

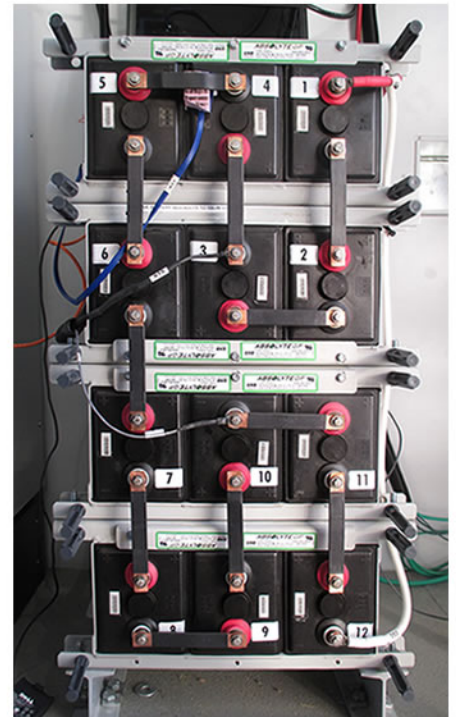


Project Profile

DeTect, Inc. (tasked with implementing an avian detection and deterrence system by a large oil & gas producer) turned to Northern Reliability to provide a robust, reliable, off-grid solution to provide continuous power to their equipment at a site with no existing utility connection. Northern Reliability arrived to a solar/diesel hybrid power solution that integrated 1.6kW of photovoltaic power with a diesel-fired 7kW generator. The system was designed to endure long periods of time between servicing and/or refueling. To protect the equipment during Edmonton's severe winter, NRI's team developed a weather resistant enclosure to house the generator and ensure back-up power during the winter months.

Northern Reliability's Off-Grid Power Solution

A fully autonomous solar/diesel hybrid power system, with an industrial battery bank for energy storage, housed in an environmentally controlled shelter.



“Winters in northern Alberta are long and harsh so we were not comfortable with a solar-only system and not thrilled with the idea of running a generator 24/7/365. Northern Reliability’s hybrid solution, combined with their experience in harsh environments, was a perfect fit for this application.”

- Jared Quillen, Project Manager, DeTect, Inc



System Configuration:

1.6 kW PV array configured in 2 redundant arrays

7kW diesel fired generator set with 150 gallon base tank

600 Ahr AGM VRLA industrial grade battery

Custom Programmable Logic Control (PLC) system

Custom SCADA system

The Energy Challenge

A remote oil & gas producer needed 24/7/365 power for avian monitoring equipment to prevent water fowl from landing in tailing ponds. Very cold temperatures and little sunlight during winter months made redundancy a top priority along with reliability.

Benefits

Back-up Power

Generator provides back-up power during poor solar events.

Hybrid Design

Hybrid architecture minimizes solar array size and fuel consumption.

Weatherproof

Robust design can withstand tough temperatures saving battery life.

