

25 July 2023

The Secretary  
Department of Planning and Environment

**Stubbo Solar Farm (SSD-10452)**  
**Confirmation of connection point (Option A) and subdivision area**

This letter provides confirmation of Option A as the connection point and confirmation that the subdivision for the switchyard is generally in accordance with the Environmental Impact Statement (EIS) and the Development Consent for the Stubbo Solar Farm project.

As outlined in the EIS, the amendment report and the Additional Information letter dated 21 June 2021 (all documents forming part of the EIS), a subdivision was proposed for the purpose of the outdoor switchyard at one of two possible locations, Option A or Option B, as required by TransGrid for connection to Line 79.

As confirmed in the submission of the Final Layout Plan (ref SSD-10452-PA-29), ACEN Australia has selected Option A for connecting the project to the National Electricity Market (NEM) due to its proximity to the main site access road.

As shown in *Appendix 4: Subdivision Plan* of the Development Consent (**Attachment A**), a subdivision for the Transgrid switchyard was planned for Lots 68 and 69 of DP750765. This has not changed, and Lots 68 and 69 of DP750765 are still required for the subdivision.

A comparison of the Subdivision Plan in the Development Consent and the Proposed Subdivision Plan respectively is shown in **Attachment B**. The key features are outlined in the following table:

| Feature                                 | Subdivision Plan in the Development Consent                                 | Subdivision Plan in the Final Layout Plan                       | Comment                                              |
|-----------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------|
| Connection Point                        | Option A or Option B                                                        | Option A                                                        | Option A confirmed.                                  |
| Orientation                             | Approx 45° to Transmission Line 79 as per Appendix 4 of Development Consent | Rotated approx. 45° to be perpendicular to Transmission Line 79 | Requested by Transgrid. (Refer <b>Attachment C</b> ) |
| Area                                    | 3.7 ha (indicative)                                                         | 3.681 ha                                                        | Smaller area                                         |
| Lots                                    | Lots 68 & 69 DP750765                                                       | Lots 68 & 69 DP750765                                           | No change                                            |
| Completely inside project boundary      | Yes                                                                         | Yes                                                             | No change                                            |
| Completely inside Development Footprint | Yes                                                                         | Yes                                                             | No change                                            |

There has been significant design development for the switchyard position, from the initial planning to the final location of the switchyard. The current orientation of the switchyard is optimised to suit access to the transmission line (TL79) and the Solar Farm substation.

In addition, the switchyard has been repositioned from the indicative position shown in the EIS and Development Consent, to the final layout position to achieve a perpendicular line cut-in from TL79 to the new switchyard. This approach was adopted to provide an effective and efficient access to the transmission line from the switchyard.

As noted by Transgrid (**Attachment C**), when a line is cut-in at a non-perpendicular orientation, it leads to additional complexities and electrical safety aspects. These relate to the corresponding uneven mechanical loads on the transmission line fixture, structure and footings, plus additional complexities relating to electrical properties for ground to earth, and phase to phase, electrical clearances to account for conductor movement. These complexities can be mitigated and controlled more efficiently by the Stubbo Solar switchyard being oriented perpendicularly to the transmission line TL79 instead of at a 45-degree cut in angle as indicatively shown in the EIS and Development Consent.

Additionally, a perpendicular entry is shorter than an angled entry to the transmission line and will require a smaller area to achieve the cut in.

Therefore, the proposed area of the subdivision for the Transgrid switchyard is generally in accordance with the EIS and the Development Consent. In particular, the final location of the switchyard does not generate additional native vegetation clearing, additional noise impacts nor additional visual impacts compared to those assessed in the EIS.

The final location of subdivision of the Transgrid switchyard was determined in compliance with all management and mitigation measures outlined in the EIS.

Please do not hesitate to contact the undersigned on 0427 776 873 or email at [Michael.Yeo@acenrenewables.com.au](mailto:Michael.Yeo@acenrenewables.com.au) should you have any queries or require any additional information.

Kind Regards,  
**ACEN Australia**

DocuSigned by:  
  
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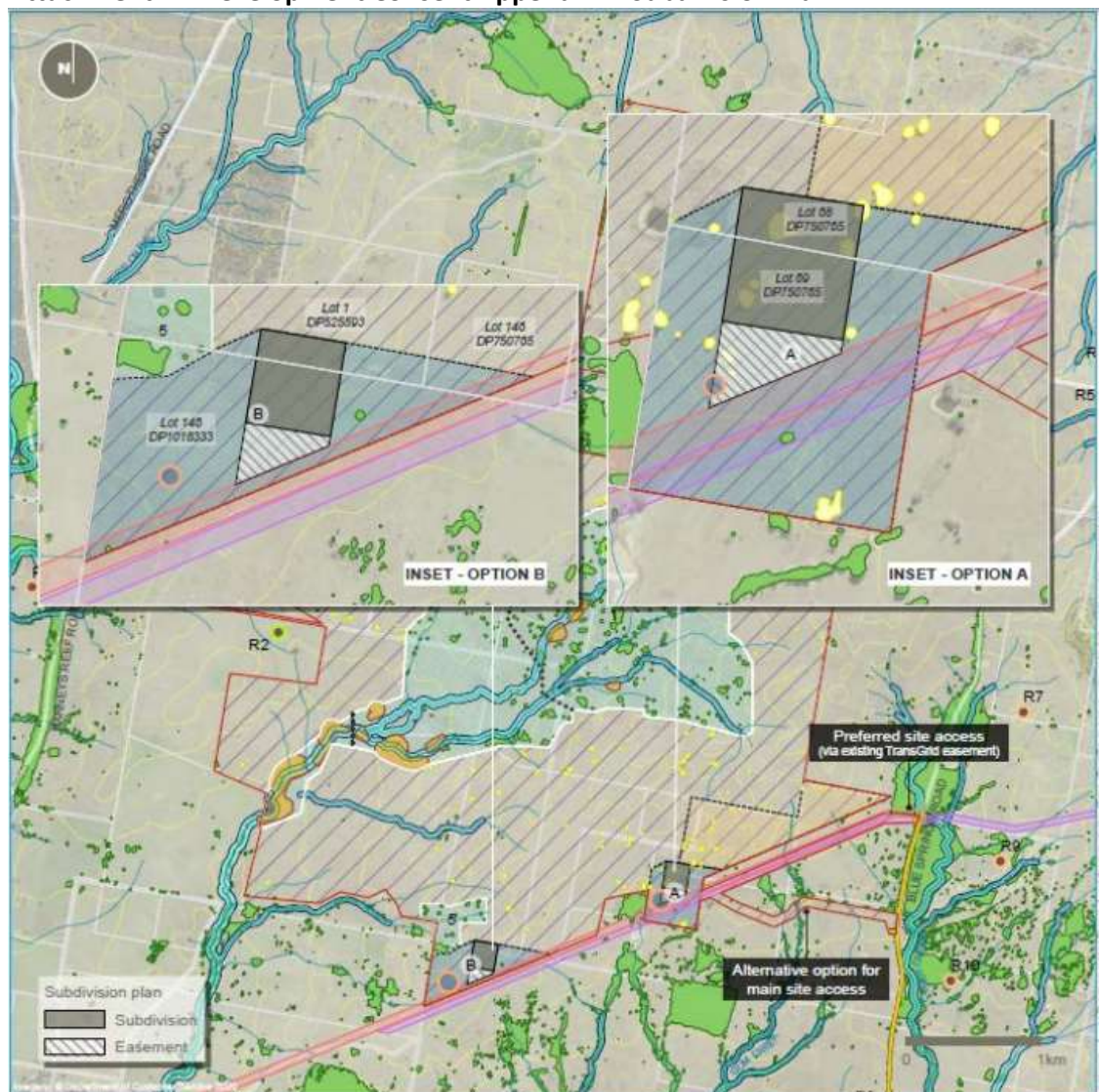
Michael Yeo  
Project Manager - Construction  
Stubbo Solar

Attachment A: *Development Consent Appendix 4: Subdivision Plan*

Attachment B: *STSF-P019 Stubbo Solar Subdivision Area – 11 July 2023*

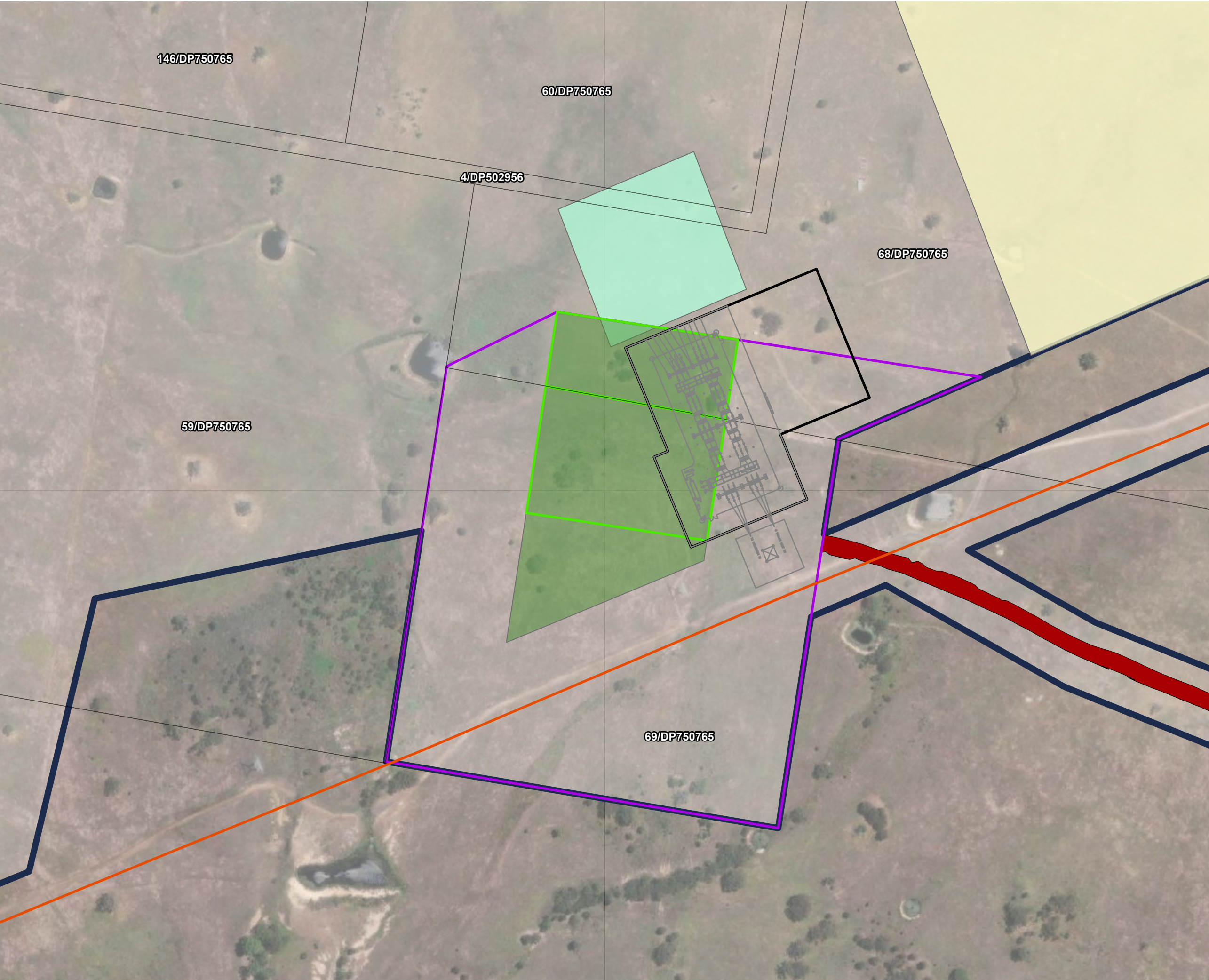
Attachment C: *Email from Transgrid to ACEN re design development – 7 July 2023*

## Attachment A - Development Consent Appendix 4: Subdivision Plan



A4  
1:42,500

**Attachment B – STSF-P019 Stubbo Solar Subdivision Area – 11 July 2023**



Legend

- Switchyard Subdivision as per Development Consent
- Switchyard subdivision as agreed with Transgrid
- Indicative Switchyard Design
- Option A - Indicative Boundary
- Indicative EIS Location of TG Switchyard
- Substation
- Site Access Road
- Construction Laydown Area
- Site Boundary
- Cadastral Boundary

Existing Transmission Line

Voltage

- 330 kV

Notes

1. Project features shown are preliminary and subject to change.

Locality



Project

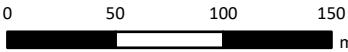
**Stubbo Solar**  
Renewable Energy from ACEN

Title

Stubbo Solar  
Subdivision Area

Drawing no.  
STSF-P019

Date  
11/07/2023



1:3,500 GDA2020 MGA Zone 55



**Attachment C – Email from Transgrid to ACEN re design development – 7 July 2023**

## TL79 perpendicular entry to new switchyard

Ajit Dhaliwal via InEight Document <system@teambinder.com>

Fri 7/7/2023 3:30 PM

To:David McKay <david.mckay@acenrenewables.com.au>

**CAUTION:** This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.



## General Correspondence

**Reference No.:** TG-GEN-000083.00  
**Project Title:** Stubbo Solar Farm P0026082

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|                 |                                                   |                              |
|-----------------|---------------------------------------------------|------------------------------|
| <b>Date:</b>    | 07 July 2023, 03:30:01 PM +10:00                  | <b>Response required by:</b> |
| <b>To:</b>      | David McKay, ACEN Australia                       |                              |
| <b>CC:</b>      | Rachana Amin, Transgrid                           |                              |
| <b>From:</b>    | Ajit Dhaliwal, Transgrid                          |                              |
| <b>Subject:</b> | <b>TL79 perpendicular entry to new switchyard</b> |                              |

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Hello David,

I believe that there has been a lot of movement of the switchyard between initial planning and the final location of the switchyard. The orientation of the switchyard as it is currently located has been optimised to suit access to the transmission line and the SF substation. In relation to the line orientation, the perpendicular line cut-in from TL79 into the new switchyard is an effective and efficient access for a transmission line. When a line is cut in at non perpendicular orientation it leads to additional complexities and electrical safety aspects, in particular around uneven load forces (mechanical), around transmission line fixture, structure and footings, as well as electrical properties around ground to earth and phase to phase electrical clearances to account for conductor movement. In a perpendicular orientation these are a lot easier to design and control.

Additionally a perpendicular entry is shorter than an entry at an angle, covers less land over distance. Not knowing where the previous location this may also have been a factor to go perpendicular as it has less environmental impact.

I hope this is sufficient for you.

Kind regards

Ajit Dhaliwal

Project Manager | Delivery

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We acknowledge the Aboriginal and Torres Islander people as the Traditional Custodians of the land which we provide our services. We pay our respects to their Elders, past and present.

|                                    |              |                  |
|------------------------------------|--------------|------------------|
| <b>Discipline:</b>                 | <b>Area:</b> | <b>Location:</b> |
| <b>Originator's Reference No.:</b> |              |                  |

TeamBinder mail reference: {F4DDDA92-5B03-4C09-8D2E-01269C47130D}