Scoping Report
Calala Battery Energy Storage System

On behalf of
Equis Energy (Australia) Projects (Ngumi 4) Pty Ltd as trustee for the Equis Energy (Australia) Ngumi 4 Asset Trust

December 2022

mecone

Project Director

Georgia Sedgmen

14 Dec 2022

Contributors

Addison Boykin

* This document is for discussion purposes only unless signed and dated by the Project Director.

Contact

Mecone
Level 2, 3 Horwood Place
Parramatta, New South Wales 2150
info@mecone.com.au
mecone.com.au

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1 Introduction

Equis Energy (Australia) Projects (Ngumi 4) Pty Ltd (ABN: 80 353 224 865) as trustee for the Equis Energy (Australia) Ngumi 4 Asset Trust (the Applicant) is proposing to develop a stand-alone 300 megawatt (MW)-1200MW-hour battery energy storage system (BESS) at 57 Burgess Lane, Calala NSW (Lot 17 DP 629969) (the Project).

The Project will be able to support and firm the NSW grid system by supplying electricity to homes and businesses during peak times of electricity demand. The project has an estimated capital investment value of up to (AUS) $ 400 million and is classified as State Significant Development under *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP).

Mecone Group Pty Limited has prepared this Scoping Report to support a request to the Department of Planning and Environment (DPE) for the Secretary's Environmental Assessment Requirements (SEARs).

The SEARs will inform the preparation of an Environmental Impact Statement (EIS) in support of an SSD application submitted to DPE under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This Scoping Report has been prepared with regards to State significant development guidelines—preparing a scoping report (DPE, October 2022).

1.1 The applicant

The Applicant the project is Equis Energy (Australia) Projects (Ngumi 4) Pty Ltd (ABN: 80 353 224 865) as trustee for the Equis Energy (Australia) Ngumi 4 Asset Trust, whose registered address is at Ground Floor, 36 Esplanade, Brighton, Melbourne, VIC 3186.

The applicant group (Equis) is one of Asia Pacific's leading infrastructure developers and is actively pursuing renewables development and investment across the Asia-Pacific region. To date, Equis has successfully developed over 11GW of renewable energy and over 220 renewable energy projects around the world.

Equis has Australian offices in Victoria, Queensland, New South Wales and Tasmania and our team has extensive experience developing renewable energy assets across the country.

For more information, please visit Equis Australia's webpage at https://www.equis.com.au/.

1.2 Description of project

The Project involves construction of a standalone BESS with storage capacity up to 300MW and 1200MWh discharge capacity, and connection to Tamworth Substation via underground transmission lines, plus ancillary works.

1.2.1 Objectives

The Project objectives are to:

- provide for a stand-alone BESS that supports NSW's shift towards renewable energy, and improves resiliency and reliability in the electricity grid;

- provide for a development that is suitable to the rural context and has no significant adverse environmental impacts; and

- support the local economy through social and economic benefits through the Project's construction and operational life.

1.2.2 Site information

The site is located at 57 Burgess Lane, Calala, NSW, and is formally known as Lot 17 DP629969 (the Site). The Site is located approximately 1.7 km west of Calala town centre and 6km south-east of Tamworth. The Site is approximately 36.24ha in area and has a frontage of approximately 500m to Calala Lane.

The footprint of the proposed BESS is located in the south-eastern portion of the Site, occupying approximately 7ha (or 20% of the Site).

The site's location in the regional context is provided at **Figure 1**.

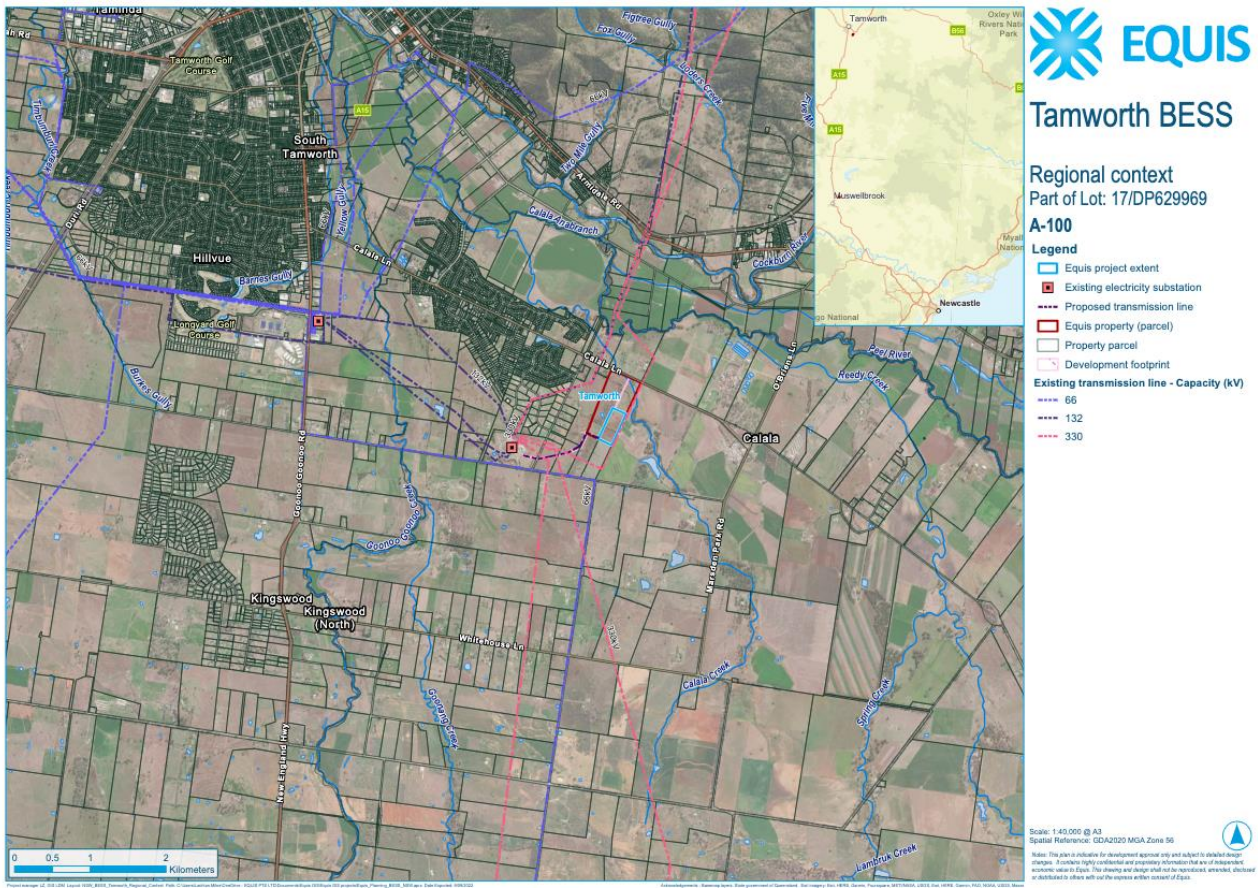

Figure 1. Regional context map
Source: Equis

1.3 Background

The Project was initiated after a comprehensive assessment of electrical supply and demand across NSW, which included a review of Australian Energy Market Operator's (AEMO's) Integrated System Plan (ISP) and future demand expectations.

Once a suitable substation had been identified (i.e., Tamworth Substation), the applicant carried out constraints and opportunities assessment for all land within 2km of the

substation. This included flora and fauna constraints, existing land use and zoning, distance from dwellings, land availability, transmission line availability, and flooding. This assessment also included a review of the strategic planning objectives of Tamworth and Calala to ensure the Site was not identified as being needed for future urban growth.

Once a suitable site had been identified, the applicant engaged specialist consultants to provide preliminary advice on the design of the facility. This process has led to the proposal as presented in this Scoping Report.

The preliminary specialist investigations have identified the following key strategies that will be adopted to avoid, minimise or offset the impacts of the Project:

- locate the facility away from sensitive receivers;
- provide suitable acoustic screening around the facility;
- provide suitable landscape screening around the facility; and
- implement management measures during construction and operation as identified by specialist consultants.

These strategies will be refined during the EIS stage.

1.4 Related development

There is no related development that will be incorporated into the Project under a separate assessment process.

2 Strategic context

The Site is located on rural land (Zone RU4 Primary Production Small Lots) at the eastern edge Calala, approximately 5.5km to the south-east of Tamworth commercial core. Land along the proposed transmission line easement and substation are also within Zone RU4 Primary Production Small Lots.

Tamworth is one of the 2 main centres of the New England North West Region of NSW (the other being Armidale), providing a range of jobs, housing and services for the region's population.

Figure 2 shows a land use zoning map.

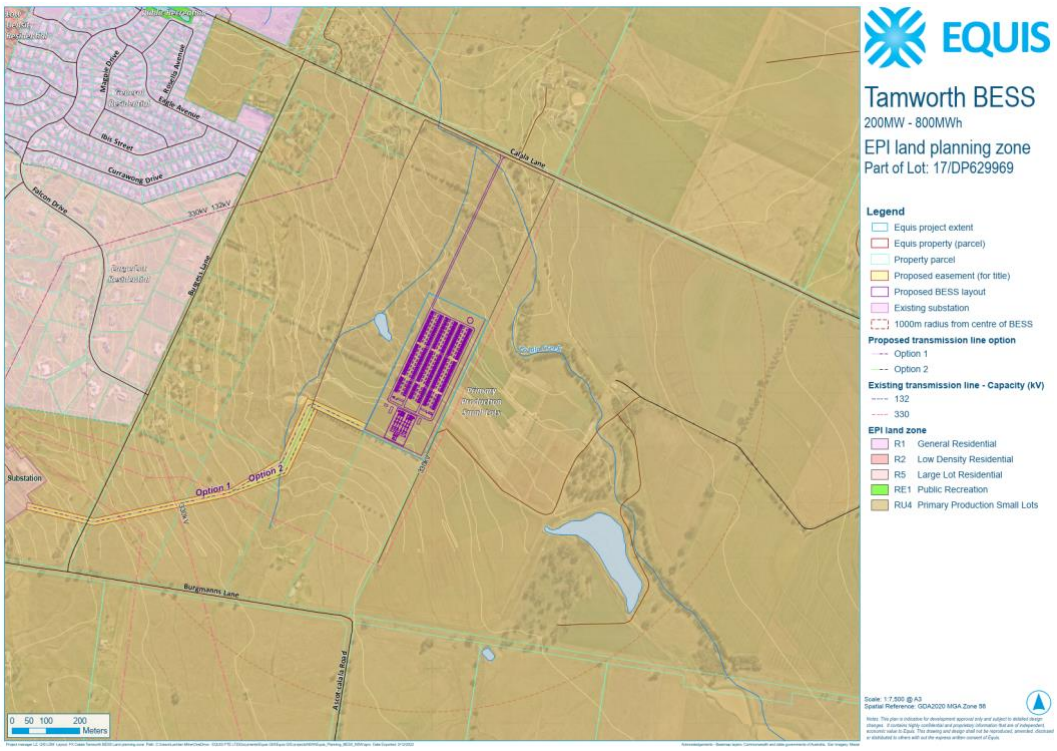

Figure 2. Zoning map
Source: Equis

Figure 3 and **Figure 4** show the ecological and bushfire constraints affecting the site and surrounds. As seen, there is a riparian corridor running through the northeast portion of the Site (well outside of the BESS footprint), and the Site is identified as Category 3 bushfire prone land.

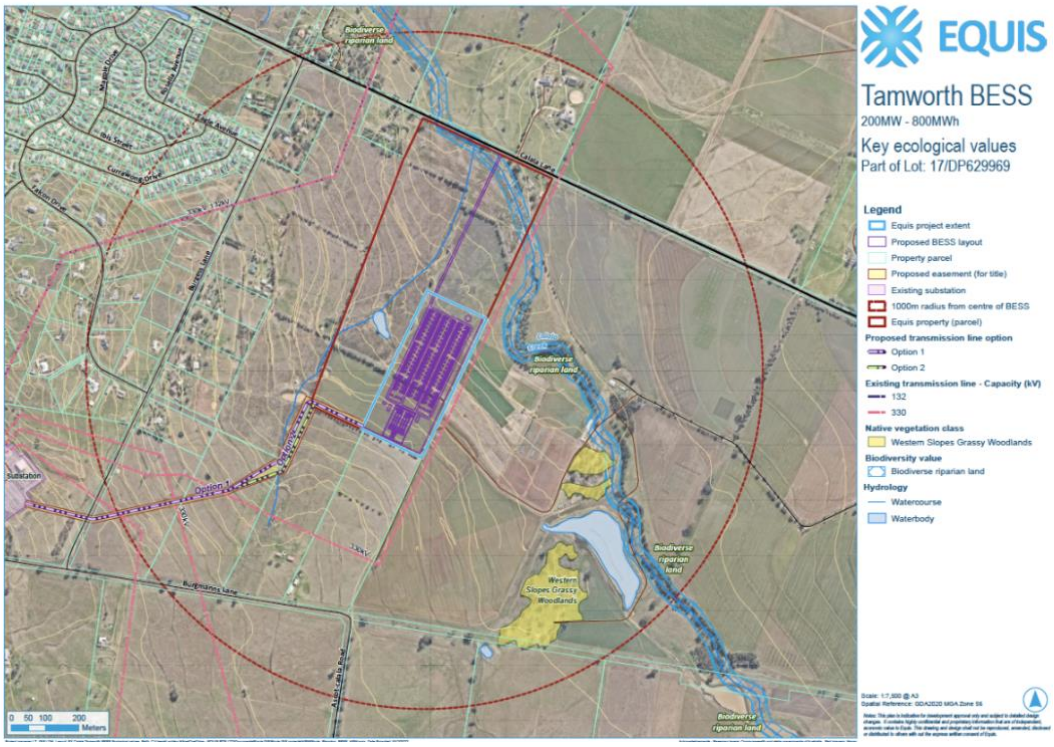

Figure 3. Ecological values map
Source: Equis

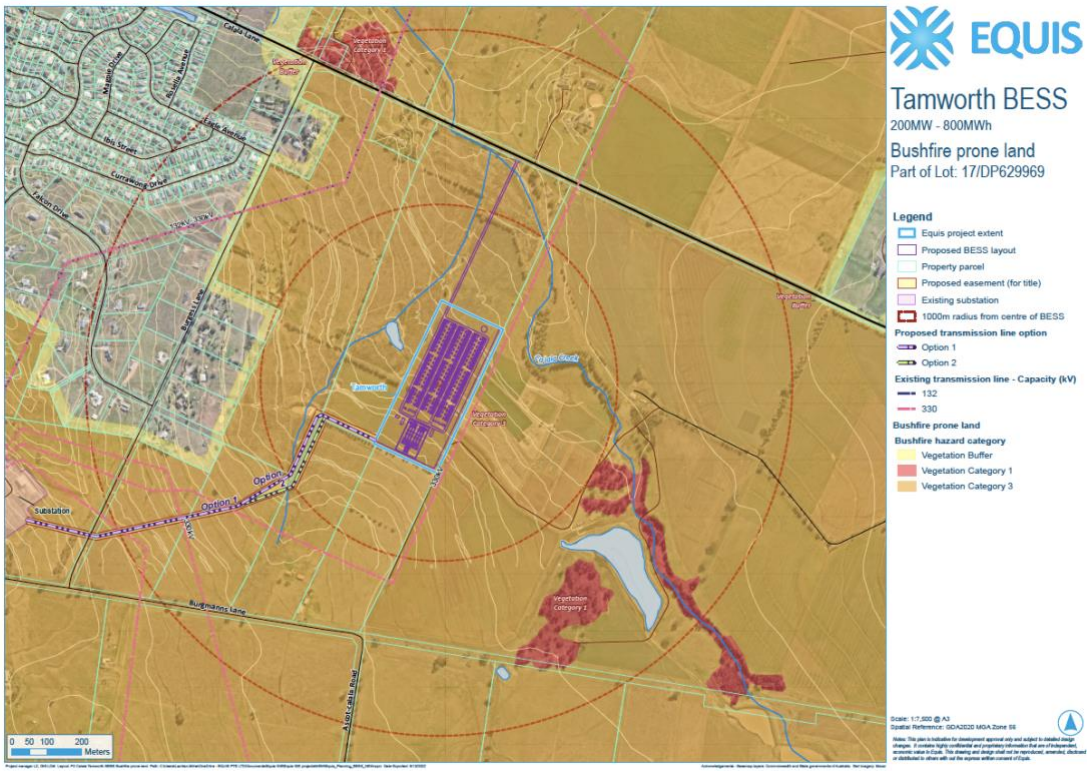

Figure 4. Bushfire prone land map
Source: Equis

Figure 5 shows the surrounding residential receivers. There are approximately 78 dwellings within approximately 1 kilometre of the Site. **Appendix 9** provides a table identifying these dwellings.

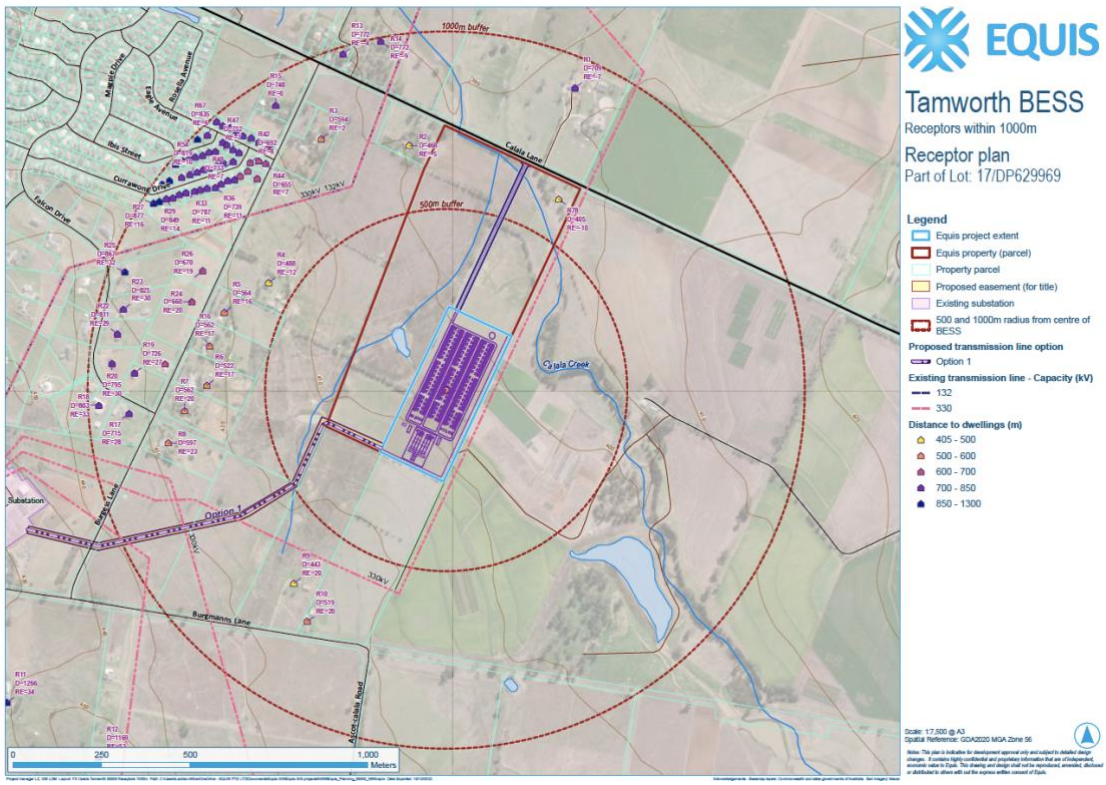

Figure 5. Surrounding receivers
Source: Equis

2.1 Project justification

The Project aligns with the changing energy context of NSW. As the state transitions away from coal fired power to cheaper and cleaner weather-dependent renewable energy sources such as solar and wind power, there is an increasing need for battery storage to "firm" (make reliable and consistent) these weather-dependent renewable sources so that energy supply can respond to consumer demand.

The NSW Electrical Strategy (2019) notes that all coal fired power plants in NSW are scheduled for closure within the next 20 years and that firmed renewables are the lowest cost option to replace aging coal power stations. In fact, early this year, Origin announced the accelerated closure of its Eraring Coal Fired Power Plant by 2025, 7 years ahead of its anticipated closure date.

AEMO's 2022 ISP emphasises that BESS facilities, such as the Project, are required to provide firming capacity to aid in the variability in supply of renewable energy and to support the supply of electricity during peak energy demands.

Additionally, the Project is located near the new England Renewable Energy Zone (REZ), an area established by the NSW Government as a hub for wind and solar power generation. Although outside of the boundaries of the REZ, the Project is near major transmission lines that will connect the REZ to the NSW electricity grid.

The Project also aligns with key State and local strategic plans and policies as outlined below.

Equis is currently engaging with the community to understand their needs and opportunities for a community benefit-sharing scheme. Further detail will be provided during the EIS stage.

2.2 Strategic plans and policies

2.2.1 New England North West Regional Plan

The New England North West Regional Plan 2036 is the NSW Government's strategy for guiding land-use planning decisions for the New England North West. The Regional Plan sets out 24 directions under the following 4 goals:

1) A strong and dynamic regional economy,
2) Healthy environment with pristine waters,
3) Strong infrastructure and transport networks for a connected future, and
4) Attractive and thriving communities.

The following directions are relevant to the proposal:

- Direction 5: Grow New England North West as the renewable energy hub of NSW.
- Direction 6: Deliver new industries of the future.
- Direction 12: Adapt to natural hazards and climate change.
- Direction 14: Enhance transport and infrastructure networks.
- Direction 17: Strengthen community resilience.

The draft updated Regional Plan 2041 was exhibited from 22 November 2021 to 18 February 2022. The Regional Plan sets out 22 objectives, the following of which are relevant to the proposal:

- Objective 8: Adapt to climate change and natural hazards and increase climate resilience.
- Objective 9: Lead renewable energy technology and investment.

The Project will support the above priorities and objectives by providing for improved resilience and reliability within the energy network in a suitable location.

The Regional Plan references the NSW Government's Electricity Infrastructure Roadmap, which sets out a plan for 5 REZs, including a REZ in New England. The New England REZ, which is in the early stages of planning, is expected to deliver up to 8,000MW of new transmission capacity, enough to power 3.5 million homes. The Regional Plan notes that "Further opportunities include complementary technologies like energy storage technologies". While the Site is not located within the boundaries of the New England REZ, the proposal will nonetheless support the REZ by providing for electricity storage in a suitable location.

2.2.2 Tamworth Local Strategic Planning Statement

The Tamworth Regional Council Local Strategic Planning Statement 2020 (LSPS) is the core strategic planning document for Council for the next 20 years.

The LSPS does not contain any themes, priorities or actions directly relevant to the proposed BESS. Nonetheless, the proposal generally aligns with Theme 2 of the LSPS, "Create a Prosperous Region".

The LSPS identifies area of preferred residential growth in the LGA. Regarding Calala, the LSPS identifies that the growth areas are already rezoned; that is, the LSPS identifies no new areas for residential expansion in Calala. This means the proposal does not affect Council's plans for residential growth in the area.

2.2.3 Other relevant policies

The proposal also aligns with the following State energy policies:

- NSW 2021 Plan (NSW Government, 2011) and Renewable Energy Action Plan (NSW Government, 2013).
- NSW Electricity Strategy (NSW Government, 2019).
- NSW Electricity Infrastructure Roadmap (DPIE, 2020).
- Energy Security Safeguard (NSW Government, 2020).

These will be addressed in further detail in the EIS.

2.2.4 Cumulative impacts

There is a proposal for a 200MW BESS facility (SSD-23830229), located approximately 700m to the south of the Site. The SEARs have been issued for the project, and the applicant is currently preparing the EIS.

The EIS for the subject Project will consider cumulative impacts associated with this neighbouring BESS facility, in particular impacts related to noise, transport, visual amenity and social impacts.

3 The project

3.1 Project area

The Site located at 57 Burgess Lane, Calala, NSW, and is formally known as Lot 17 DP629969. The Site is located approximately 1.7km west of Calala and 6km south-east of Tamworth.

The Site is roughly rectangular in shape, is approximately 36.24ha in area and has a frontage of approximately 500m to Calala Lane.

The land is relatively flat, with the highest elevation of approximately 412m occurring in the southern portion of the north-eastern boundary of the Site, which flows towards the Peel River to the north. Two dams occur on the Site.

The footprint of the proposed BESS is located in the south-eastern portion of the Site, occupying approximately 7ha (or 20% of the Site). A site layout plan is provided at **Figure 6**, and the full underground transmission line route is shown in the concept plan at **Figure 7**. Full-size versions of these images can be found at **Appendix 1**.

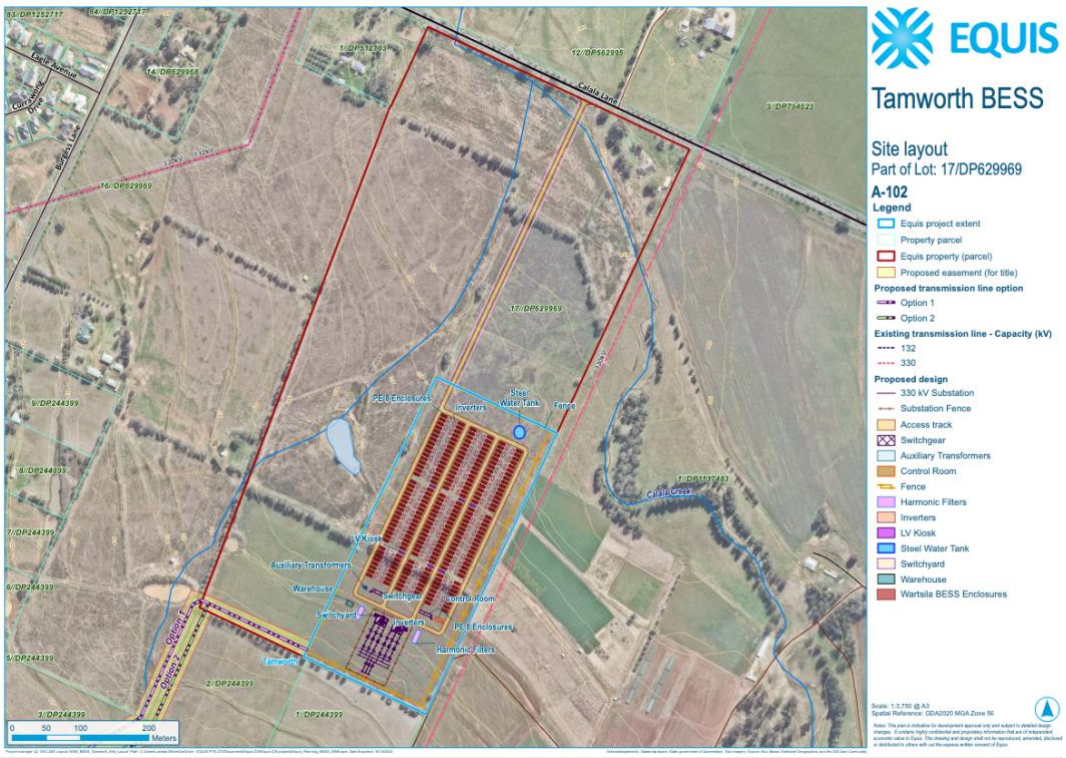

Figure 6. Site layout
Source: Equis

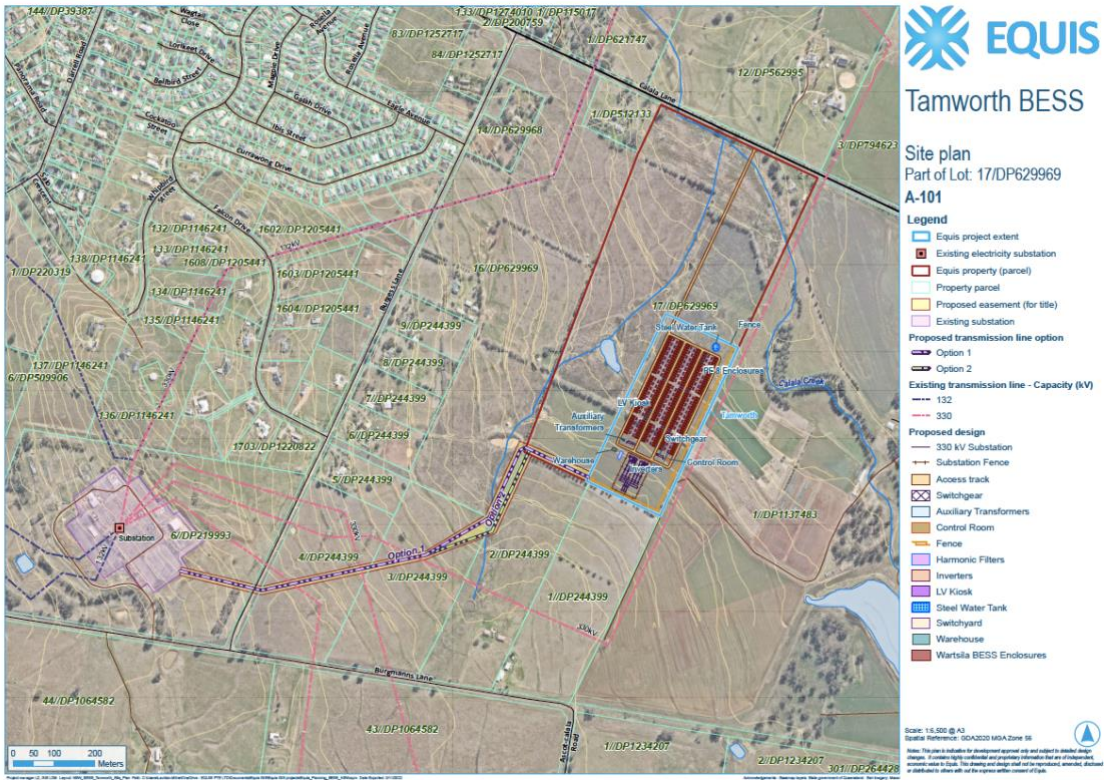

Figure 7. BESS footprint including underground transmission line route
Source: Equis

A single dwelling is currently located in the north-eastern corner of the Site. The existing building would ideally be used as a temporary site office during site mobilisation and construction and will not be used for accommodation prior to the construction of the proposed BESS and for the operational life of the Project. A registered water bore (GW064001) is located near the existing dwelling.

The Site is otherwise generally cleared, featuring minimal native vegetation. The Site is currently and has been historically used for agricultural and grazing purposes.


Figure 8. Photo taken from the south-west corner of the Site facing north
Source: Golder 2022

Figure 9. Photo taken from the south-east corner of the Site facing north
Source: Golder 2022

3.2 Surrounding development

Land immediately surrounding the Site comprises rural land lots, namely:

- to the north beyond Calala Lane (being Lot 12/DP562995);
- to the south (being Lots 1 and 2 DP244399); and
- to the west (being Lots 16 DP629969 and Lot1/DP512133) and to the east Lot 1 DP1137483.

Further out, residential land occurs to the west, north and south, on both large lots and smaller general residential land, the Tamworth Agricultural Institute occurs to the east of the Site. Four major transmission line easements run within 1km of the Site.

The nearest residential-zoned land is located approximately 280m to the west of the Site boundary and approximately 480m west of the BESS footprint.

Other notable surrounding developments include:

- Farrer Memorial Agricultural High School, located approximately 800m to the east of the Site along Calala Lane;
- Tamworth Agricultural institute, located approximately 1.5km to the east of the Site;
- Tamworth 330kV substation, located approximately 800m to the southwest; and
- a proposal for a 200MW BESS facility (SSD-23830229), located approximately 700m to the south of the Site (the SEARs have been issued for the project, and the applicant is currently preparing the EIS).

3.3 Overview of proposed works

The proposal involves construction of a standalone BESS with storage capacity up to 300MW and 1200MWh discharge capacity.

The proposal will generally involve the following works and activities:

- site mobilisation including earth grading and leveling works;
- delivery and installation of up to 960 battery enclosures, 120 inverters, 6 auxiliary Transformers and 2 HV transformers;
- installation of an underground transmission line connection between the BESS and the nearby Tamworth 330kV substation (located approximately 800m to the south-west of the Site).
- construction of ancillary structures including:
    - control room and amenities;
    - storage and warehouse building;
    - operations and maintenance building;
- ancillary works including:
    - installation of suitable noise mitigation measures as required
    - construction of a site access from Calala Lane;
    - internal access roads of approximately 6m in width;
    - drainage and erosion and sedimentation works;
    - construction of foundation works;
    - installing of a water tank(s) during site establishment and the provision of other fire management measures for fire management purposes;
    - establishment and maintenance of a fire Asset Protection Zone of 20m around the perimeter of the BESS;
    - installation of fencing and security systems; and
    - installation of landscaping and rehabilitation works.

A 3D render of an example image of a BESS facility is provided at **Figure 10**.

Figure 10. 3D render of example BESS facility 1
Source: Equis

Figure 11. 3D render of example BESS facility 2
Source: Equis

The underground transmission route is not yet confirmed; negotiations with landowners are still underway. However, 2 route alignment options have been identified, as identified in the attached Preliminary Site Layout Plans (**Appendix 1**).

Both options connect to the Tamworth substation located on Lot 6/DP219993, and run via Lots 4 and 3 DP 244399 before connecting into the BESS on Lot 17/DP629969.

Construction of the Project will take approximately 12 months, with commissioning expected to be completed within 15-18 months. The works will occur as per the following indicative stages (with some overlapping of stages expected):

- site establishment (1 to 3 months);
- delivery of BESS infrastructure (5 to 9 months); and

- Installation of BESS infrastructure (8 months).

The peak construction period will occur during the second stage, delivery of BESS infrastructure.

It is expected the BESS will operate for approximately 25 years, depending on the nature of the battery technology and energy needs.

During decommissioning, all BESS infrastructure will be removed and disposed of as required. The Site will be rehabilitated to its existing conditions as far as is reasonably practicable.

The Project is anticipated to create up to approximately 475 jobs during construction and 5 jobs during operations.

No subdivision of land is proposed as part of the Project.

At the time of writing of this Scoping Report, the Project involves no staging. The applicant intends for the entire Project to be built and operated as a whole. Should staging be proposed, details will be provided in the EIS.

3.4 Alternatives considered

An alternative approach is to do nothing to support and firm NSW's electricity grid. This approach would not lead to any improvements in the current electricity crisis and would not provide an opportunity for economic and social benefits associated with the proposal.

The Site was selected after a comprehensive assessment of electrical supply and demand across NSW, which included a review of Australian Energy Market Operator's (AEMO's) Integrated System Plan (ISP) and future demand expectations.

Once a suitable substation had been identified (i.e., Tamworth Substation), all land within 2km of the substation was assessed for constraints and opportunities. This included flora and fauna constraints, existing land use and zoning, distance from dwellings, land availability, transmission line availability, and flooding. This assessment also included a review of the strategic planning objectives of Tamworth and Calala to ensure the Site was not identified as being needed for future urban growth.

This assessment resulted in the current Site being identified as being the most suitable across the region, following which a comprehensive due diligence assessment of the Site was carried out by specialist consultants.

The size of the Site, distance to dwellings, current land use, lack of environment constraints, and existing surrounding major electrical infrastructure means the Site is well suited to the proposed use.

4 Statutory context

Table 1 provides an overview of the key statutory requirements for the project.

Table 1 – Statutory context	
Matter	Description
Power to grant consent	**State significant development** The Project is considered a declared SSD under Section 2.6 of the Planning Systems SEPP, as: • the development is not permissible without development consent under Part 4 of the EP&A Act; and • the development is specified in Schedule 1 (Clause 20) as a development for the purpose of electricity generating works with a capital investment of greater than $30m. The approval pathway for the Project is via an application to the DPE under Part 4.36 of the EP&A Act as an SSD. Once a SEARs is issued, an EIS will be prepared in accordance with the SEARs and the EP&A Act. **Consent authority** Section 4.5(a) of the EP&A Act and Section 2.7 of the Planning Systems SEPP provides that the consent authority for SSD is the Independent Planning Commission if: • there are 50 or more unique public objections to the application; • the applicant has made a reportable political donations disclosure; and • the local council has objected to the application and has not withdrawn the objection following exhibition. Otherwise, the consent authority will be the Minister.
Permissibility	The Site is located in Zone RU4 Primary Production Small Lots as identified in Tamworth Regional LEP 2010. "Electricity generating works", defined as "a building or placed used for the purpose of—(a) making or generating electricity, or (b) electricity storage" are permitted with consent in the RU4 zone. The proposal is for a building used for electricity storage and is therefore permitted with consent. The proposal is also permitted with consent under Section 2.36(1)(b) of *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP), which states that development for the purposes of electricity generating works can be carried out by any person with consent on land in a prescribed rural zone. Zone RU4 Primary Production Small Lots is a prescribed rural zone, and therefore the proposal is permitted with consent.
Other approvals	**"Consistent" approvals** The following 'consistent' approvals are required (i.e., approvals that cannot be refused if the Project is approved and must be substantially consistent with the approval):

Table 1 – Statutory context	
Matter	Description
	• any road upgrades or works on the public road network required to be carried out as part of the proposal require approval under Section 138 of the Roads Act 1993; and • if the water to be used to construct and operate the proposal is to be obtained from any source other than water mains (e.g., groundwater, rivers and creeks), water access licences under the Water Management Act 2000 will generally be required to authorise the extraction of the water. We understand that an environment protection license under the *Protection of the Environment Operations Act 1997* (POEO Act) is not required because BESS does not meet the definition of 'electricity works' under Schedule 1 of the POEO Act as it does not *generate* electricity. **Matters of national environmental significance** A search for potential matters of national environmental significance that may trigger the need for referral to the Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW) via the online Protected Matters Search Tool identified: • no World Heritage Properties or National Heritage places protected by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act); • three (3) wetlands of international importance, namely 1) Banrock Station Wetland Complex (1,000 – 1,100km upstream), 2) Riverland (900 – 1,00km upstream), and 3)The Coorong, and the Lakes Alexandrina and Albert Wetland (1,100 – 1,200km upstream); and • four (4) listed threatened ecological communities, 34 listed threatened species and ten (10) listed migratory species with potential to occur in the area. The potential presence of the above listed threatened species and communities of the Site will be investigated during the preparation of the EIS. Given the nature of the Project, we consider it relatively unlikely that it will have a significant impact on any matter protected by the EPBC Act. **Native title** A review of the National Native Title Tribunal's Native Title Register identified no current native title applications, native title determinations or indigenous land use agreements applicable to the Site. We note that the Site is located within the mapped area subject to the Gomeroi People's Native Title Determination Application (Federal Court Proceedings number NSD37/2019). However, this application excludes all freehold land and so does not relate to the Site. **Other approvals**

Table 1 – Statutory context	
Matter	Description
	We have identified no requirements for other approvals at this stage. **Approvals that would have applied if project not SSD** At this stage we have identified no approvals that would have applied if the Project were not an SSD project.
Pre-conditions to exercising the power to grant consent	We have identified no relevant pre-conditions to exercising the power to grant consent for the Project at this stage.
Mandatory matters for consideration	Pursuant to Section 4.15 of the EP&A Act, the following mandatory matters for consideration apply: • **Relevant environmental planning instruments, which in this case include:** *Biodiversity Conservation Act 2016* (BC Act) and *Local Land Services Act 2013* These acts relevantly operate to: – prevent the clearing of certain native vegetation and listed threatened species and communities unless authorised by either a development consent granted under the EP&A Act or under the *Native Vegetation (Land Management) Code 2018;* – require that SSD development applications be supported by a Biodiversity Development Assessment Report (BDAR) prepared in accordance with the Biodiversity Assessment Method (BAM) unless 'the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values'; and – require that residual impacts be offset in accordance with the Biodiversity Offsets Scheme where the impacts exceed the Biodiversity Offsets Scheme threshold test. Biodiversity values will be addressed in the EIS in accordance with the relevant requirements.
	State Environmental Planning Policy (Resilience and Hazards (2021) This SEPP relevantly operates to: – require preparation of a preliminary hazard analysis as part of a development application where it is proposed to carry out development for the purposes of a potentially hazardous industry (Section 3.11); and – require the consent authority to consider whether the land is contaminated and whether it is or can be made suitable for the proposed use (Section 4.6).

Table 1 – Statutory context	
Matter	Description
	A preliminary hazard analysis will be prepared as part of the EIS, and the contamination considerations under Section 4.6 will be addressed in the EIS.
	State Environmental Planning Policy (Transport and Infrastructure) 2021 This SEPP relevantly operates to: – require referral of development near electricity infrastructure to the electricity supply authority for the area (Section 2.48); and – require that development in a "regional city" for the purpose of electricity generating works using a wind or solar energy source that is State or regionally significant development must not be granted unless it is located to avoid significant land use conflict and is unlikely to have a significant impact on the city's capacity for growth or scenic quality and landscape character (Section 2.42). Given there is a transmission line easement within the Site, we anticipate the SSD will be referred to the electricity supply authority in accordance with Section 2.48. Given the Project meets the definition of "electricity generating works" as defined under the TI SEPP, the EIS will consider any significant adverse impacts on its surrounds and the regional city under Section 2.42.
	State Environmental Planning Policy (Planning Systems) 2021 This SEPP relevantly operates to define development that is SSD. As discussed earlier in this report, the proposal is SSD given it is for the purposes of electricity generating works with a CIV greater than $30 million.
	Tamworth Regional Local Environmental Plan 2010 TRLEP 2010 relevantly operates to: – identify the Site's land use zoning and what uses are permitted and prohibited; – require the consent authority to consider certain matters related to flooding when assessing development on land within the flood planning area (Section 5.21); and – require the consent authority to consider certain matters when assessing development for earthworks (Section 7.1). As noted earlier in this report, the Site is zoned RU4 Primary Production Small Lots, and electricity generating works (which includes facilities for electricity storage) are permitted with consent in the RU4 zone. The flooding and earthworks sections of TRLEP 2010 will be addressed in the EIS.

Table 1 – Statutory context	
Matter	Description
	The Site is not subject to height, floor space ratio, or minimum lot size provisions under TRLEP 2010.
	• **Any relevant development control plan** Pursuant to Section 2.10 of the Planning Systems SEPP, development controls plans do not apply to SSD; however, we acknowledge that DPE may wish for the applicant to consider Tamworth Regional Development Control Plan 2010 as a relevant document during preparation of the EIS.
	• **The likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.** • **The suitability of the Site for the development.** • **The public interest.** These matters will be addressed in detail as part of the EIS. Preliminary comments on key matters are provided in **Section 6** of this report.

5 Engagement

5.1 Community engagement

The Applicant has commenced engaging nearby affecting land occupiers by:

- sending out letters (30 September 2022) to residences within a 1km radius of the site informing them of the Project and providing them with general information on the proposal (a copy of the mail out is attached at **Appendix 2**); and
- conducting face to face (door knock) meetings (in the period of 10-14 October 2022) with residences within 750m of the Site to introduce the Project and exchange contact details.

No written feedback has been received to date since the foregoing letters were sent; however, the following key comments or queries were raised during the face to face meetings:

- How will the BESS affect land values?
- How will traffic be impacted?
- Will the BESS footprint be expanded?
- Will there be visual impacts?
- Compatibility of the BESS in a rural setting?
- Will there be noise impacts?

- Will there be health impacts?

These issues are discussed in this Scoping Report and will be addressed in detail in the EIS.

In addition to this, Equis has placed Project information on its Project webpage(https://www.equis.com.au/calala). The webpage will be updated on a regular basis to keep the broader community informed about the Project, its timeframes, and other details. A copy of the EIS will be placed on the website for transparency and feedback.

An engagement platform (Ehub) (https://equis.engagementhub.com.au/calala-bess) is available for community feedback, and information sharing. Feedback from the community can be emailed to AUProjects@equis.com or by phoning (+61) 3 7020 3323.

A community information session is currently planned for early December 2022.
All information gathered during the community information session, Ehub or through other platforms set out above will be discussed within the EIS documentation.

5.2 Council engagement

The Applicant met with Tamworth Regional Council officers to discuss the Project on 26 May 2022. Council identified the following key issues to be addressed as the application progresses:

- noise impacts;
- visual impact—particularly in relation to the nearby residential dwellings;
- traffic, access and transport—particularly in relation to access during construction; and
- cumulative impacts associated with nearby Tamworth BESS proposal at Burgmanns Lane.

5.3 EIS engagement

Engagement will continue with consideration of Undertaking Engagement Guidelines for State Significant Projects (DPIE, 2021) and as required by the Project SEARs. We anticipate that further engagement will occur with:

- Tamworth Regional Council;
- affected landowners and the local community;
- registered Aboriginal parties (as part of preparation of Aboriginal Cultural Heritage Assessment), with the following completed to date:
    - Stage 1.1 – agency Notification and Public Notice (Project; advertised in the Northern Daily Leader on 28 September 2022);
    - Stage 1.2 – Invitation to Stakeholders- sent out 11 October with a close of registration set for 26 October 2022;
    - Stage 2 and 3 consultations are to occur shortly;
- government bodies including DPE, TfNSW and Heritage NSW; and
- infrastructure and service providers, including Ausgrid and WaterNSW.

6 Proposed assessment of impacts

The following key issues are considered relevant to the assessment of the Project and discussed further in this section:

- amenity impacts including:
    - visual impacts;
    - noise and cumulative impacts;
- access and transport impacts;
- environmental issues including:
    - biodiversity impacts
    - heritage impacts
    - water quality (ground and surface)
    - biodiversity
    - agricultural land use
    - hazards and risk (including bushfire).
    - waste management; and
- social and economic impacts.

Comprehensive impact assessments will be prepared for the relevant key issues and submitted with the EIS, and all assessments in the EIS will cover the full development footprint, including connection/transmission works and any road upgrade work.

Preliminary comments on key issues are provided below.

6.1 Visual impact

A preliminary assessment of visual impacts including field investigations conducted by Envisage Consulting Pty Ltd has found that the Project will have relatively low visual impacts due to its location and existing energy infrastructure within the area.

Field investigations indicate that the proposed BESS will be visible or partially visible from 5 surroundng residential viewpoints within a kilometre of the Site. These are identified as VP1 to VP5 in the sensitive visual receivers map at **Figure 12** and accompanying **Table 2.** Views from the 5 residences are affected by existing transmission lines and towers, and are limited by existing, intervening vegetation.

The R1 land does not have visibility to the proposed BESS due to topography (intervening landform), and the R5 land does not have visibility due to intervening vegetation and buildings. Evidence will be provided as part of the EIS to confirm this.

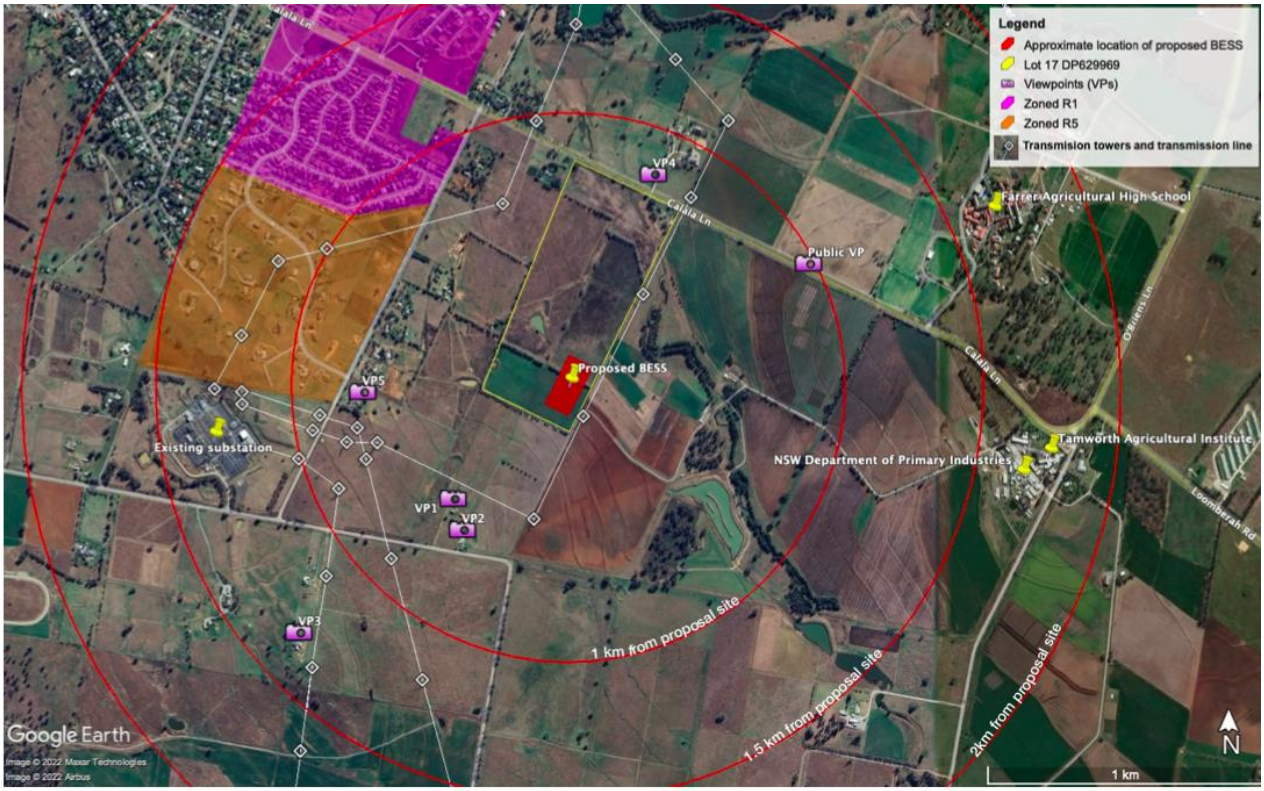

Figure 12. Sensitive visual receivers map (Spatial reference WGS 84)
Source: Envisage

Table 2 – Sensitive visual receivers			
Map reference	Address	Distance from BESS (approx.)	Elevation relative to BESS (approx.)
VP1	781 Burgmanns Ln, Calala	443m	+20m
VP2	795 Burgmanns Ln, Calala	519m	+20m
VP3	744 Burgmanns Ln, Kingswood	1,169m	+52m
VP4	473 Calala Ln, Calala	709m	-7m
VP5	111 Burgess Ln, Calala	596m	+22m

Envisage's preliminary feedback recommended visual impact could be reduced by applying suitable mitigation measures such as:

- retaining existing paddock and windbreak trees in the vicinity (which limits the extent of view);
- colouring the BESS units to integrate with the background colour (generally a grey or green tone is less conspicuous in the rural landscape than white or light tones); and

- introducing landscape screening around the BESS to reduce its visibility and integrate it within the landscape.

A detailed assessment of the proposal's visual impact on the surrounding area will be provided as part of the EIS. The assessment will include consideration of impacts on landscape and scenic character, as well as impacts resulting from glare, reflectivity and security lighting, and provide recommendations for mitigating impacts where relevant.

6.2 Transport

Stantec (Australia Pty Ltd) traffic engineers were commissioned to prepare an initial traffic impact assessment (**Appendix 3**) to access existing road conditions and determine potential impacts associated with the construction and use of the BESS Project to road users and the road network.

The preliminary traffic impact assessment indicates there is sufficient capacity within the network to accommodate construction and operation traffic without detrimental impact to the operation of the network.

During operations, only a small number of workers will travel to and from the site via private vehicle.

During construction, parking for workers will be provided via a combination of on-site parking and transport buses coordinated by the contractor, with appropriate off-site parking arranged as required.

It is anticipated that a total of 10 heavy vehicles, including up to 10 oversize/overmass vehicles could access the site per day, mostly for the delivery of BESS components. This includes all construction vehicles up to 20m-long semi-trailers.

Heavy vehicle movements will be restricted to designated routes and confined to the State and Regional Roads, where practical and required. The NSW Oversize Overmass Load Carrying Vehicles Network Approved Road network will also be considered, as required.

Heavy vehicle routes to/from the construction site have been identified with the aim of minimising the impact of construction traffic on the surrounding road network. Refer to the assessment at **Appendix 3** for further details, including a map of the preferred routes.

Impacts to the road network and its users will be minimised by the preparation of a Traffic Management Plan prior to construction of the Project commencing.

Further details of the anticipated vehicular movements during the installation phase and operation phase of the Project, and the capacity of the surrounding road network to accommodate those movements, will be addressed in a traffic impact assessment to be provided as part of the EIS.

It is unknown at this stage whether road upgrades will be required to accommodate construction vehicles. This will be assessed as part of the EIS.

As noted in **Section 5.2**, Council highlighted construction traffic and access as key issues. Specifically, Council expressed concern relating to increased congestion during construction, particularly Calala Road to the north, and impacts on the local community due to access to and from the site during construction.

In response to Council's concerns, we note that, as outlined above, preliminary investigations suggest that the surrounding road network has sufficient capacity to

accommodate construction traffic. Also as noted above, heavy vehicle routes to/from the construction site have been identified with the aim of minimising impacts on the surrounding network.

6.3 Noise impacts

Given the proposal's rural setting, background noise at nearby sensitive receivers is likely to be low and characterised by vehicular movements along the Calala Lane and Burgess Lane, as well as by noise from surrounding agricultural activities.

During the operational phase, noise will emit from the various equipment at the facility, including inverters, transformers and battery enclosures.

Construction of the Project, comprising preparatory earthworks, delivery, and assembly of the BESS infrastructure, will generate noise and vibration. As per guidance provided in the NSW EPA's Interim Construction Noise Guideline, construction hours will occur within the recommended standard hours for construction works being:

- Monday to Friday from 7am to 6pm;
- Saturday from 8am to 1pm; and
- No work will occur on Sundays or public holidays.

Marshall Day Acoustics will undertake an assessment of construction and operation noise impacts to all nearby sensitive receptors. The noise assessment will determine compliance or otherwise with relevant noise policies, including NSW EPA's Noise Policy for Industry, at all noise sensitive receptors. This will include background noise monitoring, noise modelling and consideration of cumulative impacts and the development of noise mitigation measures, where required.

Development of a Construction Noise Management Plan to mitigate and manage noise emissions to nearby noise sensitive receivers will be conducted prior to construction.

6.4 Biodiversity

Biosis Pty Ltd (Biosis) was engaged to undertake a preliminary ecological constraints and opportunities assessment of the Site (**Appendix 4**) to describe biodiversity values within the study area. The assessment found the Site largely cleared with minimal vegetation.

Site investigations have revealed that the plant community type (PCT) River Oak - Rough-barked Apple - red gum - box riparian tall woodland (wetland) of the Brigalow Belt South Bioregion and Nandewar Bioregion (PCT 84) occurs at the Site in the form of planted rows for stock shade. PCT 84 is not associated with any TEC listed under the BC Act or EPBC Act.

Background searches identified 10 threatened flora species and 39 threatened fauna species recorded or predicted to occur within 10km of the Site. However, the Site displays a paucity of native vegetation and habitat for threatened species. Threatened flora species are generally considered unlikely to occur given the historical land use and poor condition of the paddocks.

The applicant intends to seek a BDAR waiver, as the development is considered unlikely to have a significant impact on biodiversity values. The majority of the study area is likely to meet the definition of "Category 1 - exempt land"' under the *Local Land Services Act 2013*, as most areas had been cleared of native vegetation as at 1 January 1990. As such, assessment of the impacts of any clearing of native vegetation and loss of habitat on

land classified as "Category 1 – exempt land" are not required, other than impacts "prescribed" in clause 6.1 of the Biodiversity Conservation Regulation 2017.

The applicant intends to submit the land category assessment and BDAR waiver request to Biodiversity Conservation and Science Directorate (BCS) simultaneously, which is currently the common approach. The land category assessment will not contain anything likely to be controversial, so no disagreements with BCS are anticipated.

6.5 Heritage

6.5.1 Aboriginal cultural heritage

An Aboriginal and non-Aboriginal heritage constraints assessment has been prepared by Biosis (**Appendix 5**).

Biosis notes that artefact sites, followed by modified scar trees, are considered the most likely site type to occur at the Site. Assessments completed in the region suggest that Aboriginal sites are most likely to be present within elevated landforms and in close proximity to creek lines, with site density and complexity decreasing with stream order and proximity.

The proximity to Peel River and Calala Creek and the broad undulating topography increases the likelihood for Aboriginal sites to be present in the Site. The geology and the soil profiles present a likelihood for artefactual material to be present in the northern portion of the study area, as there has been less disturbance here. However, there was evidence of ploughing and soil redeposition, suggesting that some of the soils throughout this section are disturbed. The southern portion of the Site has undergone significant ground disturbance as result of large-scale terracing and cultivation, which has likely removed or disturbed potential archaeological deposits.

As part of preparation of the EIS, an assessment of the impact to Aboriginal cultural heritage items will be carried out in accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and the Code of Practice of the Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010). Consultation with Aboriginal communities will occur in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010).

At the time of preparing the constraints assessment, agency notification and public notice had been completed. An invitation to stakeholders was sent out on 11 October 2022 with registration closed on 26th October 2022. Eleven stakeholders expressed their interest in the Project to date. Further detail on this process will be provided within the EIS submission.

6.5.2 Historic heritage

The Site is not a listed heritage item, is not located in a heritage conservation area, and is not located in close proximity to any heritage item or conservation area.

Biosis also undertook a non-Aboriginal heritage constraints assessment (**Appendix 5**). The background research conducted as part of the assessment indicates that the Site has likely undergone historical clearing activities and extensive terracing throughout the southern portion of the Site, and was utilised historically as grazing and agricultural land. The Site has low potential to contain early buildings or relics associated with the Australian Agricultural Company.

Field investigations carried out by Biosis also did not identify any heritage items or areas of historical archaeological potential (however, the majority of the study area could not be surveyed due to existing crops in the southern portion of the study area).

Accordingly, we consider that the proposal is unlikely to cause any non-Aboriginal heritage impacts. A Historical Heritage Assessment (HHA) will be completed in accordance with the Heritage Manual (Heritage Office & Department of Urban Affairs and Planning 1996) and associated guidelines and submitted with the EIS.

6.6 Water

6.6.1 Flooding

Lot 17 DP 629969 is within the flood planning area based on the planning certificate issued by Council. However, the flood planning area map adopted by Council does not depict any part of the lot as falling within the flood planning area.

As noted in the preliminary flooding advice by Venant Solutions at **Appendix 6,** given that the BESS will be located approximately 7m above Calala Creek, it is unlikely that it will become inundated in a 1% Annual Exceedance Probability event.

Flooding will be investigated further during preparation of the EIS. We expect that the development can be readily designed and built in accordance with Council's flood-related development controls.

6.6.2 Surface water

Calala Creek runs through the northeastern section of the Site, while an unnamed minor watercourse flows through the centre of the Site. There are also several small dams along the unnamed watercourse.

Stormwater infrastructure will be incorporated into the design of the Project in order to manage water quality during the operational phase of the Project. Further information will be provided as part of the EIS.

Sediment and erosion impacts during construction will be managed through implementation of measures consistent with Managing Urban Stormwater: Soils & Construction (Landcom 2004). A sediment and erosion control plan will be provided as part of the EIS and in accordance with best practice.

6.6.3 Ground water

The Site is not known to be in an area with notable groundwater vulnerability.

Groundwater levels are expected to vary seasonally and will be dependent on the prevailing weather conditions during construction works. Water bore records suggest that the groundwater table may be around 4m to 8m depth. The proximity of the Site to Calala Creek and the Peel River will also affect the groundwater table.

Early investigations indicate that the likelihood of long-duration elevated groundwater levels at the site of the proposed BESS footprint is unlikely.

6.7 Land and agriculture

The Site is currently used for agricultural and grazing purposes. A search of DPE's eSPADE online mapping indicates that the Site has a Land and Soil Capability classification of

Class 4 (moderate to severe limitations) and Class 5 (Severe limitations), with the BESS footprint located entirely in Class 4 land, as shown in **Figure 13**. The neighbouring land is also Class 4 and Class 5.

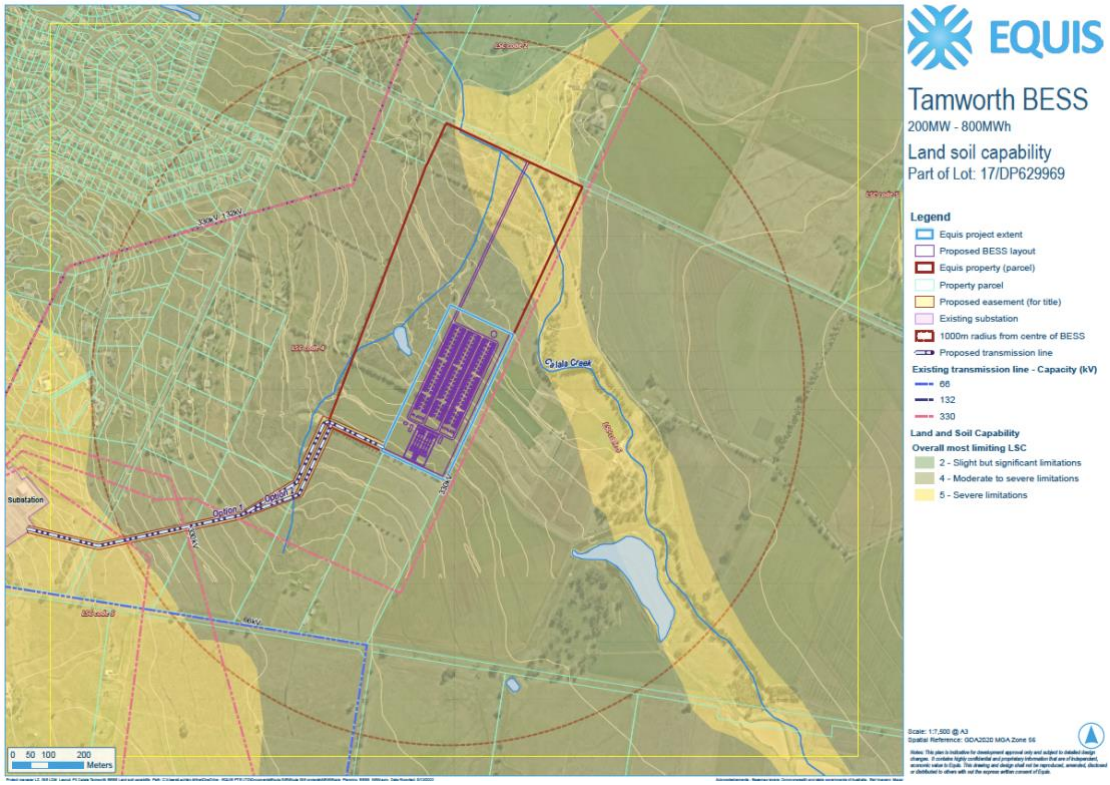

Figure 13. Land soil capability map
Source: Equis

The EIS will consider the impact of the Project on the agricultural resources and production of the land and its surrounds.

The EIS will also consider the compatibility of the Project with the surrounding land uses and will include a Land Use Conflict Risk Assessment in accordance with the Department of Industry's *Land Use Conflict Risk Assessment Guide*. Consultation with affected landowners will occur in accordance with the guide.

6.8 Hazards

A Preliminary Hazard Analysis will be prepared as part of the EIS to assess risks related to reactions and fires associated with electrical infrastructural infrastructure and flammable material, including spontaneous ignition from a battery runaway reaction, environmental risk from spills causing land contamination, and other health and safety risks to the community.

We anticipate that the various hazards associated with BESS facilities can be satisfactorily addressed through standard design and management practices.

6.9 Contamination

A search of the NSW EPA Contaminated Land Record on 09 August 2022 did not identify any contaminated sites within Calala. The Site is sufficiently separated from the following 5 known contaminated sites in Tamworth LGA so as to warrant no further investigation in relation to the sites:

- Duri Store at 13 Railway Avenue, Duri (15.8km to southwest);
- Coles Express Tamworth at 251-253 Goonoo Goonoo Road, South Tamworth (4.9km to northwest);
- Elgas Depot at 115 Marius Street, Tamworth (7.2km to northwest);
- Gunnedah Road site at 49 Bunnedah Road, Tamworth (7.6km to northwest); and
- Woolomin Gold Rush Store at 65 Nundle Road, Woolomin (25km to southeast).

Contamination of the subject Site could be present as a result of past fertiliser, herbicide and pesticide use associated with agricultural activities, and could be uncovered during construction works. Site inspections to date have revealed no visible contamination.

Risks associated with contamination are considered to be low, and the Project does not propose any sensitive residential, educational, recreational, hospital or childcare use. As such, the applicant does not intend to conduct detailed contamination investigations as part of the EIS.

6.10 Bushfire

Building Code and Bushfire Hazard Solutions Pty Ltd were engaged to provide a Bushfire Constraints and Opportunities Assessment for the Project (**Appendix 7**).

The desktop assessment found the Site depicted on Council's Bushfire Prone Land Map as containing Category 3 Vegetation. The Site is therefore considered "bushfire prone".

The following measures were considered appropriate by the consultant to reduce fire risks:

- A minimum 10m Asset Protection Zone (APZ) for structures and associated buildings/infrastructure must be established. The APZ must be maintained to the standard of an Inner Protection Area for the life of the development.
- All-weather access roads must be constructed to sufficient capacity to carry fully loaded firefighting vehicles (up to 23 tonnes) and constructed to a minimum of 4 meters in width with a suitable turning radius.
- A minimum of 50,000 litres of onsite water supply for firefighting purposes with correct fittings, valves and signage should be supplied.
- A Bush Fire Emergency Management and Operations Plan will be required prior to the operation of the Project BESS facility. This Plan should identify all relevant risks and mitigation measures associated with the construction and operation of the BESS. This should include:
    - detailed measures to prevent or mitigate fires igniting;
    - work that should not be carried out during total fire bans;
    - availability of fire-suppression equipment, access and water;
    - storage and maintenance of fuels and other flammable materials;
    - notification of the local NSW RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation, proposed to be carried out during a bush-fire fire danger period to ensure weather conditions are appropriate; and
    - appropriate bush fire emergency management planning.

The EIS will be supported by a detailed fire risk assessment.

6.11 Waste

Waste generation associated with the proposal will be assessed as part of a Waste Management Plan (WMP) to be prepared as part of the EIS. The WMP will cover the mobilization, construction and the operational phases of the Project.

We expect that most of the waste generated as part of the Project will be generated during the mobilisation and construction phases. This waste will include green waste from cleared vegetation, construction materials and general waste from site personnel and spoil. We expect the waste generated during operation of the BESS to be minimal, and we expect most battery components to be recycled at end of life.

6.12 Social and economic impacts

The proposal will provide for up to approximately 475 jobs during the construction phase and 5 jobs during the operational phase.

We expect there to be no significant adverse social impacts resulting from the proposal. A social impact assessment (SIA) will be included within the EIS to identify, predict and evaluate social impacts and benefits from the Project, the assessment will be conducted in accordance with the NSW's SIA guidelines for State Significant Projects (November 2021). Community engagement will be carried out in accordance with the guidelines.

A social impact assessment worksheet is provided at **Appendix 8**.

Equis is currently engaging with the community to understand their needs and opportunities for a community benefit-sharing scheme. Further detail will be provided during the EIS stage.

6.13 Cumulative impacts

As noted in **Section 3.2**, there is a proposal for a 200MW BESS facility (SSD-23830229), located approximately 700m to the south of the Site. The SEARs have been issued for the project, and the applicant is currently preparing the EIS.

The EIS for the subject Project will consider cumulative impacts associated with this neighbouring BESS facility, in particular impacts related to noise, transport, visual amenity and social impacts.

7 Conclusion

This Scoping Report has outlined and established the planning and general environmental context of the proposed BESS at Lot 17 DP 629969 (57 Burgess Lane, Calala).

The proposal would be assessed under Part 4 of the EP&A Act and classed as SSD under the Planning Systems SEPP.

The Scoping Report has provided a preliminary outline of the potential environmental impacts of the proposal. Based on the Scoping Report, an indicative scope for the EIS has been developed, with the following key issues to be addressed in detail:

- visual impacts on public domain and nearby residential receivers;

- noise impacts on nearby residential receivers;
- Aboriginal heritage impacts, namely impacts on potential sites within the northern portion of the Site;
- land use impacts, including economic impacts to the region, compatibility with surrounding uses and displacement of existing agriculture;
- hazards, namely fire risk associated with battery storage;
- biodiversity impacts;
- traffic and access, including whether there will be a requirement for road upgrades and intersection;
- water impacts, including impacts on groundwater and waterways;
- socio-economic impacts, including potential impacts to the Calala township;
- cumulative impacts, including impacts associated with the Tamworth BESS to the south of the Site.

Secondary issues would also be investigated, commensurate with risk, through desktop investigation.

An EIS will be prepared in accordance with project-specific SEARs. Mitigation measures will be developed for inclusion in the EIS and will address the management of key issues and risks identified in the assessment and community and stakeholder engagement process