4 October 2019

SF2017/281844; WST17/00198/04

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

Attention: Mr Rob Beckett

Dear Mr Beckett

SSD-8895: Lots 75-84, 88, 119-121 DP 2987, Lots 1&2 DP 1104720, Lot 3 DP 976701, Lots 1-3 DP 808748, Lot 100 DP 750760, Lot 1 DP 1206579 and Lot 1 DP 664645 Goolma Road (MR633), Wellington; Wellington North Solar Farm; Amendment Report

Thank you for the notification via the Major Projects Planning Portal dated 09 September 2019, requesting Roads and Maritime Services' consideration of the Amendment Report of the Environmental Impact Statement (EIS) for State Significant Development application SSD-8895.

Reference is made to Roads and Maritime's previous submission in relation to the proposal dated 11 September 2018, noting this issues raised in this letter still remain inadequately addressed.

From review of the Amendment Report, Roads and Maritime notes that:

- The Transmission Line Route is now proposed to be constructed via a new eastern option that was not described or assessed in the original EIS.

- The transmission line that will connect the solar plant to the existing Wellington Substation would be a 132kV or 330kV overhead transmission line. From the solar plant site, the transmission line would cross Goolma Road (MR633), approximately 400m north of the Soil Conservation Service site access. It would then continue east for approximately 1.1km to the eastern side of the Wellington Correction Centre, before heading south to Twelve Mile Road for approximately 2km. It would cross Twelve Mile Road and enter the Wellington Substation from the east.

- The transmission line would have an easement up to 60m wide and involve three different land owners.

- It was noted that the construction of the transmission line would result in less traffic along Goolma Road and Twelve Mile Road than originally proposed

It is further noted from the Amendment Report that:

- AGL has committed to all construction site access to be undertaken via Cobbora Road (MR353) and Campbells Lane (local road).
- No construction access for the solar plant will be via Goolma Road (MR633).
- The vehicles accessing the site via Goolma Road will be limited to light vehicles during operation staff only.
- Construction is expected to take up to 24 months.
- Construction is proposed to occur from 7am to 6pm Monday to Friday and 8am to 1pm Saturdays with no construction during Sunday or public holidays.
- Heavy vehicle construction traffic with the exception of project commuter buses and light vehicles is to be undertaken from a southern direction via the Golden Highway (HW27), along Cobbora Road with a left turn into Campbells Lane before accessing the site. Egress will be via the same route.
- It is noted 19m b-doubles will be used during construction with larger Oversize and over mass heavy vehicle use via special permit only. Oversize / over mass transport is expected to involve up to eight two way movements over two months however this is yet to be quantified. It is expected the oversized transformer haulage route will be via the Port of Newcastle, via the Golden Highway, Cobbora Road and the site access via Campbells Lane. Further commitment to transport routes is required.
- Onsite parking is yet to be determined however Roads and Maritime notes that until a firm commitment is made by the proponent to transport the construction workforce to site via buses this will influence onsite parking provisions.
- Construction project traffic is estimated to generate at peak periods 138 two way movements daily and up to 45 two way movements during the peak hour during peak construction.

Reference is made to Roads and Maritime's previous submission in relation to the proposal dated 11 September 2018, noting issues raised still remain inadequately addressed. A firm commitment to types, volumes, origin and destination of traffic generated by the proposal is still unclear. Given up to 250 construction staff will result from the proposal, details on the use of shuttle buses, staffing accommodation and locations and subsequent traffic impacts resulting from these options should be further addressed by the proponent.

The Traffic Impact Assessment (TIA) undertaken by GHD, May 2018 was noted as adequately addressing the impacts of light vehicles. The commitment to the use of Campbells Lane for all construction access for the solar plant including all heavy vehicle access was further noted as being sufficiently addressed in the TIA (GHD 2018) with no further considerations addressing these matters noted in the amendment document. Roads and Maritime maintains that the traffic impacts in the submitted documentation are indicative or estimated only and seek the provision of greater detail to be provided in this regard.

Based on the information provided in the EIS and subsequent Amendment Report, Roads and Maritime does not object to the proposal subject to the following conditions being included in any consent issued in relation to SSD-8895 by the consent authority:

- Roads and Maritime has previously noted concerns for potential short stacking issues with the use of the Mitchell Highway (HW7) and Cobbora Road intersection for heavy vehicle construction traffic and as such maintains that any future condition of consent should reflect this route not be used by the proponent for the purposes of heavy vehicle construction traffic.

- No light or heavy construction vehicles are to access the site via Goolma Road, all access to site is to be undertaken via Cobbora Road and Campbells Lane.

- Prior to commencement of onsite solar farm construction, the proponent is required to upgrade the intersection of Cobbora Road and Campbells Lane to the satisfaction of Dubbo Shire Council and Roads and Maritime including:

    - The intersection works are to be designed and constructed for a 100km/h speed zone and be able to accommodate the largest vehicle required to access the intersection.

    - A Basic Right (BAR) turn treatment as shown in Figure A 28 in *Austroads Guide to Road Design Part 4 2017* (copy enclosed) and relevant Roads and Maritime supplements to *Austroads.*

    - A Basic Left (BAL) turn treatment as shown in Figure 8.2 in *Austroads Guide to Road Design Part 4 2017* (copy enclosed) and relevant Roads and Maritime supplements to *Austroads.*

    - Installation of 'Advance truck warning signs' (W5-22 Size B) with distance plates (W8-5 Size B) under, 250m from the intersection on both approaches along Cobbora Road with Campbells Lane. These are to be removed once construction has been completed.

    - Any ancillary works, such as relocation of services, vegetation removal, transitions for drainage, batter slopes and arrangements being made for any required road reserve widening acquisition.

- Safe Intersection Sight Distance (SISD) requirements outlined in *Austroads Guide to Road Design* Part 4A and relevant Roads and Maritime supplements is to be provided and maintained in each direction at the intersection of Campbells Lane and Cobbora Road.

- Prior to commencement of construction work, the proponent is to contact Roads and Maritime's Field Traffic Manager to determine if a Road Occupancy Licence (ROL) is required. In the event that a ROL is required, the proponent is to obtain the ROL prior to works commencing within three (3) metres of the travels lanes in Cobbora Road.

- A temporary speed zone authorisation for use in connection with any oversize or special vehicle deliveries should form part of a Traffic Management Plan (TMP) and ROL application.

- Prior to construction, detailed design works within the classified road reserves will need to be submitted and approved by Roads and Maritime for concurrence pursuant to Section 138(2) of *the Roads Act, 1993*. This included transmission line work within Goolma Road (MR633) a State Classified Road.

- Above ground structures in roads including transmission line poles or towers are to be located as per Roads and Maritime's Requirements for Overhead Power Lines (see copy attached), and:

    - Are to be located as far as practicable from the road, and outside the clear zone as set out in *Austroads Guide to Road Design Part 6: Roadside Design, Safety and Barriers*, which at this location along Goolma Road could be in the vicinity of 10m from the edge of the traffic lane. If the road reserve is not wide enough to locate poles outside the clear zone, it may be necessary to design the poles to be frangible or otherwise locate poles within private property.

    - Minimum heights (clearances) above the road surface are to be no less than those set out in the attachment or the energy providers requirements (whichever is greater), plus an additional 1m to allow for future pavement overlays.

- The proponent is to engage suitability experienced surveyor and / or solicitor to review the physical location of the proposed transmission line relative to the road and any rail corridors and existing cadastral boundaries.

- Any creation of easements in favour of the private transmission line operator is generally not supported by Roads and Maritime including any lease which would burden the public domain for a private purpose. Should this be considered as part of the transmission line option, there is to be no inhibition of the powers of Council or Roads and Maritime in ensuring the safety, efficiency or integrity of the classified road network (being Goolma Road) and the travelling public.

- Prior to the commencement of construction works, the applicant is to prepare a Traffic Management Plan (TMP in addition to the noted CTMP), to the satisfaction of Dubbo Regional Council and Roads and Maritime. The TMP is to outline measures to manage traffic related issues associated with the delivery and construction of the solar plant, ancillary structures, any construction or excavated materials, machinery and personnel involved in the construction, operation or decommissioning of the facility.

- The Plan is to detail the potential impacts associated with the development, measures to be implemented and the procedures to monitor and ensure compliance. The plan should include, but not limited to the following:

    - A firm commitment by the proponent to transport the construction workforce to and from site each day. This should include details of where the shuttle bus will transport staff from or staffing accommodation location(s). A commitment to a minimum number of staff to be transported to and from the site by bus each day, including details of how this commitment will be fulfilled, or alternatively, depending on the level of commitment to the use of buses the proponent should also include strategies to encourage carpooling.

    - The origin, number, size, frequency and destination of vehicles accessing/exiting the site. Although there were some estimations of traffic volumes identified, until greater detail is known this will impact the subsequent traffic volumes.

    - Loads, weights and lengths of haulage and construction related vehicle and number of movements of such vehicles.

    - Existing background traffic, peak hour volumes and types and their interaction with project development related traffic. In particular the timing and or staging of cumulative developments and noting the large number of renewable energy sites within relative close proximity.

    - The management and coordination of construction and staff vehicle movements to the site and measures to limit disruption to other motorists. In particular with the cumulative impacts of surrounding developments.

    - Scheduling of haulage vehicle movements to minimise convoy lengths and platoons. Consideration is to be given to minimise the route length for road transport of all oversize and over mass loads.

    - Local climatic conditions that may affect road safety of staff during construction, operation and decommissioning of the project (e.g. dust, fog, wet weather).

    - Avoidance of interactions with local school bus pick up and drop off locations along haulage routes is to be avoided.

- Dust mitigating measures by way of an appropriate length of seal in areas where this could impact on surrounding sensitive receivers.

- Toolbox meetings to facilitate continuous improvement initiatives and incident awareness.

- Tuck loads are to be covered at all times to minimise dust and loss of material onto roads which could form a traffic hazard.

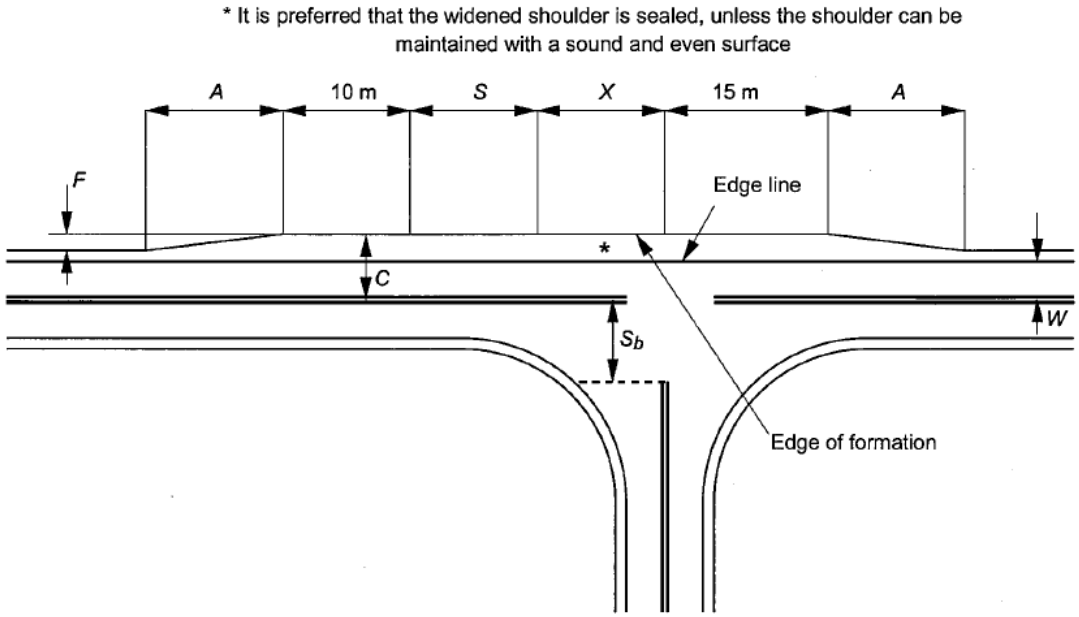
- Measures to ensure responsible fatigue management and discourage driving under the influence or alcohol/drugs, dangers of mobile phone use and driving to the conditions as well as adherence to posted speed limits.

Please forward a copy of the Department's determination of SSD-8895 to Roads and Maritime at the same time it sent to the applicant. Should you require further information please contact Ainsley Bruem, A/Manager Land Use Assessment on 02 6861 1449.

Yours faithfully

Sharon Grierson
A/Senior Manager, Regional Customer Services
Western Region

Figure A 28: Basic right (BAR) turn treatment on a two-lane rural road



Notes:

This treatment applies to the right turn from a major road to a minor road.

The dimensions of the treatment are:

W = Nominal through lane width (m) (including widening for curves). Width to be continuous through the intersection.

C = On straights –6.5 m minimum
7.0 m minimum for Type 1 & Type 2 road trains
On curves – widths as above + curve widening (based on widening for the design turning vehicle plus widening for the design through vehicle)

A = $\frac{0.5VF}{3.6}$
Increase length A on tighter curves (e.g. those with a side friction demand greater than the maximum desirable). Where the design through vehicle is larger than or equal to a 19 m semi-trailer the minimum speed used to calculate A is 80 km/h

V = Design speed of major road approach (km/h)

F = Formation/carriageway widening (m)

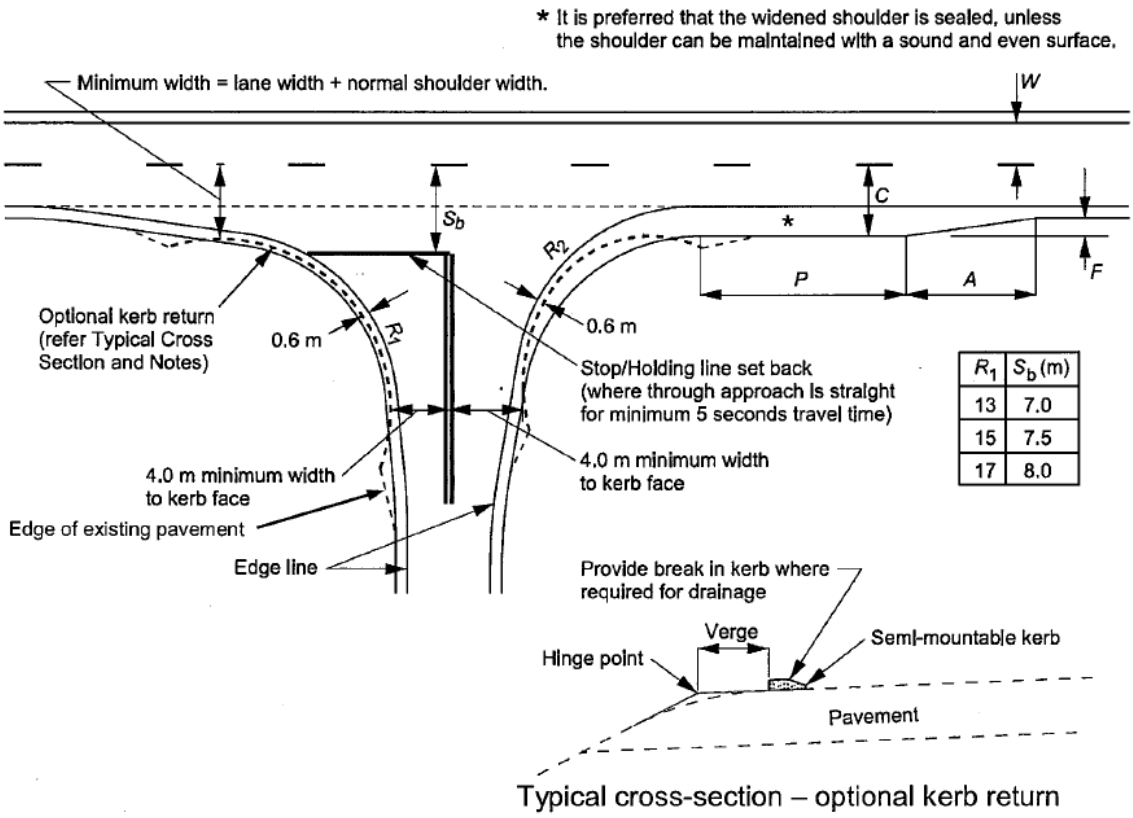
S = Storage length to cater for one design turning vehicle (m) (minimum length 12.5 m)

X = Distance based on design vehicle turning path, typically 10–15 m

Source: Department of Main Roads (2006)[25].

25 Department of Main Roads (2006) has been superseded and Figure A 28 has not been carried forward into Queensland Department of Transport and Main Roads (2016).

Figure 8.2: Rural basic left-turn treatment (BAL)



R_1	S_b (m)
13	7.0
15	7.5
17	8.0

Notes:

- *R_1 and R_2 are determined by the swept path of the design vehicle.*
- *The dimensions of the treatment are defined thus:*

W = *Nominal through lane width (m) (including widening for curves).*

C = *On straights – 6.0 m minimum.*

On curves – 6.0 m plus curve widening (based on widening for the design turning vehicle plus widening for the design through vehicle).

$A = \frac{0.5VF}{3.6}$

V = *Design speed of major road approach (km/h).*

F = *Formation/carriageway widening (m).*

P = *Minimum length of parallel widened shoulder (Table 8.1).*

S_b = *Setback distance between the centre of the major road and the give way or stop line in the minor road.*

Source: Department of Main Roads (2006)[35].

35 Department of Main Roads (2006) has been superseded and Figure 8.2 has not been carried forward into Queensland Department of Transport and Main Roads (2016).

Roads and Maritime Services General Requirements for Overhead Power Lines within the Classified Road Reserve

- All line structures, including poles and bollards, within the road reserve are to be located well clear of the highway formation (outside of clear zone, as defined by current Roads and Maritime Western Region Route Standards) and as close to the boundary fence as is practicable. A minimum distance of 10m or the clear zone width at that location (whichever is the greater of the two) is required between the edge of travel way and structure. Any new poles if unable to be located clear of this minimum distance should be located either above a cut batter or behind guard fence to ensure maximum motorist safety in the event of an errant vehicle. Otherwise if this is not practical a joint site meeting should be organised with an RMS representative (Area Maintenance Manager) to determine an alternative suitable location.

- Any vegetation clearing required (in rural areas) should be carried out in liaison with the relevant local Council and Rural Lands Protection Board (if applicable).

- Prior to commencement of construction works, the proponent is to contact Roads and Maritime's Traffic Operations on 02 6861 1461 to determine if a Road Occupancy Licence (ROL) is required. In the event that an ROL is required, the proponent will obtain the ROL prior to works commencing.

- All new overhead lines that are to be erected and connected to Essential Energy's network shall have as a minimum requirement the clearances and spacing provided in publication AS/NZS7000, Essential Energy's Overhead Construction Manual documents CEOM7106.25, CEOM7106.26, CEOM7106.27 and Table 3.5.6.6.1 of this document.

Nominal System Voltage	Distance to Ground in Any Direction (m)		
	Over the Carriageway of Roads	Over Land Other than the Carriageway of Roads	Over Land Which Due to its Steepness or Swampiness is not Traversable by Vehicles
Bare low voltage (400/230 Volt) Mains	6.0	6.0	5.0
Insulated low voltage (400/230 Volt) Mains	6.0	6.0	5.0
Insulated conductor without earthed screen, bare conductor or covered conductor:			
11, 22 and 33kV	7.3	6.0	5.0
66 and 132kV	8.0	7.3	6.0

Table 3.5.6.6.1 – CEOM7097 Clearance from Ground for Overhead Lines other than Insulated Service Lines