

Hitachi receives order for next-generation nationwide load dispatching system from Transmission and Distribution IT & OT Systems LLC

Packaged software with extensive global installed base and contributing to the stable supply of electricity

Tokyo, November 13, 2023 – Hitachi, Ltd. (TSE:6501, "Hitachi") today announced that it has received an order from Transmission and Distribution IT & OT Systems LLC for a complete set of the next-generation nationwide load dispatching system ("the System").

The System is being deployed by Transmission and Distribution IT & OT Systems LLC, a joint venture established in September 2023 by 10 domestic power transmission and distribution companies, which are general transmission and distribution companies^{*1}. The System will standardize a load dispatching system ("dispatching system") representing each area^{*2} (excluding the Okinawa area). Hitachi will build this system by utilizing the know-how it has cultivated in Japan and Hitachi Energy's globally proven package, Network Manager.

In the future, by operating this system in Japan, we will further pursue merit orders^{*3} in areas across Japan^{*4} and contribute to stable electricity supply.

^{*1} Under Japan's Electricity Business Act, companies responsible for managing the transmission and distribution network, including transmission lines and distribution lines, and delivering electricity to customers' places of use. Currently refers to the following 10 companies. Hokkaido Electric Power Network, Inc., Tohoku Electric Power Network Co., Inc., TEPCO Power Grid, Inc., Chubu Electric Power Grid Co., Inc., Hokuriku Electric Power Transmission & Distribution Company, Kansai Transmission and Distribution, Inc., Chugoku Electric Power Transmission & Distribution Company, Incorporated, Shikoku Electric Power Transmission & Distribution Company, Incorporated, Kyushu Electric Power Transmission and Distribution Co., Inc., The Okinawa Electric Power Company, Incorporated.

^{*2} Areas under the jurisdiction of each general power transmission and distribution company

^{*3} The idea that different types of power plants can be used dependent on what is most economical.

^{*4} Area under the jurisdiction of nine general power transmission and distribution companies, excluding Okinawa

Until now, the load dispatching system, which serves to balance the amount of electricity used (demand) and generated (supply), had been developed by the transmission and distribution companies in each area.

With increasing complexity and variances in the operation of the electrical grid and the promotion of merit orders in nationwide areas, there is a need to develop a platform that is scalable, flexible, and transparent for future regulation changes and can be commonly used by all operators, in order to achieve improved resilience and social cost reduction. Against this backdrop, the nine general transmission and distribution companies (excluding the Okinawa area) have decided to standardize their load dispatching systems, and Hitachi has been contracted to build the system.

Hitachi has a track record of developing mission-critical systems for electric power companies in Japan, including the current load dispatching system. Furthermore, globally, we have a wealth of experience in introducing core systems and solutions related to balancing the energy market by Hitachi Energy. In addition, Hitachi Energy's packages are also used in Japan's energy market balancing system, which requires close collaboration in this system.

Based on Hitachi Group's unique achievements, the System will perform a wide-area Load Frequency Control (LFC^{*5}) function that will be introduced for the first time in Japan, as well as optimization calculations for nationwide generator start-stop planning and supply and demand control (SCUC^{*6}/SCED^{*7} functions). In this way, by combining Hitachi's extensive experience in core system development with Hitachi Energy's global implementation experience and

packages, we will build a system that leverages IT, OT, and products. The synergy within the Hitachi Group, combining digital and software technologies, will provide a more stable electricity supply and the use of renewable energy and contribute to the realization of carbon neutrality.

*5 LFC: Load Frequency Control

*6 SCUC: Security Constrained Unit Commitment

*7 SCED: Security Constrained Economic Dispatch

The Hitachi Group will continue to contribute to the development of safe, secure, and comfortable social infrastructure through social innovation utilizing Lumada.

"Hitachi has continuously contributed to stable operations of social infrastructures in various fields by amalgamating its IT, OT, and products. In this project, we aim to realize a national scale power interchange system by synergizing the capabilities of Hitachi's BUs and Hitachi Energy, which have abundant experience in Japanese and global markets, respectively. I am pleased to contribute to the realization of a sustainable society through such customer co-creation and social innovation by Lumada," said Keiji Kojima, President & CEO, Hitachi, Ltd.

"The establishment of a new operating model led by our customer Transmission and Distribution IT & OT Systems LLC in Japan is a path-breaking effort leveraging digitalization to foster an ecosystem of transparency, collaboration and economic rationality while maintaining the agility to adapt to future energy system dynamics. As electricity increasingly becomes the backbone of the entire energy system and with Hitachi as a strategic partner over its lifecycle, Japan's power transmission and distribution system will safeguard energy security while addressing some of the social and environmental needs of the country," said Claudio Facchin, Senior Vice President and Executive Officer, Hitachi, Ltd. and CEO, Hitachi Energy Ltd.

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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 business structure 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 consolidated revenues for fiscal year 2022 (ended March 31, 2023) totaled 10,881.1 billion yen, with 696 consolidated subsidiaries and approximately 320,000 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 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. We integrate more than 150 GW of HVDC links into the power system, helping our customers enable more wind and solar. Headquartered in Switzerland, we employ more than 40,000 people in 90 countries and generate business volumes of over \$10 billion USD.

<https://www.hitachienergy.com>

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

<https://twitter.com/HitachiEnergy>

Business Contact:

Central Load Dispatch Solution Center, Energy Solution Division,
Control Systems Platform Division, Social Infrastructure Systems Business Unit,
Hitachi, Ltd.

Control System General Go to Inquiry Form:

https://www8.hitachi.co.jp/inquiry/hitachi-ltd/control/en/main/form.jsp?_gl=1

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.
