



MEDIA FACTSHEET

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Meranti Power To Build, Own and Operate Two New Open Cycle Gas Turbine Generating Units in Singapore

To enhance Singapore's power system reliability, Meranti Power – a wholly-owned subsidiary of the Energy Market Authority (EMA) – has been commissioned to build, own and operate two 340 megawatts (MW) Open Cycle Gas Turbine (OCGT) units.

Critical Role of Open Cycle Gas Turbines (OCGTs) in Singapore's Power System

2. Maintaining the balance between energy supply and demand in a power system is crucial for a stable and reliable supply of electricity for consumers. Any imbalance in the power system could result in supply disruption or in the worst-case scenario, a power system collapse. Causes of such imbalances on the supply side could include unexpected equipment failure in generating units, resulting in insufficient generation capacity in the system as well as unplanned outages.
3. To prevent supply-side imbalances from occurring, Singapore has put in place various mechanisms to ensure sufficient generation capacity in the system. These include having online reserves and fast start generation capacity on standby in Singapore.
4. Online reserves refer to spare capacity in Combined Cycle Gas Turbines (CCGTs) which are already generating electricity and can increase their output within minutes to make up for an imbalance. However, online reserves are limited by the amount of spare capacity available in the online CCGTs. On the other hand, fast start generation capacity is provided by offline OCGT units that can be brought online quickly in less than 10 minutes to augment any shortfall in online generation capacity.
5. As older generating units retire and electricity demand increases in the next few years, online reserves will correspondingly decrease. Hence, the role of fast start generation capacity in ensuring the security and reliability of our power system becomes increasingly critical.
6. Singapore's existing OCGTs are more than 30 years old and are due for replacement. As there is no commercial interest from the private sector to build new OCGTs, EMA has commissioned its subsidiary, Meranti Power, to build these two new OCGTs to replace retiring capacity and provide back-up capacity for future growth in electricity demand. The two new OCGT units will provide sufficient fast start generation capacity to meet Singapore's needs.

About the Project

7. Meranti Power has appointed a consortium, comprising Jurong Engineering Limited and Mitsubishi Power Asia Pacific Pte. Ltd, for the turnkey development of the OCGTs. Meranti Power has also appointed AECOM Singapore Pte Ltd to support in the project management and implementation of the OCGTs.

8. The OCGTs are expected to be operationally ready by June 2025. These OCGTs will use natural gas as their primary fuel but can use diesel as a backup fuel. The OCGTs will also be future ready. They will be able to take up to 30% hydrogen and, with the necessary enhancements, can harness up to 100% hydrogen in the future.

9. Upcoming key milestones of the OCGTs include the installation of the gas turbines as well as the testing and commissioning to ensure that they meet the regulatory requirements and codes of practices that all generating units need to comply with today.

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About the Energy Market Authority

The Energy Market Authority (EMA) is a statutory board under the Singapore Ministry of Trade and Industry. Through our work, we seek to build a clean energy future that is resilient, sustainable, and competitive. We aim to ensure a reliable and secure energy supply, promote effective competition in the energy market and develop a dynamic energy sector in Singapore. Visit www.ema.gov.sg for more information.

About Meranti Power

Meranti Power Pte. Ltd is a wholly owned subsidiary set up by the Energy Market Authority (EMA). It has been commissioned to build, own and operate to provide an open cycle gas turbine (OCGT) generating station to safeguard Singapore's energy security and reliability.



Artist impression of Meranti Power OCGT generation station