



110 MWE MICROGRID CONTROLLER REMOTE OIL FIELD EXXON NEFTEGAZ LTD.

OWNER
Exxon Neftegaz Ltd.

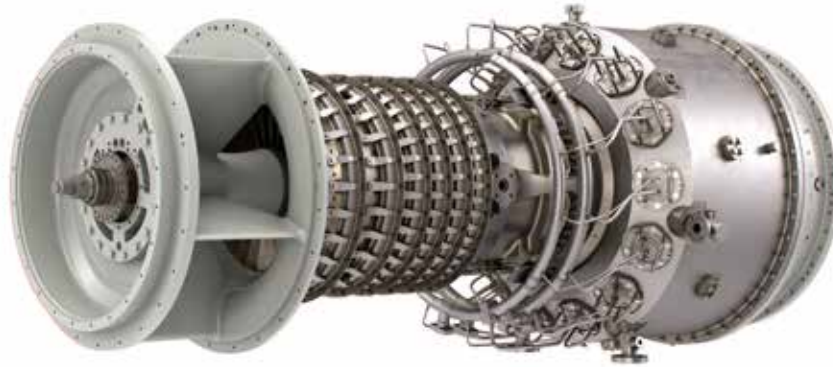
LOCATION
Sakhalin Island, Russian Federation

PRODUCT
Microgrid Controller

CUSTOMER VALUE
Reliable Control of Isolated Microgrid

In the remote oil fields of Sakhalin Island in the Russian Federation, Exxon Neftegaz operates some of the longest well boreholes in the world without the benefit of a utility grid connection. A Solar® microgrid controller and seven Titan™ 130 gas turbine generator sets provide robust, reliable power for the oil fields. In addition to optimizing the sequencing of the gas turbines, the microgrid controller controls the major oil field loads, including several 5,000 horsepower injection pumps. The microgrid controller automatically maintains frequency and spinning reserve margins as system load fluctuates.

110 MWe Microgrid Controller - Remote Oil Field



PLANT DATA

Controller for Oil Field Microgrid

Seven Titan 130 Gas Turbine Generator Sets

Automatic Load Shedding

Start Permissives for Eight Large Loads

Synchronization of Split Bus Via Four Breakers

OUR PRODUCTS & SERVICES

Solar Microgrid Controller

Seven Titan 130 Gas Turbine Generator Sets

Microgrid Control Programming

Installation and Startup Assistance

System Testing

COST EFFICIENT SOLUTION

GRID INDEPENDENT

AUTOMATIC LOAD SHEDDING

SYNCHRONIZE SPLIT BUS SYSTEM

To maintain microgrid stability, the system includes starting permissives for major loads such as injection pumps. Automatic load shedding, per a customer-defined priority list, is also included for over 40 critical loads.

The oil field electric busses, which evolved as two separate systems, can now be automatically synchronized for maximum redundancy with one system able to back up the other. The microgrid controller can run the two systems individually or in parallel.

Expandability is built into the microgrid controller which can accommodate future loads, turbines, solar arrays and energy storage units.

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