

Project overview

Ekus Energy seeks to develop Arundel BESS, a proposed 300MW/1200MWh lithium-ion battery energy storage system.

The project is located within the Wagga Wagga City Council (WWCO) Local Government Area (LGA) in the suburb of Gregadoo, about 14km south of the centre of Wagga Wagga. The project is anticipated to be in operation in 2030.

300 MW / 1200 MWh of storage capacity

Up to 150 construction jobs

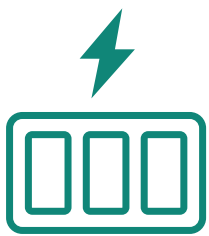
About 6 operational jobs

Battery storage is critical to deliver energy security. It is designed to store and release electricity and provide support to stabilise the grid in southern NSW.

Benefits



Keeping the lights on
When part of the grid fails, batteries instantly step in for uninterrupted electricity supply.



Emergency backup and grid restart
In a blackout, batteries power up essential systems and help restart the grid.



Ready for tomorrow
As energy use grows batteries keep the grid stable and reliable.



Benefit sharing program
Arundel BESS delivers financial benefits to the local community.

Design considerations

As part of the planning process, we are currently working on several assessments to ensure the design and layout will minimise impact on the local community. This includes biodiversity, cultural heritage, bushfire, visual and noise assessments. As these assessments progress, consultation with key regional stakeholders and emergency services will inform the project design.

Location



Note: This is a draft indicative layout of the Arundel BESS.

The site was selected for its proximity to existing energy infrastructure.

What is BESS?

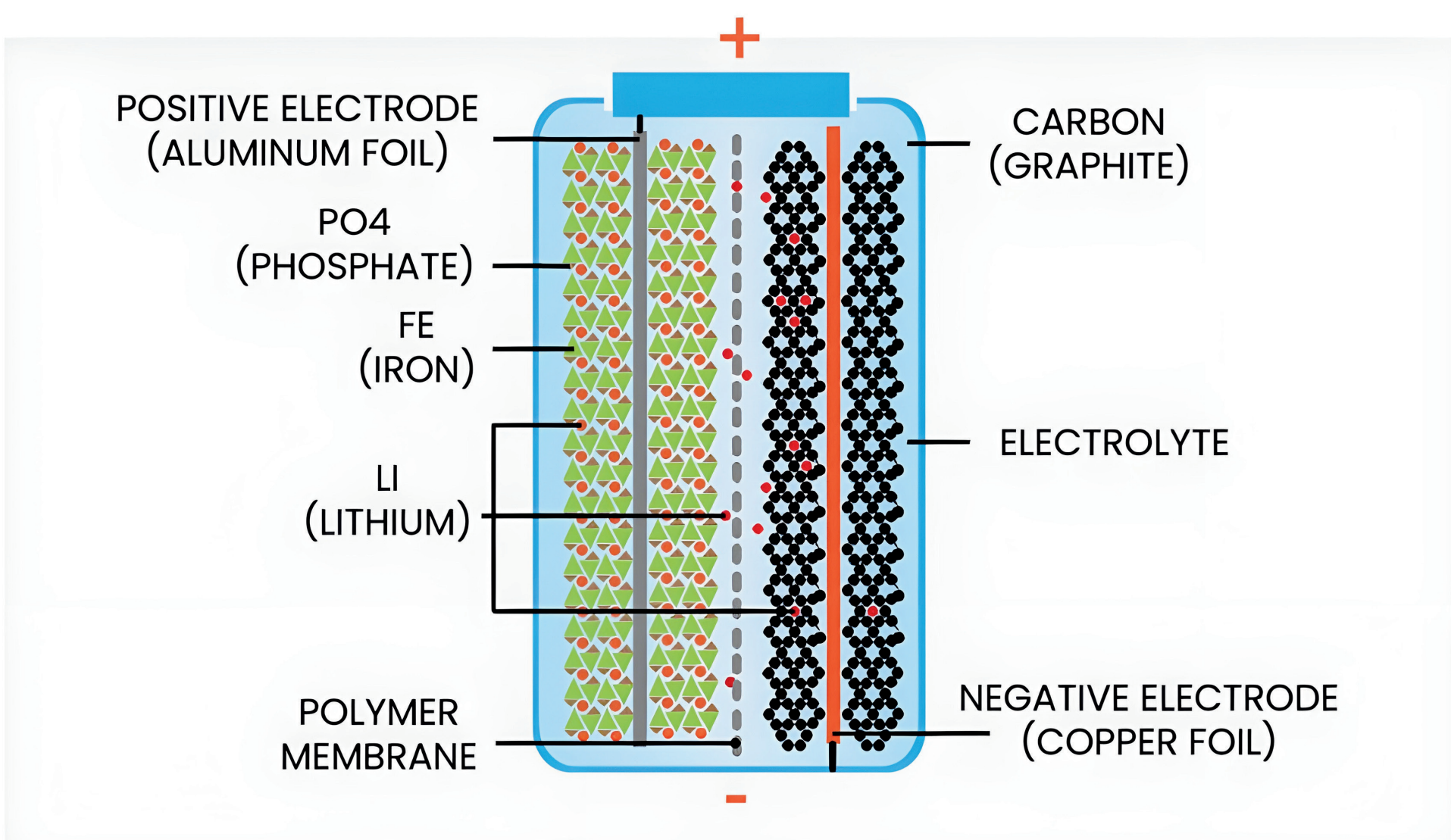
A Battery Energy Storage System (BESS) is a large-scale energy storage facility that stores and releases energy to the electricity grid.

A BESS comprises a number of battery units that resemble shipping containers, inverters, transformers and other electrical equipment. The site will also include access tracks, water tanks, site offices, amenities and screening.

Energy storage is essential in supporting the safe, secure and reliable operation of Australia’s National Electricity Market. A BESS provides fast responding, dispatchable energy to the grid to ensure that electricity supply remains reliable and stable.

At times of excess supply in the grid, such as during the middle of a sunny day, the BESS will charge by importing electricity from the grid. During times of lower supply and higher demand, such as the early evening, the BESS will discharge, exporting electricity into and stabilising the grid. The project helps to balance the grid and support variable energy sources, including household rooftop solar. A BESS also provides a range of essential system services, such as frequency and voltage support which ensure the grid operates securely.

What kind of batteries do we use?



Eku Energy uses Lithium F(iron) Phosphate (LFP) cells in our battery energy systems. Durable and with an extensive lifespan, LFP battery cells have a broader thermal operating range and release less energy during thermal runaway than other battery technologies. This means they have a lower risk of overheating or catching fire due to their unique safety features.

BESS Benefits



Provides additional dispatchable storage capacity for the National Electricity Market.



Increases energy reliability to support the energy transition.



Provides essential system services to ensure the grid remains secure.

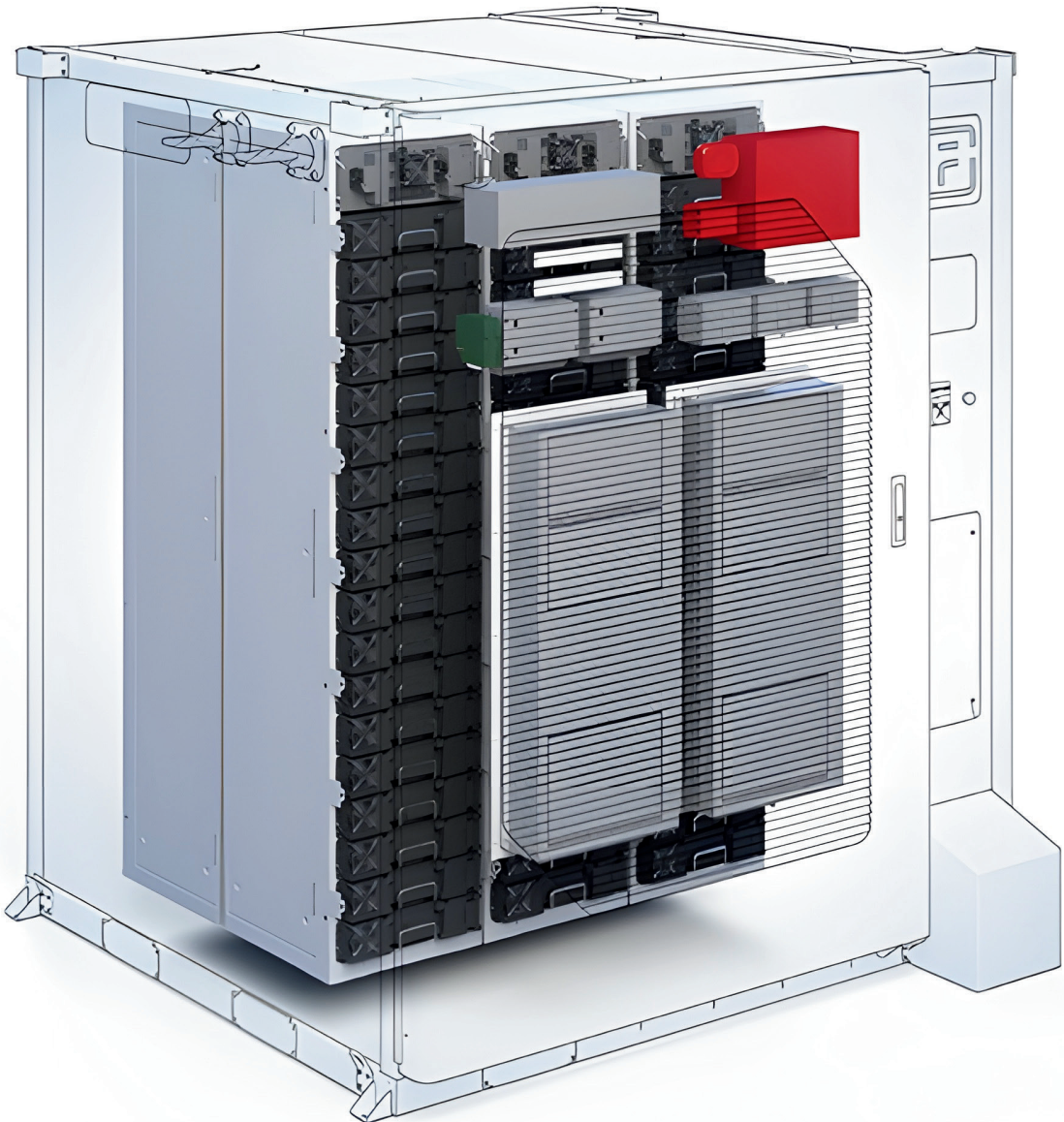
Battery Units

The unit houses multiple racks of modules and contains monitoring and communications equipment, a cooling system, and a fire detection and suppression system.

Battery Module



Battery Rack



Artist Impression

The image is for illustration purposes only.

Aerial artist impression of Arundel BESS looking west towards Wagga Wagga Substation.

This is an indicative impression and layout only. A detailed landscape and visual impact assessment and montages will be prepared for the planning application.



Arundel BESS

Site Plan



Managing Risk

Ekus Energy's absolute priority is developing battery energy storage systems that are safe, secure and reliable. We proactively manage our operations to achieve zero harm to people, assets and the communities in which we operate.



Fire mitigation and response

Arundel BESS will be specifically designed to manage and mitigate fire risk and will include comprehensive safety features within both the hardware and software technology. Arundel BESS will use lithium-ion battery cells which to date is the safest technology for such projects. In the highly unlikely event of a damaged or faulty battery cell, thermal runaway may occur which is an overheating of the cell that can lead to a chemical reaction. To mitigate this potential fire risk, Arundel BESS will be equipped with **industry leading safety systems** that continuously monitor the project to then detect, isolate and alert the operators to any potential anomalies.

As part of our commitment to safety and environmental responsibility, a comprehensive **Bushfire Hazard Assessment and Management Plan** will be prepared for the Arundel Project.

The Arundel BESS site has been designed with a strong focus on fire risk mitigation. Key features include:

- **Asset Protection Zones:** Strategically planned areas to reduce fire intensity and protect critical infrastructure.
- **Fire Detection and Protection Systems:** Advanced systems will be installed to detect and respond to fire incidents promptly.
- **Dedicated Firefighting Water Supplies:** On-site water resources will be available to support firefighting efforts in case of a bush fire.

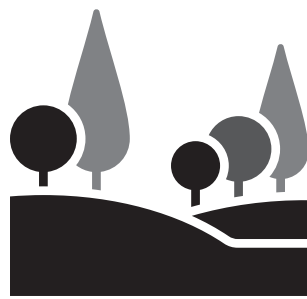
Ekus Energy will be actively engaging with regional and state emergency services throughout the development of the project. A comprehensive **Risk Management Plan** will be developed to ensure the safe operation of Arundel BESS. This plan will meet the guidelines set by the **Australasian Fire and Emergency Service Authorities Council (AFAC)**, which provide best-practice protocols for managing incidents involving BESS technology.



Noise mitigation

During construction, anticipated noise will be associated with activities such as earth works, civil works and truck deliveries or movements. All construction activities will occur during designated hours and will be in line with the approved **Construction Environmental Management Plan**.

Detailed noise assessments and studies of noise during operations have already been completed by a specialist noise consultant and Arundel BESS will comply with the requirements and guidelines of the Environmental Protection Authority.



Visual amenity

A detailed **Landscape and Visual Impact and Visual Assessment** will be prepared for the Arundel BESS, including an assessment of any potential sensitive viewing locations.

While the development of the Project near to existing high voltage infrastructure aims to constrain the cumulative visual impact of the Project, Ekus Energy will be working closely with neighbouring landowners to ensure impacts to visual amenity are minimised, and that specific mitigations respond to the needs of local residents.

The Project has been located to minimise removal of existing vegetation. Additional visual screening and planting will be explored in the development of the Project design.

We are committed to the delivery of safe, secure and reliable clean energy.

About Eku

Eku Energy is a global battery storage business on a mission.

We are deeply committed to accelerating the energy transition by delivering safe, secure and reliable energy storage solutions that provide cost-effective clean energy to existing and future generations.

Key Facts



Long-term partner



Specialist Technology-enabled developer



Globally diverse business

8

Assets in construction or operations

50+

Battery storage projects in development

5

Key markets where Eku is active in globally

Eku Energy is jointly owned by a Macquarie Asset Management managed fund and British Columbia Investment Management Corporation (BCI).



Our Approach

Eku Energy is a specialist energy storage business established to meet the growing need for utility-scale battery storage worldwide. We bring deep technical knowledge and local market expertise to deliver battery storage solutions. Our absolute priority is creating a safe working environment. We proactively manage our operations to achieve zero harm to our people, assets, and the communities in which we operate.

We have expertise developing BESS projects across Australia, including:



150 MW/150 MWh
Hazelwood BESS (Gippsland, VIC)
operational



200 MW/400 MWh
Rangbank BESS (Cranbourne, VIC)
operational



250 MW/500 MWh
Williamsdale BESS (ACT)
under construction

Artist impression of Arundel BESS.
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