



One Day Course on “Energy Management Based on MS ISO 50001”

by Wong Wai Yin

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The Electrical Engineering Technical Division (EETD), IEM has successfully held a one-day course entitled “Energy Management Based on MS ISO 50001” on 25th July 2018, at Wisma IEM, Petaling Jaya. This course has attracted more than 30 participants. The main objective of this course was to demonstrate the use of MS ISO 50001 Energy Management Systems standard in integrating energy efficiency into existing industrial management systems for continuous improvement. This course was delivered by two experienced Professional Engineers, Ir. Francis Xavier Jacob and Ir. Tejinder Singh. This course highlighted on the know how to develop a baseline of energy use, manage energy use and costs, improve energy use/product output over time and document savings for internal and external use.

The course was started with an overview of MS ISO 50001 by Ir. Francis. In brief, the standard specifies requirements for an organisation to establish, implement, maintain and improve an energy management system. It enables the organisation to take a systematic approach to achieve continual improvement of energy performance, energy efficiency and energy use and consumption. Ir. Francis highlighted that to ensure a successful implementation of the process, the energy management should not be separated from other management activities. Also, energy management documentation should be incorporated as part of daily operations rather than it solely exist for audit purpose. He continued to present on the top management responsibility as the key to unlock the door to effective energy management system. In his talk, he raised up the challenges in getting the top management to come aboard on this idea, i.e. how to persuade them to buy-in to the business value of a systematic approach to energy management with limited resource. The next phase after the agreement by the top management will be the planning and execution, which involves policy making, planning, target setting, results measurement and management reviews. He emphasised on how documentations are crucial to ensure smooth flow in executing the works. The third topic was conducted by Ir. Tejinder and he provided some insights on “Taking the first step to reduce energy costs” with reference to the standard. An active sharing session between the speakers and audience took place throughout the speeches to convey their experience and thoughts related to energy management.

In the afternoon session, Ir. Francis continued his speech on the topic of “Energy Performance Indicators and Baselines”. He demonstrated the energy metrics and chart presentation used in practice for different levels of complexity. He also explained the needs of energy baselines to avoid data misinterpretation and presented the relation between the targets and baselines in a simple performance characteristic line. Ir. Francis highlighted that sufficient past data is essential to provide accurate data analysis and thus action plans. To assist the data interpretation, he presented a simple multivariant regression analysis tool to help the energy manager in correlating the energy usage and production capacity that allows one to measure the energy efficiency in the production site. Ir. Tejinder ended the course with the last topic on “Industrial Energy Efficiency”. His topic covered the

concept, methods and approached in industrial energy efficiency, its policies and program, energy audits, energy conservation planning, measuring and monitoring and energy saving verifications.

The course was ended at 5.30 pm following a Q&A and a group photo session.



Ir. Tejinder Singh (Left) and Ir. Francis Xavier Jacob (Right) presenting on the “Energy Management Based on MS ISO 50001”



Group photo of the speakers and participants