



EXCELLENCE IN ENERGY MANAGEMENT



GERMAN CENTRE
FOR INDUSTRY AND TRADE
SINGAPORE

About German Centre for Industry and Trade

The German Centre Singapore was established in 1995 and currently has around 150 tenants. It offers approximately 20,000m² of office, conference and exhibition space.

Energy Management in German Centre for Industry and Trade

Recognising that energy is a controllable operating expense and that lower energy consumption decreases operating expenses and maintenance cost, German Centre Singapore adopted an energy conservative strategy in 2012. German Centre Singapore acknowledges that fossil fuels are a limited resource which if used excessively, can lead to climate change. Thus, it aims to raise awareness of such issues, achieve world class performance in energy efficiency (EE), and reduce the environmental impact of energy use.

German Centre Singapore has a dedicated energy management team led by the head of building management and comprising members from different departments. The team has strong senior management support to develop the technical skills and competencies needed to effectively manage energy usage within the organisation, and has thus attended professional training programmes such as Singapore Certified Energy Manager (SCEM), Certified Energy Manager (AEE-CEM) and Green Mark Facility Manager (GMFM).

German Centre Singapore's goal is not only to implement EE measures for their own building's services, but also to allow its tenants to benefit from the use of energy-efficient features. However, in the area of lighting, replacing inefficient T8 fluorescent tubes with LED tubes in the tenanted spaces would be a financial burden for tenants. In order to lessen this burden and encourage tenants to achieve EE in their office, German Centre Singapore absorbed the cost of installing new LED tubes for every tenanted office in the building that needed to be retrofitted with energy-efficient lighting, even though it would not directly enjoy the energy savings achieved. This resulted in energy savings for the tenants and reduced the tenant's energy bills.

Achievements

German Centre Singapore has carried out EE measures from 2012 to 2015, achieving an annual energy savings of about 711MWh or about \$177,692 of cost savings per year. Some of the key measures are listed below:

EE Measures Implemented	Annual Energy Savings (kWh/year)	Annual Cost Savings (\$/year)
Retrofitting chilled water plant with three sets of water-cooled chillers, new pumps, new cooling towers with energy-efficient variable speed drives (VSDs).	638,289	159,572
Retrofitting office and common-area lighting systems with new LED light tubes.	70,032	17,508
Installing new motion sensors in various common areas.	2,448	612



Retrofitting chilled water plant with three sets of water-cooled chillers, new pumps, new cooling towers with energy-efficient VSDs



Retrofitting office and common-area lighting systems with new LED light tubes

From 2013 to 2015, German Centre Singapore had reduced both its energy intensity and energy consumption by 38%.

