## **SOLAR** PRO. Fingrid power system Niue

#### How does Fingrid regulate power plants?

Fingrid orders up- or down-regulation from the Balancing energy market. Down-regulation considers increasing of consumption or reducing of generation. Reserve power plants electrical production is based on the real-time measurements in Fingrid's operation control system.

#### How is Fingrid connected to Estonia?

Finland is also connected to Estonia by HVDC transmission links. The joint Nordic system is also connected to the Central European system by HVDC transmission links. Fingrid participates in ENTSO-E, the European Network of Transmission System Operators for Electricity. Main grid

### How did Fingrid develop the electricity grid?

The development of the grid proceeded as planned with more than 100 investment projects of various sizes. The electricity market returned to a new normal after an exceptional year. Fingrid develops and operates the grid to meet the needs of customers and society. During the year,1 920 MW of renewable energy was connected to the grid.

### How is Fingrid preparing for increased wind power generation?

Fingrid is making preparations for increased wind power generation. Unlike other types of power plant, wind turbines are often located far away from centres of consumption with strong electricity networks. "We need to reinforce electricity transmission, and this will take time and require comprehensive planning.

### What is Fingrid Oyj?

Fingrid Oyj is the enterprise which takes care of the functioning of the nation-wide high-voltage grid, the backbone of electricity transmission in Finland. Fingrid produces large amount of data on the electricity market and the power system and publishes it as open data for public use.

#### What does Fingrid do?

Fingrid is responsible for grid monitoring, operational planning, balance services, grid maintenance, construction and development, and promoting the electricity market. Distribution networks Distribution networks typically connect to Fingrid's main grid via the 110 kV network and transmit electricity regionally on 110 kV lines.

Open data on the electricity market and the power system Fingrid Oyj is the enterprise which takes care of the functioning of the nation-wide high-voltage grid, the backbone of electricity ...

The system security of the main grid stayed at a high level all year and in terms of the availability of electricity the year was successful. The development of the grid proceeded as planned with more than 100 investment projects of various sizes.

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The power system of Finland consists of power plants, the main grid, high-voltage distribution networks, other distribution networks, and electricity consumers. Finland is part of the Nordic synchronous area along with Sweden, Norway and eastern Denmark.

Finland will transition to a 15-minute imbalance settlement period on 22 May 2023, when the imbalance settlement system will begin using a 15-minute resolution instead of one hour. The centralised information exchange unit, datahub, and most energy metering will also switch to a 15-minute resolution.

Onshore and offshore wind farms are being connected to the Finnish electricity system in increasing numbers. Wind power is quick to build, and it generates energy without any fuel. Fingrid works with customers to ...

Fingrid is Finland's transmission system operator. We secure reliable electricity cost effectively for our customers and society, and shape the clean, market-oriented power system of the future.

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In addition to Australia's support, the New Zealand Government contributed \$2.5 million to relocate and restore Niue's Battery Energy Storage System (BESS). This funding has allowed the Ministry to repair the grid control system, procure necessary fuel tanks, and install cabling and connections.

