

# Battery Energy Storage System in the Southern Hemisphere

50KW modular power converter



#### Flexible Configuration

- Modular Design, Expanding as Required
- Small&Light, Wall Mounted
- Installed in Parallel for Expansion



#### Powerful Function

- Support PV+ESS
- Grid Support, Equipped with SVG Technology
- On-Grid and Off-Grid Operation



#### Reliable Protection

- Outdoor IP65 Design
- Sufficient Protection Functions Equipped





## Overview

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What is a battery energy storage system?

The Battery Energy Storage System (BESS) is one of four elements of the innovative Waratah Super Battery project that has been designed by EnergyCo in conjunction with Transgrid.

Where is battery energy storage system (BESS) located?

Located ~100km north of Sydney and approximately 25km south of the retiring Eraring coal-fired power station, the Battery Energy Storage System (BESS) will reside in a 138,000 square metre site (over 8 AFL fields).

Will Waratah be the largest standby battery in the southern hemisphere?

Once complete, Waratah would be the largest standby network battery in the Southern Hemisphere. The project was announced in February 2022. It also received Critical State Significant Infrastructure status in the same year. Subject to planning approval, the construction phase is expected to begin in early 2023 and complete by mid-2025.

Who will provide the battery hardware and software?

Powin will provide the battery hardware and software, deploying its modular Centipede battery energy storage system (BESS) platform and Stack OS control system. Powin's wholly owned subsidiary, EKS Energy, will provide the power conversion systems.

Why is the NSW Government delivering the Waratah super battery project?

The NSW government is delivering the Waratah Super Battery project as part of its response to the anticipated early closure of Eraring, which is owned by Origin Energy and expected to retire in August 2025.

How big is a battery storage system?



The company added, however, the physical size of the of battery storage system is anticipated to be 850 MW / 1,680 MWh, allowing the company to trade the additional 150 MW/ 280 MWh of capacity in the electricity market as well as potentially releasing it during off-peak times.



## Battery Energy Storage System in the Southern Hemisphere

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### Future Fraser Rise battery largest in southern hemisphere

Once complete, the hub will provide 1.6 gigawatt hours of energy storage, enough to power up to 200,000 homes during peak periods, which Ms Allan said is roughly ...

### Quinbrook Launches \$2.5 Billion 'Supernode' Data ...

Quinbrook has also lodged a 'code assessable' planning application for a 2,000 MWh Battery Energy Storage System ('BESS') to be co-located within the Supernode precinct, creating a 'first of a kind' project ...



### ['South Africa is a trailblazer': Electricity](#)

South Africa's electricity minister has said the largest solar-plus-storage project in the Southern Hemisphere is evidence of efforts to mitigate the country's difficult energy ...

### Eraring Battery Third Stage Approval Expands Project to 700 MW ...

Regarded as the largest battery project under construction in the Southern Hemisphere and destined to be Australia's largest battery energy storage system (BESS), the completed 700 ...



### Energy Storage Awards, 21 November 2024, Hilton ...

Energy-Storage.news' publisher Solar Media will host the 1st Energy Storage Summit Australia, on 21-22 May 2024 in Sydney, NSW. Featuring a packed programme of panels, presentations and fireside chats ...

### Battery Energy Storage System (BESS) , The Ultimate Guide

A battery energy storage system (BESS) captures energy from renewable and non-renewable sources and stores it in rechargeable batteries (storage devices) for later use. A battery is a ...



### Supersized storage: the Aussie batteries getting

In December 2021, Neoen celebrated the operational opening of the biggest system battery in the Southern Hemisphere, its 300MW Victorian Big Battery located in Geelong, Victoria. Its production is supporting the ...



### Habitat Energy to optimise the largest solar & storage project of ...

This week we celebrated the completion of the Spencer Energy project, which combines a 6MWp solar farm with a 2MW/8MWh vanadium flow battery, the largest of its kind ...



### Akaysha Energy appointed to develop Waratah Super Battery

The Battery Energy Storage System (BESS) is one of four elements of the innovative Waratah Super Battery project that has been designed by EnergyCo in conjunction ...

### Waratah Super Battery completes energisation first stage, boosts

The 850MW/1.68 gigawatt-hour (GWh) BESS is expected to stand as the largest standby network battery project in the southern hemisphere and the most powerful battery in ...



### [Melbourne Renewable Energy Hub \(MREH\)](#)

Lumea's MREH project is designed to support renewable energy zones in Victoria, promising enhanced grid reliability, lower consumer costs, and job creation. Follow us to keep up to date with our latest posts.



### BlackRock's Akaysha wins contract for southern hemisphere's biggest battery

Akaysha Energy, now owned by BlackRock, has confirmed it won the tender to deliver the Waratah Super Battery to be built north of Sydney. In the announcement, Akaysha ...



### Mortlake battery project

Increasingly, large-scale battery energy storage systems are playing an important role in Australia's energy transition, by supporting renewable energy sources and providing firming ...

### NSW gives green light for construction of super battery

The physical size of the of battery energy storage system is expected to be 850 MW / 1680 MWh, making it what's believed to be the largest committed BESS in the world in ...



### Transgrid's NSW super battery planning proposal approved

Transgrid's Waratah Super Battery planning proposal has been approved by the New South Wales Government, due to be the largest battery energy storage system (BESS) in ...



## Battery-Storage Systems: The Path to 100% Solar Power for Your ...

Your PV system is probably configured so that the PV modules are south-facing (facing north in the Southern hemisphere) for maximum energy yield. The battery ...

### Highvoltage Battery



## Quinbrook Launches \$2.5 Billion 'Supernode' Data ...

800 MW Capacity Campus Set to Become One of the Largest in the Southern Hemisphere  
Quinbrook has also lodged a 'code assessable' planning application for a 2,000 MWh Battery Energy Storage System ...

## Quinbrook unveils plans for 2 GWh big battery in Brisbane

Government-owned energy generator Stanwell last week announced plans to a build a massive 1.45 GW/2.9 GWh battery storage system near its coal-fired power station in ...



## The Hornsdale Power Reserve, the largest battery in ...

The largest battery in the Southern Hemisphere, the Hornsdale Power Reserve (HPR), has been expanded by 50 per cent, enhancing grid security and maximising t



### Flicking The Switch On Australia's Biggest Battery , Premier

Victoria's Big Battery - the biggest in the southern hemisphere - is now operating, safeguarding the state's energy supply through our hot summer months, driving down electricity prices and ...



### Origin boosts Eraring Battery storage capacity

4 ???· Origin Energy has announced the expansion of its large-scale battery at Eraring Power Station in New South Wales, positioning it as the largest battery energy storage system in the ...

### Victoria's plan to build the biggest battery in the ...

Victoria has announced its plan to construct the biggest battery in the Southern Hemisphere, with Neoen to build the 300MW Victorian Big Battery. Neoen will build the battery now that it has been awarded a 250MW grid services ...



### Construction starts on biggest battery in the ...

Construction started on Wednesday on the Waratah Super Battery that will fill holes in the electricity grid in times of need. The battery, being built on the site of the old Lake Munmorah Power Station, has been designed ...



### **Victorian Big Battery**

The Victorian Big Battery is a grid-connected battery electricity storage facility adjacent to the Moorabool Terminal Station near Geelong in Victoria, Australia. The battery provides 450 MWh ...



### **Waratah Super Battery Project, New South Wales, ...**

Waratah Super Battery is a planned battery energy storage system project in New South Wales (NSW), Australia. With Eraring Power Station anticipated to shut down in 2025, the Battery Energy Storage System (BESS) ...

### **Origin Energy : Eraring battery to further expand, becoming ...**

Origin Energy (Origin) has approved the third stage of its large-scale battery at Eraring Power Station, adding further storage capacity to the project already underway and ...



### **The Hornsdale Power Reserve, the largest battery in ...**

The Hornsdale Power Reserve, the largest battery in the Southern Hemisphere, is being expanded by 50 per cent to improve grid security and maximise the benefits of renewable energy. Owned by Neoen, the expansion is being supported by ...



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