

News Release

FOR IMMEDIATE RELEASE

Hitachi to supply Japan's first SF₆-free 300 kV circuit-breakers to Chubu Electric Power Grid

Hitachi Energy's EconiQ™ switchgear is a key component in making Japan's power grids sustainable

Tokyo, December 9, 2024 – Hitachi, Ltd. announced today that it received an order for five units of Hitachi Energy's sulfur hexafluoride (SF₆)-free EconiQ™ 300 kilovolt (kV) circuit-breaker from Chubu Electric Power Grid. This is the first project in Japan where SF₆-free circuit-breakers will be installed at voltages of 275 kV and above. It marks a milestone in achieving sustainable power grids in Japan and Chubu Electric Power Grid's ambition of reducing emissions to zero by 2050. The SF₆-free EconiQ circuit-breaker reduces CO₂-equivalent emissions from the insulating gas by 99.3 percent.

SF₆ gas has excellent insulation and switching performance and has been used for decades in power grids. It also has a global warming potential of 24,300 times higher than CO₂ and remains in the atmosphere for more than 1,000 years if it leaks from the equipment. Governments around the globe are working on regulations to phase out the installation of new SF₆ gas equipment to address climate change. Still, no regulations regarding eliminating SF₆ gas equipment in Japan exist yet.

With Japan's electricity demand expected to increase due to electrification and the expansion of data centers, it becomes crucial to strengthen the power grids while reducing greenhouse gas emissions. SF₆-free switchgear, such as Hitachi Energy's EconiQ, is the only solution to this two-fold challenge – it has proven reliability, stays compact, and has the lowest carbon footprint.

In 2022, Chubu Electric Power Grid announced its policy to adopt SF₆-free circuit breakers up to 77 kV when they are replaced. Today, Chubu Electric Power Grid announced a progressive policy to accelerate its decarbonization initiatives by adopting SF₆-free circuit breakers for 275 kV and above.

Hitachi Energy launched EconiQ high-voltage products in 2021 to meet the demand for SF₆-free equipment. The EconiQ high-voltage portfolio eliminates greenhouse gas emissions by replacing SF₆ gas with an eco-efficient alternative gas while maintaining the same performance, size, safety, and reliability as conventional equipment using SF₆ gas. The company is progressively expanding its EconiQ high-voltage product lineup. It has already developed SF₆ gas-free products for grid-level voltages up to 550 kV.

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About Hitachi, Ltd.

Hitachi drives Social Innovation Business, creating a sustainable society through the use of data and technology. We solve customers' and society's challenges with Lumada solutions leveraging IT, OT (Operational Technology) and products. Hitachi operates under the 3 business sectors of "Digital Systems & Services" – supporting our customers' digital transformation; "Green Energy & Mobility" – contributing to a decarbonized society through energy and railway systems, and "Connective Industries" – connecting products through digital technology to provide solutions in various industries. Driven by Digital, Green, and Innovation, we aim for growth through co-creation with our customers. The company's revenues as 3 sectors for fiscal year 2023 (ended March 31, 2024) totaled 8,564.3 billion yen, with 573 consolidated subsidiaries and approximately 270,000 employees worldwide. For more information on Hitachi, please visit the company's website at <https://www.hitachi.com>.

About Hitachi Energy

Hitachi Energy is a global technology leader that is advancing a sustainable energy future for all. We are advancing the world's energy system to be more sustainable, flexible and secure and we collaborate with customers and partners to enable a sustainable energy future – for today's generations and those to come. Hitachi Energy has a proven track record and unparalleled installed base in more than 140 countries, serving customers in utility, industry, transportation, data centers and infrastructure sectors. With innovative technologies and services including the integration of more than 150 gigawatts of HVDC links into the power system, we help make the energy value chain more efficient, making electricity more accessible to all. Together with stakeholders across sectors and geographies, we enable the digital transformation required to accelerate the energy transition towards a carbon-neutral future. Headquartered in Switzerland, we employ around 45,000 people in 60 countries and generate business volumes of around \$13 billion USD.

<https://www.hitachienergy.com>

<https://www.linkedin.com/company/hitachienergy>

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.
