

News Release

FOR IMMEDIATE RELEASE

Hitachi Energy upgrades Fingrid and Elering's 105-km subsea HVDC transmission system in Finland and Estonia

- The EstLink 1 HVDC transmission system to be upgraded with advanced MACH™¹ control and protection system to enhance power security in the Baltic region and the unified European electricity market with secured reliability and availability.



The Harku high-voltage direct current converter station, the Estonian side of EstLink 1

Zurich, February 29, 2024 – Hitachi Energy has won an order to provide Fingrid and Elering, transmission system operators in Finland and Estonia, with an extensive control and protection system upgrade of the EstLink 1 high-voltage direct current (HVDC) transmission system that interconnects the two countries.

EstLink 1 (in addition to EstLink 2) enables power exchange between Finland and Estonia, which is normally not possible as the countries' grids are asynchronous. The EstLink 1 HVDC system enables the efficient transmission of electricity via 105 kilometers of underground and subsea cables providing significant power quality benefits to both grids.

The order underlines Hitachi Energy Service's commitment to trusted long-term partnerships and builds on its proven track record of delivering innovative and reliable energy service solutions.

"Our transmission systems have been helping to secure power in the Baltic region for decades," said Niklas Persson, Managing Director at Hitachi Energy's Grid Integration business. "We are proud to support our customers by providing our cutting-edge HVDC control system and Hitachi Energy Service solutions, making the link more secure. Based on almost 70 years of experience, our services extend the system lifetime and further improve its availability and reliability."

"Elering's main duty is to guarantee high-quality energy to Estonian consumers at all times and we are not alone in this, but cooperate with other system operators and the European electricity market," Kalle Kilk, the Chairman of the Elering Management Board noted. "EstLink 1 is a key part of fulfilling that responsibility. When ensuring the security of supply, Estonia cannot be viewed in isolation, it can be ensured in the region as a whole. The decisions of Estonia and the foreign partners mutually influence the security of supply. The bigger the electricity market

is, the better we can ensure that the lights are on and the rooms are warm in Estonia at the best possible price," Kalle Kilik said.

"Cross-border connections, like EstLink 1, safeguard our power system's security, even in the coldest winters, and help to support a healthy electricity market," said Kimmo Nepola, head of Fingrid's HVDC & FACTS unit. "EstLink 1 will have many upgraded control features that help us to keep the power system up and running in the future."



After more than 16 years of operation, the control and protection system of EstLink 1 will be upgraded with the latest MACH technology.

Hitachi Energy recognizes that the energy transition begins with existing infrastructure. Leveraging over a century of experience and expertise, its dedicated teams deliver exceptional service solutions that cover the entire life cycle of their client's assets, ensuring resilient operations. The organization offers expert advice at every stage of the process across the portfolio, addressing both present and future needs to help customers achieve a sustainable and secure energy future.

Note to editors:

Hitachi Energy's HVDC solution combines world-leading expertise in HVDC converter valves; the MACH™ digital control platform¹, converter power transformers and high-voltage switchgear; as well as system studies, design and engineering, supply, installation supervision and commissioning.

HVDC Light® is a voltage source converter technology developed by Hitachi Energy, which was launched over 25 years ago. It is the preferred technology for many grid applications, including interconnecting countries, integrating renewables and "power-from-shore" connections to offshore production facilities. HVDC Light's defining features include uniquely compact converter stations and exceptionally low electrical losses.

Hitachi Energy pioneered commercial HVDC technology 70 years ago and has delivered more than half of the world's HVDC projects. Today, we have the largest installed base of HVDC in the world.

¹ [Modular Advanced Control for HVDC \(MACH™\)](#)

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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.

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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>.

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.
