



ZCell energy storage

**“With Redflow ZCell batteries and Tindo Solar panels,
we can seriously reduce our carbon emissions”**

Conservation SA CEO Craig Wilkins



Conservation SA's ZCell benefits

As the state's peak environmental organisation, the Conservation Council of South Australia (Conservation SA) seeks to lead by example. As well as installing 13 kilowatts (kW) of photovoltaic solar panels on the roof of its central Adelaide office to reduce its carbon emissions and power costs, Conservation SA deployed two 10 kilowatt hour (kWh) ZCell batteries from Redflow to extend those benefits and to provide a backup energy supply during power blackouts.

PROJECT OVERVIEW

- Customer: Conservation Council of SA (Conservation SA)
- Location: 111 Franklin Street, Adelaide, South Australia
- ZCell installation partner: Sustainable Works
www.sustainableworks.com.au
- Storage: 2 x 10 kWh ZCell batteries
- Solar PV: 52 x 250-watt Tindo solar panels
- Fronius solar inverter and 5kW Victron battery inverter
- ZCell reduces energy costs for Conservation SA by enabling self-consumption of solar power
- ZCell provides backup power for the office's emergency lighting and on-site data centre
- ZCell charges the GoGet hybrid electric vehicle based at the Conservation SA office
- ZCell allows detailed monitoring of the building's energy use
- ZCell enables Conservation SA to showcase the next generation of energy technology
- The flexible ZCell energy system is easily expanded in the future.



COMMERCIAL
CASE STUDY

ADELAIDE
SOUTH AUSTRALIA

Conservation SA showcases ZCell



Environmental organisation Conservation SA installed ZCell batteries to showcase the benefits of environmentally friendly energy storage and to guarantee energy supplies during power blackouts. Conservation SA marked the first commercial property installation of a ZCell-based energy storage system. The two zinc-bromine flow batteries allow the not-for-profit organisation to store energy collected from a 13 kilowatt (kW) array of Tindo solar panels on the roof of its Adelaide CBD building, The Joinery.

The Australian-developed ZCell is a unique 10 kWh zinc-bromine flow battery that 'timeshifts' solar power from day to night, stores off-peak power for peak demand periods and supports off-grid systems. As well as providing backup power for Conservation SA's emergency lighting and first floor data centre, the ZCells also recharge a GoGet hybrid electric vehicle based at the site.



Assisted by a \$5000 battery rebate from the Adelaide City Council, Conservation SA installed the ZCell energy storage system to demonstrate the effectiveness of on-site energy storage that was environmentally friendly. ZCells are made from elements that are easily recyclable or reusable.

Conservation SA CEO Craig Wilkins said the organisation was leading by example. "With Redflow ZCell batteries and Tindo Solar panels, we can seriously reduce our carbon emissions," he said. "This is a fantastic opportunity to demonstrate exciting new technology. As part of our work here at The Joinery, we look to showcase to SA the next generation of energy technology, such as these ZCell batteries. They also help us as a not-for-profit organisation to reduce our power bills."



The Conservation SA installation at 111 Franklin Street comprises two ZCell batteries connected via a 5kW Victron inverter. The 52 x 250-watt Tindo Solar photovoltaic panels on the building's roof charge the ZCells through a Fronius solar inverter, as well as directly supplying a substantial proportion of the daytime energy needs of the building. The flexible energy system is easily expanded in the future.

Installer Colin Lord from Sustainable Works said the Conservation SA installation allowed detailed monitoring of the building's energy use. "Using ZCell's Battery Management System (BMS) interfaced to the Victron CCGX energy management unit, Conservation SA can see how much energy is used by the building and the electric car and how much mains power is offset by the batteries," he said.

To learn more about ZCell energy storage solutions, visit www.zcell.com

About Redflow

Redflow's unique zinc-bromine flow batteries are designed for stationary energy storage applications ranging from its ZCell residential battery to its scalable ZBM2 batteries for industrial, commercial, telecommunications and grid-scale deployment. Redflow Limited, a publicly-listed company (ASX: RFX), produces high energy density batteries that are sold, installed and maintained by an international network of system integrators. Redflow batteries offer unique advantages including 100 per cent depth of discharge, tolerance of ambient temperatures as hot as 50 degrees Celsius and sustained energy storage of 10 kilowatt hours (kWh) throughout its 10-year warranty.

www.redflow.com **sustainable energy storage**



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