

Hitachi Energy launches Grid-eXpand™ to accelerate grid expansion for a carbon-neutral future

Modular and prefabricated grid connections now make it faster, easier and more efficient to increase power grid capacity



Zurich, 30 August, 2022 – Hitachi Energy, a global leader that is advancing a sustainable energy future for all, announced today the launch of its Grid-eXpand™ range of modular and prefabricated grid connection solutions that make it faster, simpler and more efficient to expand power grid capacity and accelerate the transition to a more sustainable energy system.

Grid-eXpand™ comprises a comprehensive range of air-insulated and gas-insulated grid connections that cover the most frequently used grid voltages worldwide. Grid-eXpand™ solutions are engineered, assembled and factory-tested by Hitachi Energy before delivery, ready for speedy and easy energization on-site while reducing site-based construction risks.

The modules are available in containers, on skids or trailers for permanent or mobile deployment, in kits for gas-insulated solutions, and with complete power collection and grid connection packages for offshore wind farms and solar parks. Site installation is up to 40 percent faster, the footprint up to 60 percent smaller and civil work up to 70 percent lower in costs than for conventionally built grid connections, which require extensive construction work and equipment assembly on-site.

Crucially for many customers, the solutions can be tailored to meet specific needs and grid code requirements. They are scalable to allow easy upgrade or expansion, and are replicable to enable fleet harmonization and reduce installed base complexity. Typical users are utilities, grid operators, process industries, data centers, onshore and offshore wind and solar developers.

“To help our customers respond to the urgency of the energy transition, we are continuously developing new technologies that strengthen power grids and expand the energy system for a carbon-neutral future.” said Niklas Persson, Managing Director of Hitachi Energy’s Grid Integration business. “Grid-eXpand™ is an important contributor to this goal, which makes it faster, easier and more efficient to design and deploy grid connections in markets where they’re critically needed.”

One recent example of the efficacy of Grid-eXpand™ is a 170 kV containerized gas-insulated (GIS) grid connection for a combined fish farm and 312-megawatt solar photovoltaic power plant in Southeast Asia. Owned by Sunny Rich Group, the site uses solar power and advanced

technologies to farm fish sustainably. Compared to a conventional GIS grid connection, the Grid-eXpand™ solution has a 25 percent smaller footprint, was delivered and energized 15 percent faster and reduced the cost of civil works by 50 percent.⁽¹⁾

Hitachi Energy is a world's market and technology leader in grid connections and power quality solutions, with more than 10,000 installations worldwide. Grid-eXpand™ solutions are available with Hitachi Energy's EconiQ™⁽²⁾ SF₆-free high-voltage products, and with its IdentiQ™⁽³⁾ digital twin, which is designed especially for grid and power quality solutions and high-voltage direct current (HVDC) converter stations. They are also available with a digital partnership agreement that combines a maintenance management system with the expertise of Hitachi Energy to optimize grid connection performance.

(1) According to calculations made by Hitachi Energy.

(2) <https://www.hitachienergy.com/sustainability/econiq>

(3) <https://www.hitachienergy.com/offering/service/identiq>

Grid-expand™ Web Page

<https://www.hitachienergy.com/offering/product-and-system/substations/grid-expand>

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About Hitachi Energy Ltd.

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 drives Social Innovation Business, creating a sustainable society with data and technology. We will solve customers' and society's challenges with Lumada solutions leveraging IT, OT (Operational Technology) and products, under the business structure of Digital Systems & Services, Green Energy & Mobility, Connective Industries and Automotive Systems. Driven by green, digital, and innovation, we aim for growth through collaboration with our customers. The company's consolidated revenues for fiscal year 2021 (ended March 31, 2022) totaled 10,264.6 billion yen (\$84,136 million USD), with 853 consolidated subsidiaries and approximately 370,000 employees worldwide. For more information on Hitachi, please visit the company's website at <https://www.hitachi.com>.

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.
