



**NORTH HARBOUR
CLEAN ENERGY**

A large, mature tree with a thick trunk and a dense canopy of green leaves stands in the center of a grassy field. In the background, a large blue tarp is visible, partially covered by other trees. The sky is clear and blue.

TEMORA BATTERY ENERGY STORAGE SYSTEM

ENVIRONMENTAL IMPACT STATEMENT SUMMARY



NORTH HARBOUR CLEAN ENERGY

North Harbour Clean Energy (NHCE) is proposing to develop a Battery Energy Storage System (BESS) (the Project) on a parcel of land located on Miners Street, Temora, within the Temora Shire Local Government Area.

The Project is classified as a State Significant Development (SSD) according to the NSW *Environmental Planning and Assessment Act 1979* and will be assessed and determined by the NSW Government. An Environmental Impact Statement (EIS) is being finalised to assess potential environmental, social and economic impacts.

This booklet summarises the key findings of the technical assessments undertaken for the EIS.

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COMMUNITY ENGAGEMENT

If approved, NHCE will own and operate the Project for its full life. We are committed to building lasting community relationships and delivering local benefits. Community feedback received to date has helped shape the Project and identify local priorities, concerns and opportunities.

Once the EIS is lodged on the NSW Planning Portal, it will be publicly exhibited for 28 days. We will respond to submissions in a Submissions Report. To receive updates on the EIS lodgement and exhibition, visit the project website or contact us to join the mailing list.

FIND OUT MORE

Scan the QR code or visit the website, link below.



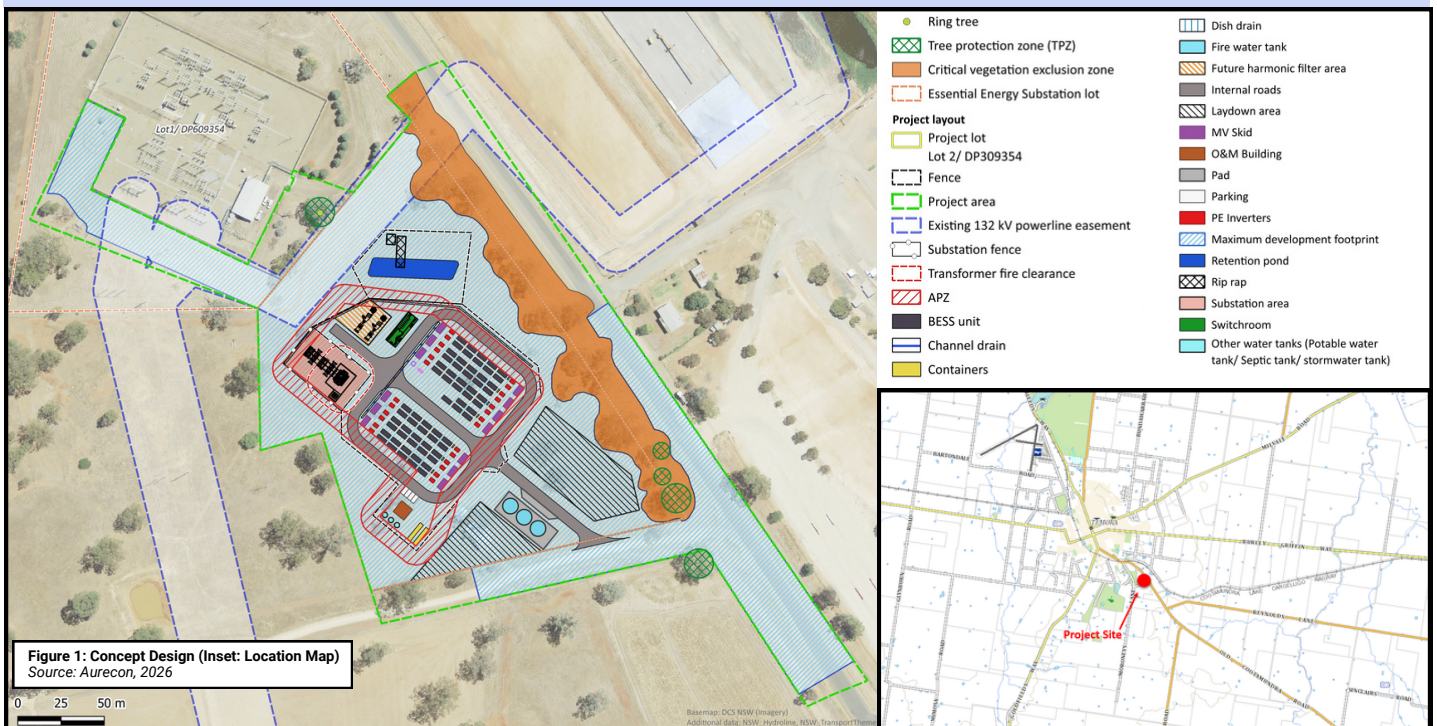
www.nhcleanenergy.com/temora-battery-energy-storage-system

TEMORA BESS PROJECT OVERVIEW



PROJECT OVERVIEW

- The Project will involve the construction, operation and decommissioning of a BESS.
- A BESS is an energy storage technology designed to store and release electrical energy from the grid.
- The BESS will have an installed capacity of approximately 80 MW / 364 MWh, with a usable operational capacity of 320MWh, enabling it to deliver 80 MW of electricity to the grid for up to four hours.
- Key infrastructure includes:
 - modular Lithium Iron Phosphate battery units;
 - overhead cable connection to the existing Temora Substation;
 - power conversion units and on-site substation;
 - fire water tanks and retention pond;
 - operation and maintenance (O&M) facility and car parking;
 - internal access road; and
 - security fencing.
- Subject to approval, construction is expected to commence in 2027 and take approximately 12-18 months.
- Operations are expected to begin in 2029 and continue for 20-25 years.
- The Project may involve infrastructure upgrades to extend its operational life, subject to additional regulatory approvals.
- At the end of the Project's operating life, all above-ground infrastructure will be removed and recycled where possible, and the site will be rehabilitated to its current condition.



PROJECT BENEFITS

- ⚡ **Improves grid stability and reliability:** by storing power and supplying it when demand is highest.
- 🤝 **Direct community benefit sharing contributions:** shaped directly by local feedback to ensure meaningful and lasting outcomes.
- 💡 **Helps decarbonise the grid:** contributing to the clean energy future.
- 👥 **Long-term local commitment:** provided through ownership and operation for the life of the Project.
- 👷 **Strengthen local investment & economic opportunities:** including up to 80 construction jobs and 2 operational roles, with a focus on prioritising local workers and businesses where possible.

DESIGN REFINEMENTS

Project design has been refined based on community and stakeholder feedback, including:

- Refinements to the BESS footprint to avoid vegetation and minimise impact to neighbours.
- Selection of a quieter battery model and locating the BESS as far as possible from nearby residents to reduce noise levels.
- Adoption of mitigation measures including vegetation screening as required.

A Noise Impact Assessment (NIA) is being prepared to assess potential impacts on nearby dwellings. During operation, a BESS periodically generates noise from cooling fans and chillers used to regulate battery temperatures, producing a low humming sound similar to an air conditioner.

METHODOLOGY

- The NSW EPA’s *Noise Policy for Industry* (NPfI) sets the operational noise limits for BESS projects based on background noise levels and receiver amenity.
- The *Interim Construction Noise Guideline* (ICNG) sets construction noise management levels and standard work-hour criteria to minimise impacts on nearby sensitive receivers.
- An independent noise specialist measured the existing background noise levels to determine the noise baseline and then modelled the expected noise generation using a worst-case operating scenario.

Table 1: The table shows the operational noise limits the Project must meet at each receiver, for each time period under the NPfI.

Receiver	Day	Evening	Night
Residents	40 dB(A)	35 dB(A)	35 dB(A)
GrainCorp temp accommodation (R1)	53 dB(A)	48 dB(A)	43 dB(A)

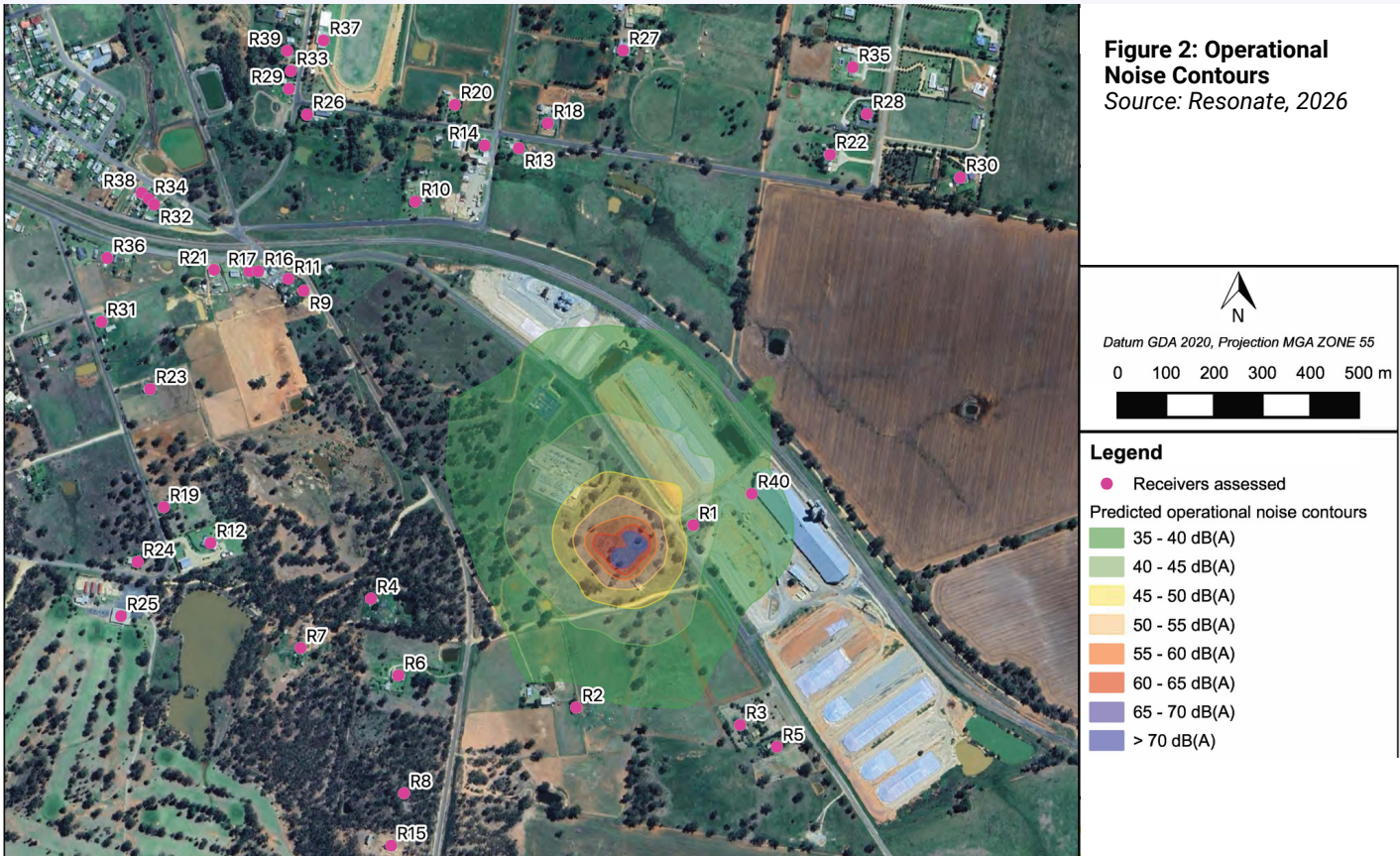
Note: R1 is an existing temporary accommodation associated with the adjacent GrainCorp facility. Under the NSW Noise Policy for Industry, dwellings associated with an industrial facility have different noise limits to standard residential receivers.

FINDINGS

- **Construction noise:** Construction noise is predicted to exceed ICNG daytime noise management levels during some stages, but no receivers are expected to be highly noise affected. Implementation of standard construction noise management and mitigation measures is expected to reduce construction noise impacts to levels that are feasible and reasonable.
- **Operational noise:** levels at all sensitive receivers are expected to meet the noise criteria for all time periods (Figure 2).

RECOMMENDATIONS

- Construction Noise and Vibration Management Plan.
- Standard ICNG construction hours:
 - 7am–6pm Mon–Fri;
 - 8am–1pm Saturday; and
 - No works on Sundays or public holidays.
- Noise controls applied at source during construction, such as
 - throttling and shutting down machinery while not in use;
 - fitting acoustic silencers to plant and machinery;
 - dampening or lining metal surfaces; and
 - orienting noise sources away from residences.



A Landscape and Visual Assessment is being prepared to identify and assess potential visual impacts of the Project from public and private viewpoints.

METHODOLOGY

A visual impact specialist has assessed visual impacts from the Project, including the BESS facility, on-site substation and ancillary infrastructure. The assessment considered:

- views from public roads-Old Cootamundra Rd & Miners St;
- views from private dwellings;
- visual impacts at night;
- cumulative impacts; and
- measures to manage and mitigate any identified impacts.

RECOMMENDATIONS

- Protected vegetation along Old Cootamundra Road retained as natural visual screening.
- O&M buildings will be single storey and made with neutral Colorbond-style materials.
- Low-intensity, inwardly focused lighting will be used for nighttime security lighting.
- Motion-sensor lighting to be considered.
- Appropriate landscaping and vegetation screening options to be explored.

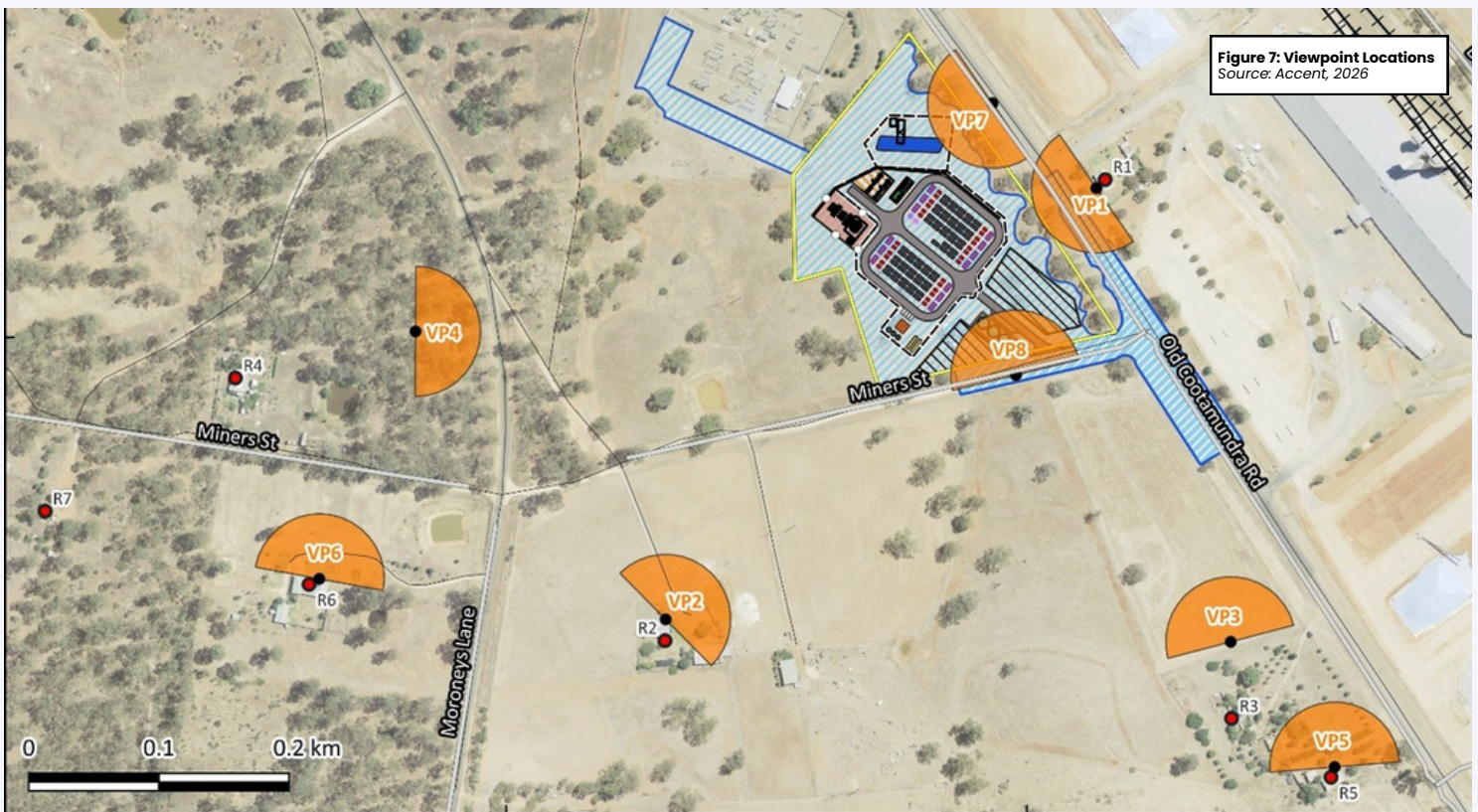
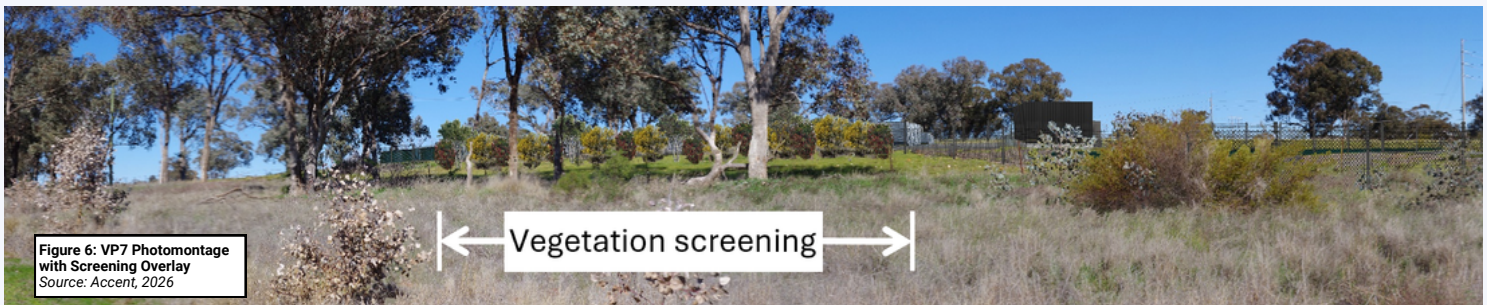
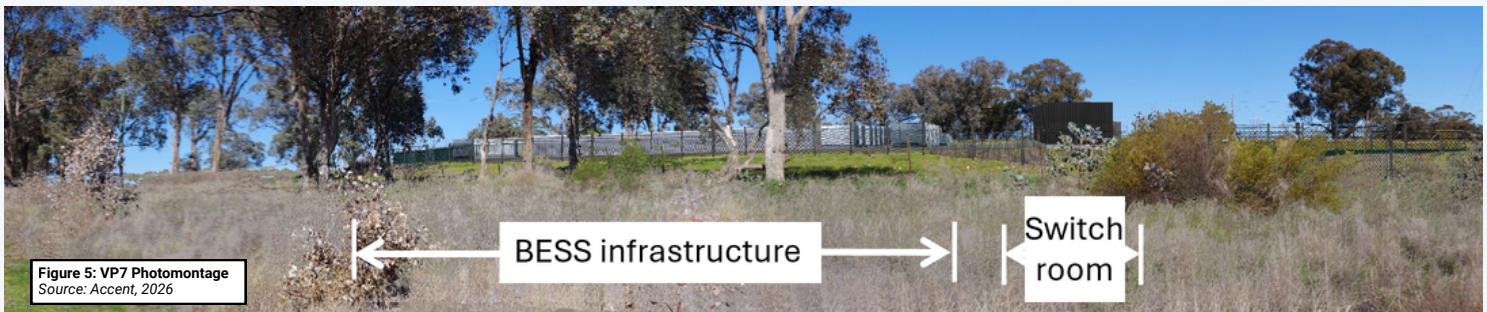
FINDINGS

- **Private Dwellings:** Overall visual impacts from private dwellings is expected to be low. From all private properties, the visual impact magnitude with screening is determined to be low to very low, with the exception of VP8 which is yet to be completed. Final results will be reflected in the EIS.
- **Public Viewpoints:** Overall visual impacts from public viewpoints are expected to be low and largely limited to a small section of Old Cootamundra Road. The visual impact magnitude with screening at this viewpoint (VP7) is determined to be moderate along a small portion of the road.
- **Lighting effects:** There will be no direct light spill to homes and limited potential for sky glow.

Table 2: Assessment of Viewpoints

Assessed Viewpoint	Visual sensitivity	Magnitude – no mitigation	Visual impact	Magnitude – with screening	Visual impact
VP1: Private Property view looking from R1 west towards the Project	Moderate	Low	Moderate	Low	Low
VP2: Private Property view from R2 looking northeast toward the Project	Moderate	Very low	Low	Very low	Low
VP3: Private Property view from 4595 Old Cootamundra Rd looking north toward the Project	Moderate	Very low	Low	Very low	Low
VP4: Private Property view from crown land between 19 Websters Ln and the project area looking north toward the Project	Moderate	Very low	Low	Very low	Low
VP5: Private Property view from 4587/4629 Old Cootamundra Rd looking north toward the Project	Moderate	Very low	Low	Very low	Low
VP6: Private Property view from R6 looking northeast toward the Project	Very low	Moderate	Low	Very low	Low
VP7: Public Road view from Old Cootamundra Road looking west toward the Project	Very low	Moderate	Low	Moderate	Very Low
VP8: Public Road view from Miners Street looking north toward the Project	Very low	Low	Moderate	TBD	TBD

Source: Accent, 2026



BESS fire events are rare; however, it is an industrial development that needs to be carefully managed. A Bushfire Assessment and a Preliminary Hazard Assessment are being prepared to identify and assess the potential bushfire and hazard risk of the Project.

HAZARD
METHODOLOGY

An independent hazard specialist has identified and assessed potential hazards and events during the operation of the facility. The assessment considers:

- the severity and likelihood of the risk to determine the significance;
- the potential for off-site and public impacts; and
- measures to reduce the risk of potential impacts.

FINDINGS

Table 1: Provides a summary of the hazard risk assessment findings, including the residual risk ratings after the implementation of proposed mitigation and control measures.

Hazard	Inherent risk	Key controls	Residual risk
Thermal runaway / battery fire (single unit)	High	Battery Management System (BMS), thermal management, UL 9540A fire testing compliance, detection and shutdown systems	Medium
Fire propagation between units	High	Separation distances, UL 9540A fire testing, NFPA 855 installation standard compliance, layout design, Fire Safety Study	Medium
Explosion / deflagration	High	Explosion prevention and venting, gas detection, enclosure design	Medium
Toxic gas release	High	Enclosure design, separation distances, emergency response procedures	Medium
Electrical fault / arc flash	Medium	Electrical protection systems, isolation, maintenance procedures	Low
Transformer / electrical infrastructure fire	Medium	Design standards, separation, fire protection measures	Low
External fire (grassfire / bushfire)	Medium	Defendable space, vegetation management, water supply, access	Low
Construction phase fire	High	Hot works controls, vegetation management, firefighting equipment, procedures	Medium
Vehicle impact	Medium	Traffic management, restricted access, physical barriers	Low
Monitoring / control system failure	Medium	Redundancy, alarms, remote shutdown capability	Low

Source: Fire Risk Consultants, 2026

BUSHFIRE
METHODOLOGY

An independent fire risk practitioner conducted a bushfire risk assessment. The assessment considers:

- the existing site and surrounding conditions and suitability for development;
- potential bushfire hazards, including the risk of the BESS causing a bushfire; and
- measures to manage and mitigate potential impacts.

FINDINGS

- The Project site is not mapped as bushfire-prone.
- Primary risk is from grassland rather than forest fire.
- The bushfire risk is considered acceptable and suitable for approval.

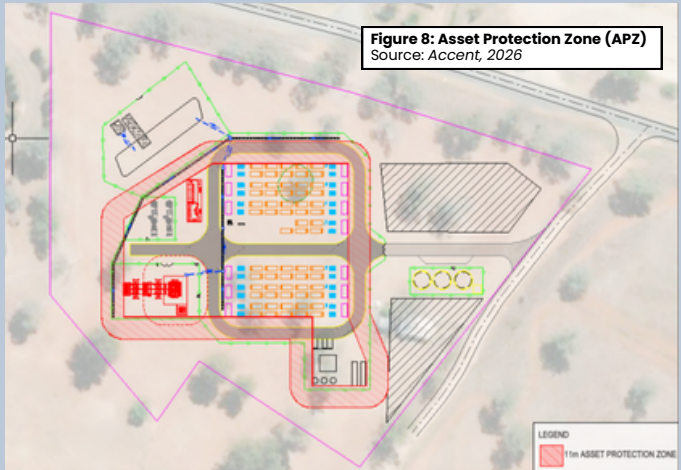
MITIGATIONS & RECOMMENDATIONS

Safety has been a key consideration throughout the design of the Temora BESS. The Project will use battery technology that meets recognised international safety standards and includes continuous monitoring and automatic fault detection systems.

The facility will incorporate multiple safety measures, including:

- separation between battery units;
- Asset Protection Zones;
- emergency vehicle access; and
- dedicated fire water infrastructure.

An Emergency Management Plan will also be developed in consultation with Fire and Rescue NSW and local brigades to manage the site safely throughout its operation.



A Biodiversity Development Assessment is being prepared to identify and assess potential environmental impacts.

METHODOLOGY

An independent ecologist has:

- reviewed existing information on local vegetation and threatened species;
- verified vegetation communities and mapped vegetation areas across the site through several surveys;
- assessed habitat suitability for threatened flora and fauna species;
- completed targeted surveys for threatened plant and animal species; and
- recommended measures to manage and mitigate identified impacts.

RECOMMENDATIONS

- Avoid or minimise disturbance of higher value vegetation.
- Implement vegetation exclusion zones and tree protection zones.
- Offset unavoidable impacts through the Biodiversity Offsets Scheme.
- Use native vegetation in visual screening.
- Retain habitat trees where possible and revegetate disturbed areas with native species.

FINDINGS

- The land has been historically cleared and modified and is now dominated by derived grassland with single paddock trees and trees in small clusters.
- A remnant woodland area (approximately 0.81 ha) of White Box-White Cypress Pine, Western Grey Box shrub/grass woodland is located along Old Cootamundra Road within the Project Area.
- This vegetation has been designated as an exclusion zone to protect against disturbance.
- No threatened species were recorded at the site and buffer area during the targeted flora and fauna surveys.
- No assessment is required under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).



A Soil, Land and Agriculture Assessment has been prepared to assess potential impacts on these resources.

METHODOLOGY

An independent specialist has assessed potential impacts on local land uses and agricultural activities.

The assessment considers:

- potential impacts on farming and agricultural production;
- existing ground conditions through a site soil survey; and
- measures to manage and mitigate identified impacts.

FINDINGS

- The Project will have limited direct impacts on soils and negligible impacts on surrounding agricultural enterprises.

RECOMMENDATIONS

- Environmental Management Plans to manage soil, erosion, and dust during Project construction and operation.
- Weed and pest management and biosecurity measures throughout construction and operations.
- Topsoil stripped during construction to be stored and used for progressive rehabilitation of the site during construction and operation.
- Decommissioning and Rehabilitation Plan.
- When infrastructure is removed at the end of the Project's life, disturbed areas to be rehabilitated to an equivalent condition.

A Traffic and Transport Impact Assessment has been prepared to assess the impact on the surrounding road network.

METHODOLOGY

An independent specialist has modelled the traffic impacts during construction and operation. The assessment considers:

- the existing local traffic environment;
- the proposed access;
- if any upgrades are required to road infrastructure;
- cumulative impacts; and
- measures to manage and mitigate identified impacts.

FINDINGS

- Minimal impact to the surrounding road network.
- Low additional traffic during construction. At peak, up to 141 heavy vehicle and 140 light vehicle trips a day.
- Site access is appropriate with the recommended intersection upgrades at the intersection of Miners St and Old Cootamundra Rd.
- Site circulation is designed to accommodate all construction and operational vehicles accessing the site.



Tube count: Measures across the road record vehicle numbers, speeds and types over several days.

Turning movement counts: Counts the vehicles at each intersection, recording which way they turned.

OVERSIZE OVERMASS (OSOM)

METHODOLOGY

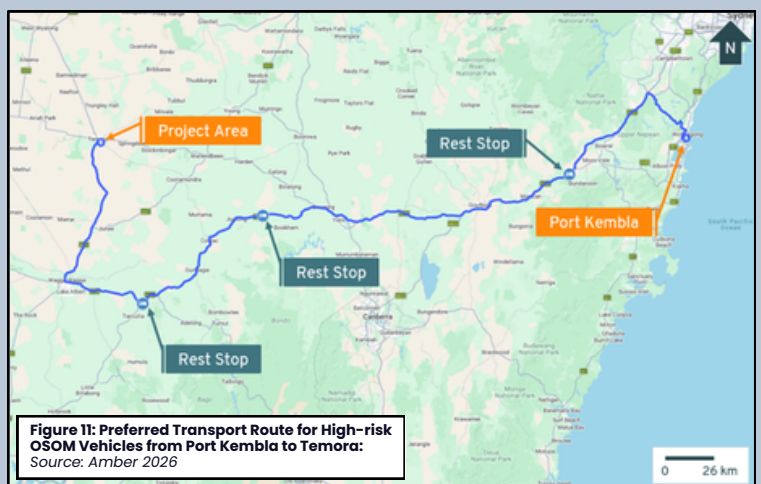
An independent specialist has also assessed whether local transport routes are suitable for safely delivering large equipment, including oversized loads such as transformers. Delivery routes were considered from Port Kembla to the Project site:

FINDINGS

- The preferred route can safely accommodate BESS unit delivery vehicles.
- No major road works are expected.
- The route may require minor upgrades (such as minor line marking at the intersection of Gallipoli St/Burley Griffin Way).

RECOMMENDATIONS

- Traffic Management Plan.
- Regular community updates to notify of oversize vehicle trips.
- Standard ICNG construction hours: 7am–6pm Mon–Fri; 8am–1pm Saturday.



A Social and Economic Impact Assessment is being prepared to assess the potential social impacts of the Project. A Flood Impact Risk Assessment and general water impact assessment have been prepared to assess how the Project may impact local waterways and surface water systems.

SOCIAL IMPACT METHODOLOGY

An independent specialist has assessed the potential impacts of the Project on people and local communities. The assessment considers:

- feedback from stakeholder and the community engagement;
- the likelihood of impacts occurring;
- the scale and significance of potential impacts; measures to avoid, reduce or manage impacts; and
- residual social impacts after mitigation measures are applied.

FINDINGS

6 positive and 8 negative impacts were identified:

Table 4: Social & Economic Impact Significance

Impact	Before mitigation	After mitigation
Positive Impacts		
OPERATION PHASE		
Helps to stabilise the grid and improves energy reliability		
Community benefit sharing		
CONSTRUCTION PHASE		
Local employment and livelihoods		
Local business opportunities		
OPERATION AND CONSTRUCTION PHASE		
Local economy — project investment		
Improved road conditions (Miners Street)		
Negative Impacts		
OPERATION PHASE		
Perceived fire safety risk		
Visual amenity change		
CONSTRUCTION PHASE		
Constraints on local accommodation		
Construction noise		
Air quality during construction		
Construction traffic		
Risk of impacts to community cohesion		
Constraints on local health services		

Positive impact: High Low

Negative impact: High Low

Source: Accent, 2026

RECOMMENDATIONS

The SIA recommends measures to mitigate negative social impacts and enhance positive impacts:

- Accommodation and Employment Strategy;
- Community Stakeholder Engagement Plan including a complaints and grievance mechanism, regular project updates and transparent reporting;
- On-site first aid provision;
- Community Benefit Sharing framework;
- Workforce Code of Conduct;
- Technical management plans, including an Emergency Response Plan that will be developed with NSW RFS, Fire & Rescue NSW and other key stakeholders.

HYDROLOGY METHODOLOGY

An independent specialist has assessed potential flood risk and water-related impacts of the Project on the surrounding environment. The assessment considers:

- existing overland flow paths, flood depths, velocities and flood hazard on and around the site;
- potential changes to drainage and flood behaviour under developed conditions; and
- measures to manage stormwater runoff and protect downstream waterways.

FINDINGS

- The Project site is outside mapped floodplains and has a low flood risk. Flooding is limited to shallow overland flow during heavy rainfall.
- Modelling indicates the Project will have minimal impact on existing flood behaviour, with any changes localised and manageable through standard drainage design.
- Stormwater runoff will be directed to an on-site retention pond. If a fire emergency was to occur, the pond outlet will be closed to contain potentially contaminated runoff.

RECOMMENDATIONS

- Finalise drainage design to maintain neutral or beneficial flood outcomes and confirm flood immunity for critical infrastructure.
- Implement best practice erosion and sediment controls during construction.
- Dispose of any fire-contaminated water collected in the retention pond at an EPA-licensed facility.

COMMUNITY BENEFIT SHARING

Council Contributions

- Total funding will be calculated based on the NSW *Benefit Sharing Guideline* and developed in line with Temora Shire Council's Renewable Energy Guidelines.

Direct Community Contributions

- Additional investment will be made directly into local community initiatives over the life of the Project.
- These payments will be determined in consultation with the community and in alignment with the Temora Community Strategic Plan.

An Aboriginal Cultural Heritage Assessment has been prepared to identify, assess, and manage potential impacts on Aboriginal cultural heritage. A Historic Heritage Assessment has also been prepared to address potential impacts on non-Aboriginal heritage values.

ABORIGINAL CULTURAL HERITAGE

METHODOLOGY

An independent Archaeologist, in consultation with Registered Aboriginal Parties (RAPs), has assessed cultural heritage values within the Project Area. The assessment considers:

- the presence of tangible and intangible cultural heritage values and sites, supported by targeted surveys; and
- measures to protect and manage cultural heritage values.

FINDINGS

- On site survey with RAPs took place in December 2025.
- A Ring Tree of potential cultural significance was identified just outside the Project development footprint.

RECOMMENDATIONS

- Maintain a fenced 10 m buffer zone around the tree.
- Implement an Unexpected Finds Protocol.

HISTORIC HERITAGE METHODOLOGY

An independent Archaeologist has assessed the historic heritage values of the site. The assessment considers:

- the historical context of the area;
- the significance of any archaeological features or materials identified during the site visit; and
- measures to protect and manage heritage items and areas.

FINDINGS

- No historic heritage items were identified within the Project Area.
- Nearest areas of historical significance are the Bulk Wheat Terminal at Graincorp (directly east of the Project), and Mother Shipton Mine (west of the Project).
- Visual impacts can affect the enjoyment of an historic site; however, the Project will not adversely affect the visual amenity of either site.

RECOMMENDATIONS

- Stop work in case of unexpected archaeological finds.
- Implement recommendations of the Landscape and Visual Assessment to mitigate the visual impact of the Project.





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<https://nhcleanenergy.com/temora-battery-energy-storage-system/>

Disclaimer: The information presented in this document is preliminary and subject to change. Details, findings, assessments, and conclusions may be updated, amended, or refined following the lodgement of the EIS and the finalisation of supporting technical reports.