

Prepared for Avenis Energy

Submissions Report

Moree Battery Energy Storage System

Moree Plains Shire LGA, Moree, NSW

September 2025

Project Number: 230246

Submissions Report

Moree Battery Energy Storage System



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We acknowledge the Traditional Owners of this land and pay our respect to Elders past, present and emerging. We recognise that the First Nations peoples of Australia have traditionally managed the resources of this land in a sustainable way, and that they are the original custodians of the Australian environment.

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Acronyms and Abbreviations

AC	Alternating Current
APC	Activation Precinct Certificate
APZ	Asset Protection Zone
BESS	Battery Energy Storage System
CASA	Civil Aviation Safety Authority
DA	Development Application
DC	Direct Current
DPHI	Department of Planning, Housing and Infrastructure (NSW) (formerly DPE)
EPA	Environment Protection Authority
FRNSW	Fire + Rescue NSW
GITA	Geotechnical inspection and testing authority
GPT	Gross Pollutant Trap
ha	hectares
IGDA	Interim Geotechnical Design Advice
km	kilometres
kV	Kilovolt
LFP	Lithium-iron phosphate
LGA	Local government area
m	metres
MPSC	Moree Plains Shire Council
MW	Megawatt

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NEM	National Electricity Market
NSW	New South Wales
NVHR	National Heavy Vehicle Regulator
NVIA	Noise and Vibration Impact Assessment
OSOM	Over-sized Over-mass
PHA	Preliminary Hazard Analysis
PCS	Power Conversion System
RGDC	Regional Growth NSW Development Corporation
RNP	Road Noise Policy
SAP	Special Activation Precinct
SEE	Statement of Environmental Effects
SWMP	Stormwater Management Plan
TfNSW	Transport for NSW
TIA	Traffic Impact Assessment
TN	Total Nitrogen
WSUD	Water Sensitive Urban Design

1. Introduction

1.1. Project overview

The Moree Battery Energy Storage System (BESS) (the proposal), a New South Wales (NSW) state Development Application (DA25/6636) is currently under consideration on the NSW Planning Portal. The Project was exhibited on the portal from 21 May 2025 to the 3 June 2025. During this time, agencies were invited to comment on the proposal.

An Activation Precinct Certificate (APC) (APC 285) was issued for the DA on behalf of the Regional Growth NSW Development Corporation (RGDC) on 2 October 2024. It was determined the development, in accordance with Schedule 1, is consistent with the Moree Special Activation Precinct Master Plan and Delivery Plan, subject to reasons for determination in Schedule 1. Since the issue of the APC, minor modifications to the proposal have occurred, regarding construction and access requirements for the Transgrid connection works. Advice was sought whether a modification of APC 285 was required regarding the inclusion of the connection works. RGDC confirmed 29 May 2025 that the scope was still consistent with the original APC, and no modification to the APC was required (Appendix A).

A Statement of Environmental Effects (SEE) (NGH, 2025) was prepared to support the Development Application (DA) seeking consideration from the Department of Planning, Housing and Infrastructure (DPHI) of the proposed 120MW/480MWh lithium-iron phosphate (LFP) Battery Energy Storage System (BESS) at Bulluss Drive, Moree.

The proposal would connect to the national electricity market (NEM) via Transgrid's 132 kilovolt (kV) Moree Bulk Supply Point substation, located immediately to the north of the development site (leased developable area). The connection to the substation would be via underground transmission line and subject to Transgrid requirements.

The proposal, as exhibited, includes:

- Approximately 140 battery containers, containing LFP technology.
- Approximately 42 skid-mounted Power Conversion Systems (PCS).
- A 33kV switch room.
- A high voltage substation containing the 33/132kV transformer accompanied by harmonic filters.
- A control room.
- A short underground transmission cable which would connect the proposed BESS to the adjacent Moree substation. The connection type would be subject to Transgrid's requirements.
- Associated ancillary infrastructure, including:
 - Operations and Maintenance (O&M) building
 - Auxiliary low-voltage transformers
 - Ancillary storage
 - Staff amenities
 - Sewerage holding tank
 - On-site car parking
 - A water tank
 - Internal access tracks
 - Security fencing
 - Onsite drainage infrastructure.



Figure 1-1 The Moree BESS proposal, as exhibited

1.2. Submission report

This Submissions Report responds to the issues raised in agency submissions and assists the consent authority to evaluate the merits of the proposal.

As the Moree BESS is being assessed under a new planning pathway and no set guidelines are available for Submissions Reports, this report has been prepared the loosely in accordance with the *State Significant Development Guidelines including Appendix C - Preparing a Submissions Report* (DPHI, 2024).

This Submissions Report is structured as follows:

- Chapter 2 - summarises the amendments made to the proposal since the exhibition of the SEE.
- Chapter 3 - summarises the actions taken by the Applicant since the exhibition of the SEE.
- Chapter 4 - details the Applicant's responses to agencies
- Chapter 5 – details the proposal justification and conclusion.

Appendices include:

- Appendix A – Consultation relevant to this report
- Appendix B – An updated consolidated table of mitigation measures that forms commitments of the proposal, pending approval
- Appendix C – Updated specialist reports
 - Appendix C.1 – Traffic Impact Assessment
 - Appendix C.2 – Noise and Vibration Impact Assessment
 - Appendix C.3 – Stormwater Management Plan

1.3. Breakdown of submissions

Submissions were received from 10 government agencies as summarised below.

Table 1-1 Submissions summary

Public agencies	Summarised submissions
Department of Planning, Housing and Infrastructure (DPHI)	Further information requested on: • Proposed development ○ Scope of the DA ○ Connection to the substation ○ Battery replacement • Noise ○ Relative increase in noise ○ Road traffic noise • Earthworks • Stormwater
Transport for NSW (TfNSW)	Further information requested on: • High risk OSOM risk assessment • Construction traffic movements Advisory notes

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Public agencies	Summarised submissions
Moree Plains Shire Council	Further information requested on: • Access • Parking requirements • Drainage • Cut/fill Imported fill
Fire + Rescue NSW (FRNSW)	Further information requested on: • Fire Safety Study • Emergency Plan • Emergency Services Information Package
NSW Rural Fire Service	Further information requested on: • Asset Protection Zones • Construction standards • Water and utility services • Emergency and Evacuation Planning Assessment
NSW Environment Protection Authority (EPA)	Further information requested on: • Fire safety considerations • Waste batteries
Transgrid	Further information requested on: • Transgrid's Easement Guidelines • Additional referral requested if amendments are made to the proposal
Essential Energy	No comments on the proposal as exhibited. Additional referral requested if amendments are made to the proposal
Airservices Australia	No impact on Moree Aerodrome Additional referral requested if amendments are made to the proposal
Civil Aviation Safety Authority (CASA)	No objection to the proposal as exhibited.

2. Amendments to the proposal

2.1. Transgrid substation access requirements

In the SEE, it was assumed that the Transgrid substation would be accessed via the Moree BESS development site. Since the exhibition of the SEE, Transgrid have requested access to the substation via their existing access on Campion Close.

Typical construction vehicles as nominated by Transgrid include:

- Light vehicles (cars)
- Tippers (various sizes)
- Truck and dogs – approx. 42 tonnes, 19m length
- Concrete agitators – up to 4m in height
- Cranes and Frannas – various sizes and weights.

The construction timeline would be 7 months, with a peak of 2 months of construction. Up to 32 light vehicles and 2 heavy vehicle movements (one-way) can be expected within the peak construction period.

As such, the Development Application and Project Description has been amended to reflect Transgrid's requirements.

2.2. Proposed OSOM route assessment

The SEE outlined two potential over-sized over-mass (OSOM) routes for the proposal, with a OSOM route assessment undertaken from Glen Waverly Victoria, and from Port Botany NSW. Since the exhibition, consultation with TfNSW have noted that the route from Port Botany is highly constrained for OSOM movements due to bridge and overpass clearance limitations.

As such, a new OSOM route assessment was undertaken from the Port of Newcastle, NSW to replace the proposed Port Botany access route.

In addition; to reduce the overall impact and requirement of temporary hardstands along the OSOM route, the trailer configuration was explored further.

2.3. Total nitrogen reduction

Advice received from both Moree Plains Shire Council and the DPHI during exhibition of the SEE noted that the measures to meet the Total Nitrogen (TN) reduction targets were not in line with the Moree SAP Master and Delivery Plan precinct-wide pollution load reduction targets.

Additional measures to achieve the 45% reduction target for TN have been proposed.

3. Actions taken since exhibition of the proposal

3.1. Consultation with Agencies

Moree Plains Shire Council

A meeting was held with Moree Plains Shire Council (MPSC) via teams on 22 August 2025. The Applicant, NGH and Council went through all the amendments proposed to address the Council submission.

MPSC raised no objection to the proposed amendments and responses provided, however suggested the traffic numbers used in the updated Traffic Impact Assessment (TIA) were likely insufficient to account for the peak harvest season.

Follow up correspondence from MPSC note that the 20% uplift in traffic is acceptable for the purpose of the Development Application. As such, have committed to providing updated traffic numbers for inclusion in the Traffic Management Plan (to be completed as a post-approval commitment).

The TIA (Appendix C.1) has been updated to reflect the peak harvest season.

Transport for NSW

Amber Organisation reached out to Transport for NSW (TfNSW) during the preparation of the updated TIA. A submission was made for a bridge and culvert assessment as a result of the TfNSW request for further information.

Environmental Protection Authority

Feedback was sought by NGH on the submission by the EPA via phone call.

The EPA requested high-level information about operational storage of wastes, storage of waste capacity and firefighting capabilities, and confirmed no licencing or reporting to EPA was required for the construction and operation of the BESS.

Department of Planning, Housing and Infrastructure

Consultation with the Department was undertaken throughout the response to submissions process, by NGH and the Applicant, regarding the suitable approach and updated measures that would be implemented by the proposal.

3.2. Updated Specialist Studies

3.2.1. Traffic Impact Assessment

An updated Traffic Impact Assessment (TIA) was prepared by Amber Organisation in response to the advice received during the SEE exhibition period. A summary of the updated findings is provided below, with the updated TIA appended as Appendix C.1 of this report.

Access off Campion Close

Transgrid have advised that construction of a new 132kV bay or preparation of an existing bay, secondary high-voltage equipment and civil works within the existing substation would require access off Campion Close, instead of through the Moree BESS site via Bulluss Drive.

A new temporary internal access road off Campion Close through the Transgrid substation lot would be required to access the proposed substation bay works. This access road would be located to the east of the substation (refer to Figure 3-1).

The existing Transgrid substation access off Campion Close is proposed to be upgraded. A strategic design is provided in Appendix I of the TIA. All proposed upgrade works would be subject to further design and approval from MPSC.

However, early consultation with MPSC indicate they are supportive of the upgrades.

Construction traffic generation

It is anticipated that construction traffic during the peak construction period of the proposal could generate up to up to 96 light and 98 heavy vehicle trips per day (194 in total) if the BESS and Transgrid peak construction were to coincide. If these peak construction works were to coincide, the proposal is expected to generate up to 62 vehicle trips per hour (vph) in the morning and evening peak hours during the peak construction period, which would reduce to 38 vph during the average construction periods.

Consideration of heavy vehicle movements during the harvest season near the locality of the site was also included in the updated traffic volumes. As an over-approximate, an increase of 20% was applied to the surveyed traffic volumes.

The TIA indicated that the road network is able to accommodate the proposal's increased traffic during the peak construction periods stated above, with consideration of harvest period heavy vehicle movements.

Updated OSOM route assessment

As stated in Section 2.2 above, the OSOM route assessment from Port Botany was reviewed, and subsequently changed to Port of Newcastle.

The OSOM transformer route from Port of Newcastle would utilise predominantly state roads, with the exception of two roads in Newcastle, three roads in Muswellbrook and one road in Moree which are managed by local councils. The route uses roads managed by Muswellbrook Shire Council as a diversion around the rail underpass in Muswellbrook.

The revised assessment indicated that the site can be accessed with suitable traffic control measures without civil works or upgrades required.

In addition, the proposed trailer configuration for the OSOM routes from both Glen Waverly and Port of Newcastle were re-modelled with a platform trailer (rather than a beam set trailer).

The conclusion was that there were no road upgrades or temporary hardstands required. Escorts would be required to control traffic as required and spotter/s to assist to ensure load is clear of infrastructure

3.2.2. Noise and Vibration Impact Assessment

An updated Noise and Vibration Impact Assessment (NVIA) was prepared by Renzo Tonin & Associates in response to the advice received during the exhibition of the SEE and to account for the increase in Transgrid

traffic requirements and 20% increase to account for harvest. A summary of the updated findings is provided below, with the updated NVIA appended as Appendix C.2 of this report.

Road Traffic Noise Assessment

Noise impact from the potential increase in traffic on the surrounding road network due to construction and operational activities were assessed against the NSW 'Road Noise Policy' (RNP) road traffic noise criteria. The assessment was based on the estimated peak construction traffic volumes of 194 daily vehicle movements (two-way) and 62 peak hour vehicle movements (two-way).

Results of the road traffic noise predictions are presented in the Table 3-1 below.

Table 3-1 Predicted Road Traffic Noise Contribution Levels along Public Roads, dB(A) (Source: Renzo Tonin, 2025)

Receiver	Criteria	Traffic Movements	Speed (km/h)	Distance to Road	Predicted Noise Level	Exceed?
Residences on Newell Highway	L _{Aeq} , (15 hour) 60	As per Table 7.1 of the NVIA (Appendix C.2)	60/80	20m	53	No

From the above table, traffic noise level contributions from the vehicle movements associated with the construction works are well within the applicable noise criteria based on dwellings being at the closest typical distance from the road.

Therefore, traffic noise levels as a result of the construction works for the proposal would not adversely contribute to the existing traffic noise levels at the most affected residences along the surrounding roads.

3.2.3. Stormwater Management Plan

An updated Stormwater Management Plan (SWMP) was prepared by WSP in response to advice received during the exhibition period of the SEE. A summary of the updated findings is provided below, with the updated SWMP attached as Appendix C.3.

Stormwater Quality Management

Two scenarios have been developed to recommendations to how stormwater quality is to be managed and what infrastructure is required to meet the stormwater quality requirements set by NSW Water Sensitive Urban Design (WSUD) Guideline. The stormwater quality measures have been considered for two geotechnical scenarios:

- Option A: Medium Clay Scenario
- Option B: Heavy Clay Scenario

Before the commencement of works, the stormwater quality management Option A or Option B is to be confirmed through further geotechnical investigations to verify the type of existing soils onsite. Option A is the preferred stormwater quality management scenario for an assumed Medium Clay classification. Option B has been presented as a contingency, only if the geotechnical assumption of Medium Clay classification is determined to be incorrect.

Option A findings

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The proposed stormwater quality treatment train incorporates the use of a Sedimentation Basin, Detention Basin and Grassed swales, as applicable based on the available layout. A stormwater quality model was produced utilising the MUSIC software package, with the results of the modelling shown in Table 3-2 below.

Table 3-2 Post-Development MUSIC Modelling Results (Option A) (Source: WSP 2025)

Pollutant	Required Pollutant Reduction (%)	Achieved Reduction (%)
Total Suspended Solids	80	91.7
Total Nitrogen	45	45.7
Total Phosphorous	60	70.1
Gross Pollutants	90	100

The above table shows that all targets have been met. The model assumes the soil to have an exfiltration rate of 1.5mm/hr, reflective of Medium Clays.

Option B findings

The proposed stormwater quality treatment train incorporates the use of a sedimentation basin, detention basin, grassed swales, and Gross Pollutant Trap (GPT) as applicable based on the available layout. A stormwater quality model was produced utilising the MUSIC software package, with the results of the modelling shown in Table 3-3 below.

Table 3-3 Post-Development MUSIC Modelling Results (Option B) (Source: WSP 2025)

Pollutant	Required Pollutant Reduction (%)	Achieved Reduction (%)
Total Suspended Solids	80	93.8
Total Nitrogen	45	46.4
Total Phosphorous	60	69.1
Gross Pollutants	90	100

All targets have been met. The model assumes the soil to have an exfiltration rate of 0.0mm/hr, reflective of Heavy Clays.

By following the recommendations of the SWMP and implementing appropriate measures during construction and operation of the development, it is anticipated that there will be minimal impact on the existing environment from the proposal.

3.2.4. Interim Geotechnical Design Advice

An Interim Geotechnical Design Advice (IGDA) letter has been prepared by WSP to support the DA and in response to advice received during the exhibition period of the SEE. A summary of the letter is provided below, with the IGDA attached as Appendix C.4.

Desktop review findings

The IGDA has been based on a desktop review of publicly available geological maps and groundwater data available in proximity to the site. The general findings that could be broadly applied to the proposal location based on previous public investigation information are as follows:

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- High plasticity clays, ranging from firm to hard at various depths, were typically encountered in previous investigations nearby
- Deep alluvial soils were a common feature of previous investigation, predominantly described as interbedded clay, sand and gravel
- Various potentials geotechnical risks, including shrink/swell movement, fissuring, high swelling pressures, variable soil composition and consistency or density, and limited information on topsoil thickness.
- Rock was not encountered in nearby investigations, which extended to depths of more than 60m.
- It is unlikely that the construction works for the proposal would encounter groundwater
- It is unlikely that acid sulfate soils are present within the proposal location

Preliminary geotechnical recommendations

Based on the preliminary investigations, the following recommendations have been provided in Table 3-4 overleaf.

It should be noted that the key geotechnical data gap is the absence of a targeted intrusive investigation for the proposed development, which would provide further information regarding subsurface conditions.

The Applicant is committed to undertaking geotechnical investigations and preparing a Geotechnical Report prior to commencement of earthworks for the proposed development.

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Table 3-4 Preliminary geotechnical recommendations

Recommendation	Description
Likely subsurface profile	The likely subsurface profile comprises of: • Fill or topsoil; overlying • Riverine Plains Deposits predominantly comprising clay (likely highly reactive and of high plasticity), possibly interbedded with sands, silts and gravels • No shallow rock expected
Site classification to AS2870	The natural clay soils at the site are likely to be highly reactive, with depths expected to possibly be more than 4m based off borehole data. A site classification of Class H2-D (highly reactive) in general accordance with the guidance in AS2870 (2011) should be adopted. The preliminary nature of the classification and estimated movement, which should be reviewed following a targeted geotechnical investigation during design development.
Bearing capacity and footing type	The following recommendations should be adopted for the BESS structures: • BESS structures and foundations located on suitable engineered fill materials that are placed directly over natural subgrade materials of at least stiff consistency • Technical specification for the bulk earthworks will need to be developed in accordance with AS3798 (2007) Guidelines • Topsoil or uncontrolled fill materials are not suitable founding materials for structural footings • Suitable material for pad or strip footings are proportioned based on a maximum allowable bearing capacity of 100 kPa
Subgrade preparation and the selection and placement of engineered fill	The following recommendation should be adopted for site preparation: • Prior to commencement of earthworks, a technical specification should be prepared that considers the proposed future land use and expected source(s) of imported fill

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Recommendation	Description
	• Subgrade preparation procedures, fill placement and compaction be continuously supervised by a geotechnical inspection and testing authority (GITA) • Requirements of select fill based off of preliminary investigations are as follows: ○ Soaked California bearing ratio (CBR): $\geq 6\%$ ○ CBR swell $\leq 1.5\%$ ○ Permeability $\leq 5 \times 10^{-9}\text{m/s}$ ○ Grading ▪ % passing 77mm: 100% ▪ % passing 4.75mm: 40-80% ▪ % passing 0.075mm: 10-40% ○ Plasticity Index x % Passing 0.425mm sieve (post construction): ≤ 1000 ○ Plasticity Index (post construction): 6-25% There is potential to review these requirements during detailed design considering the availability of potential sources of imported fill materials. The type of materials that are used will need to be considered in the eventual development on the fill materials.

3.3. Updated proposal description

As a result of the Transgrid connection works, the proposal description, as set out in Section 2.2 of the SEE, was updated (refer to Table 3-5 below). Changes are shown in **red** text. An updated proposal location is shown in Figure 3-1, incorporating the site access requirements for the Transgrid access off Campion Close.

Table 3-5 Updated summary of features of the development

Key Elements	Description
Subject land	Lot 82 DP 751780 and part of Lot 144 DP751780 and Lot 1 DP 999486 (17.58ha) Development site – 4.06ha
Battery Containers	Lithium-ion phosphate batteries (LFP) 140 x 20ft containers
Site Access	The main access to the site is proposed via Bulluss Drive with a secondary access for Transgrid works via Campion Close. A new temporary internal access road off Campion Close through the Transgrid substation lot would be required to access the proposed substation bay works. This access road would be located to the east of the substation
Power Conversion Systems (PCS)	42 x PCS (Skid Mounted)
Switch room	33 Kilovolt (kV)
High voltage on-site substation	High voltage transformer and harmonic filters
Control Room	Contain battery-monitoring equipment and allows operators to control the plant remotely
Connection transmission line	A short underground transmission line which connects the proposed BESS to a new or existing 132kV bay at the neighbouring Moree Bulk Supply Point substation. As part of this connection, Transgrid would be responsible for the following works within their land: • Construction of either an 132kV bay or preparation of an existing 132kV bay • Installation of associated secondary high-voltage equipment • Execution of any necessary civil works.

Key Elements	Description
Ancillary infrastructure	• Bunding. • Construction laydown areas. • Drainage. • Fencing and landscaping. • Internal access tracks. • Security fencing. • On-site car parking. • Operations and maintenance (O&M) building. • Ancillary storage. • Staff amenities. • Underground cables connecting site infrastructure • Auxiliary low-voltage transformers • Water tank; and • Pumpable sewerage holding tank.
Fencing	2m high



Figure 3-1 Updated proposal location of the Moree BESS

4. Agency submissions and Applicant response

As detailed in above, the following Agencies cited no further comment:

- Essential Energy
- Airservices Australia
- Civil Aviation Safety Authority

As such, further commentary have been excluded from the following section. Below details the responses to Agencies requesting further information.

4.1. Department of Planning, Housing and Infrastructure (DPHI)

Submission	Response	Reference Location
Proposed development		
<u>Scope of Development Application:</u> The second figure in Section 1.2 (un-numbered figure) shows the construction extent as including the site access driveway to Bullus Driveway. However, the development description in Table 2-1 does not include the site access driveway in the scope of the development application (DA). The site access driveway should be part of the DA and included in the project description.	The Project Description has been updated to include site access for works relating to the BESS via the eastern side of Bulluss Drive.	Table 3-5 in Section 3.3 of this report

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Submission	Response	Reference Location
<u>Connection to the Moree Bulk Supply Point Substation:</u> Section 2.4.5 states that Transgrid would be responsible for the works associated with the connection to the Moree Bulk Supply Point Substation. The relevant assessment pathway for these works has not been stated. Please confirm the assessment pathway for these works.	The Applicant confirms that the connection works for the proposal to the substation would all be assessed as part of this DA	Table 3-5 in Section 3.3 of this report
<u>Battery Replacement:</u> Section 2.7 states that the battery component of the proposal would need to be replaced every 10-15 years. The SEE does not provide any details around how this will be carried out and what this would involve. Provide further details regarding the process for replacing the batteries, including traffic generation and anticipated timeframes (i.e. does battery replacement occur over a dedicated maintenance period, or progressively over time, as required).	The Applicant is currently assuming a replacement of the batteries no earlier than 20 years from commercial operation date with the current envisaged operation of the plant. Regular repairs of the equipment caused by wear and tear will occur progressively over time. However, given the battery degradation and in an anticipated time around 20 years, the Applicant expects that major battery replacement would occur all at once, since the technology available in 20 years from today is unknown. However, the Applicant is assuming that this shall happen as a complete overhaul of the battery pack and the battery containers would be removed from the site as whole. The transportation for installation occurs in 20ft ISO containers and these are installed as a whole on the site. The dismantling is expected to happen equally, i.e. the Direct Current (DC), Alternating Current (AC) and communication cables would be disassembled from the battery containers and then via cranes,	

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Submission	Response	Reference Location
	they will be loaded onto trucks and transported to an appropriate licenced recycling location.	
Noise		
<u>Relative Increase in Noise:</u> Section 3.3 and the Construction and Operational Noise and Vibration Impact Assessment (NVIA) at Appendix C do not include an assessment of the relative increase in noise as a result of the proposal, despite Bulluss Drive and Narrabri Road being arterial roads. If Bullus Drive and Narrabri Road are classified as arterial roads, the NVIA must include an assessment of the relative increase in road traffic noise. This must be assessed in accordance with the section 2.4 of the EPA's Noise Policy for Industry. Road Traffic Noise. The estimated construction traffic volumes during peak construction outlined in Table 7-1 of the NVIA at Appendix C are less than the peak construction traffic volumes predicted in Table 6 of the Traffic Impact Assessment (TIA) at Appendix F. Construction traffic noise impacts may be underestimated. A revised assessment of construction traffic noise must be carried out using the traffic predictions in the TIA.	The Noise and Vibration Impact Assessment has been updated to include an assessment of the relative noise increase on Bulluss Drive and Narrabri Road, as well as updated construction traffic volumes.	Section 3.2.2 of this report and Appendix C.2
Earthworks		

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Submission	Response	Reference Location
Section 3.14 states the site is to be filled up to a maximum of 1.8 metres to achieve the necessary stormwater management arrangements. Section 6.1.2.8 of the Moree SAP Delivery Plan states that earthworks should be cognisant of the soil type in the locality and include relevant geotechnical investigations to inform design and construction. The Delivery Plan requires the DA to be supported by an Interim Geotechnical Design Advice Letter (IGDA) informed by relevant geotechnical testing. Council has also requested additional information be provided regarding cut and fill and has requested a geotechnical report. A geotechnical report and IGDA is required to support the DA consistent with the requirements of the Moree SAP Delivery Plan and to address the comments made by Council.	An IGDA letter has been prepared for the proposed development. The IGDA provides appropriate recommendations to meet the requirements of the Moree SAP Delivery Plan in accordance with AS 3798 (2007) regarding earthworks and imported fill requirements.	Section 3.2.4 of this report and Appendix C.4
Stormwater		
Section 3.14 states that the pollution reduction target for Total Nitrogen will not be met. In lieu of this, the stormwater treatment approach includes several mitigation measures to reduce nitrogen generation from the development. The commentary does not provide any details of the effectiveness of these measures or whether this approach has been successfully implemented elsewhere. The Department notes the Moree Special Activation Precinct Master Plan states stormwater run-off at the Precinct boundary must achieve a neutral or beneficial effect on water quality (in terms of annual pollutant loads). The Moree SAP Delivery Plan states the Moree Special Activation Precinct Master Plan precinct-wide pollution load reduction target for Total Nitrogen is 45%. Council has also	Two scenarios have been developed to recommendations to how stormwater quality is to be managed and what infrastructure is required to meet the stormwater quality requirements set by NSW Water Sensitive Urban Design (WSUD) Guideline. Both scenarios have determined that the total nitrogen reduction targets of 45% will be met with appropriate mitigation measures in place.	Section 3.2.3 of this report and C.3

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Submission	Response	Reference Location
requested additional information be provided to demonstrate how the development will achieve the pollution reduction target of 45% for Total Nitrogen. Further details are required to justify the proposed approach to minimise and mitigate Total Nitrogen discharge from the development site. This should include an evidence-based prediction of the percentage reduction this approach will achieve. If satisfactory justification cannot be provided for the alternate approach to managing Total Nitrogen, the stormwater management strategy must be revised to demonstrate how the development will achieve a pollution reduction target of 45%, in line with the comments made by Council.		

4.2. Transport for NSW (TfNSW)

Submission	Response	Reference Location
High Risk OSOM Route assessments		
1. The Oversize/Overmass (OSOM) route assessments from Port Botany and Glen Waverly does not provided enough detail to properly assess the impact to the State road network. Strategic concept designs are required to be submitted where upgrade works are required. Location noted when reviewing the route assessment include:	After consideration of the impacts of the High-Risk OSOM vehicle combination buy the Project Team, the proposed combination has been reviewed and the route from Port Botany changed to Port of Newcastle.	Section 3.2.1 and Section 6 of the updated Traffic Impact

Submissions Report

Moree Battery Energy Storage System

Submission	Response	Reference Location
a. Erskine Street (Newell Hwy) and Darling Street, Dubbo - The swept path drawing (1044 Glen Waverley RA01C-page 26) indicates that temporary hardstand and mountable kerb to be provided. b. John Street (Newell Hwy) and Dalgarno, Coonabaraban - The swept path drawing (1044 Glen Waverley RA01C-page 29) indicates that mountable kerbing is to be provided. c. Newell Highway and Kamilaroi Highway, Narrabri - The swept path drawing (1044 Glen Waverley RA01C-page 31) indicates that temporary hardstand and mountable kerbing is to be provided. d. Botany Road and Bunnerong Road, Matraville - The swept path drawing (1044 Port Botany RA01D-page 03) indicates that temporary hardstand and mountable kerbing is to be provided. e. Kamilaroi Highway and Oxley Highway, Gunnedah - The swept path drawing (1044 Port Botany RA01D-page 14) indicates that temporary hardstand is to be provided. <i>Strategic Concept Designs must be provided for any works required along the state road network route. Strategic-Design-requirements-for-DA-Factsheet.pdf</i>	In addition, the updated trailer configuration and revised assessments show that the site can be accessed with suitable traffic control measures without civil works or upgrades. As such, strategic concept design is not required.	Assessment (Appendix C.1)
2. An NHVR The high-risk OSOM laden loads, class and vehicle configuration must include the following information regarding the dimensions, weight and length: a. NHVR route ID, b. Overall dimensions (width, height and length) of the laden load (laden load is the vehicle	An NHVR Route ID has been included for the two routes being considered for High-Risk OSOM in the updated TIA, along with the anticipated specifications and dimensions of the combination. More detailed information including axel loads and the like was provided to TfNSW's Development Renewables and SPU teams	Section 6 of the updated Traffic Impact Assessment (Appendix C.1)

Submissions Report

Moree Battery Energy Storage System

Submission	Response	Reference Location
combination and the load to be transported), c. Total weight of laden load, d. GSM, e. Payload, f. deck height, g. axle configuration, h. axle spacing, including from the prime mover, and i. axle masses (including split axle and group axle masses)	via email for the purposes of the bridge and culvert Assessment, included for reference in Appendix H of the TIA.	
3. No bridge assessment has been provided. This is required as the loads fall into high-risk category. This is required to be assessed and included in the response. Bridge and culvert assessments are required for TfNSW assets and can be obtained by contacting spu@transport.nsw.gov.au. The result of bridge assessments may require a change to the route which must be accounted for in the updated route assessment.	A submission was made by Amber Organisation for a bridge and culvert assessment via email in early August 2025. At the time of writing no response has been received.	Appendix C.1
Construction traffic movements		
4. Consideration is required regarding the seasonal harvest heavy vehicle movements near the locality of the site. The revised TIA is to identify mitigation measures that are needed to ensure that the road network can support the through and additional project construction traffic during the harvest season.	To approximate harvest seasonal peaks, an increase of 20% has been applied to the surveyed traffic volumes. MPSC have confirmed this is sufficient for the purpose of the Development Application. MPSC will provide updated traffic numbers when available, for inclusion and consideration in the TMP.	Section 3.2.1 and Section 4.2.6 of the updated Traffic Impact

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Moree Battery Energy Storage System

Submission	Response	Reference Location
		Assessment (Appendix C.1)
5. The impact of the increase in traffic movements near at the intersection of Newell Highway/Bulluss Drive, and the rail level crossing on Bulluss Drive need to be considered within the revised TIA.	The rail corridor has been included as part of a revised SIDRA assessment, as part of a network model which shows that the intersection would continue to operate at Level of Service A and 95 th percentile queuing can be fully accommodated in the available turn lanes.	Section 4.2.6 of the updated Traffic Impact Assessment (Appendix C.1)

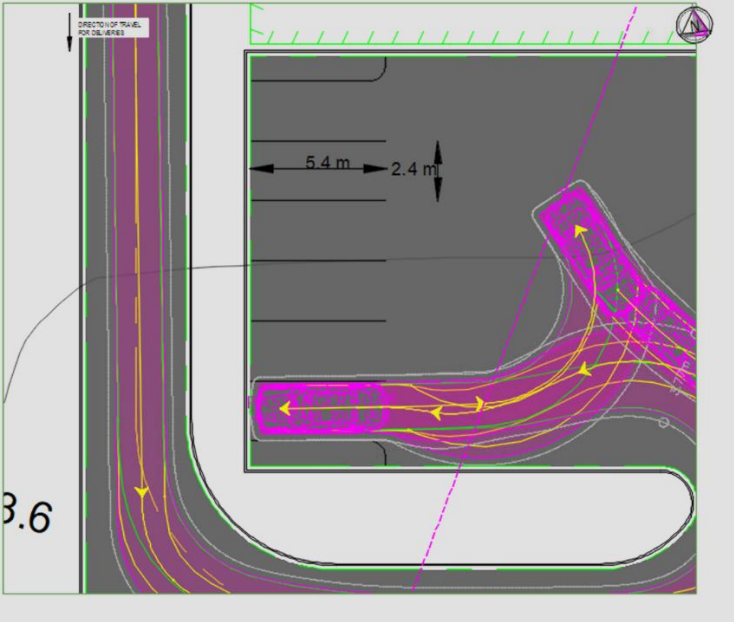
4.3. Moree Plains Shire Council

Submission	Response	Reference Location
Access		
The swept turn paths for the internal driveway do not appear to cater for larger vehicles that may be required to circumnavigate the development. As per MPSC DCP, industrial developments shall be designed so manoeuvring complies with AS2890.2 (commercial purposes) and for general employee/commuter parking then the manoeuvring is to comply with AS2890.1. Noting the aisle widths must adhere to these guidelines.	The design of the proposal has specifically considered heavy vehicle movements, which will be required during the construction process. Both external and internal swept paths are indicated within Appendix F of the TIA. All vehicle access arrangements have been designed in accordance with the relevant Council standards and guidelines and Australian Standards 2890.1:2004 and 2890.2:2018.	Appendix F of the SEE

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Moree Battery Energy Storage System

Submission	Response	Reference Location
	All vehicles will access and exit the site in a forward direction. Once operational, it is likely that the development will only need to be accessed by light vehicles for repairs and maintenance. Visitor carparking is not required given the nature of the proposed development; however, parking is provided for staff, contractors and others who would visit the site. The Applicant notes that the design attached within Appendix A of the SEE is for operations, not construction. As stated above, no large vehicles would be required operationally. All internal roads would comply with the relevant standards.	
Parking requirements		
The development proposes 5 parking spots for a B99 vehicle. It is unclear if this will be enough parking spaces for future employees. The traffic impact assessment report does state that the proposed parking spaces will be sufficient to cater for the development, although it is unclear if larger vehicles would be required to access the development for parking. The proposed parking spaces do not show the dimensions. As per DCP, the dimensions for 90 degrees parking spaces are to be 5.4m long by 2.5-2.7m wide. As per AS2890.1, for employee and commuter parking, dimensions are 5.4m x 2.4m.	As stated above, five parking spaces are proposed for the development. The Applicant confirms that five parking spaces is considered more than adequate for the operation of the proposed BESS During the operational phase of the proposal, only 1-2 maintenance personnel are expected, likely to access the proposal by light vehicles for repairs and maintenance (as detailed above). Parking for larger vehicles are not required. An updated plan detailing parking space dimensions is provided in Figure 4-1 below.	

Submission	Response	Reference Location
	 Figure 4-1 Car parking space dimensions	
Drainage		
The proposed treatment train has been modelled using MUSIC software whereby the results conclude that all of the required pollutant targets are achieved except for the total nitrogen reduction target. The proposed development must ensure compliance with all of Council's pollutant targets.	Two scenarios have been developed to recommendations to how stormwater quality is to be managed and what infrastructure is required to meet the stormwater quality	Section 3.2.3 of this report and C.3

Submissions Report

Moree Battery Energy Storage System

Submission	Response	Reference Location
	requirements set by NSW Water Sensitive Urban Design (WSUD) Guideline. Both scenarios have determined that the total nitrogen reduction targets of 45% will be met with appropriate mitigation measures in place.	
Cut/fill		
A Geotechnical report is recommended to support the development proposal regarding land contamination and earthworks. Earthworks to be carried out in accordance with AS 3798 – 2007.	An IGDA letter has been prepared for the proposed development. The IGDA includes recommendations that Earthworks to be carried out and testing provided by a geotechnical inspection and testing authority (GITA) in accordance with AS 3798 – 2007 “Guidelines on earthworks for commercial and residential developments” The Applicant is committed to undertaking geotechnical investigations and preparing a Geotechnical report prior to commencement of earthworks.	Section 3.2.4 of this report and Appendix C.4
Imported fill		
A large quantity of imported fill is proposed for the development. This will need to be confirmed by a Geotech whereby demonstrating it to be clean fill and suitable for commercial/industrial purposes.	A GITA would inspect, and test all engineered and imported fill proposed for the development. Requirements of select fill based off of preliminary investigations have been provided in Section 3.2.4 and the appended IGDA letter.	Section 3.2.4 of this report and Appendix C.4

4.4. Fire + Rescue New South Wales (FRNSW)

Submission	Response	Reference Location
It has been the experience of FRNSW that BESS Facilities present special problems of fighting fire and suitable additional provisions are likely to be required in accordance with E1D17 and E2D21 of the National Construction Code 20221. FRNSW therefore recommend the following conditions: 1. Prior to construction a Fire Safety Study (FSS) is developed in accordance with the requirements of the Hazardous Industry Planning Advisory Paper (HIPAP) No.22 and submitted to FRNSW for review. - o The FSS is to be used to inform the design and as such it is FRNSW Position that the FSS be developed to the satisfaction of FRNSW prior to any further submission being made to FRNSW; this includes: an Initial Fire Safety Report (IFSR) and / or Performance-Based Design Brief / Fire Engineering Brief Questionnaire (FEBQ). - o The FSS should be prepared consistent with the FRNSW Fire Safety Guideline Technical Information – Large scale external lithium-ion battery energy storage systems – Fire safety study considerations. 2. Prior to occupation or commissioning an Emergency Plan (EP) is developed for the site in accordance with HIPAP No.15. 3. Prior to occupation or commissioning an Emergency Services Information Package (ESIP) is developed for the site in accordance with FRNSW fire safety guideline – Emergency services information package and tactical fire plans.	As detailed within the SEE, the Applicant had committed to the following: • Emergency response plan • Fire safety study • Bush Fire Emergency Management and Operations Plan (BFEMOP). The Applicant will commit to the Emergency Services Information Package (ESIP) prior to occupation or commissioning, as part of the BFEMOP in consultation with the relevant emergency services.	Sections 3.4.3 and 3.5.4 of the SEE

4.5. NSW Rural Fire Service

Submission	Response	Reference Location
Asset protection zones		
- At the commencement of building works and in perpetuity, to assist in the ongoing protection from the impact of bush fires, the entire development site within the perimeter fencing shall be managed as an inner protection area (IPA) in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019. - To allow for emergency service personnel to undertake property protection activities, a 10-metre-wide defendable space (Asset Protection Zone) that permits unobstructed vehicle access is to be provided around the inside of the perimeter fencing.	As detailed within the Bushfire Assessment Report and the SEE, a minimum APZ of 10m is proposed with a minimum 4m wide all-weather gravel road, which is generally in compliance with the PFB, with all infrastructure to be managed and maintained as an Inner Protection Zone as per the requirements of the PFB. The 10m APZ would permit unobstructed vehicle access around the inside of the perimeter fencing.	Section 3.5.3 and 3.5.4, and Appendix E of the SEE
Construction standards		
- All habitable buildings shall comply with Sections 3 and 5 (BAL 12.5) Australian Standard AS3959-2018 Construction of buildings in bush fire-prone areas or NASH Standard (1.7.14 updated) National Standard Steel Framed Construction in Bushfire Areas – 2014 as appropriate and Section 7.5 of Planning for Bush Fire Protection 2019. - Access roads within the development shall comply with the requirements of Table 7.4a of Planning for Bush Fire Protection 2019.	As detailed within the Bushfire Assessment Report and the SEE, all proposed buildings would comply with AS3959-2018. The internal access roads would be a minimum 4m wide all-weather gravel road and is considered to generally comply with the requirements set out in Table 7a of the PFB 2019.	Section 3.5.4 and Appendix E of the SEE
Water and utility services		

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Moree Battery Energy Storage System

Submission	Response	Reference Location
5. The provision of a firefighting water supply shall comply with the following in accordance with Table 7.4a of Planning for Bush Fire Protection 2019: a. a 200,000-litre static water supply must be provided on-site; b. new above-ground tanks are manufactured from concrete or metal; c. a minimum 50mm inner diameter outlet (pipe) for firefighting purposes is to be connected to any above ground water supply tank and located on the non-hazard side. A metal ball valve and 65mm Storz fitting is to be fitted to the outlet. All exposed external water pipes are constructed of a metal (or like) material, including any fittings; d. a hardened ground surface for truck access is supplied within 4m of the water supply outlet or access hole and unobstructed access is to be provided at all times; e. underground tanks have an access hole of 200mm to allow tankers to refill, direct from the tank and underground tanks are clearly marked; f. a Static Water Supply (SWS) sign shall be obtained from the local NSW Rural Fire Service (RFS) and positioned for ease of identification by RFS personnel and other users of the SWS. In this regard: i. Markers must be fixed in a suitable location to be highly visible; and ii. Markers should be positioned adjacent to the most appropriate access for the water supply.	As detailed within the Bushfire Assessment Report and the SEE, the inclusion of a 200,000 L non-combustible tank is proposed with all fittings and specifications included as per the requirements of Table 7.4a of the PFB 2019. All electrical and/or gas services would comply with the requirements of Table 7.4a of the PFB 2019.	Section 3.5.4 and Appendix E of the SEE

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Moree Battery Energy Storage System

Submission	Response	Reference Location
6. The provision of electricity and/or gas services to any habitable building shall comply with the requirements of Table 7.4a of Planning for Bush Fire Protection 2019.		
Emergency and evacuation planning assessment		
7. A Fire Management Plan (FMP) shall be prepared for the Battery Energy Storage System development. The FMP shall be prepared in consultation with NSW RFS Namoi/Gwydir Fire Control Centre. The FMP shall include: • 24 hour emergency contact details including alternative telephone contact; • Site infrastructure plan; • The methods and resources to manage and extinguish Lithium Battery Fires.	As detailed within the SEE, the Applicant had committed to the following: • Emergency response plan • Fire safety study • Bush Fire Emergency Management and Operations Plan (BFEMOP). The Applicant will commit to the Emergency Services Information Package (ESIP) prior to occupation or commissioning, as part of the BFEMOP in consultation with the relevant emergency services. The BFEMOP will include: • 24 hour emergency contact details including alternative telephone contact; • Site infrastructure plan; • The methods and resources to manage and extinguish Lithium Battery Fires.	Sections 3.4.3 and 3.5.4 of the SEE

4.6. NSW Environment Protection Authority (EPA)

Submission	Response	Reference Location
Fire safety considerations		
The storage of waste batteries presents a fire safety risk, including water runoff during fire events. Proposals should identify potential fire risks and proposed measures and controls to minimise the likelihood and severity of any fire events, and how any fire events will be managed. Consideration should be given to engineering, monitoring and fire controls, such as concrete bunkers, thermal monitoring cameras and deluge fire systems. Consideration should also be given to storage of and access to adequate fire-fighting water for worst-case scenarios, and bunding and storage capacity for firefighting water (which should not be reduced/impacted by stormwater). The EPA suggests the proposal consider the Victorian EPA guideline Storage and Management of Waste Batteries (2018), which assists with assessment fire risks, and identifying controls to prevent fire spread, associated with waste batteries.	Design consideration relating to fire safety have been included in the Preliminary Hazard Analysis (PHA), the Bush Fire Assessment Report and the SEE. This includes monitoring and fire controls, and access to adequate fire-fighting water. the Applicant had committed to the following in the SEE: • Emergency response plan • Fire safety study • Bush Fire Emergency Management and Operations Plan (BFEMOP). These plans will address any emergency response in relation to any fire event. A battery unit is made up of multiple individual cells. During operations, individual faulty cells will be replaced, rather than a whole unit. This occurs as part of the regular maintenance program. Waste cells will then be transported to a recycling facility in small quantities, as a fault is detected. There will be no bulk storage of waste battery cells at the Moree BESS facility.	Section 3.5.4 and Appendix D and E of the SEE

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Moree Battery Energy Storage System

Submission	Response	Reference Location
	If temporary storage of waste battery cells is required, the operator of the proposal will adhere to the Victorian EPA guideline Storage and Management of Waste Batteries (2018).	
Waste batteries		
An Environment Protection Licence (EPL) is required to transport higher risk wastes (classification of waste batteries should be applied in accordance with EPA's waste classification guidelines) and waste tracking requirements also apply. Compliance with relevant dangerous goods transport legislation is required when transporting batteries considered as dangerous goods (as per the <i>Dangerous Goods (Road and Rail Transport) Act 2008</i>).	Lead-acid and nickel-cadmium batteries are considered 'hazardous waste' in accordance with the EPA's waste classification guidelines. LFP cells are not detailed within the guideline, but for the purpose of this assessment could be considered hazardous. However, the low volumes of turnover of cells during the operational phase of the Proposal (as detailed above) would not require an EPL. LFP cells are considered class 9 miscellaneous dangerous goods, which pose little threat to people or property. The transportation screening thresholds in the Preliminary Risk Screening undertaken as part of the PHA have not been exceeded, therefore doesn't indicate the transport of LFP cells triggers that the development is 'potential hazardous'. However, all LFP cells will be transported from site as required in accordance with the <i>Dangerous Goods (Road and Rail Transport) Act 2008</i> and the Australian Dangerous Goods Code.	Appendix D of the SEE

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Moree Battery Energy Storage System

4.7. Transgrid

Submission	Response	Reference Location
We can advise this is a customer project and the Transgrid Group is actively working with the applicant regarding the grid connection. The proponent will also need to advise how they'll achieve the requirements of Transgrid's Easement Guidelines and demonstrate that Transgrid is able to achieve maintenance activities around its existing structures safely. For preliminary advice on Transgrid's Easement Guidelines, please refer to the following hyperlink: https://www.transgrid.com.au/safety/community-safety/. All works near/within the easement would need to be carried out in accordance with Transgrid Easement Guidelines, Transgrid Fencing Guidelines, and SafeWork NSW Workcover's Code of Practice 2006 – 'Work Near Overhead Powerlines'. Transgrid shall be notified of any amendments and/or modifications to the proposal which may change proposed distances to Transgrid structures, substations or conductors.	The Applicant is actively working with Transgrid for the connection of the proposal to the grid. As part of this overall process, the Applicant will advise how they'll achieve the requirements of Transgrid's Easement Guidelines and demonstrate that Transgrid is able to achieve maintenance activities around its existing structures safely. The proposal, as exhibited, does not encroach on any of Transgrid managed easements. The Applicant notes that if any amendments alter the proposed distances to any Transgrid structures, additional referral to Transgrid would be undertaken.	

5. Updated Project justification

The updates to the proposal as a result of agency advice, has not altered the proposal as exhibited. It has taken on the advice and recommendations of the public agencies that provided comments and firmed its commitments and mitigation measures across several environmental aspects.

As such, the proposal remains justified against its objectives, as set out in the SEE.

5.1. Overall Project justification

As stated above, the proposal remains justified against its objectives, as set out in the SEE. The Applicant is committed to carrying out the proposal in accordance with the safeguards and mitigation measures outlined in this Submissions Report, the SEE, and supporting assessments.

Overall, the proposal is expected to have minimal environmental and amenity impact; it is suitably sited within the Regional Enterprise Zone of the Moree Special Activation Precinct (SAP). The proposal would result in a positive impact for the community and local economy.

Given the adopted target of 100% renewable energy reliance for the Moree SAP, it is considered the proposed BESS would be crucial in:

- Providing support to renewable energy sources such as the Moree Solar Farm and other likely future solar farms in the locality/region,
- Providing grid support services which are noted to be an issue in the Moree SAP Renewable Energy Report (Arcadis, 2021),
- Improved management of potential excess renewable energy in the grid and shifting this to cover the energy needs of existing and future industrial development in the SAP.

6. Conclusion

In addressing the agency submissions, several changes have been made to the mitigation measures required to manage the proposal. The updated commitments (attached as Appendix B) can adequately address all impacts identified to date.

No updates to the development site, beyond minor clarifications and the subsequent inclusions of the Transgrid connection works, are required. Addressing the agency submissions did not alter the proposal, as detailed in the SEE and supporting documents.

This Submissions Report, and all supporting documents have shown that there are reasonable grounds to grant consent for the development. The safeguards and mitigation measures committed to by the Applicant would enable a development that avoids and minimises environmental, and amenity impacts and would support the objectives and aims of the Moree SAP.

7. References

Arcadis. (2021). *Moree Special Activation Precinct - Renewable Energy Report*. Arcadis Design & Consultancy.

DPHI. (2024). *State significant development guidelines – preparing a submissions report*. Parramatta: DPHI.

NGH. (2025). *Moree BESS Statement of Environmental Effects*. Sydney: NGH Pty Ltd.

Appendix A Consultation

Sarah Hillis

To: Paul Amoateng
Cc: Steph Kurta; Crystal Atkinson
Subject: RE: Moree BESS Development Footprint and TG works

From: Paul Amoateng <[REDACTED]>
Sent: Thursday, 29 May 2025 3:00 PM
To: Sarah Hillis <[REDACTED]>
Cc: Steph Kurta <[REDACTED]>; Crystal Atkinson <[REDACTED]>
Subject: RE: Moree BESS Development Footprint and TG works

Hi Sarah

Thank you for the update. As per the previous advice by Emily, modification to the APC is not required.

Please find attached letter and stamped plans for use with your application for consent.

Should you require any further information regarding the contents of this email, please do not hesitate to contact me via the contact details below.

Kind regards

Paul Amoateng

Senior Planning Officer

Regional Development and Delivery

**Department of Primary Industries
and Regional Development**

T [REDACTED] M [REDACTED] E [REDACTED]

dpird.nsw.gov.au

WAGGA WAGGA



**Department of Primary Industries
and Regional Development**

We stand on Country that always was and always will be Aboriginal land. We acknowledge the Traditional Custodians of the land and waters, and we show our respect for Elders past, present and emerging. We are committed to providing places in which Aboriginal people are included socially, culturally and economically through thoughtful and collaborative approaches to our work.

29 May 2025

Sarah Hillis
NGH Consulting
Via email: [REDACTED]

Re: APC 285 - Avenis Energy BESS - Lot 82 DP 751780 Bulluss Drive, Moree

Dear Sarah,

Thank you for providing information about the scope work and access requirements for connecting the proposed Battery Energy Storage System to the Moree Bulk Supply Point Substation in relation to Activation Precinct Certificate (APC) 285.

The identified scope work and access requirements have been reviewed and are consistent with the original intent and footprint of APC 285 and the Moree Special Activation Precinct Master Plan and Delivery Plan. Therefore, a modification to your existing APC is not required.

The additional plans are stamped and attached for use with your application for consent.

Sincerely



Crystal Atkinson
Acting Director Precinct Activation
Regional Growth NSW Development Corporation





Activation Precinct Certificate
number: APC 285
Date: 29 May 2025
Issuing authority: Regional Growth
NSW Development Corporation
Decision: Approved

Appendix B Consolidated mitigation measures

A full set list of safeguards and mitigation measures are provided below. New mitigation measures and those that have been amended are shown in **red**.

Consolidated mitigation measures

Noise:

- Establish a complaints procedure, including signage and other means to advertise the contact number regarding complaints. Respond to complaints in a timely manner and keep relevant parties informed of progress.
- Good relations with people living and working in the vicinity of a construction site should be established at the beginning of a project and be maintained throughout the project, as this is of paramount importance. Keeping people informed of progress and taking complaints seriously and dealing with them expeditiously is critical. The person selected to liaise with the community should be adequately trained and experienced in such matters.
- Develop a Noise Management Plan to ensure noise and vibration impacts are minimised during construction and operation phases.

Fire, ignition and hazards

- It is recommended that the results of the PHA be used as inputs into other safety studies required including:
 - Emergency response plan
 - Fire safety study.
- In addition to the above it is required that:
 - The detailed design of the BESS will be undertaken to comply with the requirements of section 3.2 of the PHA, including separation distances, UL9540A test reports and OEM recommendations
 - If the proponent chooses to use the Tesla Megapack, all recommendations from the Victorian Big Battery Fire Statement of Technical Findings – Victorian Government 2021 will be implemented.

It is noted the proposed development would not involve the Tesla Megapack. Any change to the Tesla Megapack would involve a modification application and be relevantly assessed.

Bushfire risk

- Appropriate setbacks from adjacent unmanaged hazardous vegetation of minimum 10m (APZ), confirmed subject to detailed design.
- Within the 10m APZ, minimum 4m wide all-weather gravel perimeter road, generally in compliance with the PBP.
- Manage and maintain the APZ as an Inner Protection Area as per the requirements of the PBP.
- Inclusion of 200kL static water supply, in line with the requirements of Table 7.4a of the PBP.

- Electrical services in line with the requirements of Table 7.4a of the PBP.
- Constructed to the appropriate Bushfire Attack Level (BAL) as per AS3959:2018 - Construction of buildings in bushfire-prone areas.
- Preparation of a Bush Fire Emergency Management and Operations Plan during the construction and operational phase of the BESS.

Land use compatibility

- Land rehabilitation to be detailed as part of a Decommissioning Plan, in consideration of relevant NSW Department of Primary Industries guidelines and best practice.
- Implementation of site landscaping in accordance with the accompanying Landscape Plan.

Access and traffic

- Prior to construction, a pre-condition survey of the relevant sections of the existing road network should be undertaken in consultation with the road authority. During construction the sections of the road network utilised by the proposal are to be monitored and maintained to ensure continued safe use by all road users, and any faults attributed to construction of the BESS would be rectified. At the end of construction, a post-condition survey would be undertaken to ensure the road network is left in a condition equivalent to that at the start of construction.
- A Traffic Management Plan (TMP) will be prepared and implemented. The TMP should be prepared in reference to the TIA, Australian Standard (AS) 1742.3 and the Work Health and Safety Regulation 2017.
- **Updated traffic numbers as provided by MPSC will be considered and incorporated into the final TMP.**
- Neighbours of the BESS are to be consulted and notified regarding the timing of major deliveries which may require additional traffic control and disrupt access.
- Heavy vehicles should avoid travel during peak bus operating times to limit the interaction of larger vehicles and vulnerable road users.
- It is recommended that any OSOM vehicle trips be timed so they do not coincide with other OSOM vehicles within the surrounding area to limit the impact to the road network, which can be undertaken as part of the permit application.

Aboriginal heritage

- If any items suspected of being Aboriginal in origin are discovered during the work, all work in the immediate vicinity must stop and Heritage NSW notified. The find will need to be assessed and if found to be an Aboriginal object, and Aboriginal Heritage Impact Permit (AHIP) may be required.
- In the unlikely event that human remains are discovered during the development works, all work must cease in the immediate vicinity; Heritage NSW and the police should be notified. Further assessment would be undertaken to determine if the remains were Aboriginal or non-Aboriginal. If the remains are deemed to be Aboriginal in origin, the Registered Aboriginal Parties should be advised of the find as directed by the appropriate heritage team within Heritage NSW. Heritage NSW would advise the Applicant on the appropriate actions required.

Non-Aboriginal heritage

- Works at that identified heritage location will cease with an appropriate buffer zone of at least 20m to allow for the assessment and management of the find. All site personnel will be informed about the buffer zone with no further works to occur within the buffer zone.
- A heritage specialist should be engaged to inspect and assess the item.
- For items determined to be historic relics, work must remain ceased in the affected area and the Heritage Council must be notified in writing. This is in accordance with section 146 of the Heritage Act 1977 (NSW).
- Depending on the nature of the discovery, additional assessment may be required prior to the recommencement of work in the area. At a minimum, any find should be recorded by an archaeologist.

Visual

- A Landscape Management Plan (LMP) will be implemented based on the final detailed design, to achieve the landscape requirements of the Delivery Plan.
- Good design principles employed through the proposed development design phase can ameliorate the visual impact. Consideration will be given to the colours, type and height of the facility to ensure minimal contrast and to help blend into the surrounding landscape to the extent practicable.
- External lighting shall be installed to comply with Australian/New Zealand Standard AS/NZS 4282:2019 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version.

Air quality

- A reduced speed limit would be enforced within the site.
- Vegetation clearing would be kept to minimum.
- Stockpiles at the site which has a potential to generate dust would be covered.
- Equipment will be turned off while not in use.
- A water cart would be used to suppress dust during peak movements times.
- During the operation of the BESS, soils are to be protected, and perennial grass cover is to be maintained in order to slow dust generation.

Contamination

- The fill to be brought to the site will be natural material free of contaminants.
- If contaminated material is identified onsite during the construction program, the Unexpected Finds Protocol will be implemented.

Stormwater

- Ensure appropriate drainage controls are incorporated into the final detailed design to minimise the area of disturbance, runoff and pollutant generation.
- Erosion and sediment control measures will be implemented to mitigate any impacts in accordance with Managing Urban Stormwater: Soils & Construction.
- A Stormwater Management Plan has been prepared for the proposed development to provide on-site stormwater detention infrastructure to capture rainwater and surface runoff and maintain pre-flow rates for all events up to, and including, the 1% AEP at a capacity.
- The treatment and management of total nitrogen will primarily be through:

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Moree Battery Energy Storage System

- Removal of vegetation across the primary footprint, via application of a 100mm thick blue stone application
- ~~fully fencing of all yards and adding grates to stormwater entry points~~
- ~~The circulation pathways around the BESS and general access areas are unsealed gravel topped roadways, trapping runoff at source.~~
- Incorporation of a sedimentation basin, detention basin and grassed swales, as applicable.
- A Gross Pollutant Trap (GPT) if heavy clays are present.

Before the commencement of works, the stormwater quality management options are to be confirmed through further geotechnical investigations to verify the type of existing soils onsite. The GPT has been presented as a contingency, only if the geotechnical assumption of Medium Clay classification is determined to be incorrect.

It is proposed that the above treatment measures (removing TN generating nodes) be considered in lieu of meeting TN targets via alternative methods. That is, in the Hierarchy of Controls, adopting substitution and elimination of nitrogen generating elements, as opposed to inclusion of the lower order measures such as Engineering Controls (i.e. larger bio beds/filtration zones) is considered appropriate for the unique nature of this development.

Appendix C Updated specialist reports

C.1 Traffic Impact Assessment (TIA)

C.2 Noise and Vibration Impact Assessment (NVIA)

Submissions Report

Moree Battery Energy Storage System



C.3 Stormwater Management Plan (SWMP)

C.4 Interim Geotechnical Design Advice (IGDA) letter

NGH

NSW • ACT • QLD • VIC

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Level 14, 10-16 Queen Street
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T: (03) 7031 9123

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BRISBANE

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**NEWCASTLE - HUNTER &
NORTH COAST**

2 Dick Street
Newcastle West NSW 2302

T. (02) 4929 2301

**WAGGA WAGGA - RIVERINA &
WESTERN NSW**

35 Kincaid Street (PO Box 5464)
Wagga Wagga NSW 2650

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SUNSHINE COAST

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