

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS HONG KONG SECTION
TECHNICAL VISIT TO LAMMA POWER STATION ON 7/2/2026



ASME Hong Kong Section visited HK Electric's Lamma Power Station on 7/2/2026

HK Electric has been supplying electricity to Hong Kong since 1890 and provides a reliable power to customers on Hong Kong Island, Lamma Island, and Ap Lei Chau. Located on Lamma Island, Lamma Power Station is HK Electric's primary generation site and has undergone continuous development to meet growing electricity demand while enhancing operational efficiency and environmental performance. Since 2006, Lamma power station has been advancing a coal-to-gas transition through the commissioning of high-efficiency gas-fired units and the development of a second gas source via the offshore LNG terminal, supporting Hong Kong's fuel-mix objectives and decarbonisation pathway.



Introduction of Lamma Power Station

The visit commenced with a technical briefing covering LPS's development history, plant layout, and current generation portfolio. The presentation highlighted the respective roles of the combined cycle gas turbine (CCGT) units and open cycle gas turbine (OCGT) units in meeting system demand. The newer CCGT units at the Lamma Power Station Extension, including Units L10 to L12, were highlighted for their high thermal efficiency, while OCGT units were emphasised for their rapid start-up characteristics to support peak load

conditions and provide fast-response contingency when needed.

Following the briefing, participants visited the L10 Viewing Gallery, an observation and demonstration area designed to enhance understanding of the configuration and operation of the L10 combined cycle gas turbine unit. From the gallery, participants were provided with clear sightlines to major components, including gas turbine, heat recovery steam generator, steam turbine, and auxiliary systems, enabling them to appreciate the scale, integration and operational complexity of modern combined-cycle power generation.



Overview of CCGT Units at L10 Viewing Gallery

The group then proceeded to the OCGT compound, where HK Electric engineers outlined the operating principles of open cycle gas turbines and their function in providing fast-response generation to manage sudden load fluctuations and support system reliability. Although OCGT units operate at lower thermal efficiency compared with CCGT units, their role in maintaining grid stability was emphasised.



4S Container Facilities for L1–L3 Demolition

and associated supporting systems. With its focus on CCGT and OCGT configurations, as well as the applications of the 4S applications, the visit offered meaningful technical insights into how Lamma Power Station supports Hong Kong’s electricity supply while progressing toward a cleaner energy mix.

The ASME Hong Kong Section would like to express its sincere appreciation to HK Electric for their hospitality and comprehensive technical sharing.

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Participants also visited the L1–L3 Smart Site Safety System (4S) container facilities supporting activities for retired Units L1 to L3. The use of 4s systems allows demolition equipment to be deployed, managed, and operated in a safe and efficient manner during demolition activities, while minimising interface risks with the remaining operating units within the station.

The ASME technical visit to Lamma Power Station provided participants with valuable first-hand exposure to modern gas-fired power generation technologies