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Mitsubishi Electric Receives Order for Taiwan's First STATCOM for Power Stabilization

Will help to control and stabilize diversifying power grid and support adoption of renewable energy



Rendition of substation where Taiwan's first STATCOM will be installed

TOKYO, May 26, 2023 – [Mitsubishi Electric Corporation](https://www.mitsubishielectric.com) (TOKYO: 6503) announced today that its Taipei-based affiliate Shihlin Electric & Engineering Corporation has received an order from Taiwan Power Company for Taiwan's first* static synchronous compensator (STATCOM) for power grid stabilization. STATCOMs are devices that control and stabilize voltage in power systems by instantly providing reactive power.** The STATCOM from Mitsubishi Electric will be delivered to the Nanke Substation in Tainan and installed in a substation designed to blend in with its surrounding landscape and community.

With a rated capacity of ± 200 megavolt-amperes (MVA), Mitsubishi Electric's system will contribute to the stable operation of the Tainan Science Park, where a number of factories produce semiconductors and display monitors. Delivery is scheduled for the first half of 2025 and the system is expected to begin operating in the first half of 2026.

Taiwan Power highly evaluated Mitsubishi Electric's extra-reliable, high-performance insulated-gate bipolar transistor (IGBT) integrated with the STATCOM, as well as Shihlin Electric's experience in delivering and constructing substations, which led the utility to place Taiwan's first order for a STATCOM.

* As of May 26, 2023, according to Mitsubishi Electric's research

** Power produced by the STATCOM that is used to stabilize voltage fluctuations, but is not actually consumed

Key Features

1) Suppresses power fluctuations caused by the increasing use of renewable energy in power grids

- The STATCOM's top-class $\pm 200\text{MVA}$ capacity supports power-oscillation damping and grid voltage stability by immediately producing reactive power to restore the system if a failure occurs.
- The STATCOM's dead zone prevents it from responding to voltage changes under steady-state conditions to prevent unnecessary reactive power output, thus enabling coordinated control with existing phase-regulating equipment in the power system as well as minimizing the STATCOM's operational costs.

2) Aesthetically designed substation harmonized with the surrounding landscape and community

- Mitsubishi Electric and Shihlin Electric worked closely to propose an aesthetically designed a substation exterior that will blend seamlessly with the local area's environment and community.



Rendition of STATCOM substation designed to harmonize with its surroundings, even at night

As Taiwan strives to accelerate its adoption of diverse renewable energy sources such as offshore wind and solar power to achieve carbon neutrality, it is working to improve the stability of its overall power grid, including during accidents, to reliably transmit power from renewable energy sources. Improving the resilience of the entire power grid will be critical.

Power grid systems are becoming increasingly complex and sophisticated due to the expanding incorporation of renewable energy sources as a carbon-neutral strategy. Mitsubishi Electric is committed to supporting the stabilization of power grids worldwide in order to contribute to greater convenience and safety through the use of reliable electricity.

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About Mitsubishi Electric Corporation

With more than 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Mitsubishi Electric enriches society with technology in the spirit of its “Changes for the Better.” The company recorded a revenue of 5,003.6 billion yen (U.S.\$ 37.3 billion*) in the fiscal year ended March 31, 2023. For more information, please visit www.MitsubishiElectric.com

*U.S. dollar amounts are translated from yen at the rate of $\text{¥}134=\text{U.S.}\$1$, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2023