

HIGHER ENERGY PRODUCTIVITY

Energy efficiency in industry results in higher productivity and leads to better profitability. The most energy intensive industries in Singapore are the petroleum refining, petrochemical, electronics and pharmaceutical industries, which are of strategic importance to the economy. Energy efficiency is a cost-effective means of improving the competitiveness of Singapore's industries.

Energy Efficiency Improvement Assistance Scheme (EASe)

Why conduct energy appraisals? An energy appraisal can identify degraded plant components that contribute to overall efficiency losses and enable a company to take the necessary corrective actions.

To encourage and help companies, which may not have the in-house energy management expertise, to engage energy consultants to conduct energy appraisals, the NEA introduced the \$10mil Energy Efficiency Improvement Assistance Scheme (EASe) in 2005.

Under EASe, NEA co-funds up to 50% of the cost of energy appraisals for buildings and industrial facilities. Each dollar spent on an energy audit uncovers about \$5-10 annual savings in energy costs with the energy efficiency investments identified having an average payback period of less than 3 years.

Energy Service Company (ESCO) Accreditation Scheme

With support from NEA, the Energy Sustainability Unit (ESU) of NUS administers an ESCO Accreditation Scheme. The objective is to enhance the professionalism and quality of services offered. This, in turn, will enhance confidence in the energy services sector and help promote the growth of the industry.

COST SAVINGS THROUGH ENERGY SERVICES

An energy services company or consultant (ESCO) is a service provider that develops, installs and helps to put together financing for projects designed to improve the energy efficiency and reduce maintenance costs for facilities.



Simple housekeeping results in cost savings for Tuas Power

An accredited ESCO for the process industry, Actsys Process Management Consultants uses thermodynamic or process flow sheeting modeling tools to model the current performance of the plant.

By comparing the actual performance with the optimum performance, the state of degradation for each plant component is identified, allowing early corrective maintenance to be planned. For example, planned maintenance on a bypass valve for Tuas Power Ltd recommended by Actsys saved about \$360,000 annually in fuel costs.

Energy Saving Solutions for Hitachi Semiconductor Singapore

Hitachi Semiconductor Singapore Pte Ltd (HNS) has enlisted the services of Hitachi Asia Ltd (Hitachi Asia) to reduce energy consumption of its chilled water plant system by 19.5%. This is equivalent to a 5% reduction in total energy consumption at HNS and will result in 5 kilotonnes less carbon dioxide emissions annually. The investment cost for the project will be recovered by Hitachi Asia under a performance contract.