

**The Views of the Association of Engineering Professionals in Society (AES)
on the Bills Committee on Air Pollution Control (Amendment) Bill 2008**

General

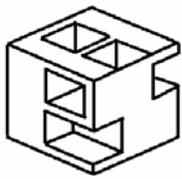
1. The AES welcomes the government's proposal of amending the Air Pollution Control Ordinance to cap the emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and Respirable Suspended Particulates (RSP) of power plants in Hong Kong in 2010 and beyond; to facilitate the use of emissions trading as a means to meet the emission cap; and to repeal some provisions on the Appeal Board.
2. To further improve air quality in Hong Kong, the overall emission cap for the power sector may need to be revised in future. We are of the view that the revision should be 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.

Best Practicable Means and Air Quality Objective

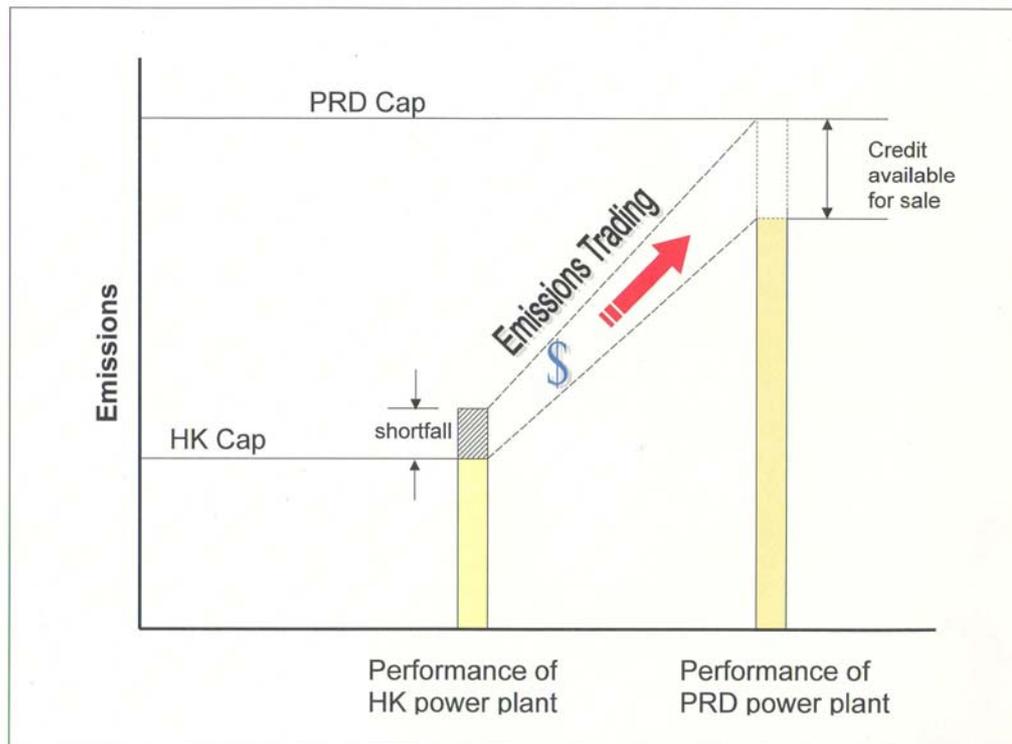
3. In order to meet the government's 2010 emission reduction targets, the BPM for coal-fired plants such as low NO_x burners, flue gas desulphurisation plants and electrostatic precipitators have been/would be widely adopted to control emissions from the power sector. Therefore, further emission reduction by these devices would be rather marginal. The government should also consider inclusion in the Amendment Bill, new emission reduction measures for the transport sector, the second major contributor for the poor air quality.
4. Given that it is not possible to generate a significant amount of electricity by renewable energies in Hong Kong due to space constraints, clean fuel such as natural gas seems to be the most feasible option to further improve air quality. However, it is worth mentioning that if natural gas becomes the only energy source, any interruption to gas supply would significantly affect the reliability of electricity supply in Hong Kong.
5. We note that the existing HKAQO is being revised against world standards. The new set of HKAQO is likely to be far more stringent, and the overall emission allowance for the power sector would be tightened accordingly. We are of the view that the government should adopt a step-by-step approach to formulate the new set of the HKAQO taking into consideration health benefits, availability of emission control technologies and social and economic impacts. Stakeholders should be widely consulted before setting the new HKAQO.

Emission Trading

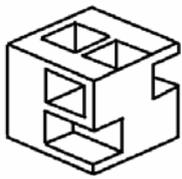
6. It is noted from Appendix 2 of the LegCo Paper CB(1) 972/06-07(05) that credits in the PRD can be allocated under the current total emissions control and permitting systems. It would be beneficial to know how these systems work. In addition, it appears that the emissions caps set for the PRD power plants look more relaxed when compared with those for their Hong Kong counterparts (see Figure below). It is important that fair treatment should be applied to power plants of both sides. Due



to this possible discrepancy, it is most likely that PRD power plants would have credits to sell, but not the Hong Kong power plants. Depending on the prices of the emissions credits, which may vary, Hong Kong power plants would either purchase credits or reduce their emissions to meet the cap requirements. This would be a one-way process and we have to develop an evaluation methodology in the Pilot Scheme to examine carefully if the money spent is worthwhile for the purpose of achieving the objective of improving our air quality.



7. Another critical part of a successful emissions trading scheme is enforcement. Success of the management of the Pilot Scheme depends very much on the environmental protection agencies of both governments. This type of direct management scheme would be quite expensive to enforce and the burden will fall on the agencies, which may then need to collect special taxes/revenues. Moreover, there could exist procedures easily leading to corruption. We should implement with due care and examine the results of the Pilot Scheme with an aim to developing a fair, equitable and transparent scheme, and to avoiding the creation of a poorly financed or corrupt regulatory regime.
8. The Pilot Scheme can also investigate the option of employment of a third party agency with professionals possessing MHKIE (Environmental), R.P.E.(Environmental) or equivalent qualifications, certified or licensed by the governments for the management of an emissions trading scheme. Inspection of the certificates can be performed in some automated fashion by the regulators, perhaps over the Internet, or as part of tax collection. The regulators then audit licensed facilities chosen at random to verify that certifying agencies are acting correctly. This approach is far less expensive, placing most of the cost of regulation on the private sector. The transparency of this process helps to act as a safeguard against corruption.



9. The AES opines that emissions trading serves as an interim measure to help accelerate emissions reduction of the Region and is uncertain if there will be significant improvement brought about to the air quality of Hong Kong. We still need to take the most reliable and effective technical approach by undertaking direct emissions reduction measures. These measures include acceleration of emissions reduction projects at the existing power plants, increasing the use of ultra-low sulphur coal, using more natural gas for power generation including the construction of a LNG terminal in Hong Kong, development of renewable energy, using ultra-low sulphur diesel in industrial and commercial sectors, reduction of emissions from ships and vehicles, legislation to require switching off vehicle engines whilst waiting, etc.

Greenhouse Gas Emission Reduction Target

10. Climate change is having enormous global, environmental and socio-economic impacts. While there are considerable uncertainties and scepticism on the truth of climate change and its effects, it is indisputable that human activities have influence on climate and the risks and scale of impacts in future. The body of evidence and the growing quantitative assessment of risks are now sufficient to give clear signal to make response to it, not until it is too late.
11. In the light of the uncertainties and the potential risk, we should give due respect to our environment in using our finite resources prudently and reducing our carbon footprints. Therefore, we may have to adopt a prudent and scientific approach towards the issue of greenhouse gas effect. In this respect, the AES is open as to whether the greenhouse gas emission reduction target should be included in the proposed Bill.
12. The AES is, however, against an arbitrary and imprudent setting of the greenhouse gas emission reduction target. It needs to embrace the principles of sustainable development, reduction and adaptation balance, holistic planning; technology attainment capacity, and all with sound scientific basis.
13. To allow a meaningful debate and setting of the GHG emission reduction targets in the Bill, the AES suggests that government may accelerate the existing Study on Climate Change so as to provide solid scientific information and recommendations; and also conduct wide consultation and engagement of major stakeholders, e.g. power companies and transport sectors, etc.
14. Taking account of the local situation of lack of space for plantation and renewable energy projects, and the community desire for stable power supply and electricity tariff, we believe the most effective way for Hong Kong to control its GHG emissions is to enhance the overall energy efficiency in Hong Kong, a start-of-the-pipe approach. In this connection, we are very supportive of government's initiatives and measures in the areas in respect of electricity generation through the new Scheme of Control, demand side management, energy efficiency and conservation, building energy efficiency, energy labeling scheme, renewable energy, land transport, landfill gas utilization, plantation programme, as well as awareness promotion and education.