

Woolooga Battery Energy Storage System

Lightsource bp is developing and constructing a 200MW/400MWh (two hour duration) Battery Energy Storage System (BESS) on its 214MWp Woolooga Solar Farm.

The BESS will facilitate the integration of renewable energy into the grid, helping to support low-cost electricity and the enhanced reliability of the National Electricity Market (NEM) as well as Queensland's electricity grid.



128 battery containers capable of storing up to 400MWh and releasing it at 200MW



Could power up to around 26,000 QLD homes



Operational life of at least 20 years



Direct connection to Woolooga substation

Locally generated, clean energy for Queensland communities

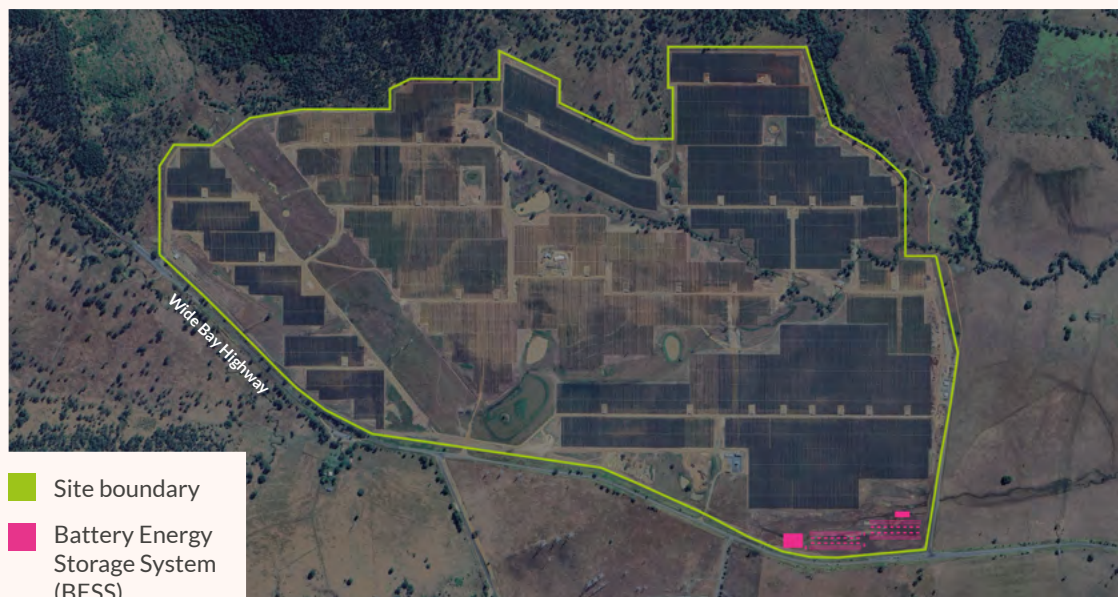
Providing a clean, renewable, reliable and economic source of electricity.

The BESS will store excess energy generated during off-peak times, then release it as needed during peak demand periods to improve grid stability and energy reliability for Queensland homes and businesses.

The BESS will be constructed as a standalone facility on the same site as the Woolooga Solar Farm, enabling the batteries to store energy generated from the solar farm and other renewable energy sources in the Gympie region. Planning and development work is underway, with construction expected to start in late 2023 or early 2024.



An artist's impression of what the Woolooga BESS could look like.



- Site boundary
- Battery Energy Storage System (BESS)

The Woolooga Solar Farm showing the proposed location of the BESS on the site.

TIMELINE



Is the Woolooga Solar Farm expanding?

No, the Woolooga Solar Farm is not expanding. The BESS will be built on land already owned by Lightsource bp within the Woolooga Solar Farm project site. Once constructed, the land where the BESS is built will become a separate lot to the Woolooga Solar Farm site to help manage the different uses during operations.

What is a BESS and how does it work?

A BESS is a modular facility capable of storing and releasing energy generated by any power source, working in a similar way to standard household batteries. It consists of several components including battery units, inverters, and a substation to connect into the local transmission network.

Using the BESS, it is possible to reduce energy costs for consumers by storing the low-cost energy generated by renewable sources during sunny or windy periods, and releasing it during peak demand periods. Battery facilities can also improve the stability of the power grid by providing a reliable back up energy supply.

The BESS proposed to be built on the Woolooga Solar Farm will be connected to the Queensland electricity grid via Powerlink Queensland's neighbouring Woolooga Substation.

What environmental, social and safety assessments have been done?

Battery storage was planned as part of the Woolooga Solar Farm which received Development Approval in 2019. The updated design of the BESS is not expected to materially change the assessments already completed as part of this process. Most relevant plans are already in place to manage Project impacts such as biodiversity, erosion and sediment control, waste management and rehabilitation.

Some additional assessments specific to the BESS are being completed, including a Traffic Impact Assessment, Landscape and Visual Impact Assessment, Noise Impact Assessment and Preliminary Hazard Assessment.

Additionally, a specific Construction Management Plan, including a Soil and Water Management Plan, will be developed to outline the approach to construction.

Will the BESS be visible from the Wide Bay Highway?

Yes, the BESS will be visible from the Wide Bay Highway, however, the vegetation screening which was planted alongside the Wide Bay Highway in 2022 to break up views to the Woolooga Solar Farm will provide some level of screening. Options to enhance this screening to further break up views to the BESS are currently being explored.

Will the BESS be a fire or safety risk?

The Woolooga BESS will come equipped with the latest Lithium battery technology and will be integrated with advanced safety measures. This will include features such as external access rather than internal access, and individual units within each container that are sealed and monitored with their own fire suppression system. This means that if a single cell fails, a small section of the battery is isolated, without compromising the fire safety of the rest of the container unit, minimising the risk of larger-scale damage.

A Bushfire Management Plan (BMP) is in place for the Woolooga Solar Farm that has been developed in accordance with the requirements of *Bushfire Resilient Communities (State of Queensland, 2019)* and *Gympie Regional Council Planning Scheme, 2013*. As part of the BMP, Lightsource bp will continue to undertake vegetation management across the site for the life of the Project. Project activities will be managed particularly cautiously during bushfire season to ensure preventative measures are in place.

Will the BESS be noisy?

A BESS can produce noise from various sources, including the cooling system, fans, and power electronics.

We are currently undertaking a detailed Noise Impact Assessment, however, based on the location of the BESS and the distance from residential areas, the probability of noise disturbances for local community members is expected to be minimal. If necessary we will implement measures to mitigate any potential impact.

What are the benefits of the BESS?

The BESS will be made up of 128 battery containers capable of storing up to 400MWh and releasing it at 200MW, which would be the equivalent of powering around 26,000 Queensland homes per year during the first year of operations.

As well as this, the BESS will:

- Create up to 100 jobs during the construction period and up to five full time jobs once operational.
- Help to integrate renewable energy into Australia's electricity market, which will help reduce carbon emissions.
- Provide low-cost power during peak demand periods.
- Enhance the stability of the electricity grid.
- Ensure there is backup power supply during periods of disruption.
- Offer reliable power even when the sun isn't shining.