



CONSORTIUM FOR  
**BATTERY  
INNOVATION**



**圣阳电源  
SACRED SUN**

## LEAD BATTERIES: ENERGY STORAGE CASE STUDY



Sacred Sun

# Australia's First Energy Autonomous Medical Center

### Dorrigo, NSW, Australia

With a 36 kW energy storage system commissioned in 2016, the Cork Trust Memorial Medical Centre in Dorrigo, New South Wales was the first energy autonomous medical center in Australia.

Located in a high-altitude coastal region, the project, which currently consists of a medical center and three display homes, will eventually include 43 independent housing units to accommodate senior residents.

*“Designing this system in my home town of Dorrigo has been an exciting project, not only for the financial and blackout protection benefits that these systems derive, but also as a model of what these resilient micro grids mean for the future of embedded generation networks of the world.”*

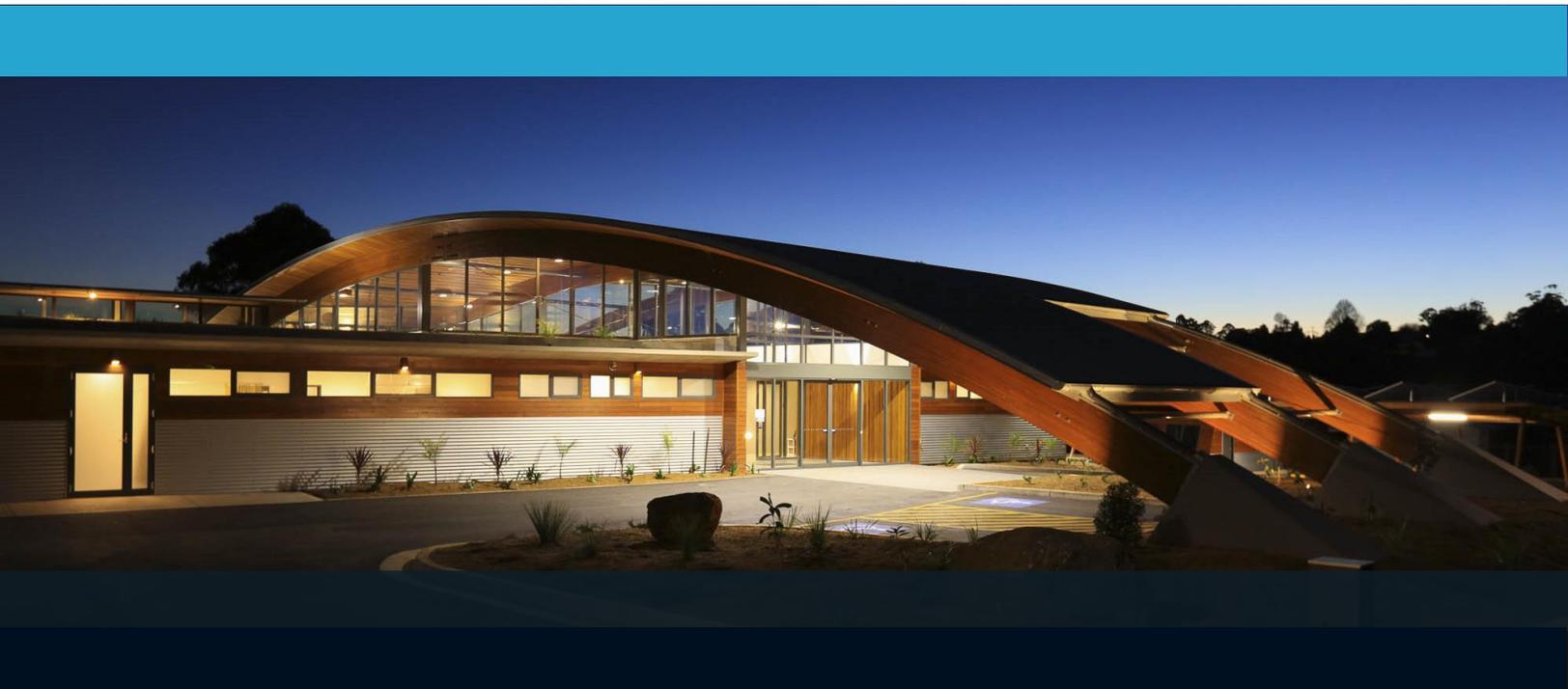
Geoff Tosio, Sales Manager, Solar Depot Bellingen

### Technical Specification

To power the medical center, a 36 kW grid-connected solar and battery storage system was designed and installed by Solar Depot Bellingen.

The energy storage system consists of 60 x 2 V OPzV batteries provided by Sacred Sun, rated at 1000 Ah. The gel lead batteries, 4.6 tons in weight, can store up to 72 kWh of electricity mainly to store excess solar production for use at night. This stored energy can also be used for back-up during blackout periods.

The system also features three large inverter/rectifiers in a three-phase configuration, made up of 20 kW Selectronic SP 1202 units, 36 kW of Yingli polycrystalline solar panels and 6 x ABB 6 kW inverters.



There is currently 36 kW of PV generated with room to expand up to 90 kW. It is expected that the solar and storage system will generate up to 20% more power than the building's average annual use.

### About the Company

Shandong Sacred Sun Power Sources is an international high-tech enterprise founded in 1991, dedicated to providing stored energy solutions for industrial applications worldwide. They specialize in designing, manufacturing and distributing reserve power and motive power batteries.

Reserve power batteries are used in telecom and utility industries, uninterruptible power supplies, and numerous applications requiring stored energy solutions including solar and wind renewable energy.

### Technical Summary

Battery specification	60 x 2 V OPzV Sacred Sun batteries
Capacity	1000 Ah
Inverters	<ul style="list-style-type: none"> <li>• 3 x 20 kW Selectronic SP 1202 inverter/rectifier units</li> <li>• 6 x ABB 6 kW inverters</li> </ul>
PV array	36 kW Yingli polycrystalline solar panels
Overall Power Output	36 kW
Available Stored Energy	72 kWh