

Case Study: Outback Station Diesel Offset System

System Stats

Application: Rural Off-Grid System, Diesel Offset
Location: Flinders Ranges, SA
Installed: Mar 2014
Key Brands: SMA, Trina Solar, Sonnenschein, Clenergy

Load Analysis

Ave Summer Demand: 43kWh/day
Ave Winter Demand: 30kWh/day
Demand Surge: 11.26kW



Objectives & Site Considerations

The station was running a large, inefficient diesel generation system 24/7 for their power supply, the renewable off-grid installation goal is significantly reduce generator operation costs and provide increase power self sufficiency for the the remote site. Considerations included detailed load analysis under multiple occupation scenarios (Eg. Shearing) and understanding the most suitable solar and battery equipment locations given the large and complex power distribution network.

System Design

The system included robust system components with suitable tolerances for the harsh, hot and dusty conditions of the site. A diesel generator was incorporated into the system as a backup power source when required.

- 2 x SMA SI8.0 Inverter Chargers
- 79kWh Sonnenschein Battery Storage
- 11.5kW Trina Solar 260W Modules
- SMA SMC10000TL Solar Inverter
- SMA SB5000TL Solar Inverter
- 20kVA Diesel Generator

Project Outcome

After the installation, fuel savings will achieve a return on investment in as little as 4 years. Additional benefits included massive reduction in onsite noise from the generator, and the need to transport large volumes of diesel to the site. The system requires minimal user maintenance, and has made the property far easier to manage and operate for the client.

Off-Grid Energy Australia

Off-Grid Energy is a designer and installer of high quality battery storage systems for a range of applications. We are a national company who pride ourselves on friendly and lasting customer service, sustainable business practices, and cutting edge technology.

Contact Us

1300 334 839
info@offgridenergy.com.au
www.offgridenergy.com.au