

Our ref: SSD-9261283

Stephen Barry
Planning Director
Independent Planning Commission NSW

Via email: [REDACTED]

26/7/2024

Subject: Wallaroo Solar Farm (SSD- 9261283) – Questions on Notice and Request for Clarification

Dear Mr Barry

I refer to your letter dated 16 July 2024 concerning the Independent Planning Commission's (the Commission's) consideration of Wallaroo Solar Farm (SSD- 9261283).

The Department of Planning, Housing and Infrastructure's (the Department) responses to the questions in the Commission's letter are provided below. The Commission's questions are included in bold italics for reference.

Glint and Glare

- 1. additional detail on yellow glare including the time of day and year it is produced and if it is proposed to be visible for receivers in the ACT, specifically in the afternoon.***

The Glint and Glare Assessment undertaken by the applicant for the development provides the following:

Glare can be broadly classified into three categories and presented by the following three colours:

- "Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.*
- "Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.*
- Red Glare: Retinal burn, not expected for PV.*

Note: The main focus of the Glint and Glare assessment provided is the yellow glare. Red glare is not expected for PV and green glare is low potential to cause after image and deemed negligible. (HO,2011).

The following provides a summary of the revised Glint and Glare assessment findings, which is based on an operational restriction, which limits the operation of solar panel backtracking to angles between 0 degrees and ± 5 degrees between the hours of 5:30am and 8:30am (Scenario 3). The applicant has committed to implementing Scenario 3 for the life of the project, which is included in the Recommended Conditions of Consent (condition B22(a)).

Page 18 of the Addendum to Glint and Glare Assessment states:

Residential Receptors:

- *The revised assessment undertaken using scenario 3 determined that no residential receptors have the potential to experience yellow glare. As a result scenario 3 is an effective form of mitigation.*

Road Receptors:

- *The revised assessment using scenario 3 demonstrates that both scenarios are an effective form of mitigation.*

Aviation Receptors:

- *An assessment of the two (2) flight paths found that there are no glare impacts for aviation receptors for both scenario 3.*
- *No further mitigation is required for aviation receptors in line with the Guidelines*

The Glint and Glare Assessment undertaken by the applicant considers residents of both NSW and the ACT.

Contamination Risk

2. ***Research papers within the public domain that the Department used in it's assessment of solar panel contamination risk.***

The Large-Scale Solar Energy Guidelines (2022) establishes the policy framework for large-scale solar energy developments in NSW. [The FAQ](#) for the Guidelines notes the following in relation to contamination:

“The metals in solar panels (including lead, cadmium, copper, indium, gallium and nickel) cannot be easily released into the environment. This is because metals such as cadmium telluride (CdTe) or cadmium sulfide (CdS) are enclosed in thin layers between sheets of glass or plastic within the solar panel. Because of this, the use of metals in solar panels has not been found to pose a risk to the environment.

To readily release contaminants into the environment, solar panels would need to be ground to a fine dust.”

This was informed by advice from the NSW Environmental Protection Authority. Accordingly, The Department considers there to be a low risk of contamination arising as a result of the project.

Traffic and Access Routes

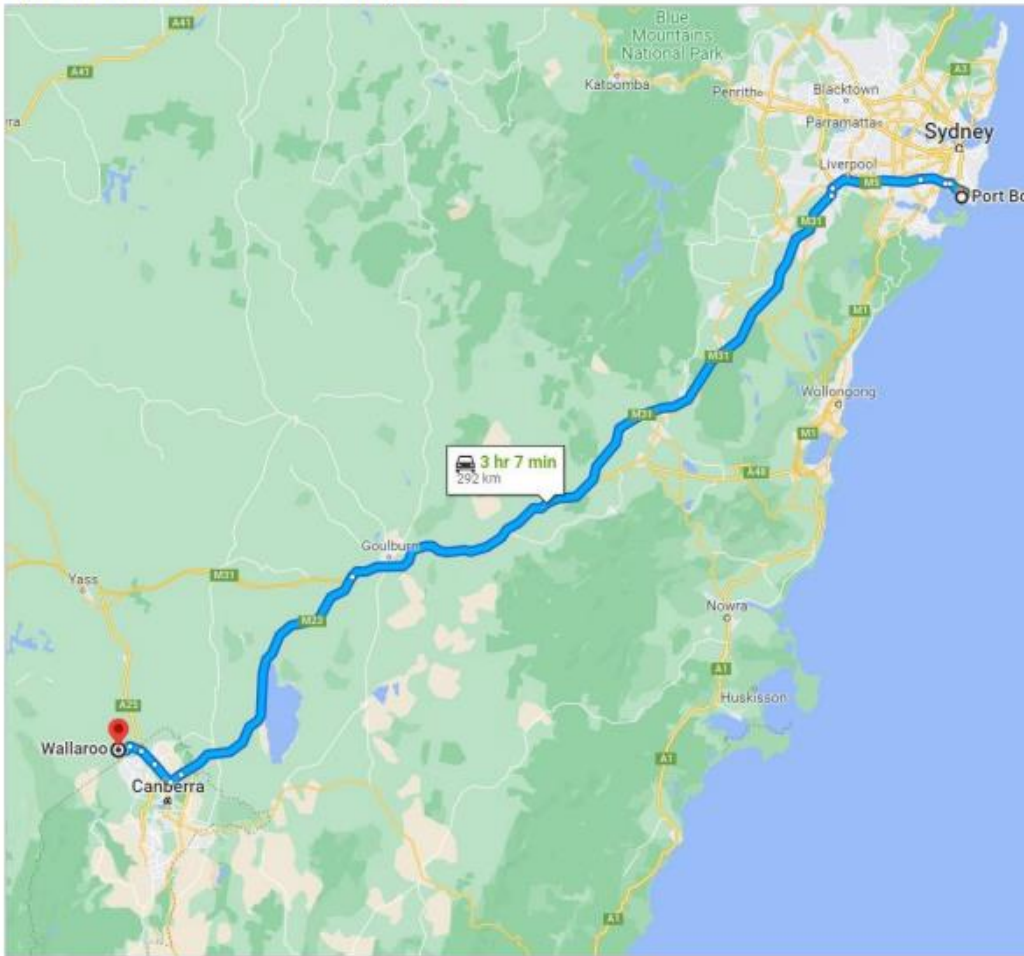
3. ***The proposed access routes in their entirety for each vehicle type including heavy vehicles, oversize overmass (OSOM) vehicles and light vehicles (e.g., staff vehicles).***

Heavy Vehicle Access Route:

The proposed construction traffic access route from Port Botany to the site is proposed to be via Hume Highway, Federal Highway and Barton Highway. Figure 3 below shows the proposed access route from the port which is the proposed route to be undertaken by heavy vehicles from the port.

The TIA notes a split in vehicle directions for heavy vehicles servicing the site from the local area, not required to access the site from Port Botany (i.e; water trucks). The TIA assessed 30% of these local heavy vehicles arriving daily from the north and 70% coming from the south. Figure 2 of Appendix 6 of the conditions demonstrates that all vehicles, regardless of whether they arrive from the north or south, will access the site via the Barton Highway/Wallaroo Road intersection.

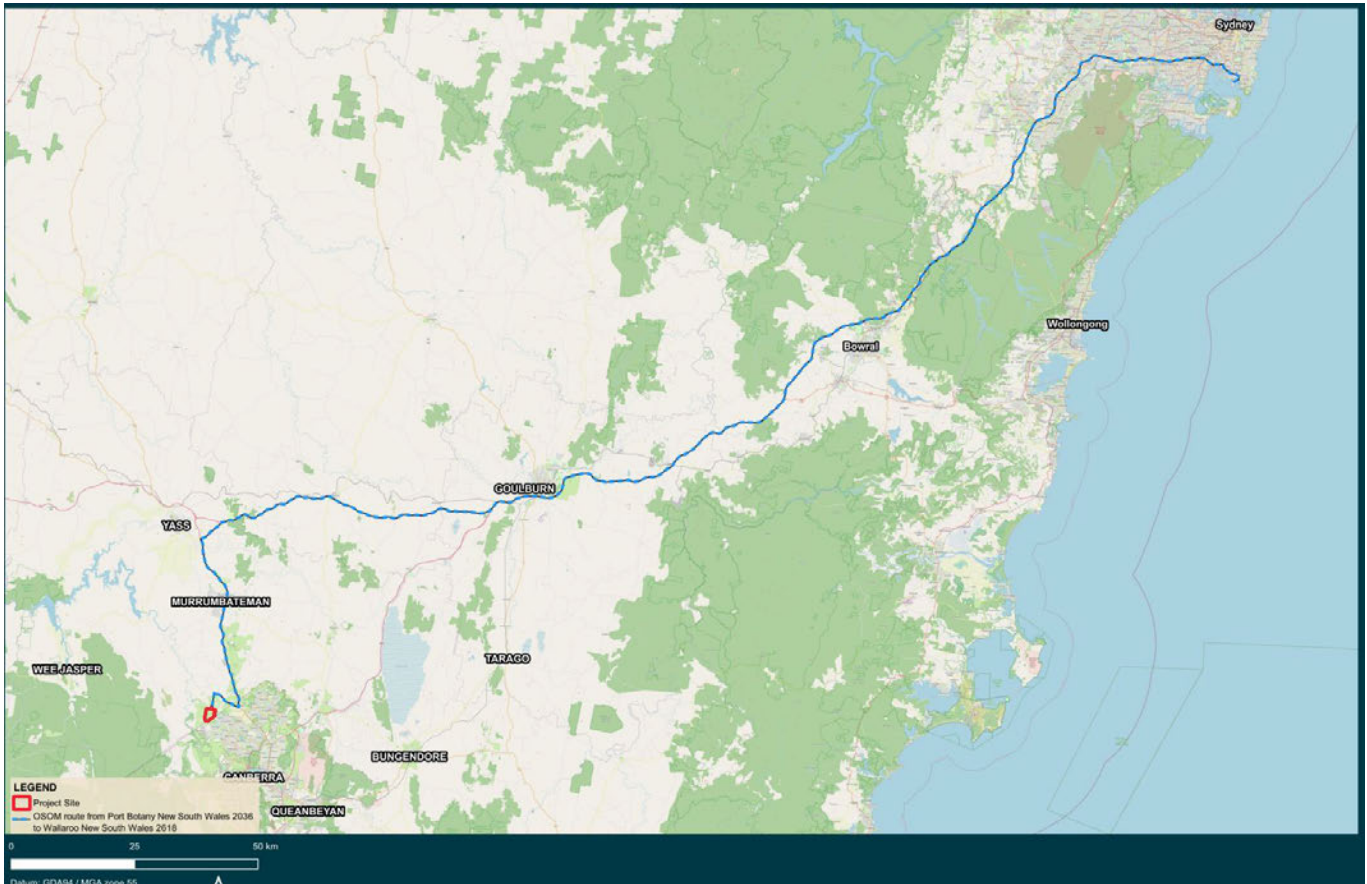
Figure 3: Access Route from Port Botany to Site



Source: Google Maps - <https://goo.gl/maps/ZNCv4M75ssYT36XA7>

OSOM Vehicle Route

As standard practice, OSOM vehicles would adopt the same access route as B-Double vehicles and there is expected to be approximately 7 OSOM vehicles that would access the site during construction (as clarified by the applicant through comments on conditions). By exception, some larger OSOM vehicles would be required to access Barton Highway directly via Hume Highway and enter Wallaroo Road from the north in order to avoid travelling through Canberra. Figure 4 shows the proposed access route from the port which avoids Canberra and may be utilised by larger OSOM vehicles. In order to assess the ability for the vehicle to access the site a swept path assessment has been prepared from Barton Highway to the site.



Light Vehicles

Light vehicles have no specified access route as light vehicles account for local employees who could take various routes to the Southwell Road site access point. No concerns were raised by the roads authorities in relation to light vehicles.

4. Clarify the following relating to the transport and access route conditions of the Department’s recommended consent:

- *if Figure 2 of Appendix 6 and/or condition B3 needs to be updated to specify the direction of use of the Barton Highway (either through the ACT or NSW);*

No, Figure 2 and conditions consider vehicles arriving to the site from both directions of the Barton Highway.

- *if conditions B1 and/or B3 needs to be amended to specify the volume and which vehicle types are proposed to use the OSOM route;*

Condition B1 a) ii) specifies the number of heavy vehicles requiring escort permitted to use the OSOM route.

5. details of the vehicle type and volume proposed to travel through Murrumbateman

Vehicles proposed to travel via the State road network (i.e. Barton Highway) through Murrumbateman include up to 7 OSOM vehicles as set out within condition B1 a) ii) and a 30% split of heavy vehicles which are servicing the site from the local area, assessed within the TIA (max 10 heavy vehicles / day).

6. any proposed use of the Federal Highway

Up to the 32 heavy vehicles daily, plus any OSOM vehicles that are not required to access the Barton Highway from the north.

7. provide details of any assessment of the need for any upgrade of the length or of part of Wallaroo Road (other than the proposed intersection upgrades) that was completed by the Department; and

The applicant has assessed the condition of the Wallaroo Road and Gooroomon Ponds Road, and has confirmed that both can accommodate simultaneous two-way vehicle movements (RFI Response – 27 June 2024). TfNSW has no objections to the use of the identified route. The condition of these roads has been assessed as suitable, and condition B7 will ensure that the applicant maintains the condition of these roads.

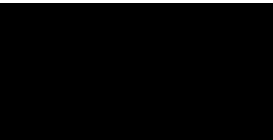
8. confirm the number of vehicle movements included in recommended condition B1 are one-way vehicle movements.

Per the definitions table, a *Vehicle Movement* is defined as one vehicle enter and leaving the site.

If you have any questions, please contact me on [REDACTED] or via email at

[REDACTED].

Yours sincerely,



Iwan Davies

Director

Energy Assessments