



MAGELLAN POWER CASE STUDY

Territory Generation Lithium Battery Bank

Territory Generation produces electricity to power the Northern Territory. The utility owns and operates eight power stations across the Northern Territory.



Client
Fredon Security / Securitas

Date
May, 2018

Location
Northern Territory

Scope of Project
Manufacture and Supply of BMS and
Lithium Battery Bank



Client Requirement

The Lithium battery bank was supplied to a Power Station in the Northern Territory, to replace the existing Lead Acid battery bank (as shown below) which had limited available space and needed ventilation, due to gas released by the batteries.



Magellan Solution

Lithium Iron Phosphate batteries were chosen for this application due to their many advantages over VRLA batteries. Lithium is less than a third of the weight, half the size, works at a higher temperature, has much longer shelf life, has much flatter discharge curve and can charge and discharge many more times than VRLA. This together with long life (20 years) in standby use make Lithium batteries an ideal battery for UPS applications.

The solution offered was the below 1600Ah dual Lithium Battery Bank. It requires no maintenance removes the need for special ventilation.

Another advantage of a Lithium battery bank is the Battery Monitoring System which is monitoring voltage, current, temperature and capacity of every cell and works independently to protect the battery cells against high voltage, over discharge and over temperature. This inherent feature makes the bank much safer compared to the equivalent Lead Acid Battery bank that relies entirely on the quality of the associated battery charger. Lithium is an ideal choice for many AC and DC back up power applications, Remote Area Power, Solar applications and Energy Storage.

