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The 90-megawatt battery energy storage system supports the stability of Finland"s energy network and will help the country meet its climate goals. Hitachi ABB Power Grids and Teollisuuden Voima (TVO) have signed a contract about delivering one of Europe"s largest battery energy storage systems to the island of Olkiluoto.

One of Europe"s largest battery energy storage systems is to be built at the Olkiluoto nuclear power plant in Finland under a contract signed by Teollisuuden Voima Oyj and Hitachi ABB Power Grids.

The primary purpose of the Battery Energy Storage System is to serve as backup power capacity which is activated in case of unexpected production disruptions at the OL3 power plant unit. TVO has invested in its own battery storage and offered it to Fingrid as part of the OL3 system protection scheme.

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The 90-megawatt system will support the entire energy network, in a potential production disturbance in the Olkiluoto 3 plant unit, thus minimizing the effect of power fluctuations on the grid. The turnkey solution acts as a fast-start backup power source. TVO is building a third nuclear power plant unit on the island of Olkiluoto. Once commissioned about 30 percent of Finland?s electricity is expected to come from the island and support the transition of Finland"s electricity production towards carbon neutrality.

"By 2050, electricity will be the backbone of the entire energy system," said Matti Vaattovaara, Country Managing Director of Hitachi ABB Power Grids" business in Finland. He continued, "Together with TVO, we are enabling the people of Finland to move towards a carbon-neutral future. The energy revolution requires pioneering technologies and new intelligent solutions to ensure system flexibility and reliability. Battery energy storage of this scale, and the growth in low emission electricity production, represent significant steps for the climate and contributes to Finland"s goal of carbon-neutrality in 2035."

"TVO"s contribution to national electricity production is growing, and the soon-to-be completed Olkiluoto 3 plant unit is a critical part of this effort," said Sami Jakonen, TVO"s Technical Director. He continued, "With this investment in battery energy storage, we are helping to ensure uninterrupted electricity supply in Finland. In the event of a disturbance in production, battery energy storage is used as backup power until an alternative

production method is generating electricity. In this way, we ensure the reliable operation of the grid even in a situation in which a large amount of electricity would otherwise fall out of the grid capacity."

The battery energy storage system will be commissioned in 2022.

Hitachi ABB Power Grids has delivered more than 600 MW of battery energy storage systems and the intelligent automation solutions supporting them worldwide. The company has more than 30 years of experience in delivering similar solutions to industrial and commercial sites, to utilities for the efficient management of decentralized renewable production, and to islands and remote regions that invest in energy self-sufficiency. The agreement with TVO includes an e-mesh(TM) PowerStore(TM) energy storage solution as well as an intelligent digital e-mesh(TM) SCADA energy management system, substation expansion and maintenance support.

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