Technical Visit to Lamma Power Station

By Dr Lisa SHAM

The captioned was organized by the Control, Automation and Instrumentation Division (CAD) of The HKIE with support from The Institute of Measurement and Control, Hong Kong Section on 25th October 2025. A delegation of 10 members headed by Ir Prof Eddie LOCK, the Chairman and Dr TS LAM, CAD Senior Advisor led the key event. That morning, Mr HY CHONG from PA Department, The Hongkong Electric Co Ltd (HEC) greeted us at Ap Lei Chau Pier. Subsequently, 3 more engineers of the HEC took ferry with the delegation to Lamma Power Station (LPS). Firstly, an introduction concerning various essential power plant infrastructures was excellently conducted; subsequently, a guided tour to several major facilities, such as the viewing gallery, central control room, turbine hall of gas-fired units L10 and L12, and solar panel system was arranged.

At the Viewing Gallery, HEC engineers briefed on the operation of LPS and the company decarbonisation roadmap. LPS has been undergoing a transition from coal to gas for generation, gradually replacing the retiring coal-fired units with newly constructed gas-fired units, thereby reducing carbon emissions and boosting the electricity output by natural gas to approximately 70%. The delegation members could gain a better understanding of the operation of the Hong Kong Offshore Liquefied Natural Gas Terminal through the arrangement. Participants learnt that breakwaters and flood walls had been installed at strategic locations in LPS to mitigate the impact of storm surges and overtopping waves facing frequent extreme weather conditions. The foundations of two gas-fired units were elevated to 7 metres above the principal datum to mitigate the risk caused by flood.

The participants toured the facilities at the power station, including the central control room equipped with sophisticated computer systems, and the gas turbine halls of gas-fired units L10 and L12. L12 is equipped with a Selective Catalytic Reduction System that reduces nitrogen oxide emissions by 90%. They visited the solar power system. The panels are set to south and tilted at optimum degree to maximise the irradiance receiving for more power generated.

The participants were brought to the reservoir area for a panoramic view of LPS; they

raised some concerns of coal yard operation including the delivery and storage of coal.

Ir Prof E LOCK (R5), Dr TS LAM (R4), Ir B CHOW (R3), Ir Prof L LOCK (L5) & other participants took a photo at Solar Power System