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Project/File: 300304168

Elizabeth Zorondo

Equis Energy (Australia) Projects (Ngumi 4) Pty Ltd
Unit 1, 36 Esplanade Brighton
Melbourne VIC 3186

Dear Elizabeth,

Reference: 57 Burgess Lane, Calala – Preliminary Traffic Impact Assessment

A Scoping Report is to be lodged with the NSW Department of Planning and Environment for the proposed Tamworth Battery Energy Storage System (BESS) located at 57 Burgess Lane Calala. Equis Energy engaged Stantec to complete a preliminary review of the traffic and parking impacts of the development to inform the Scoping Report.

This letter addresses the transport implications of the proposed BESS, set down through the following sections:

- introduction
- existing conditions
- traffic impact review
- parking review
- preliminary construction traffic assessment.

1 Introduction

The proposed Tamworth BESS is a 300-megawatt (MW)/ 1200-megawatt hour (MWh) utility-scale battery storage project at 57 Burgess Lane Calala, Lot DP629969. The site covers 36.24 hectares and has a frontage to Calala Lane.

The site is around five kilometres south-east of South Tamworth and one kilometre from Calala town centre. Equally, it is about one kilometre south-east of the Transgrid Tamworth Substation.

Vehicular access to/ from Tamworth is provided via Calala Lane along the northern boundary of the site. The BESS proposes to relocate the existing access driveway on Calala Lane further west and closer to the western site boundary. The site will be operated remotely, and hence without permanent on-site staff, would generate very low traffic volumes. Minor on-site parking would be provided and mostly to accommodate maintenance vehicles, as required.

The location of the site and its surrounding environs is shown in Figure 1 with the proposed site layout shown in Figure 2.



Reference: 57 Burgess Lane, Calala

Figure 1: Site overview

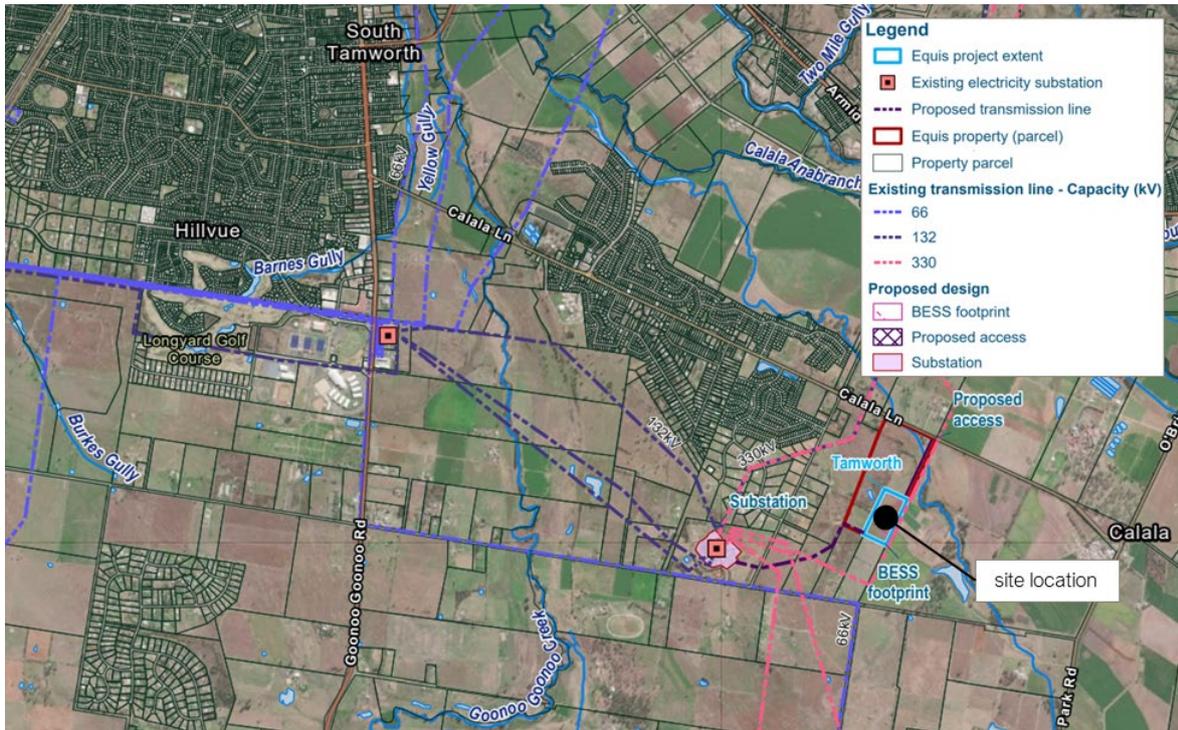
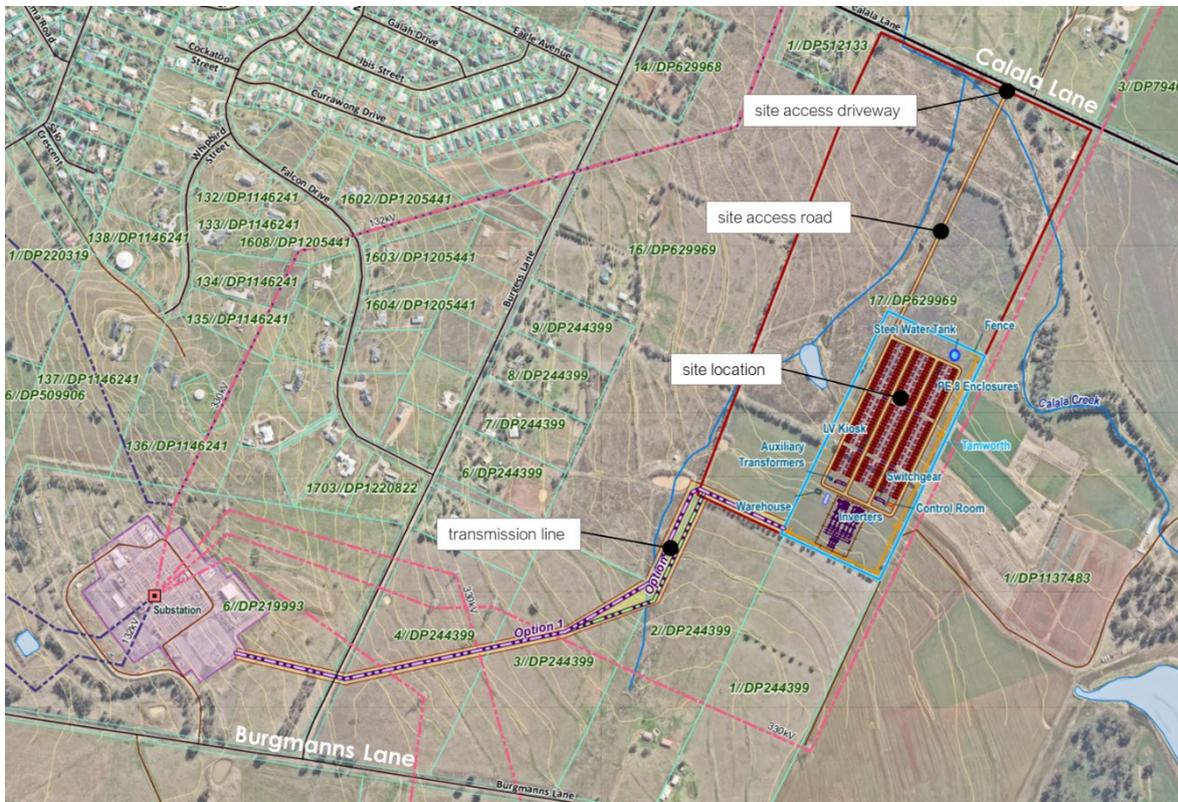


Figure 2: Proposed site layout and access



Reference: 57 Burgess Lane, Calala

2 Existing Conditions

Surrounding Road Network

Calala Lane

Calala Lane is classified as a Local Road and generally aligned in an east-west direction. Near the site, it is a two-way road configured with one traffic lane in each direction, set within an approximate 10-metre-wide carriageway with unsealed shoulders. Calala Lane has a posted speed limit of 100 kilometers per hour near the site.

Goonoo Goonoo Road

Goonoo Goonoo Road is classified as a State Road and aligned in a north-south direction west of the site. It is a two-way road configured with one traffic lane in each direction, set within an approximate 13-metre-wide carriageway. Informal unrestricted kerbside parking is mostly permitted on both sides of the road.

The Australian and NSW Governments are investing \$40 million into the Goonoo Goonoo Road (New England Highway) duplication between Jack Smyth Drive and Calala Lane at the southern end of Tamworth. The duplication will address existing congestion, provide for future traffic growth, and improve road safety. Key features of the proposal as they relate to the site include:

- Calala Lane intersection upgraded from roundabout to signals.
- Road widening and pavement reconstruction to provide two traffic lanes in each direction with a central median between the area immediately north of Calala Lane, and Jack Smyth Drive.

Construction is expected to start in 2023¹ with all works expected to be completed within 12 months.

Crash History

An analysis the most recent five-year period of available crash data (2017-2022) has been undertaken based on crash data provided by TfNSW for the roads surrounding the site. The locations and severity of the crash data for the five-year period is shown in Figure 3 and detailed in Table 1.

¹ Goonoo Goonoo Road (New England Highway) duplication – Tamworth, Submissions Report, Transport for NSW, June 2022

Reference: 57 Burgess Lane, Calala

Figure 3: Crash map from 2017 to 2021

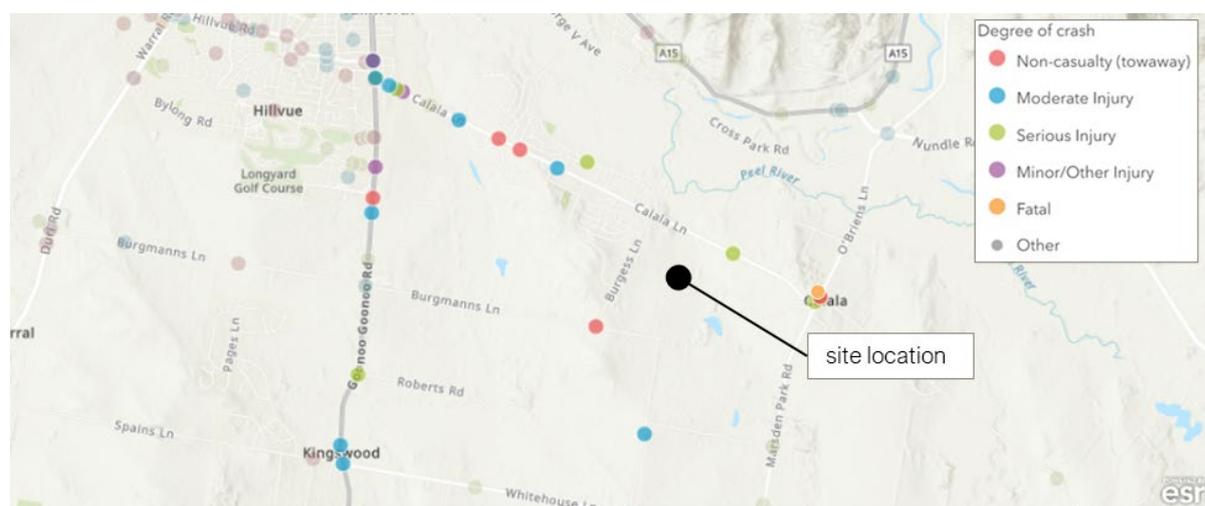


Table 1: Recorded crashes from 2017 to 2021

Road	Number of crashes	Number of injuries
Goonoo Goonoo Road	14	15
Burgmanns Lane	1	0
Ascot-Calala Lane	2	4
Calala Lane	10	11
Total	27	30

The following key statistics can be drawn from the crash data:

- One fatality was recorded during the five-year period. The crash occurred east of the site at the Calala Lane/ O'Brien's Lane intersection with the vehicle traveling off road around the bend and impacting with an object.
- During the reporting period, 27 incidents were recorded resulting in 30 injuries.
- Seven incidents resulted in serious injury, with the remainder being minor, moderate or non-casualty.
- Along Calala Lane, the most common incidents were rear end incidents near Goonoo Goonoo Road or vehicle leaving the road and impacting with an object.

The above analysis does not indicate any such specific safety concerns with the surrounding road network, noting a minor cluster of crashes on the bend where Calala Lane merges with O'Brien's Lane, east of the site, as well as a cluster of crashes along Calala Lane on approach to Goonoo Goonoo Road. It is expected that crash history was investigated as part of design for the Goonoo Goonoo Road upgrades, and the signalization of Calala Lane/ Goonoo Goonoo Road will improve safety along this key access route to/ from site.

Reference: 57 Burgess Lane, Calala

Walking, Cycling and Public Transport Network

Given the site location, there are limited formal walking or cycling facilities proximate to the site. A single bus route travels through Calala (route 436) that connects Calala with Tamworth Town Centre however the closest bus stops are located a minimum one kilometre walk from site.

Given the nature of the site and with private vehicle being the predominant form of transport in the area, all vehicle access to/ from the site is expected and is considered appropriate.

3 Traffic, Parking and Design Review

The site will be operated remotely hence there will be no permanent on-site staff. Maintenance staff will be required to occasionally service the facility and hence the site is expected to generate low traffic volumes of up to one to two vehicles per day. As such, the proposal is not expected to result in any change to traffic conditions in and around the site and the proposal could not be expected to compromise the safety or function of the surrounding road network.

With no permanent on-site staff only a minor quantum of on-site parking is required for use by maintenance vehicles (and vehicles delivering equipment) as required. Vehicle access is proposed via a new access on Calala Lane in the north-east corner of the site, as shown in Figure 2. The proposed site access driveway is in a good location with respect to road safety, with Calala Lane sight lines in both directions that exceed all relevant Austroads and Australian Standards requirements. Overall, the proposed site access arrangements are considered suitable as part of the proposed development.

Figure 4: Calala Lane sightlines (looking west)



Source: Google Streetview (dated June 2018)

Reference: 57 Burgess Lane, Calala

Figure 5: Calala Lane sightlines (looking east)



Source: Google Streetview (dated June 2018)

The design of any such on-site parking and loading and the site access driveway will be progressed through design development as part of the State Significant Development Application (SSDA). All relevant Australian Standards (AS/NZS2890.1:2004, AS2890.2:2018 and AS/NZS2890.6:2009) as well as Tamworth Regional Council Development Control Plan will be referenced.

4 Preliminary Construction Traffic Assessment

A Construction Traffic Management Plan (CTMP) will be prepared by the appointed contractor however to understand the likelihood of any such construction traffic related impacts, the following includes a summary of the proposed works, staging, site access arrangements, heavy vehicle volumes and arrival and departure routes.

Works Schedule and Work Hours

The expected duration of the works is approximately 12-15 months commencing mid-2023 and concluding mid-2024, subject to development approval. The indicative key milestones for the project are shown in Table 2, with details of the main activities and duration of each stage. Some overlap of stages is expected.

Table 2: Indicative construction stages

Stage	Works	Indicative Date/ timing
1	site establishment	1-3 months
2	delivery of BESS infrastructure	5-9 months
3	installation of BESS infrastructure	8 months

Construction work is planned to be completed in accordance with the development consent conditions with the typical work hours anticipated to be:

- Monday to Friday: 7:00am to 6:00pm
- Saturdays: 7:00am to 5:00pm
- Sundays/ public holiday: No work.

Reference: 57 Burgess Lane, Calala

Site Access and Loading

Construction site access will be via a new access road on Calala Lane in the north-east corner of the site. All loading/ unloading of trucks to be conducted within the work site and all vehicles will enter and exit the site in a forward direction.

Construction Staff Parking

It is anticipated that there will be up to 470 workers on-site during peak construction activities. A minor allowance for on-site parking spaces will be accommodated. Most workers will be transported to site in buses coordinated by the Contractor with appropriate off-site parking to be arranged as necessary and in close proximity to each pick-up/ drop-off location. Nine bus trips to/ from site are anticipated to ensure appropriate services and times to efficiently transport workers to site.

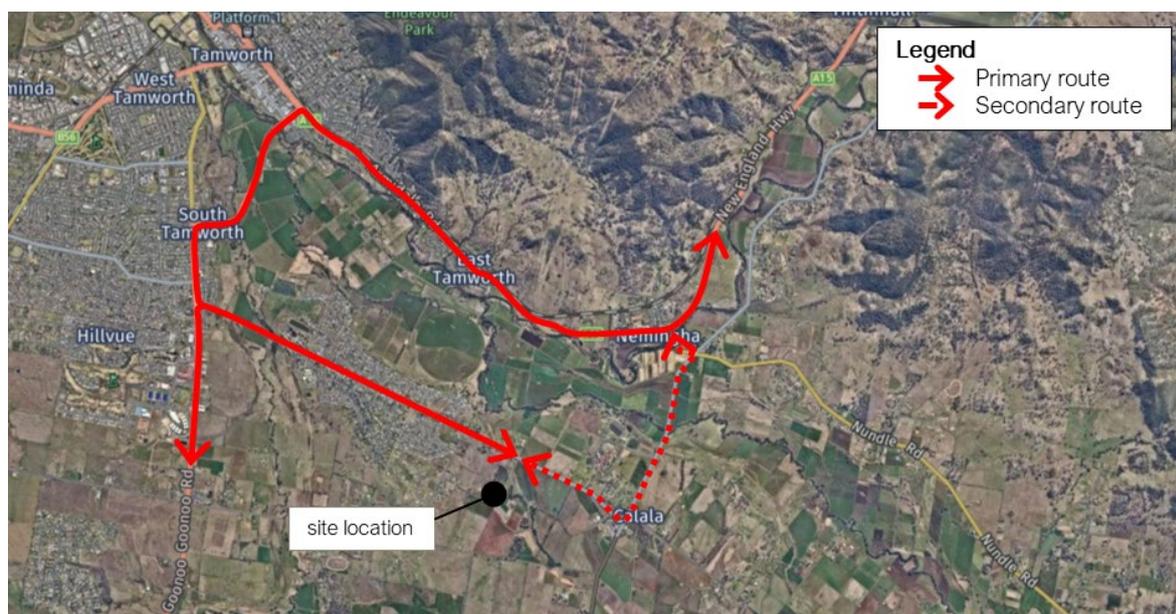
Heavy Vehicle Generation

It is expected that during peak construction a total of 10 heavy vehicles, including up to 10 oversize and/ or overmass vehicles could access the site per day, mostly for the delivery of BESS components. This includes all construction vehicles up to 20 metre 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, as shown in Figure 6 have been identified with the aim of minimising the impact of construction traffic on the surrounding road network.

Truck drivers will be advised of the designated heavy vehicle routes to and from the site. The directional distribution and assignment of traffic will be influenced by several factors, most notably the origin/ destination of materials, configuration of access points to the site, configuration of the arterial road network and the approved NSW Oversize Overmass Load Carrying Vehicles road network.

Figure 6: Anticipated construction vehicle approach and departure routes



Base image source: <http://www.street-directory.com.au/>

Reference: 57 Burgess Lane, Calala

The suitability of Calala Lane, including the proposed layout of the planned signalised intersection at Goonoo Goonoo Road/ Calala Lane to accommodate construction vehicles will be reviewed in greater detail as part of the SSDA. Overall, the upgraded intersection is expected to be designed to accommodate such vehicles given the road hierarchy and permitted vehicles on these roads.

Construction Traffic Impact

In summary, the impacts of construction traffic on the surrounding road network are expected to be minor, with low construction vehicle movements expected each day throughout all works. Only a minor quantum of workers will travel to and from the site via private vehicle each day, with most travelling by bus. Noting the multiple planned bus drop-off/ pick-up locations across Tamworth and positioned to consider worker catchments and home addresses, the traffic related impacts of use of the drop-off/ pick-up locations are expected to be minor, with the road network expected to operate in a similar manner to existing.

Notwithstanding the above, consideration will need to be made to construction vehicle routes to ensure appropriate design for anticipated oversize and overmass vehicles, including permitted use of Calala Lane and through the Calala Lane/ Goonoo Goonoo Road intersection.

The site and surrounding road network will remain at the current level of operation during the day and weekday AM and PM peak periods hence the site will noticeably not impact the operation of the existing road network. A Construction Traffic Management Plan (CTMP) will be prepared by the appointed contractor. Given the surrounding road environment, footpath closures would not be necessary. Emergency services will need to be notified of the construction works.

Yours sincerely,

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