"Energetic Friday" - Half Day Technical Course on Practical Application, System Design and Implementation of Energy Saving Projects – Monitoring and Targeting

By: Ir. Lum Youk Lee (MIEM)

Yes, another crowded evening! Further to the success of the 1st technical course cum Engineers-get-together series #1 - "Green Friday" on 13 May 2005, IEM Mechanical Engineering Technical Division organised "Energetic Friday" on 12 August 2005, and it attracted much more participants this time – 86 for the seminar and 120 for the hang loose session. This time, the focus was on local energy issues, power system design and management concerns. Session chairman Ir. Ong HT mentioned during his opening remarks, "most building owners heard about energy management, but they need to be convinced with substantial technical theories and most importantly – strong business case," 3 energy specialists of "Energetic Friday" will share with the participants A-Z of energy management.

Often building owners are bombarded with industrial jargons in the name of "energy saving", many are actually using "black box" approach where vendor will provide a proprietary system or device claimed that it can bring forth certain quantum of savings to building owners, and worst of all, often these efforts involves huge amount of capital investment. The first specialist of the day, Mr. Anand C. Pandey (Lumentech Engineering Corporation Sdn. Bhd.), highlighted that energy management shall not be perceived as "magical approach" rather, energy management service provider (energy manager) shall disclose as far as possible the principle and approach to the building owner and substantiate the business case collectively such that both parties can agree on the cost benefit of the whole exercise since day one. One good Energy Management approach is through "Monitoring & Targeting". The concept is no rocket science, merely it goes back to the basic of engineering, where adequate measuring devices to be installed strategically along the distribution system to measure the energy consumption pattern and capture "peaks" and "hot spots" where unusual energy consumption is observed. Then these information is then analysed and benchmarked against industry best practices as a guide such as kw/ton of chiller to develop business case and technical approach.

The next speaker Mr. Ponudurai (Onzerv Systems Pvt Ltd)highlighted that one of the biggest challenge in energy management initiatives besides the technical complexity, is the contractual implication on these projects. Ponudurai outlined numbers of problems commonly encountered throughout the implementation process. First hurdle will be to lead building owners to think out of the box as in there are better ways of managing certain system processes that will result in great energy savings. On the other hand, building owners are not aware of various governmental incentives and subsidies available for energy saving projects, or they are misinterpreted through unreliable sources. Summarised Ponudurai, energy management can be more successful if there are more synergies among all the stakeholders of power in this country – power providers, policy makers, building owners and shop floor operators.

Being the last speaker of the day, Prof. Ir. Dr K.S Kannan (ISI Institute Sultan Iskandar) introduced some of the common solution for industrial energy efficiency improvement, giving examples of various engineering initiatives to improve system efficiencies and reduce wastage, for example, the introduction of steam trap for boiler system. From the track record of projects managed and observed by Prof. Kannan, other areas where savings can commonly be achieved are chilled water system, compress air, boiler, hot water, cooling tower and etc. from the track record of projects managed and observed by Prof Kannan, there are precedence where significant energy savings are achieved and property owners truly benefited monetarily and also achieved better operational efficiency through system engineering improvement.

On behalf of METD, Ir. Lum YL and Ir. Ong HT presented the certificate of appreciation to distinguished sponsor of the day, Syarikat Ong Yoke Lin Sdn Bhd represented by Mr. KH Chong, LeoLaris and Carleberg represented by restaurant manager and chief chef Mr. Frank M and Janna and marketing manager Ms. Ivy. Before the crowd adjourned for the exclusive buffet dinner and hang loose session, Said Frank "we should do this every Friday!" Asked if there will be another such "Friday" series – yes, "Rolling Friday" on 16th September 2005. ■