

# News Release

FOR IMMEDIATE RELEASE

## **Hitachi Energy partners with National Grid on world's first replacement of SF<sub>6</sub> in existing high-voltage equipment**

*The innovation called EconiQ™ retrofill uses eco-efficient gas mixture to support National Grid in achieving their sustainability targets*

**Zurich, December 09, 2021** – Hitachi Energy and National Grid have successfully energized a pilot project replacing SF<sub>6</sub> in installed high-voltage gas-insulated lines with an eco-efficient fluoronitrile based gas mixture. This retrofill solution, in Richborough, UK is part of Hitachi Energy's EconiQ™<sup>(1)</sup> portfolio which is designed to deliver a superior environmental performance compared to conventional solutions.

As one of the world's largest investor-owned transmission and distribution utilities, National Grid has the ambition to remove all SF<sub>6</sub> from its fleet by 2050. In this pioneering project, National Grid has replaced SF<sub>6</sub> from 420-kilovolt (kV) gas-insulated lines installed in 2016, eliminating 755 kilograms of SF<sub>6</sub>. This is equivalent to taking approximately 100 passenger cars<sup>(2)</sup> off the road.

For decades, SF<sub>6</sub> has been used in the electrical industry due to its excellent insulation and current interruption properties. However, it has a high Global Warming Potential (GWP) and requires careful handling. Hitachi Energy is continuously reducing the use of SF<sub>6</sub>, improving its lifecycle management, and accelerating the development of eco-efficient products.

“We have a responsibility to help our customers like National Grid to accelerate the energy transition,” said Markus Heimbach, Managing Director of High Voltage Products business in Hitachi Energy. “Innovative EconiQ retrofill technology for installed gas-insulated lines along with the new EconiQ switchgear and breakers portfolio will enable our customers and the industry as a whole to reduce carbon footprint and rapidly transition to eco-efficient solutions.”

“Climate change is the greatest challenge of our time and this new transformational green technology will help achieve wide-scale decarbonization on our electricity transmission network. The retrofill solution re-replaces SF<sub>6</sub>, cutting emissions and

network outages at the same time as saving costs by avoiding the need to spend on costly replacement equipment”, said Chris Bennett, Acting President of National Grid. “We are proud to be working with Hitachi Energy, and to demonstrate a practical solution to a significant issue in the energy industry’s transition to net zero.”

EconIQ is Hitachi Energy’s eco-efficient portfolio for sustainability, where products, services and solutions are proven to deliver exceptional environmental performance. Recently, the company announced the acceleration of its development of eco-efficient solutions, outlining its extensive EconIQ roadmap<sup>(3)</sup> of switchgear and breakers in various voltage levels. Hitachi Energy has placed sustainability at the heart of its Purpose and is advancing a sustainable energy future for all.

- (1) [EconIQ™ - Eco-efficient high-voltage portfolio | Hitachi Energy](#)
- (2) Based on the assumption that a car emits 19 kg CO<sub>2</sub> equivalent per 100 km, drives 10,000 km per year, and an estimated leakage rate of 1 % per year for gas-insulated lines.
- (3) [Hitachi ABB Power Grids announces EconIQ™ High-voltage Roadmap at CIGRE 2021 \(hitachienergy.com\)](#)

## Notes

Retrofill is the process of replacing SF<sub>6</sub> in an existing equipment with a new eco-efficient gas mixture to improve the environmental and life-cycle performance of the equipment.

## About Hitachi Energy

Hitachi Energy is a global technology leader that is advancing a sustainable energy future for all. We serve customers in the utility, industry and infrastructure sectors with innovative solutions and services across the value chain. Together with customers and partners, we pioneer technologies and enable the digital transformation required to accelerate the energy transition towards a carbon-neutral future. We are advancing the world’s energy system to become more sustainable, flexible and secure whilst balancing social, environmental and economic value. Hitachi Energy has a proven track record and unparalleled installed base in more than 140 countries. Headquartered in Switzerland, we employ around 38,000 people in 90 countries and generate business volumes of approximately \$10 billion USD.

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**About Hitachi, Ltd.**

Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, contributes to a sustainable society with a higher quality of life by driving innovation through data and technology as the Social Innovation Business. Hitachi is focused on strengthening its contribution to the Environment, the Resilience of business and social infrastructure as well as comprehensive programs to enhance Security & Safety. Hitachi resolves the issues faced by customers and society across six domains: IT, Energy, Mobility, Industry, Smart Life and Automotive Systems through its proprietary Lumada solutions. The company's consolidated revenues for fiscal year 2020 (ended March 31, 2021) totaled 8,729.1 billion yen (\$78.6 billion), with 871 consolidated subsidiaries and approximately 350,000 employees worldwide. For more information on Hitachi, please visit the company's website at <https://www.hitachi.com>.

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