

THE WORLD'S LARGEST BATTERY POWERED BY POWIN

THE WARATAH SUPER BATTERY



This project rendering is an indicative view of what the WSB facility will look like once complete and not an actual image.

It's not called a super battery for no reason. When completed, Australia's Waratah Super Battery will be one of the most powerful in the world, with a continuous active power capacity of at least 700MW.

The tender for this System Integrity Protection Scheme project was awarded to Akaysha Energy, a leading BlackRock-owned battery storage developer, who approached Powin to supply a 1.68 GWh Battery Energy Storage System (BESS).

BRINGING CLEAN, RELIABLE BATTERY POWER TO AUSTRALIA

Eraring, the largest coal plant in New South Wales (NSW) in Australia, is scheduled to close in 2025. And it's against this backdrop that the NSW government initiated the tender for the building of the Waratah Super Battery as a priority transmission infrastructure project under the NSW Government's Electricity Infrastructure Roadmap. The idea is that this project will ensure continued access to reliable and cost-effective electricity even after Eraring's closure.

MEET THE WARATAH SUPER BATTERY. A WORLD FIRST.

As a System Integrity Protection Scheme, the Waratah Super Battery is effectively a giant shock absorber for the grid. In other words, it will serve as a buffer in the event of sudden power disruptions which can be caused by weather events or wildfires. Under these conditions, the super battery will automatically charge or discharge to stabilize the network and prevent blackouts. The remaining capacity of the BESS could be used in energy arbitrage or wholesale markets.

To get this project off the ground, Powin will supply 2,592 Centipede™ Energy Segments and 288 power conversion systems from our wholly-owned subsidiary, EKS Energy. The super battery will be located 100 kilometers north of Sydney at the former Munmorrah Power Station, and it will play a key role in ensuring that more than 8 million people living in Sydney and surrounding areas will have access to reliable power.

This project matters because it has the potential to:

- Create the foundation for an affordable, clean, and reliable energy system
- Unlock latent transfer capacity in the existing transmission system
- Maintain grid & system reliability
- Reduce the risk of interruption
- Ensure Sydney, Newcastle, and Wollongong have access to reliable power

WARATAH SUPER BATTERY IN NUMBERS

POWER:
850 MW

ENERGY:
1680 MWH

USE CASE:
Grid services, load shifting, renewables integration

COD:
Q2 2025

LOCATION:
The Former Munmorrah Power Station, NSW, Australia

Image source: <https://www.energyco.nsw.gov.au/projects/waratah-super-battery#overview>



ABOUT AKAYSHA ENERGY

Akaysha Energy offers comprehensive end-to-end development services for Battery Energy Storage Systems (BESS) and renewable energy projects across Australia and the APAC region. They do so by leveraging their expertise in energy markets, technology, asset management, and capital markets.

POWER PARTNERSHIP: AKAYSHA CHOOSES POWIN AS THE TRUSTED BESS SUPPLIER

In 2022, the NSW government launched a competitive tender process to develop the Waratah Super Battery project. Energy Corporation of NSW (EnergyCo) selected Akaysha Energy to develop, own, and operate the Waratah Super Battery. Akaysha Energy then subsequently chose Powin as the only BESS provider for this project.

This partnership is independent of a supply agreement signed early in 2022 to deploy over 1.7 GWh of energy storage systems over the next two years. This agreement officially marked Powin's entry into the Australian energy market.

BETTER TOGETHER

THE PERFECT PARTNERSHIP FOR AUSTRALIA'S GRID

Akaysha Energy chose Powin for what we bring to the table. The performance, reliability, and safety capabilities of our hardware, in-house power conversion system, and our StackOS software control system made Powin the obvious choice.

But it's more than that. Together, Akaysha Energy and Powin are well-positioned to meet the high standards set by the Australian grid operator, including the Generator Performance Standard which is a prerequisite for entering the Australian market.

POWIN'S PROVEN ABILITY & VERTICAL INTEGRATION

Powin and EKS Energy, are one of the few companies capable of meeting the Australian grid operator's high standards.

Powin's flexible business model reduces project costs and risk because we have multiple trusted cell suppliers, proprietary software, and EKS' in-house power plant controller. Our vertically integrated platform combines the hardware and software controls allowing for unparalleled response time and grid compliance. Having EKS' solutions baked into Powin's offering enables us to provide our customers with enhanced product and technology offerings and supply chain security.

POWIN AND EKS ENERGY

DELIVERING FULLY INTEGRATED GRID-SCALE ENERGY STORAGE SYSTEMS

In 2022 Powin acquired EKS Energy (EKS), a leading provider of advanced power electronics and energy management solutions for energy storage and renewables. This acquisition ensures new and existing Powin customers receive cutting-edge technology and an enhanced customer experience. It also enables us to deliver a fully integrated grid-scale energy storage experience with supply chain security.

Powin customers now get:

- The EKS Power Conversion System
- The Power Plant Controller
- A complete AC energy storage platform capable of advanced control functionality to support microgrid applications while interfacing with multiple generation assets
- New products including PV inverters, DC-to-DC converters and multi-port inverters for maximizing performance and profits for utility-scale solar plus energy storage projects

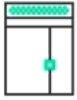
ABOUT EKS ENERGY

EKS is a designer, manufacturer and system integrator of advanced power electronics and energy management solutions for distributed energy generation, storage, and grid management to address energy market challenges. Since 2002, EKS has been deploying power electronics for the renewable energy market with the aim of meeting both the needs of the client and the most demanding grid codes, even in harsh environments.



POWIN SOLUTIONS FOR WARATAH

SOLUTIONS FOR A BETTER TOMORROW



HARDWARE – BUILT FOR GRID-SCALE POWER

Centipede™ Energy Segment:

- We provide pre-integrated, factory-built, modular Stack 750 battery units.
- For Waratah, we will supply 2,592 **Centipede™ Energy Segment**.

In-house PCS:

- For this project, we will deliver 288 Power Conversion Systems.



SOFTWARE - A TOOL SUITE BUILT FOR ENERGY STORAGE

- Our StackOS™ makes everything work more efficiently, from monitoring equipment safety to responding to grid conditions.
- This is an all-encompassing **Battery Management System (BMS), Energy Management System (EMS), and Thermal Management System (TMS)**.
- It will manage batteries, energy, and thermal conditions for the Waratah BESS.



SERVICES – MAXIMIZING THE LIFETIME ASSET VALUE

- We provide **unparalleled insights and exemplary service offerings**.
- For the Waratah project, Powin will provide a 20-year long-term service agreement (LTSA).
- This will enhance the super battery's reliability, efficiency, and availability.

Construction of the Waratah Super Battery project started in 2023 and is expected to be operational in 2025.

This is a pivotal moment for Australia's clean tech industry as it begins to retire carbon-emitting power plants, replacing them with cleaner renewable energy generation as well as fast-responding energy storage battery systems. Powin is excited to be part of the Waratah project. By partnering with Akaysha, we will play a central role in Australia's transition to a safer, more reliable, and more sustainable power grid.



Powin's proven ability to deploy energy storage systems at scale coupled with EKS Energy's unrivaled power conversion system, plant controller, and systems engineering capabilities have made this an easy decision to select Powin as our technology partner."

- **Nick Carter**, Akaysha Energy's Managing Director

ABOUT POWIN

Powin is advancing the next frontier of energy and changing the way we power our daily lives by ensuring access to clean, resilient, and affordable power. As a global energy platform provider, we offer fully integrated battery storage solutions, software, and services to optimize grid performance, enabling the transition to cleaner energy sources. Powin has over 6,000 MWh of energy storage systems that have been deployed or are under construction with an additional 11,000 MWh in contracting worldwide.



Interested in learning how Powin can help you get a fully integrated battery storage solution?

Reach out to us at contact@powin.com

To learn more, please visit www.powin.com