



Hurricane Resistant

Location Bahamas

Application Hybrid Energy Solution (Wind/PV/Diesel)

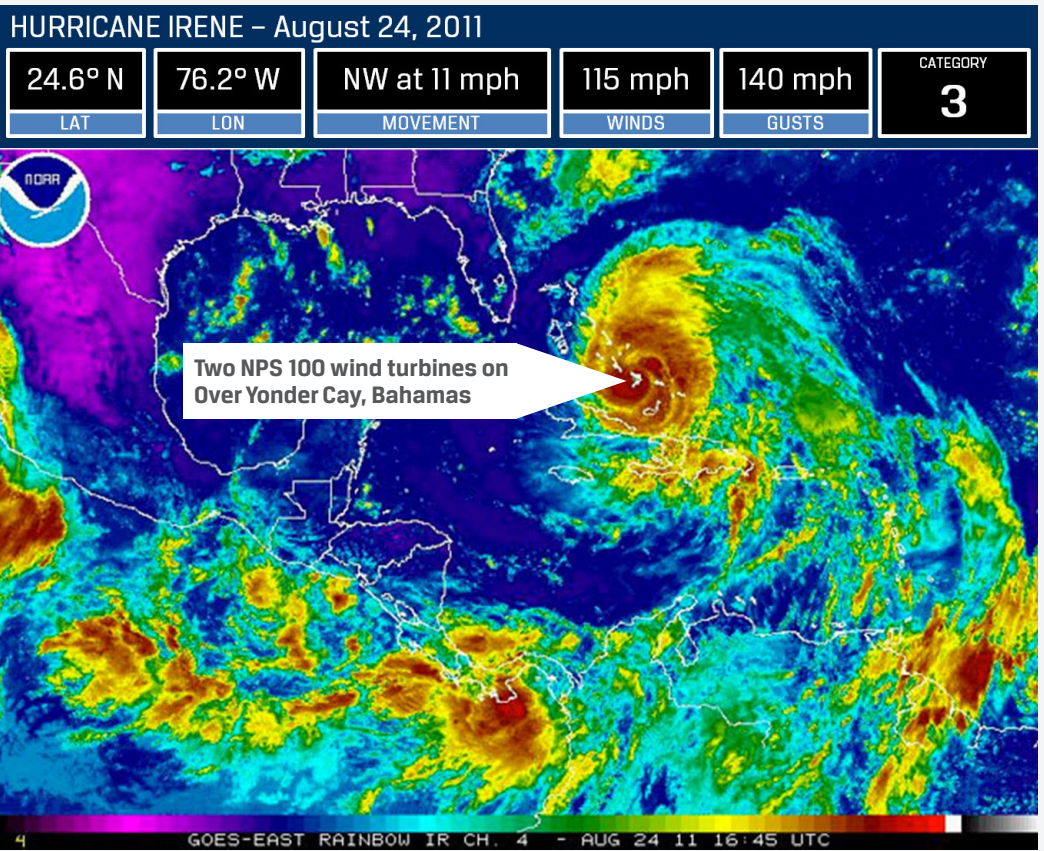
Project Details 2 Northern Power 100 kW wind turbines

Situation Overview On August 24, 2011 Hurricane Irene strengthened into a category 3 major hurricane while passing through the Bahamas, leaving behind a trail of extensive damage resulting in monetary losses in the Caribbean estimated to be as high as \$3.1 billion.

Results The island of Over Yonder Cay took a direct hit from this category 3 hurricane. Despite the strength of Hurricane Irene, both Northern Power 100 kW wind turbines entered into safe mode on August 24, 2011 after detecting high winds and returned to normal operation on August 25, 2011 at 9:30 am.

"We initially purchased Northern Power's NPS100 because of the high reliability and low sound profile, both a result of the permanent magnet direct drive generator design. After the NPS100s survived Hurricane Irene we purchased a third turbine because it was clear that the NPS100 lived up to the high standards that were advertised."

Mike McGuire, Site Manager, Over Yonder Cay



- August 24, 2011**
- 15:10 GMT:** NPS 100 wind turbines detect high winds and enter into safe mode.
- 23:20 GMT:** 107.1 mph high wind speed recorded on Over Yonder Cay.
- August 25, 2011**
- 09:30 GMT:** NPS 100 wind turbines return to normal operation.

*The NPS 100 wind turbine was designed to IEC 61400-1 standards for WTGS Class IIA conditions, including expected extreme wind speed of 59.5 m/s

