

The Secretary
Department of Planning and Environment
Level 22, 320 Pitt St
Sydney NSW 2000

Attention: Tatsiana Bandaruk

19th November 2018

Dear Secretary,

Metz Solar Farm (SSD 7931) - Modification Application 1 – Increase solar array height

1. Purpose of this letter

Metz NewCo Pty Ltd is the proponent of the Metz Solar Farm (**Project**). The construction and operation of Metz Solar Farm is authorised under project approval SSD 7931 (**Development Consent**) granted by the Minister for Planning on 18 July 2017 under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979* (NSW) (**EP&A Act**).

The purpose of this letter is to request that the Minister modify the Development Consent under Section 4.55 of the Environmental Planning & Assessment Act 1979. The modification allows for the revised operation of approved solar tracking arrays that would result in the maximum height of the array exceeding the approved maximum height of 3 metres above ground level to an increased maximum height of 4 metres. The proposed modification also involves a reduction in the footprint of the project.

In addition, this request and attachments also constitute submission of the final layout plans for the Project in accordance with Condition 5 of the Development Consent. This layout is relevant to the impacts of the proposed modification. An updated Site Layout Plan is provided at Appendix 1 for reference.

2. Proposed modification and justification

The proposed modification shall enable the solar arrays to be operated in a manner that increases their maximum height above ground level from 3 metres to 4 metres. .

Under the proposed modification, solar arrays would exceed the approved maximum height of 3 m at the beginning and end of each day (as well as being stored in this position overnight), when tracking the sun at low incidence angles, effectively increasing the maximum height of the arrays to 4 metres as shown in Figure 1 below. Under the modification, the solar arrays would remain below the approved 3 m height for much of the day.

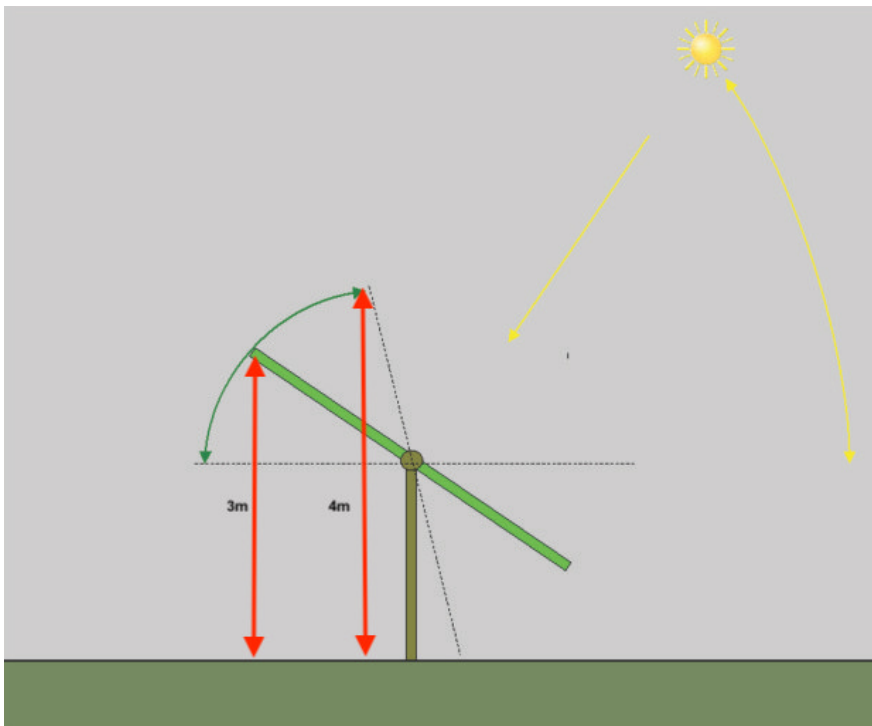


Figure 1: Single axis tracker height differential approved and proposed height

Under the proposed modification, the efficiency and energy output of the Metz Solar Farm shall be increased, whilst enabling a reduced footprint with increased setbacks to further mitigate potential visual impacts associated with the project. The revised Project footprint associated with the proposed modification is shown in Attachment in 1 for reference. Potential impacts of the increased height to nearby sensitive receptors (NSRs) are mitigated through:

- the revised footprint adopting increased setbacks relative to the approved development site boundary and footprint; and
- significant increased setbacks from the relevant southern boundary and vegetation screening to mitigate visual amenity impacts on the nearest visual receptor (R1).

Comparative Analysis

Table 1 below provides a comparative analysis between the originally approved development and the development in its proposed modified form. A comparison of between the indicative layout in the submitted EIS and the layout in the proposed modified form.

Table 1: Comparative analysis between approved Solar Farm and proposed modification

Project Element	Originally Approved Development	Proposed Modification
Development size, scale and footprint	100MW(AC) solar farm on approximately 508 Hectares constructed using fixed tilt and/or single axis tracking mounting structures. - The development footprint allowed for an area of approximately 482 Hectares.	115W(AC) solar farm on approximately 430 hectares of land using single axis tracking mounting structures. - Increase setback of southern edge of the solar array from Waterfall Way by a further approximately 160m. - Approximately 363,000 modules (higher efficiency, optimised design and tracking to 4 metres instead of 3 increasing energy yield). - The development footprint has an area of approximately 280 Ha
Key infrastructure	Solar arrays: approximately 400,000 solar panels supported by a mounting system installed on approximately 50,000 piles driven or screwed into the ground;	Solar arrays: approximately 363,000 solar panels supported by a mounting system installed on approximately 54,000 piles driven or screwed into the ground
	- The panels would be installed on either: - A fixed tilt system (orientated north to south); or - A single axis system (orientated west to east);	The panels will be installed on a single axis system (orientated west to east);
	- Up to 50 central inverters located throughout the development; - Indicatively located at the southern end of the northern array area adjacent to the 132kV powerline	- Up to 54 central inverters located throughout the development; - Located at the southern end of the northern array area adjacent to the 132kV powerline
	Above and/or below ground onsite cabling and electrical connections;	Above and below ground onsite cabling and electrical connections;

Project Element	Originally Approved Development	Proposed Modification
	Support buildings indicatively located alongside the substation including communications equipment and tower;	Support buildings indicatively located alongside the substation including communications equipment and tower;
	Onsite access tracks;	Onsite access tracks;
	Substation containing a 132 kV transformer and associated switchgear and directly connected into the existing 132 kV transmission line;	Substation containing a 132 kV transformer and associated switchgear and directly connected into the existing 132 kV transmission line;
	- Perimeter fence (security fence approximately 2.5 m high);	- Perimeter fence (security fence approximately 2.5 m high);
	vegetation screening along the southern and south-western boundaries of the site.	vegetation screening along the southern and south-western boundaries of the site
	Firebreaks.	15 metre defendable space around the perimeter of the site
Intensity of production	Approximately 233GWh per annum.	Approximately 289GWh per annum.
Primary, secondary and ancillary use	The proposed primary use is a solar farm and there are no secondary uses and ancillary uses include a substation and operations and maintenance building	No Change
Project life and hours of operation	30-year life span operation during daylight hours.	No Change
Extent, duration and severity of impacts.	Comparison of impacts are assessed in Table 2 below.	

No further modification to the conditions of consent is sought.

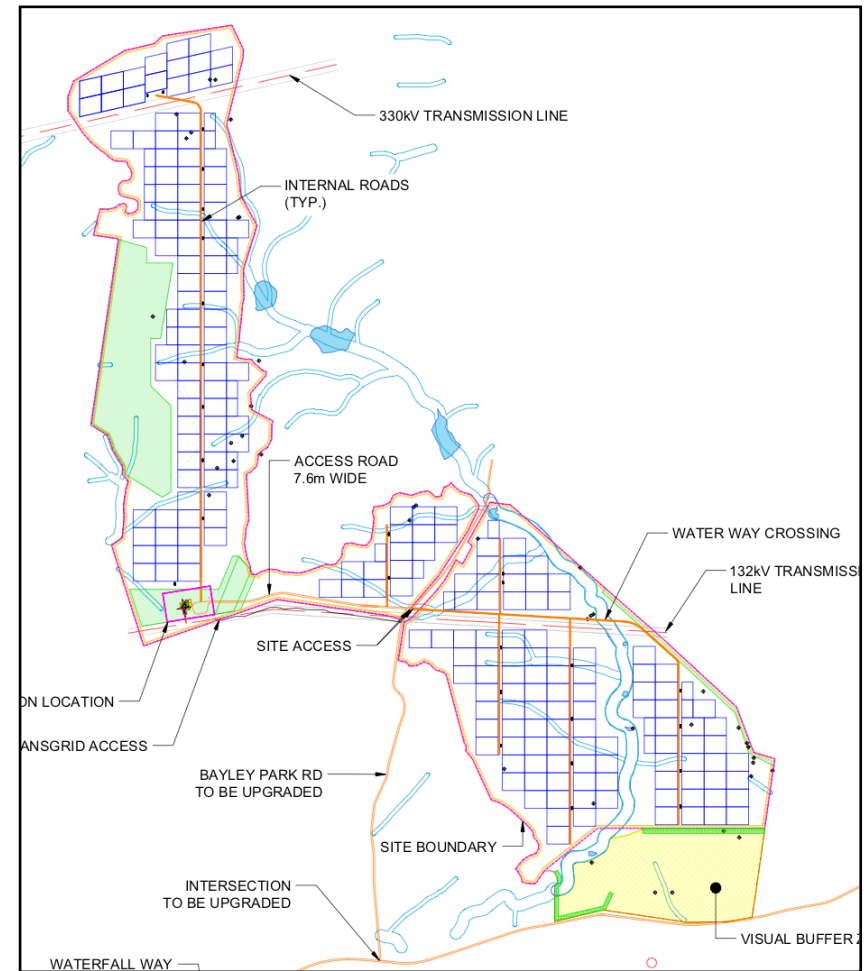
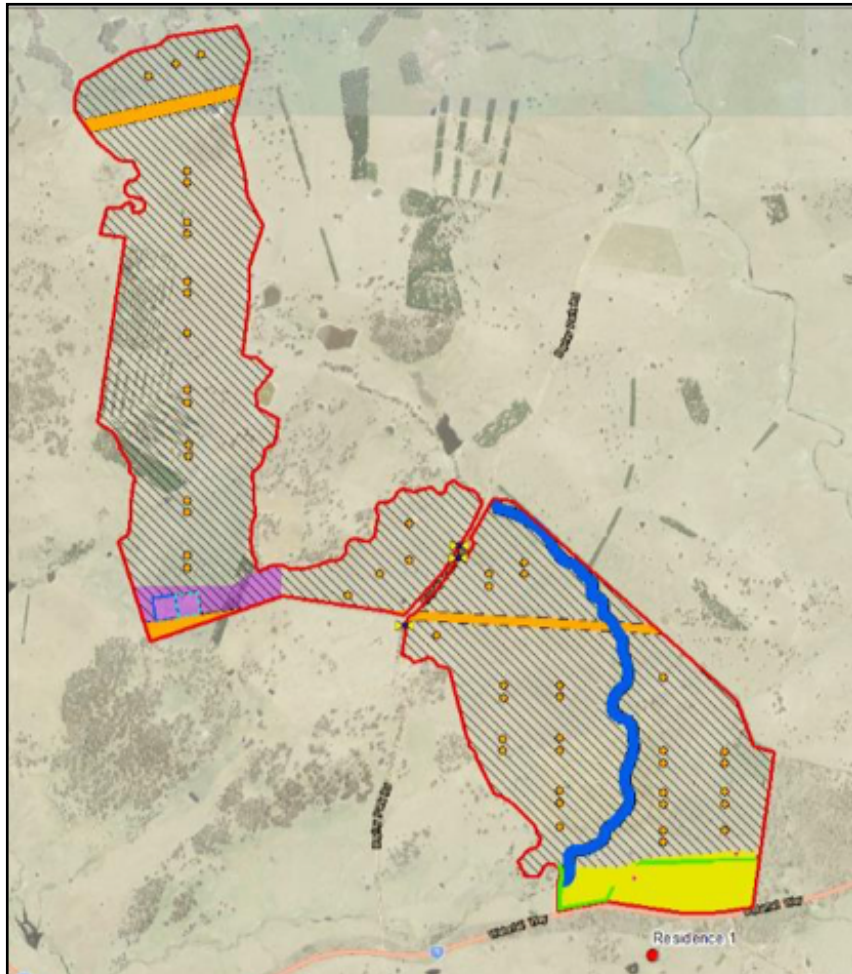


Figure 2 Comparison Indicative Layout from Original Approval versus proposed layout for modification

3. Environmental Impact Assessment

An updated environmental impact assessment for the proposed modification is provided below in Table 2 below.

Table 2 Environmental Impact Assessment for proposed modification

Issue	Response	Environment Impact
Land	The proposed modification occupies a reduced footprint that sits entirely within the approved “array areas” footprint (Attachment 1). The Development Consent requires the final detailed plans would be to the Secretary, including any details of siting of solar panels and ancillary infrastructure. This layout represents the current final layout. Should any further changes to this layout occur, an updated final layout will be provided to the Secretary. The proposed modification does not alter potential impacts to land resources beyond those assessed within the original Environmental Assessment.	Reduced impact
Biodiversity	The proposed modification occupies a reduced footprint that sits entirely within the approved project footprint (Attachment 1). The proposed footprint will likely result in a net reduction in vegetation removal than allowed under the Development Consent, however Clenergy is not proposing to apply to amend retirement credits under Condition 10 of Schedule 3 of the Development Consent to enable ongoing flexibility around this matter.	Reduced impact
Heritage	The proposed modification occupies a reduced footprint that sits entirely within the approved project footprint (Attachment 1) and reduces the number of known Aboriginal heritage items potentially impacted by the project. The Aboriginal Heritage sites identified as Bayley Park Stone Arrangement, Bayley Park Scarred Tree-1 and Bayley Park Scarred Tree-2 in the Cultural Heritage Assessment will be further setback from the proposed solar farm infrastructure in compliance with Schedule 3, Condition 19 of the Development Consent. The proposed modification has no impact on known historic heritage values of the site.	Reduced impact
Transport	The proposed modification does not alter site access or transport arrangements associated with the project. It is noted the increased array height will not result in increased sized transport vehicles to deliver construction equipment and solar farm components to the site	No increased impact.
Visual	The increase from a maximum array height of 3 m to a maximum height of 4 m may, at certain times of day, has the potential to alter visual amenity impacts associated with proposal. Whilst the net impact of this height increase on the nearest sensitive receiver would be minimal	Reduced impact

Issue	Response	Environment Impact
	given the limited perceptibility of a 1 metre height increase at the existing setback of approx. 550m from the nearest solar array it determined that a Visual Impact Assessment should be undertaken to fully understand and demonstrate the impacts. An updated Visual Impact Assessment is attached at Appendix 2 for reference. The visual impact assessments associated with the revised maximum array height assessed and compared the proposed modification with the approved development (Attachment 2). It is noted that the proposed modification allowed a reduction in footprint of the project and increase in the setback from the southern boundary of the southern by a further 160 metres based on a request from the owners of the nearest sensitive receiver (R1) compared with the approved development. This has resulting in a total setback of approximately 710 metres from this receivers dwelling. The visual impact assessments were completed based on the revised footprint. The assessments concluded that the proposed modification does not increase potential visual impacts associated with the approved development, rather, with the associated reduced footprint, it results in a net reduction in the visual impacts. On this basis it is considered there will clearly be no increase in visual amenity impacts from the proposed modification.	
Water	The proposed modification does not alter the potential impacts to water resources or aquatic ecology as assessed within the Environmental Assessment. The increased setback potentially reduces potential changes to flows entering Clarks Gully.	No increased impact
Noise	The proposed modification does not alter the potential noise impacts as assessed within the Environmental Assessment. The increased setback potentially reduces noise impacts at NSRs.	No increased impact
Hazards	The proposed modification does not alter the potential hazards as assessed within the Environmental Assessment.	No increased impact

4. Statutory considerations

Environment Planning & Assessment Act 1979

This request for a modification is being made under Section 4.55(1A) of the Environmental Planning & Assessment Act 1979.

Section 4.55(1A) of the EP&A Act identifies that *for modifications involving minimal environmental impact, a consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:*

- a) it is satisfied that the proposed modification is of minimal environmental impact, and
- b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and
- c) it has notified the application in accordance with:
 - I. the regulations, if the regulations so require, or
 - II. a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and
- d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.

5. Consultation

Armidale Regional Council:

Armidale Regional Council have been consulted regarding the proposed modification including a meeting held with Council to talk them through the proposed modification on 18th October 2018. Council indicated they have no in principal concerns with the proposed modification

Residence 1:

Consultation has been undertaken with owners of the dwelling indicated as Residence 1 on Appendix 1 of the Development Consent. Clenergy visited the owners of Residence 1 and discussed our proposed layout plan with the owners. During this meeting the owners detailed a number of concerns they have with the project. To assist in further mitigating some of their concerns with regard visual amenity, Clenergy agreed to explore setting the proposal further back from the existing proposed southern boundary immediately adjacent to their residence and provide screening along this boundary. The outcome of this was to increased setback of the solar array 160 metres from the respective southern boundary. The owners indicated they appreciated our efforts to provide this additional setback however they still hold several concerns about the project in alignment with their prior representations.

Clenergy provided the owners with a copy of the updated Site Layout Plan and the Visual Impact Assessment and subsequently contacted the landowners to respond to any questions regarding these documents. The landowners have subsequently forwarded their comments on this report to DPE and copied in Clenergy. We have reviewed these comments and concluded that they are consistent with their previous concerns raised during the exhibition period excluding a minor discrepancy with respect to the indicated setbacks in the updated Visual Impact Assessment that has now been rectified.

Clenegy further liaised with the landowners about the revised location of part of the landscape screen, which was moved to improve its efficacy in response to the increased setback of the solar farm array from this receiver. A revised layout plan showing the modified location of the visual screening was subsequently provided to the landowner for their reference.

6. Conclusion

This assessment concludes that the proposed modification is substantially the same development as for which the original development was granted consent, and that potential impacts associated with the proposed modification are minimal. Furthermore, with the implementation of the proposed mitigation actions (in addition to those already identified within the original Environmental Impact Assessment), potential environmental impacts of the modification are considered to be reduced from that of the approved development.

Based on the findings of the revised Visual Impact Assessment (Attachment 2) and the advice provided in this letter, it is anticipated that the proposed modification could be enacted in accordance with Section 96 (1A) of the EP&A Act.

As required, a Political Donations Disclosure Statement accompanies this application.

Should you have any questions in relation to this matter, please email shane.melotte@clenergy.com or phone 0429 778 080.

Yours sincerely,

Shane Melotte

Manager of Land and Permitting

Attachment 1: Updated Metz Solar Farm Layout

Attachment 2: Visual Impact Assessment