

Daly River

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| CUSTOMER | Power and Water Corporation |
| LOCATION | Naiyu (Daly River), Australia |
| ENERGY STORAGE SYSTEM | 1 MW PV 800 kW / 1,980 kWh |
| APPLICATIONS | Load shifting, spinning reserve |
| COMMISSIONED | 2018 |



OPPORTUNITY

The Northern Territory of Australia has many indigenous communities, powered solely by diesel power stations. To transform the way energy is produced in the territory, the Power and Water Corporation hybridised its existing power plants by introducing solar power and energy storage for these communities. Naiyu community was the first to benefit from a battery energy storage system to increase the Solar Energy integrated into their existing diesel power station.

SOLUTION

The diesel power station is outfitted with a 1MW PV system and a QLarge Energy Storage System (ESS) of 800kW/1,980 kWh. To control and manage the PV, gensets and ESS, Power and Water Corporation built their own station controller, Qinous provided a standard Modbus TCP interface to allow remote monitoring and control of the ESS.

RESULTS

During the first year of operation, the hybrid system with PV and the QLarge ESS achieved savings of over 400,000 litres of diesel which corresponded to savings of more than \$290,000*. The renewable energy share in this period was 51%, and the diesel generators were completely switched off for 10 hours per day on average.



*The savings estimation is based on historical diesel TGO data from the Australian Institute of Petroleum (aip.com.au/historical-ulp-and-diesel-tgp-data)