

Commissioning of 120 MW Wind Farm

CLIENT

Northland Power

LOCATION

Grand Bend, Ontario

PROJECT DESCRIPTION

The Grand Bend Wind Farm project is located near the eastern shore of Lake Huron north of the village of Grand Bend, Ontario. The wind farm was designed to generate approximately 100 megawatts (MW) of clean energy and developed under Ontario's Feed-In Tariff Program for renewable energy sources.

B&M SCOPE OF WORK

Black & McDonald's (B&M) Field Service Division was contracted to perform the following services:

- Commission and test complete electrical system
- Review design drawings including single lines, three lines, AC/DC schematics, logic drawings
- Point to point verification of all control and secondary cabling and provide as built drawing mark-ups
- Commission the 230 kV to 34.5 kV substation and 230 kV switching station, including motorized and manual disconnects, CVTs, circuit breakers, lightning arrestors, power transformers, protection and control, and AC/DC systems
- Complete collector system commissioning including MV cables, pad mount transformers, switches, junctions boxes and all other electrical components
- Commission completed to NETA and IEEE standards
- Protection element and logic testing of all relays (GE, SEL and auxiliary)
- Teleprotection setup and verification
- Perform primary injection to verify phase angles and ratios