

FACT SHEET

Baulkham Hills High Voltage Battery Energy Storage System Environmental Impact Statement (EIS) Guide

July 2026



Photomontage is a concept only. The final design of the noise walls will be determined during detailed design.

Overview of the Battery Energy Storage System (BESS) Project

Ausconnex, part of the Endeavour Energy Group, is planning to install Battery Energy Storage Systems (BESS), across Greater Western Sydney.

This initiative supports the upgrade of the existing electricity grid through the growth of renewable energy sources. The BESS will help deliver safe, clean and reliable power, contributing to the NSW Government's goal of reaching net zero emissions by 2050.

What is a BESS

A Battery Energy Storage System (BESS) captures and stores electricity from both renewable and non-renewable sources using large, commercial-scale batteries. This stored electricity can then be released when it's needed most, such as during times of high demand, to help keep the power supply stable and reliable for homes and businesses.

There are two main types of BESS, which vary in size and how they connect to the power grid:

- High-Voltage (HV) BESS - is a large-scale system connected directly to the high-voltage transmission network. These systems can deliver up to 85 megawatts of power and store around 340 megawatt-hours of energy, enough to supply electricity to roughly 100,000 homes at once.
- Medium-Voltage (MV) BESS - is smaller scale and connects to the local, medium-voltage distribution network, closer to homes and businesses. These systems can deliver up to 5 megawatts of power and store up to 17 megawatt-hours of energy, enough to power around 5,000 homes.

How a Battery Energy Storage System (BESS) works

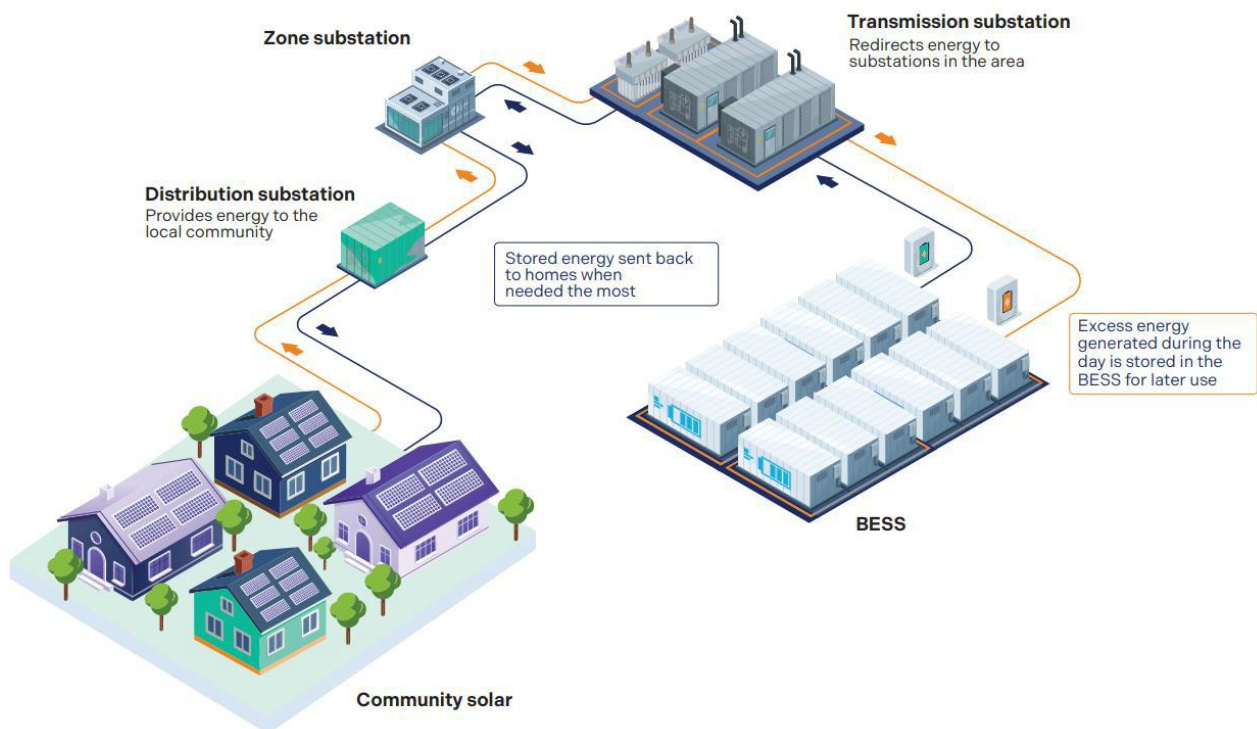


Figure 1: How a BESS works in the distribution network to support the community.

Baulkham Hills BESS

Ausconnex is proposing a HV BESS adjacent to the existing transmission substation site located at 191Z Old Windsor Road, Old Toongabbie. The project will include 30 BESS units on a 0.4-hectare footprint. Co-locating the BESS adjacent to the existing transmission substation minimises environmental impacts and maximises land use.



Figure 2: Aerial view of the Baulkham Hills substation and proposed HV BESS site

The HV BESS Planning Approval Pathway

As a State Significant Development (SSD), the HV BESS requires the preparation of an Environmental Impact Statement (EIS) to be lodged to the Department of Planning, Housing and Infrastructure (DPHI) for assessment.

The EIS is a comprehensive report including multiple specialist studies to identify, assess and evaluate the:

- current condition of the existing project site and the surrounding context.
- extent of all potential environmental, social impacts and economic benefits of the project.
- proposed mitigation/s where necessary to avoid, minimise and reduce the potential impacts of the project.

High Voltage (HV) Battery Energy Storage System (BESS) Project Planning Approval Pathway

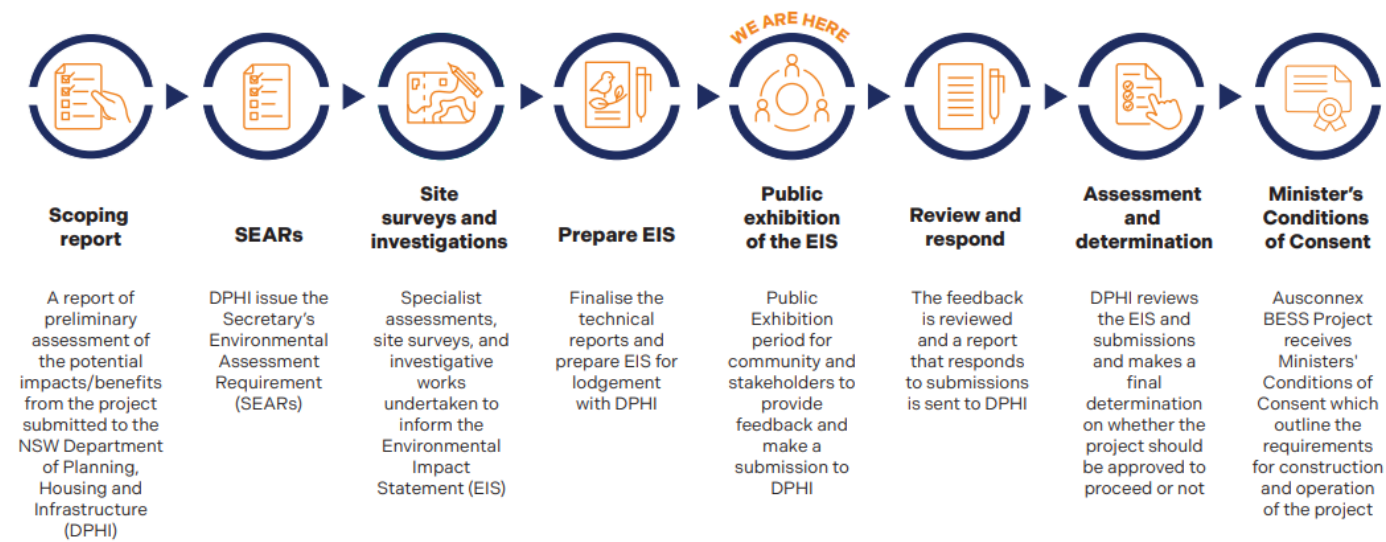


Figure 3: The HV BESS Project EIS Planning Approval Pathway.

Have your say during the EIS

As part of the planning approval process, the EIS is placed on public exhibition for at least 28 days.

The public exhibition period provides the community an opportunity to read the EIS document, seek clarification on content and provide feedback directly to the DPHI via formal submission on the Baulkham Hills BESS Major Projects Portal.

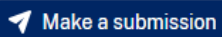
The Baulkham Hills BESS project has progressed to the public exhibition of the EIS and will be open to submissions from the public from 21 July to 18 August 2026. The DPHI determines the time period the EIS must be placed on public exhibition.

Submissions must be received by the DPHI before midnight on 18 August 2026. Submissions made during the public exhibition help shape the DPHI's final decision on the project, including any conditions attached to its approval.

How to view the EIS and make a submission:

You can view the EIS and make a submission online through the Major Projects Hub on the NSW Planning Portal:

1. Search for the “**Baulkham Hills Battery Energy Storage System**” project, or type in <https://www.planningportal.nsw.gov.au/major-projects/projects/baulkham-hills-battery-energy-storage-system>. From this page you can view the EIS and make a submission. To make a submission, click “make a submission.”

 Make a submission

2. Select whether you will be making a personal submission or on behalf of an organisation.
3. Disclose any reportable political donations.
4. Decide whether to include your personal information in your submission.
5. Make a brief statement on whether you support or object the proposal.
6. Fill in the online submission form. Your submission can be either typed or uploaded as a pdf
7. Agree to the terms and conditions and click submit.

For additional information on how to make a submission, please visit <https://www.planningportal.nsw.gov.au/major-projects/have-your-say>.

Assessing and minimising impacts

The EIS brings together expert studies that help us understand how the project might affect the environment and local community. It also explains what measures will be put in place to minimise impacts during construction and operation.

The specialist studies undertaken for the EIS include:

- Noise and Vibration Assessment (NVIA)
- Visual Impact Assessment (VIA)
- Traffic and Transport Impact Assessment (TTIA)
- Social Impact Assessment (SIA)
- Bushfire Assessment of bushfire prone land
- Electric and Magnetic Fields (EMF) Assessment
- Preliminary Hazard Assessment (PHA)
- Flood Impact and Risk Assessment
- Contamination via a Detailed Site Investigation report (DSI)
- Surface and Groundwater Assessment
- Statement of Heritage Impact (Non-Aboriginal Heritage) (SOHI)
- Waste Management Plan (WMP)
- Aboriginal Cultural Heritage Assessment Report (ACHAR)
- Cumulative Impact Assessment (CIA)

An overview of each specialist study and relevant sections of the EIS where you can find more information is provided below. **The full list of specialist reports will be available via the Major Project Planning Portal and in-person during the public exhibition period.** To view online, visit <https://www.planningportal.nsw.gov.au/major-projects/projects/baulkham-hills-battery-energy-storage-system>

How much noise will the BESS make?

The Noise and Vibration Impact Assessment (NVIA) examines existing noise levels in the area and identifies how the project may change them. Identifying how much noise the BESS may generate helps us determine how we can best minimise its impact. The modelling shows that noise during construction is expected to remain within acceptable levels for nearby homes and businesses, with no vibration issues anticipated.

During operation, we will use several measures to minimise disturbance to the community. These include:

- Two noise walls 5 and 6 metres high will be built around the north and east sides of the BESS. The noise walls will include a sound-absorbing lining to further reduce noise during operation.
- Silencers will be integrated into the BESS equipment.
- Modelling shows noise and vibration levels during operation will be negligible and stay within acceptable levels for nearby residents and businesses.
- Noise levels will be monitored once the BESS is operational.

These measures are designed to ensure residential amenity levels are maintained in line with community expectations.

Additional information on the NVIA can be found in Chapter 6.1 of the EIS.

How will the BESS change the local landscape?

The Visual Impact Assessment (VIA) examines how the project may affect views from nearby homes, roads and public areas. The site already contains electrical infrastructure and is adjacent to an industrial park to the east, Old Windsor Road to the south and Palestine Park to the north.

The nearest homes are about 170m away on Goliath Avenue and 120m to the south on Old Windsor Road. For both sets of residents there is heavy vegetation and a walled-off main road separating them from the site. Five key viewpoints were assessed, with minimal visual impact expected.

Some residents may see parts of the site during construction, and the noise walls will be visible once the project is operational. However, most views of the site will be screened by existing trees, buildings, and other vegetation. The noise wall will be designed to blend in with the surrounds, adopting a muted colour palette.

Additional information on the VIA can be found in Chapter 6.2 of the EIS.

How will local traffic be affected?

The Traffic and Transport Impact Assessment (TTIA) examines the safe flow of traffic during construction, operation, and future decommissioning.

During construction, light vehicles, heavy vehicles, and

oversized or overmass vehicles (OSOM) will access the site from Old Windsor Road. At the busiest point of construction, there may be up to 120 vehicle trips to the site per day. Minimal impact is expected during peak hour between 5:30am-9am and 4pm-6pm, with roughly 29 trips in the morning and 18 in the afternoon.

A total of 32 OSOM vehicle movements are expected, with most movements taking place over a 3-month period during equipment installation. All OSOM movements will occur outside standard construction hours (7am-6pm) to reduce impacts in the local area.

Relevant authorities have also been involved throughout the project to make sure all safety, and compliance requirements are met.

To reduce impacts on local traffic, we will:

- Build an internal road to avoid queuing on Old Windsor Road.
- Provide a temporary parking area within the site to limit impacts on nearby street parking during construction.
- Oversize and overmass (OSOM) vehicle deliveries will be scheduled outside peak hour to avoid disrupting local traffic.

Emergency vehicles will access the site from Old Windsor Road.

Additional information on the TTIA impacts can be found in Chapter 6.3 of the EIS.

Will the BESS benefit the local community?

The Social Impact Assessment (SIA) looks at how the project might affect the local community. It assesses benefits such as new job opportunities, demand on local services and investment in the local economy.

During construction, the project could benefit local businesses, with workers and suppliers spending money in the local area. Up to 40 full-time jobs will be created for the duration of the construction period. Once the project is operational, it will provide two ongoing jobs and help improve local energy reliability.

The project team will stay in regular contact with nearby residents and businesses throughout planning and construction.

Additional information on the SIA can be found in Chapter 6.4 of the EIS.

What are the potential bushfire impacts?

Ensuring the safety of the community is a priority and detailed assessments have been completed which identified the site is not located within bushfire-prone land. However, vegetation located

about 140m from the site could be impacted in the event of a bushfire. The site and its equipment have been carefully designed to minimise fire risk, and strict measures will be put in place, including a Bushfire Emergency Management and Evacuation Plan to determine how to respond with safety in the event of a bushfire.

These measures will ensure that the safety and wellbeing of the community and staff is maintained as a top priority.

Additional information on the Bushfire Assessment can be found in Chapter 6.5 of the EIS.

Does the BESS pose any EMF risk to the local community?

Everything that runs on electricity gives off electromagnetic fields (EMF) - microwaves, dishwashers, and household appliances. A battery storage site is no different. As part of the project, an independent EMF assessment was carried out against the international exposure guidelines used worldwide to protect public health.

The findings show that the project is not expected to increase EMF levels in any way that would affect the local community. The site will have safety measures, including setback distances and several layers of security fencing, which prevent public access to the equipment.

The EMF assessment confirmed that the project meets all necessary safety standards and the design ensures EMF exposure remains within safe limits for the community.

Additional information on EMF can be found in Chapter 6.6 of the EIS.

What potential hazards could the BESS create?

A Preliminary Hazard Assessment (PHA) was completed to ensure the 30 battery modules have been designed with safety as the top priority.

Like any electrical equipment, batteries carry some risk – mainly fire and gas release. The equipment has been built to meet international and strict NSW safety standards, and detailed modelling has reviewed all possible scenarios. As a result of the built-in safety controls and recommended protection measures, no significant risks are expected.

Key safety features include:

- Secure battery enclosures to contain any potential fire and prevent its spreading.
- Automatic fire suppression systems.
- Heating, cooling, and ventilation to keep equipment operating safely.
- A site layout designed for resilience, including protection against flooding and bushfire risk.

Overall, the assessment shows that the Baulkham Hills BESS is not considered a hazardous project with the recommended measures in place.

Additional information on PHA can be found in Chapter 6.7 of the EIS.

Could the BESS affect local flooding?

The site sits within the Prospect Creek Catchment, an area that can experience both creek flooding and local overflows during heavy rain.

The Flood Impact and Risk Assessment (FIRA) confirmed that the project will not increase flooding in the area or change the way floodwaters move. The project has been designed so that all key equipment stays above the flood planning level of 25.5 metres. This means the BESS will remain protected even in future climate conditions where flooding may become more frequent or more severe.

The assessment also shows that the project will not affect flood behaviour or emergency access. Overall, the design meets all flood resilience requirements to maintain the safety of the local community and the BESS site.

Additional information on FIRA can be found in Chapter 6.8 of the EIS.

Is there a risk of contamination at the site?

A Detailed Site Investigation (DSI) was carried out to check for any contamination at the site. This followed NSW Environmental Protection Authority (EPA) guidelines and included on-site inspections and testing.

The investigation confirmed that the soil is suitable for the project and that there are no contamination issues that would prevent the site from being safely used as a BESS facility.

The results also show that there are no contamination risks associated by the project to the surrounding area. The site is considered safe for development and operation.

Additional information on DSI can be found in Chapter 6.9 of the EIS.

Will the BESS affect local water resources?

A Surface and Groundwater Assessment has been completed to understand how the project may affect water in drains, creeks or low-lying areas and water that is stored underground.

These assessments consider potential impacts during construction and operation and showed the project will meet all environmental standards, including requirements related to water quality. Measures will also be considered to protect water sources from issues such as erosion.

Additional information on Surface and Groundwater can be found in Chapter 6.10 of the EIS.

Will the BESS impact local heritage sites?

A Statement of Heritage Impact (SOHI) ensures the project respects and protects nearby non-Aboriginal heritage sites.

The northern part of the property is mapped as part of the Toongabbie Government Farm Archaeological Site, which is recognised as being of State significance. However, the project's development footprint sits outside the State listed heritage boundary.

There are also three heritage listed sites nearby: the Old Toongabbie Uniting Church, Toongabbie Public School, and the Marist Fathers Seminary. The assessment found that the project is unlikely to have any impact on these sites.

Additional information on Heritage can be found in Chapter 6.11 of the EIS.

How will waste from the site be handled?

A Waste Management Plan (WMP) was completed to ensure responsible handling of materials throughout construction, operation, and decommissioning. The WMP adheres to NSW Environmental Protection Authority guidelines and aims to prevent harm, reduce waste, and promote resource recovery.

During construction, waste will be minimal since most equipment is delivered ready to install on site. Expected waste includes packaging, excavation materials, and general worker activity.

During operation, waste generated will be minimal as no full-time staff will be present on site. When the BESS reaches the end of its 20 year serviceable life, components and equipment are expected to be returned to the supplier or recycled by a licenced facility. A dedicated decommissioning waste plan will be prepared and all waste will be managed according

to NSW EPA guidelines.

Additional information on the WMP can be found in Chapter 6.12 of the EIS.

Will the project impact local Aboriginal Cultural Heritage?

An Aboriginal Cultural Heritage Assessment Report (ACHAR) looked at whether the project could affect any Aboriginal cultural heritage.

No Aboriginal sites were found within the project area and the assessment confirmed that the project will not harm any known Aboriginal places.

Consultation with Registered Aboriginal Parties (RAPs) has been undertaken to consider cultural sensitivities as part of the ACHAR process for the site.

The project will follow a clear protocol for any unexpected discoveries of significant artefacts or materials of Aboriginal cultural heritage during ground disturbance or excavation works.

Additional information on ACHAR can be found in Chapter 6.13 of the EIS.

What other projects are planned nearby?

The Cumulative Impact Assessment (CIA) looked at other developments within 2km of the site to understand whether their construction or operation might overlap with this project. A total of 10 nearby future projects were identified.

The assessment considered impacts such as traffic, noise and social effects during periods when construction activities may occur at the same time. Potential cumulative impacts could occur from noise and vibration as well as landscape and visual amenity changes. However, all impacts are expected to be manageable with the implementation of the mitigation measures developed for the project.

The Project team will work with relevant authorities to ensure impacts are understood and properly managed.

The project also supports the long-term goals of the City of Parramatta Council, including improving climate resilience, and supporting the energy needs of a growing city.

Additional information on CIA can be found in Chapter 6.14 of the EIS.

Contact Us

To speak with Ausconnex about the Baulkham Hills BESS EIS, you can contact the project team via email or phone. We're here to listen and make sure the community is kept informed every step of the way.



1800 955 224



batteries@ausconnex.com.au



<https://www.ausconnex.com.au/bess-project/bess-project-baulkham-hills/>