



Beating bushfire blackouts at Kalyakool Farm

OVERVIEW

- Location - Kalyakool Farm, Muckenburra, Western Australia
- 4 x ZBM2 zinc-bromine flow batteries - 40kWh stored energy
- 45 x PV panels - 14kWp array
- 3 x 8kVA Victron Quattro 8000VA Charger / Inverters
- 3 x Victron SmartSolar MPPT 250/100 Charge Controllers
- Redflow Battery Management System (BMS)
- Victron Color Control GX (CCGX)



In March 2020, Renewable Battery Storage Solutions (RBSS) and TIEC Electrical completed the installation of an energy storage system at Kalyakool Farm in Muckenburra, Western Australia.

The 34-hectare property, approximately 90km north of Perth, grows 600 Chinese Jujube trees, which produce a super fruit that has been popular in Chinese cuisine for thousands of years.

The farm relies on two electric bore pumps to provide all the water for the orchard, livestock and the owner's farmhouse.

The local area experiences numerous power outages and recent bushfires highlighted the need for the farm to run its irrigation pumps independently of the power grid. RBSS were asked *"what battery system will run my pumps, the farm house and shed when the grid goes down?"*

Our solution was to install four Redflow ZBM2 zinc-bromine flow batteries to harvest and store the energy produced from a 45 panel solar array.

Since completion of the 40 kilowatt-hour (kWh) Redflow energy storage system, Kalyakool Farm has managed to eliminate its power problems, including both blackouts and surges.

ZBM2 install at Kalyakool Farm

The Redflow energy storage system at Kalyakool Farm effectively made the property off-grid, although it has retained a grid connection as a backup power supply.

Owner Jeff Murray says, "The bottom line is that this is a good business decision. We will get back our money in eight to ten years at the current price of power. As the price of energy goes up, we'll pay it back even quicker."

**For more details about this installation contact -
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Redflow ZBM2 batteries



Completed battery room setup



24kVA three-phase consisting 3 x 8000VA Victron Quattro Charger / Inverters



Victron SmartSolar MPPT 250/100 Charge Controllers



At-a-glance information from Victron Color Control (CCGX)

Renewable Battery Storage Solutions (RBSS) provide specialist electrical contractor services for the design and installation of sustainable energy storage systems. Ideal for those wanting to complement existing or new solar power installations at home and the work-place, or as an energy backup solution using existing power grid.

RBSS offer services for a wide range of residential and commercial energy storage applications across the Perth metro area and regional Western Australia.



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