

Q. Explain which personnel in Newfoundland Power are responsible for controlling the hydroelectric, thermal, and gas turbine generators and how the facilities are controlled (by SCADA vs. local).

A. Newfoundland Power has 32 hydroelectric units in 23 hydro plants. It has 2 diesel generators, one of which is a mobile unit, and 3 gas turbine generators, one of which is a mobile unit.

Of the 32 hydroelectric units, 24 are equipped with remote control capability. For the remaining 8 hydroelectric units, generator breaker indication and some limited telemetry is available.¹

The gas turbine generators at Greenhill and Wesleyville are equipped with remote control capability. There is no remote indication or control for the Mobile Gas Turbine, or for either the Port aux Basques diesel generator or the Mobile Diesel Generator.²

Generating units with remote control capability can be operated remotely, when necessary, by Newfoundland Power's System Control Center ("SCC") Power System Operators via the Company's SCADA system. Generating units that are not remotely controlled are manually controlled by local operating staff under the direction of SCC Power System Operators.

In 16 of the Company's hydro plants, local programmable logic controllers ("PLCs") run water management algorithms that automatically determine when the units should be run and how they should be operated for optimal efficiency.³

¹ Of the 8 hydroelectric units where full remote control is not available, 2 are the 3rd units in a 3-unit plant where 2 units are sufficient for most of the year, given the available water supply. The remaining 6 units range from 255 kW to 680 kW. Due to their small size and production, full automation is not warranted.

² The mobile gas turbine and the mobile diesel generator units can provide indication of a limited set of points (for example generator breaker and unit lockout) when installed at substations and plants where SCADA monitoring and control is available.

³ SCC Power System Operators can make adjustments to the water management systems to control how the PLC operates the hydro plant. When necessary, such as when peak requirements must be met, the PLCs can be overridden by SCC Power System Operators.