



## MAGELLAN POWER CASE STUDY

# Boggabri Coal Mine

Boggabri Coal Mine is an open-cut coal mine in operation since 2006. The mine supports a workforce of around 600 employees and contractors. Mined Coal is processed through a coal handling and preparation plant before being transported to the Port of Newcastle for international export. The mine produces up to 7 million tonnes per annum (mtpa) of saleable coal with a mine life to 2033.



**Client**  
Boggabri Coal Mine

**Date**  
June 2020

**Location**  
Gunnedah Basin, NSW.

**Scope of Project**  
Hybrid Solar and Battery Back-up System.



## Client Requirement

The customer used a diesel generator to power up the telecommunication loads at a remote mining site. This type of system suffers from several major drawbacks, i.e. cost of fuel and transportation, operation noise, and CO2 emission.

Moreover, running the diesel generators under low-load can result in glazing and carbon build-up. The client sought a reliable solar generator with sufficient battery back-up to replace their existing solution.



## Magellan Solution

Magellan Power offered a hybrid solar and battery backup solution which provides a clean, reliable, and renewable electric power supply. This system is a zero-emission and cost-effective substitute to the diesel generators running at low load in remote industrial and mining plants. Moreover, the excess solar power is stored in a battery backup system large enough to provide up to 3 days of autonomy. In case there is not sufficient solar power available the equipment has the ability to charge the battery bank from the generator. In order to ensure superior performance and an excellent service life in the Australian climate and weather extremes, the equipment features high temperature VRLA batteries as well as double-skin aluminum outdoor enclosures

## Major Components

- Hybrid Solar Chargers
- 48V-450Ah VRLA battery backup.
- Outdoor double-skin enclosures.
- 48V, 24V, and 12VDC outputs



64 Bushland Ridge  
Bibra Lake WA 6163  
+61 (08) 9434 6621  
sales@magellanpower.com.au  
[magellanpower.com.au](http://magellanpower.com.au)