18/03/2022

WST21/00002/05 SF2021/004875

The Manager
Resource and Energy Assessments
Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001

Attention: Lander Robinson

Dear Lander Robinson

SSD-14540514: Review of Environmental Impact Statement - Wallerawang Battery Energy Storage System

Thank you for the request for review of the Environmental Impact Statement (EIS) for the Forest Glen Solar Farm development (SSD-14540514) via the Major Projects Planning Portal on the 8 February 2022.

From review of the EIS Transport for NSW (TfNSW) notes the development will involve:

- The construction, operation and maintenance of a 500MW Battery Energy Storage System (BESS) at the former Wallerawang Power Station.
- Connections between the BESS and the Wallerawang 330kV substation
- Delivery, installation and electrical fit-out for the Project, including battery enclosures, invertors transformers and associated cabling and infrastructure.
- Ancillary elements including site access from the Castlereagh Highway, internal access roads and parking, site office and amenities, stormwater and fire management infrastructure, utilities, signage, fencing, security systems and landscaping.
- The Main Western Railway Line runs directly north of the Project Site.
- Access to the site would be via an existing access from the Castlereagh Highway.

TfNSW provided input into the Secretary's Environmental Assessment Requirements (SEARS) for the proposed BESS on 4 March 2021 and provided input on a Traffic Impact Assessment on 24 August 2021. The Environmental Impact Statement (EIS) was subsequently referred to TfNSW on the 8 February 2022. Based on a review of the EIS and the supporting information for the development, TfNSW has identified that the additional information shown in Attachment 1 is required to continue the assessment of the development.

It should be noted that the above comments only relate to the road network, separate comments will be provided by TfNSW to address clause 2.97 of *State Environmental Planning Policy (Transport and Infrastructure) 2021*. A separate response will be provided in relation to the rail comments.

Transport for NSW
Level 1, 51-55 Currajong Street, Parkes NSW, 2870 | PO Box 334, Parkes NSW 2870 | DX20256
W transport.nsw.gov.au | **E** development.western@transport.nsw.gov.au | ABN 18 804 239 602

Please ensure that any further email correspondence is sent to development.western@transport.nsw.gov.au. If you wish to discuss this matter further, please contact Hayley Sarvanandan on 02 9983 2372.

Yours faithfully

Alexandra Power
Team Leader Development Services
Development Services West
Regional and Outer Metropolitan

Attachment 1

Safe Intersection Sight Distance

1. Following a site visit TfNSW raises concern regarding available sight distance approaching the site from the south. Scaled plans are required to demonstrate sight distance is available at the proposed access to the Castlereagh Highway, a design speed of 110km/h needs to be adopted (refer to Table 3.2 of Austroads Guide to Road Design Part 4A). Sight distance diagrams need to be provided using an eye height of 1.1m and a vehicle height of 1.25m showing the sight distance available both horizontally and vertically in accordance with Fig 3.2 Austroads Guide to Road Design Part 4A. Where landscaping and/or fencing is proposed along the property boundary, the plan must demonstrate the landscaping and/or fencing will not compromise sight distance.

Traffic Impact Assessment

2. Section 3.2.7 suggests that most of the construction traffic will arrive from the south from Lithgow and Sydney. Construction movements are anticipated to include 200 light vehicle trips per day, up to 40 heavy vehicle trips per day and up to 36 OSOM movements across the construction period which is expected to take 12-24 months to complete. Section 3.4.1 suggests all construction movements will be outside of the AM/PM peak for Castlereagh Highway. There is minimal detail as to how this will be managed and enforced. TfNSW requires a worst-case scenario to be provided in terms of traffic impacts on the surrounding road network.

3. Clarification is required on the proposed routes to and from the site for construction vehicles.

4. The traffic counts and proposed peak periods provided (7:45-8:45am and 15:15-16:15pm) are based on counts from one day (30th March 2021), this is unacceptable. The TfNSW data referred to in Section 2.7.3 on the Castlereagh from the two-week period (25th May – 7th June 2021) showing AADT of 5420 vehicles should be utilised or traffic counts need to be undertaken over a seven-day period to improve the background traffic presented in the TIA. A full breakdown of traffic counts is required to clearly demonstrate peak periods.

   Notes:

   - Section 2.7.3 utilises the traffic volume viewer station (99084) for the background traffic. The traffic data from this station is from the year 2008 to 2012. The TIA suggests that a 3.7% growth rate has been adopted since the 2012 volume of 4988. Applying a 3.7% annual traffic growth rate since 2012 would equate to a 2021 AADT of 6918, this doesn't appear to be reflected within the TIA.
   - If peak hour volumes were adopted as per Austraods Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management 'where peak hour volumes are not available, assume that the design peak hour volume equals 8-10% of AADT', the peak hour volumes would equate to between 554-692 vehicles per hour (based on the proposed 3.7% annual increase since 2012 AADT of 4988). The peak hour base volumes shown in the TIA (Tables 4.1 and 4.2) are based on the traffic counts conducted on 30th March 2021.
   - Consideration should be given to the timing and impacts of the works occurring as a part of the demolition of the Wallerawang Power Station on the proposed scheduling of the works proposed of the Wallerawang BESS.

5. The turn warrant assessment shown in Section 4.1.3.1 need to be updated with amended traffic volumes and demonstrating a worst-case scenario as per the above comments. Refer to Austroads Guide to Road Design (AGTRD) Part 6: Intersections, Interchanges and Crossings Management (Figure 3.25).

Notes:

- A strategic design for the determined access treatments/upgrades needs to be prepared to clarify the scope of works, demonstrate a compliant design can be constructed within the road reserve and allow the consent authority to consider any environmental impacts of the works. These impacts include traffic and road safety impacts as well as other impacts such noise, flora and fauna, heritage and impact to community.
- Swept paths are required that demonstrates the design vehicle can complete the left and right turn manoeuvre from the Castlereagh Highway into the unformed road, without impeding through traffic.
- Details of any ancillary works are to be provided including (but not limited to) line marking, intersection and road name signage, drainage transitions, batter slopes, vegetation removal, services relocation, and road reserve widening acquisition. Existing line markings and signage (such as the transverse yield lines) may need to be renewed as part of the works.
- The determined treatment will need to be designed for the 110km/h speed environment and is required to be designed in accordance with relevant Austroads Guide to Road Design, relevant technical directions and supplements.