

Media Release

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Waratah Super Battery Project begins partial operation as shock absorber for NSW grid

Footage and photographs available: <http://bit.ly/3ITjohi>

The Waratah Super Battery Project is now actively bolstering energy security for NSW's grid as a 'shock absorber' in the event of power line outages due to events like lightning strikes and bushfires.

The first 350 megawatts (700 megawatt-hours) of the project's battery capacity have come online in the lead up to full operation, expected later this year.

The project is part of the NSW Government's plan to upgrade our grid and provide clean, reliable and affordable energy for everyone in the state as ageing coal plants retire.

It involves the most powerful battery energy storage system in the world, located at the site of the former Munmorah coal-fired power station.

The Waratah Super Battery Project is more than just a battery. It has multiple parts that work together to help it perform its unique role in supporting the electricity grid.

The project will allow more power to flow from existing generators to supply electricity to people around the state and is faster to implement than new transmission lines.

Around half of the battery's capacity is now online, the overarching control system is in operation, agreements with generators are in place, and the first stage of upgrades to the existing transmission network has been completed.

The remainder of the battery's capacity (for a total of 850 megawatts / 1680 megawatt-hours) is expected to come online later this year.

EnergyCo is the NSW Government body responsible for overseeing the delivery of the project, while Transgrid is the network operator and Akaysha Energy operates the battery storage system.

Quote attributable to Minister for Climate Change and Energy, Penny Sharpe:

"The Waratah Super Battery is one of the biggest in the world, and a crucial addition to our energy system.

"As it comes online, it will help power our homes and businesses while stabilising the grid to avoid blackouts."

Quote attributable to EnergyCo Chief Executive, Hannah McCaughey:

"Switching on the Waratah Super Battery Project is a win for our grid and a win for households and businesses across NSW.

"It will help provide clean, reliable and affordable energy to the people of our state and the National Electricity Market.

"It's a fantastic example of how new technologies bring new solutions for our energy needs.

“This is the first of our projects to go into operation, and there are many more to come. We look forward to more milestones in our renewable energy zones this year.”

Quote attributable to Akaysha Energy CEO, Nick Carter:

“Bringing the first 350 megawatts of the Waratah Super Battery online is a major milestone and a moment of real pride for everyone at Akaysha Energy.

“This achievement is the result of a tremendous collective effort spanning our global business units across all areas such as delivery, engineering, commercial and legal, technical integration, grid modelling, software, operations and trading. Of course, we could not achieve success without our outstanding delivery partners – CPP, Hitachi Energy and Wilson Transformer Company.

“Delivering this scale of infrastructure on such an accelerated timeline is no small feat, and we are honoured to have been entrusted to deliver a project of such significance to NSW’s energy security.”

Quote attributable to Transgrid CEO, Brett Redman:

“Transgrid is proud to work with EnergyCo and Akaysha Energy to deliver the Waratah Super Battery Project – the first priority transmission infrastructure project under the NSW Government’s Electricity Infrastructure Roadmap.

“To support the project, Transgrid’s experts have designed and installed a System Integrity Protection Scheme (SIPS) Control System which is the largest and most innovative of its kind in Australia.

“Specialist crews have also carried out upgrade work at 22 substations and 4 existing transmission lines across NSW to deliver additional energy to consumers when it’s needed.”

Further information:

How does the Waratah Super Battery Project work?

See explainer video at www.energyco.nsw.gov.au/wsb

- The Waratah Super Battery Project is more than just a battery. In addition to the battery energy storage system that gives the project its name, it also includes:
 - an overarching control system
 - arrangements for paired generation services (which help balance the grid during a power line outage)
 - upgrades to the state’s existing transmission network.
- The Waratah Super Battery Project is a system integrity protection scheme (SIPS). It allows transmission lines supplying the Hunter, Sydney and Illawarra regions to run at a greater capacity. It does this in part by having a utility scale battery on standby to inject power into the grid in the case of a power line outage due to a lightning strike, bushfire or other major events.
- In such events, the SIPS Control System will send a signal to the battery to deliver more energy to the grid, while simultaneously instructing paired generators to reduce their output as necessary to balance the flow of electricity.
- The Waratah Super Battery can also play other roles on the grid, including to discharge energy during periods of high demand. This helps put downward pressure on wholesale electricity prices.

Why is the Waratah Super Battery Project unique and innovative?

- The project has implemented the largest SIPS in Australia. It monitors 36 transmission lines in real time and is capable of instantly responding to system events if required.
- It involves construction of the most powerful utility scale battery in the world, capable of providing 850 megawatts for 2 hours.

- Until now, there has never been a battery of this scale used to increase network capacity anywhere in the world.
- It's faster to implement than new transmission lines and allows existing lines to be run harder.

Employment and economic benefits

- The Waratah Super Battery Project has attracted over \$1 billion in private investment.
- Approximately 1,000 people have been involved in the design and construction of the Waratah Super Battery Project, with 170 workers on site during the construction of the battery.
- This includes 100 jobs local to the Central Coast and Newcastle, and 474 workers delivering network augmentations and the SIPS Control System across the state on behalf of Transgrid.