comply with the emission caps for power plants under the proposed framework as per the Pilot Scheme.
4. HKIE has no comment on the need to repeal some provisions on the Appeal Board.

**Emission Gap**

5. Taking into account the need to further improve air quality in Hong Kong, HKIE agrees the overall emission cap for the power sector may need to be revised.
6. The revision could be made based on the use of best practicable means (BPM) for the electricity works, the attainment and maintenance of the Hong Kong Air Quality Objective (HKAQO) and the impact of emissions on public health.
7. If paragraph 5 of the Paper actually envisaged the power companies might have difficulties in full compliance, HKIE views we should first assess and evaluate such scope and scale and not summarily putting an escape means allowing paying to pollute. The true essence and practice of emission trading should not be just that. HKIE has no details for prompt assessment.
8. HKIE notes under the new Scheme of Control, different rates of return were allowed to encourage investments in reducing emission. HKIE is not sure whether this difference in rate would be applicable to amounts spent on the emission trading since legal liability of the power companies would be discharged as proposed under paragraph 14.
9. The capacity of adopting the current technologies of using low NO<sub>x</sub> burners, flue gas desulphurisation plants and electrostatic precipitators as emission control devices for reducing emissions from coal-plants is limited beyond the 2010 targets.
10. Given that it is not possible to generate a significant amount of electricity by renewable energies in Hong Kong due to geographical constraints, clean fuel such as

natural gas seems to be a feasible option to further improve air quality. However, it is worth mentioning a clear fuel strategy must be put in place as interruption to a major source of fuel supply would significantly affect the reliability and security of electricity supply in Hong Kong.

11. HKIE also proposes the Administration to consider measures to control emissions from the transport sector which is the second major contributor for the poor air quality.
12. HKIE has reservation that emission allowances to the two power companies would be determined with reference to past record of amount of electricity generated.
13. The two power companies have different mix of fuel for generation and one with plants installed outside HKSAR territory. First it would be difficult to pin point what amount of generation is for local consumption on a daily basis. Secondly, granted, fuel used for plants installed on the Island was more polluting and perhaps citizens living there have to bear extra cost for cleaner air. But such extra must be ensured being put into proper deployment.
14. There is no guarantee that such extra costs might be totally used in upgrading plants and installing other equipment as it would be up to the operator to decide choosing between plant improvement or taking on board the escape clause of emission trading.
15. HKIE views more elaborative provisions should be included for potential new comers. Where it is not feasible to estimate allotments at this juncture then we have to reckon so. A stop gap proposal of one percent may bring complication in future.
16. HKIE has no strong view on the proposed arrangement of the “banking” of allowances. On the other hand, where a mature and structured market of emission trading exists, this issue could have been taken care of by the market forces. There would not be any need for a specific and separate piece of legislation in this regard. HKIE must hence have to take this as a further evidence to reinforce our belief that the time of introducing emission trading is not appropriate yet.

### **Emission trading**

17. On the other hand, HKIE welcomes the suggestion to initiate emission trading within the territory, given that the performance standards and testing are based on international standard. It would be easier to establish a framework for such purpose as data and standards for prompt control and administration are readily available.
18. The same cannot be said for the cross border trading. Earlier HKIE had already expressed our opinion that the Pilot Scheme was lacking in supporting justification and not of a mature construction. Without addressing to such inherent deficiencies, HKIE is disappointed to find the proposition to legislate the same.
19. Taking this further were we decide to address the overall emission reduction for PRD region, HKIE opines the emission target on pollutants, say RSP for example, between plants in Hong Kong and in PRD were to be based in terms of actual tonnes per kWh, instead of on percentage reduction. With the present arrangement, it is evident plants in the PRD would have an emission target much higher than those in Hong Kong

ending up selling emission credit through the Pilot Scheme to the already environmentally cleaner power plants in Hong Kong. This is not conducive to and in fact would deter the maximum efforts and resources utilized in combating reduction of emission for both HK and the region.

## Conclusion

20. HKIE reiterates emission cap for both HK and the PRD region is necessary but steps taken to achieve such must be practical and reasonable. In this regard HKIE had made various submissions in the past.
21. Circumstances within the PRD region are not mature yet for an effective emission trading. HKIE was surprised to find an untested Pilot Scheme originally proposed in 2007 and meant for voluntary participation is now endowed within a statutory provision.
22. Emission Trading elsewhere can be an effective means to combat pollution but unless a thorough assessment is carried out with equitable standards, a premature introduction of same could become a license to pollute.
23. HKIE understands the Environmental Protection Department is now in the process of reviewing the HKAQO, devising a long-term air quality management strategy including tightening up overall emission allowance for the power sector. If our understanding were correct, HKIE is not sure whether HKAQO has any relationship to this proposed Bill.
24. If affirmative, HKIE is of the view that the Administration should adopt a step-by-step approach to formulate a new set of the HKAQO taking into consideration of health benefits, availability of emission control technologies and social and economic impacts. It is also vital that stakeholders should be widely consulted before setting the new HKAQO.
25. Emission of polluting gases is a very serious matter and the technology involved is intensive. HKIE is not informed of sufficient information to draw any conclusive recommendation that the proposal is the best option for the time being and beyond.
26. Inputs from engineers are essential and critical. HKIE is disappointed that we had not been specifically consulted on its initial drafting nor the requirements of continuous engagement of engineers for future monitoring, operation and control were put in place.