

Queensland property chooses flow batteries over power bills

When Scott and Breeann Bates built a new house on their Queensland cattle and grain property near Wallumbilla, they chose a flow battery based energy storage system to give them independence from the power grid and freedom from having to pay electricity bills. Their six-battery system – the 60 kilowatt-hour energy storage system is Redflow’s largest ZBM residential deployment in Australia – ensures complete off-grid operation for their home, which is 2.7 kilometres from mains power.

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– Breeann Bates

	HIGH ENERGY DENSITY
	48 VOLT
	TEMPERATURE RESILIENT
	MEDIUM TO LONG DURATION
	UNPARALLELED SAFETY
	ZERO DEGRADATION



PROJECT OVERVIEW

- + **Location:** Bardlomey near Wallumbilla, Queensland, Australia
- + **Client:** Bates cattle and grain farm
- + **Storage size:** 6 x ZBM2 flow batteries
- + **Energy storage capacity:** 60 kWh
- + **Inverter:** 2 x Victron Quattro 48/10000/140-100/100
- + **Renewable source:** 72 x 260 watt Tindo Karra multicrystalline PV array (18.72 kWp)
- + **Installation partner:** Off-Grid Energy Australia
- + **Application:** Off grid property

+ BATES FAMILY BENEFITS FROM FLOW BATTERY STORAGE SOLUTION

A Queensland family has chosen energy independence with ZBM batteries for their new home, 2.7km from the nearest electricity grid connection. Rather than pay tens of thousands of dollars per kilometre to run mains power to the new building, Breeann and Scott Bates bought a ZBM energy storage system from Off-Grid Energy Australia.

“We are really impressed with it,” said Breeann. “It’s all new, so we will learn more as we go along. We’re looking forward to observing how our system performs throughout different times of the year.”

The Bates family built their new home at Bardlomey, a cattle and grain property near Wallumbilla, a town in the Maranoa Region of Queensland, about 40km east of Roma. They previously lived at adjoining property Winnathoola, where their home was supplied by mains power.



“Scott wanted to be able to do everything on batteries that we could do on mains power and not compromise our way of living,” explained Breeann. “It’s cold in the morning, so we’re running the heaters to keep our three kids warm, and we keep them on until the day warms up.” The Bates family made a conscious decision to live off-grid, so they designed their 400-square metre single-storey four-bedroom home with insulation in the floor, walls and ceiling.

“We were initially interested in solar because running mains power the required distance to our site was going to be an expensive exercise,” said Breeann. “The added benefits of uninterrupted power and no power bills made the decision easy. “Costwise, the difference between running mains power to the new house site and setting up the solar-powered energy storage system was negligible. Given this situation, a solar system incorporating Redflow batteries was an attractive option for us to store reliable power and eliminate power bills. They are designed in Australia and can tolerate hot conditions.” The Bates family energy storage system comprises six Redflow zinc-bromine flow batteries, two Victron Quattro 48/10000 inverter/chargers and 72 260-watt Tindo solar panels, with an 18.72 kilowatt peak (kWp) capacity, installed on a nearby shed. This 60 kilowatt-hour (kWh) energy storage system is Redflow’s largest ZBM residential installation in Australia.

Breeann said the system was successfully supplying enough energy to handle the changeable weather of inland Queensland.

“Our variable climate can mean that we can have the air conditioning cooling one day and then heating the next,” she said. “For example, it was 34 degrees today – and we’re in the middle of winter. Even through these challenging conditions, the system has managed to seamlessly fulfil our power needs.” Breeann praised the service from Off-Grid Energy and Redflow.

“They have been extremely professional and easy to deal with,” she said. “They really care about what they’re doing and how we use our system. Off-Grid Energy and Redflow keep in touch regularly and can remotely monitor our system, giving us peace of mind. We are very happy with the experience so far.”

To find out more about Redflow or our zinc-bromine flow battery please visit [redflow.com](https://www.redflow.com)

About Redflow

Redflow Limited, a publicly listed Australian company (ASX: RFX), produces zinc-bromine flow batteries for stationary energy storage applications. Redflow batteries are designed for high cycle-rate, long time-base energy storage, and are scalable from small commercial systems through to grid-scale deployments. Redflow’s smart, self-protecting batteries offer unique advantages including secure remote management, 100 per cent daily depth of discharge, tolerance of high ambient temperatures, a simple recycling path, no propensity for thermal runaway and sustained energy delivery throughout their operating life.



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