

Lizard Island Reef Research Foundation (LIRRF) North Queensland

genZ case study #101

Off Grid Power System Overhauled

At Lizard Island in far north Queensland, a major power system upgrade to the 10-year-old power system was completed in April 2021. genZ provided a significant battery bank for the system that powers the aquarium and other essential services.

"The challenge of working on Lizard Island during the wettest time of the year was overcome and the original 30kW hybrid solar/battery/generator system was upgraded to 99.7kW solar powered system. The dependency on running the diesel generators was removed."

Adam Wilson, Director Tropical Energy Solutions

A two-hour flight north of Cairns and situated within the protected surrounds of the Great Barrier Reef, the environmentally protected Lizard Island now has a state-of-the-art energy system.



Battery System

80x genZ 3kWh 48V 2RU Lithium Ferro-Phospate batteries, 240kWh

Battery Inverters

6x Selectronics Pro

Solar Inverters

12x Fronius 8.2kW

Solar Array

Upgraded to 99.7 kWp

Principal Supporters

- Charles Warman Family Foundation
- Minderoo Foundation
- Rossi Family Foundation
- Lizard island Reef Research Foundation

Benefits

- 10,000L diesel fuel saved annually
- 270,000 kg CO₂-e emissions saved annually
- Reliability, fuel security and minimal diesel runtime

Energy Supplied Facilities

- 37 bed accommodation across 6 houses
- 2 self-contained staff accommodation
- Commercial kitchen
- · Amenities and ablution block
- Workshops
- Aquarium system
- Saltwater pumps
- Airconditioned laboratory
- Dive shed

Installer / Partner

Townsville, OLD

www.tropicalenergysolutions.com













Conforms to AS5139 & Best Practice Guide



Certified & Approved to International Standard IEC 62619:2017



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