

**Speech by Mr Lee Yuen Hee
CEO, National Environment Agency
Chairman, Energy Efficient Programme Office**

Seminar on Energy Efficiency for Process Industry

**29 Feb 08, 9.20am
Hilton Singapore**

Dr Amy Khor, Senior Parliamentary Secretary, Ministry of the Environment and Water Resources

Mr Edwin Khew, Chairman, Sustainable Energy Association of Singapore

Mr Robert Williams, Chief Climate Change and Energy Efficiency Unit, United Nations Industrial Development Organisation (UNIDO)

Distinguished guests, ladies and gentlemen,

A very good morning. First of all, I would like to join Mr Edwin Khew in thanking our GOH Dr Amy Khor for gracing this seminar, and in thanking our guests and participants for your presence at this Launch of Singapore's National Climate Change Strategy and the Seminar on Energy Efficiency for Process Industry jointly organized by NEA and SEAS.

2 I also wish to acknowledge the presence of the expert speakers, both local and foreign, who are here to contribute to the deliberations on the challenging issue of promoting energy efficiency in our industry sector.

Formation of Energy Efficiency Programme Office

3 The Energy Efficiency Programme Office, or E²PO in short, was formed to accelerate the pace of Singapore's energy efficiency improvements. E²PO is an interagency committee led by NEA and comprises the Energy Market Authority, Economic Development Board, Building Construction Authority, Land Transport Authority, and Agency for Science Technology and Research. It covers all sectors of energy use, namely power generation, industry, transportation, buildings and households.

4 Last year, E²PO launched Singapore's energy efficiency Masterplan, called Energy Efficient Singapore as a key strategy to mitigate climate change. Energy Efficient Singapore, or E² Singapore will promote the greater adoption of energy efficiency measures, build capability in energy management, encourage research and development in energy efficient technologies and raise the awareness of the public on energy conservation practices.

Programme to Improve Energy Efficiency in the Industry Sector

5 The industry sector is our largest energy-consuming sector, accounting for more than half of the national total. Energy efficiency in industry results in higher productivity and leads to better profitability. The most energy intensive sub-sectors in Singapore are the petroleum refining, petrochemical, electronics and pharmaceutical industries, which are all of strategic importance to our economy.

6 Process industries such as the power generation, refining, petrochemical and chemical industries, consume substantial amounts of energy. There is much potential for energy efficiency improvements within these sub-sectors.

7 The first step in a facility energy management programme involves instituting an energy appraisal or audit of the plant. For a facility operator to identify, quantify and analyse potential energy savings in his facility, he must gather and process relevant technical and economic data on the energy performance of individual systems and the plant as a whole in an intelligible manner with the ultimate aim of improving profitability.

8 Facilities that do not have the in-house expertise or instrumentation and measurement capabilities to carry out proper appraisals can engage energy services companies (or ESCOs) to undertake the task and to recommend improvement measures for implementation.

9 To this end, NEA introduced the Energy Efficiency Improvement Assistance Scheme, or EASe scheme, in 2005 to co-fund such energy appraisals. The EASe scheme has been well received with 92 successful applicants expecting to uncover up to \$24 million per year in potential savings through energy audits and reducing carbon dioxide emissions by almost 152,000 tonnes annually.

10 For example, Singapore Oxygen Air Liquide Pte Ltd (SOXAL) signed up to the scheme in 2006 and had since implemented various energy conservation measures identified by their ESCO. SOXAL is currently enjoying cost savings of \$324,000 per year and avoiding 2,160,000 kWh per year of electricity consumption.

11 Another case in point is PowerSeraya Ltd, which has benefited from the EASe scheme and achieved annual cost savings of \$3.9 million. I understand that PowerSeraya will be sharing the details of their cost savings projects with us in the seminar.

12 The scope of EASe now also covers the long-term process monitoring of utility facilities in order to identify degraded components so as to enable better predictive maintenance to improve and sustain energy efficiency. I understand that such energy appraisals will be covered in Mr Norman Lee's presentation.

Moving Forward

13 Many opportunities for improving energy efficiency are available and often, investments in energy efficiency provide relatively quick returns with a high degree of certainty. However, businesses and individuals are not capitalising on the opportunities due to barriers such as lack of awareness. In the coming months, E²PO aims to implement more policies and programmes to address such barriers.

Concluding Remarks

14 Today's seminar will help to facilitate the sharing of tools, approaches and practical applications in effective energy management. It is my sincere wish that this seminar would galvanise you, the participants, into action.

15 While improving energy efficiency is about dollars and cents, its impact on society goes beyond financial outcomes. It is about protecting our energy resources and ensuring environmental sustainability for future generations to come.

16 On this note, I would like to thank the Sustainable Association of Singapore for co-organising this seminar with NEA and to wish you all of you a fruitful and rewarding seminar.

Thank you.