



Site Visit to “Malaysia Transformer Manufacturing (MTM) Sdn. Bhd. “

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In conjunction with the AFEO Energy Tour 2016, a technical visit to Malaysia Transformer Manufacturing (MTM) Sdn. Bhd. was successfully organized by the Electrical Engineering Technical Division, The Institution of Engineers Malaysia on 22nd September 2016. The visit started with a briefing by Mr. Azhar bin Alias, the General Manager of Sales and Marketing on the history of MTM. MTM was founded in 1977 with a staff strength of 534. It is 100% owned by TNB, has an authorized capital of RM 100 million and paid up capital of RM40 million. MTM is a one stop solution provider in the sense that it is involved in manufacturing, installation, services, testing and transformer recovery. The various types of transformers manufactured by MTM include oil, dry, power, earthing and even customized design. He also unveiled a new model of transformers with a 3D wound core with the first production to be completed in November 2016. Dubbed the “green transformer”, the 3D wound core technology produces minimum waste, is smaller and lighter, energy efficient and possesses low life-cycle costs. MTM also provides a wide range of services which include repair and servicing be it in house or on site, installation, testing and commissioning, diagnostic, investigation and troubleshooting and routine as well as type test. MTM has the capacity to produce transformer up to 132kV and predominantly manufactures power transformer and distribution transformer.



Briefing by Mr. Azhar

The second half of the briefing was done by Mr. Zahrullai Abu Bakar who is the General Manager of Engineering in MTM. He further explained the 3D wound core technology which has a rating of up to 110kV. Based on his presentation, the main components of transformer include the core, windings, insulation, tank as well as core earthing. He also introduced the high voltage tests applicable on transformer which encompasses induced voltage, lightning and switching impulse. He also emphasized on the importance in ensuring the dryness of the winding. Typically, the drying is done at temperature of 120°C at a duration ranging from 24 hours up to 72 hours depending on the weight. Testing of transformer typically can be either electrical or mechanical in nature. Mr. Zahrul also highlighted that the main issues with transformer are overheating and winding failure.



Briefing by Mr. Zahrul

After the briefing, the participants were guided by several MTM staff in a tour around the manufacturing plant. The visit ended with light refreshment being served by MTM. The figures below summarized the sequence of events during the visit.



Presentation of a token of appreciation from EETD (IEM) to MTM