



Avonlie Solar Farm Modification 1

Disturbance footprint and intersection change
State Significant Development Modification Assessment
(SSD 9031 MOD 1)

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Executive Summary

RES Australia Pty Ltd has approval to develop the Avonlie Solar Farm (the project), located approximately 20 km southeast of Narrandera in the Riverina Murray Region of NSW.

The approved project involves the construction, operation, upgrading and decommissioning of a solar farm with 200 megawatts capacity, a battery storage facility with 10 megawatt-hours capacity, grid connection infrastructure and road upgrades.

Proposed Modification

The modification application seeks to amend the approved layout to reflect changes requested by Narrandera Shire Council and TransGrid during the detailed design process. This includes:

- removing the Basic Left-turn Lane treatment from the Sandigo Road / Muntz Road intersection;
- refining the development footprint within the road corridor at the Sturt Highway / Sandigo Road and Sandigo Road / Muntz Road intersections; and
- making minor adjustments to the location and size of the lot to be subdivided to accommodate the onsite substation.

RES has also taken the opportunity to reconfigure the internal road layout of the project. The disturbance footprint for the project would remain unchanged at 550 hectares (ha).

Engagement

The Department published the application on its website on 13 October 2020 and sought comments from the Department's Biodiversity and Conservation Division, Narrandera Shire Council, Transport for NSW, TransGrid and Heritage NSW. None of the agencies objected to the proposed modification and provided advice relating to the respective regulatory responsibilities.

Assessment

In assessing the merits of the proposed modification, the Department has considered the merits of the proposal in accordance with the relevant matters for consideration under the EP&A Act.

The proposed modification would result in a net reduction in clearing of 0.15 ha of the Western Grey Box endangered ecological community and a credit obligation exemption for impacts to 0.9 ha to planted Old Man Saltbush. These changes would decrease the project's offset liability by 22 ecosystem offset credits and 55 species credits.

The Department is satisfied that the modification would not result in any significant biodiversity impacts, subject to the provision of suitable offsets. Other potential impacts to heritage, water and amenity would be minor and could be managed by the existing conditions of consent.

Summary

The Department's assessment has concluded that the modification should be approved to reflect the amended layout and the corresponding reduction in biodiversity impacts of the project, in comparison with the assessed project. Consequently, it is in the public interest and should be approved.

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1 Introduction

RES Australia Pty Ltd (RES) has approval to develop the Avonlie Solar Farm (the project), located approximately 20 km southeast of Narrandera in the Riverina Murray Region of NSW (see **Figure 1**).

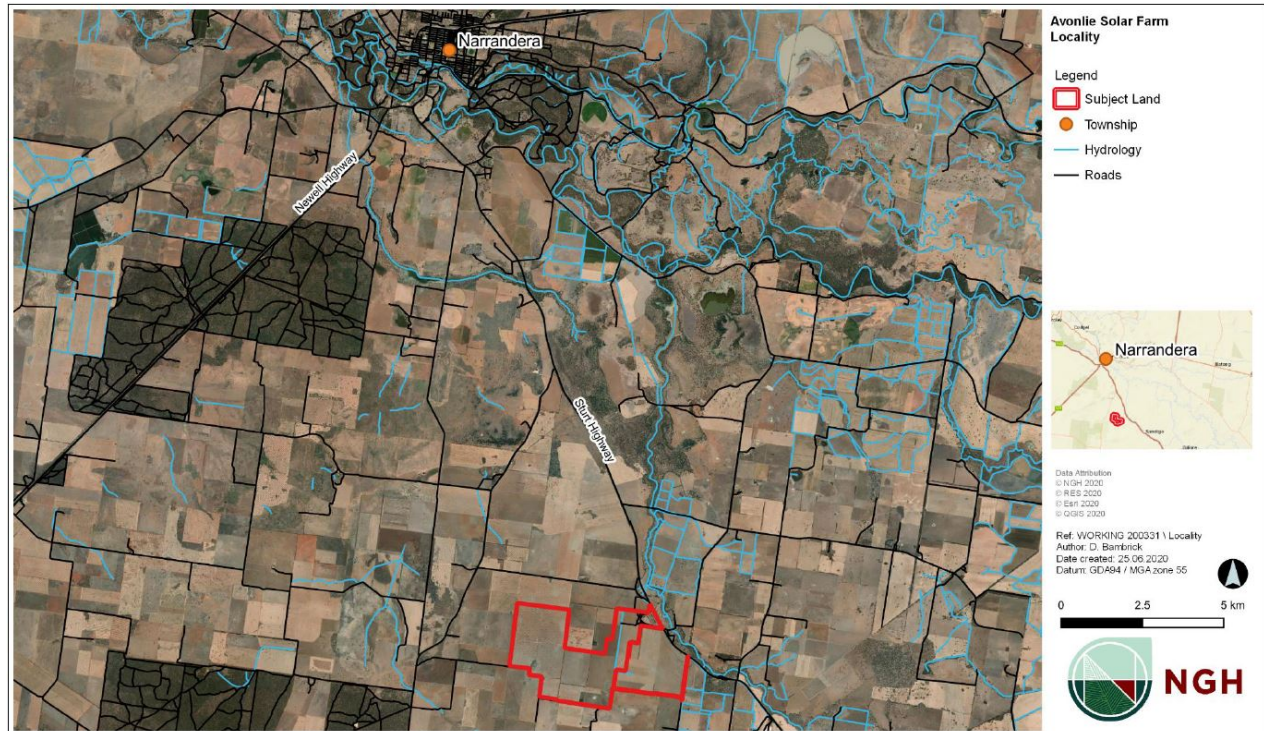


Figure 1 | Regional Context Map

1.1 Consent history

The project was granted development consent on 8 August 2019 by the Executive Director, Energy and Resources, as delegate of the Minister for Planning and Public Spaces.

The consent permits the construction, operation, upgrading and decommissioning of a solar farm with a generating capacity of approximately 200 megawatts (MW) and includes:

- approximately 670,000 solar panels (up to 4.0 m high), up to 41 inverter stations (up to 3.0 m high), battery storage facility (10 MW / 10 MWh capacity) and an onsite substation;
- connections to TransGrid's two existing 132 kilovolt transmission lines that traverse the site;
- internal access tracks, staff amenities, maintenance building, offices, storage shed (up to 6 m high), parking, laydown areas, and security fencing; and
- subdivision of land within the site to be retained by the landowner and for the onsite substation.

RES has yet to commence construction of the project.

2 Proposed modification

The modification application seeks to amend the solar farm layout and public road intersection design following consultation with Narrandera Shire Council (Council) and TransGrid as part of the detailed design process.

The modification is described in detail in the Modification Report (**Appendix B**) and proposes to:

- remove the Basic Left-turn Lane (BAL) treatment from the Sandigo Road and Muntz Road intersection design following consultation with Council's during detailed design and Council's advice that it is not required;
- refine the development footprint at the Sturt Highway / Sandigo Road and Sandigo Road / Muntz Road intersections;
- amend the internal road layout; and
- make minor readjustments to the location of the substation and increase the size of the lot to be subdivided from 1 hectare (ha) to 2 ha following consultation with TransGrid in detailed design to accommodate TransGrid's asset protection zone and safe access requirements.

Figure 2 shows the proposed modified project layout overlaid on the approved project layout, and **Figure 3** shows the location of the proposed changes to the development footprint in the public road corridors.

While the size of the development footprint remains unchanged (i.e. 550 ha), importantly the amended internal road layout/intersection design would result in 0.15 ha less native vegetation clearing.

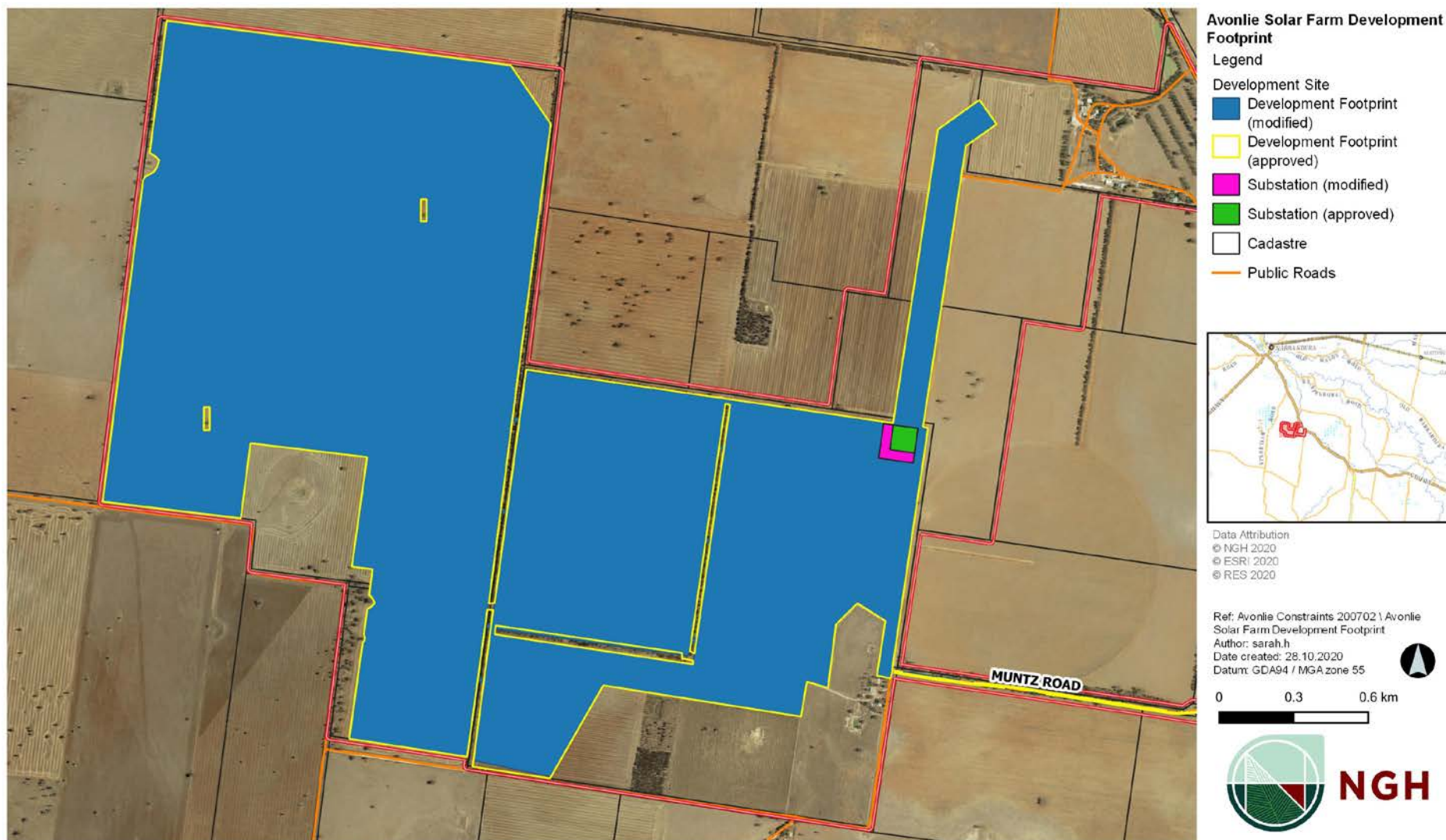


Figure 2 | Proposed modified project layout

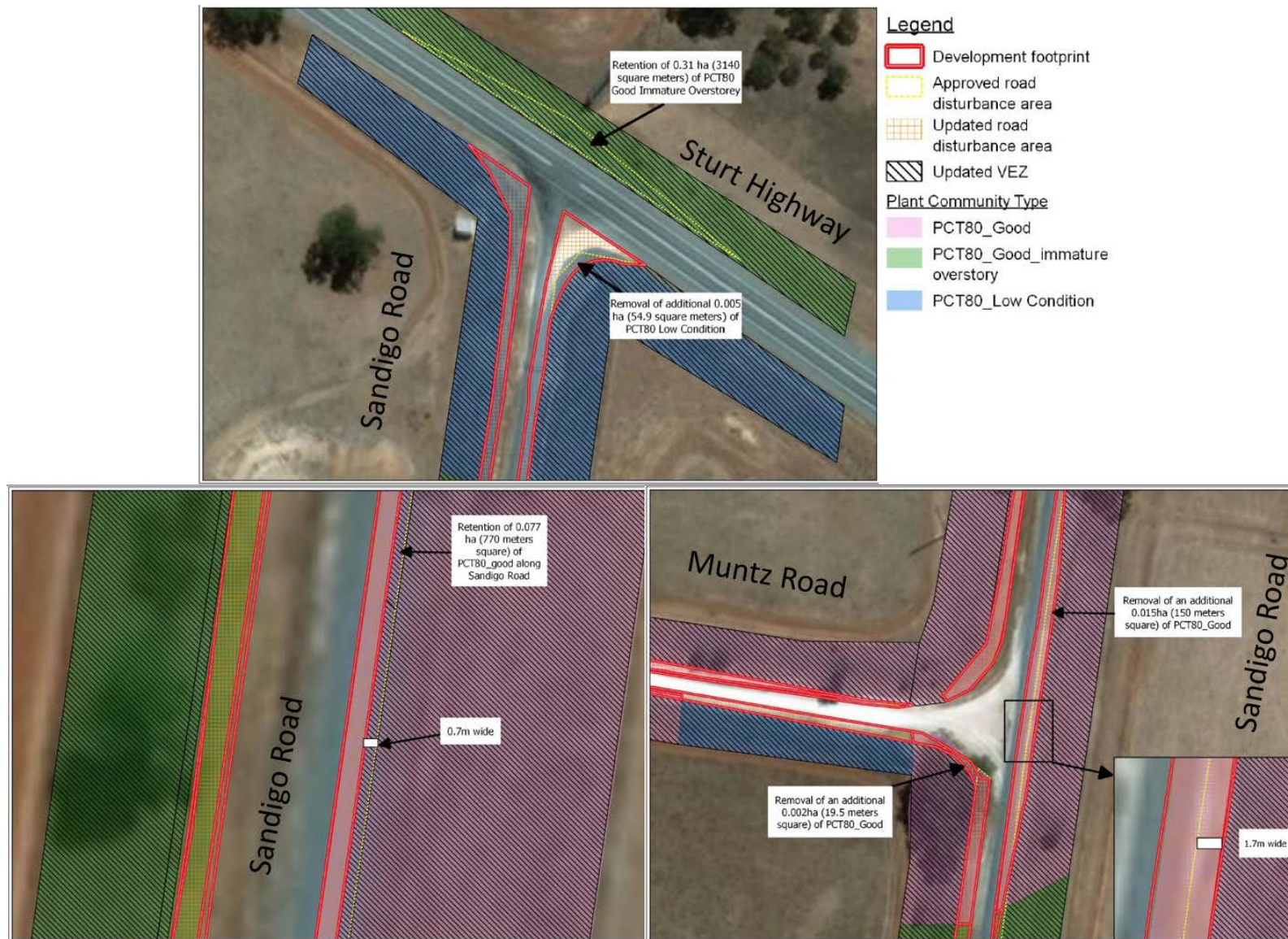


Figure 3 | Proposed modification of road upgrade footprint

3 Statutory context

3.1 Scope of modifications

Consideration as modification

The project was originally approved under Section 4.38 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and any modification to this consent must be made under Section 4.55 of the EP&A Act.

RES has given an undertaking that the modified project remains substantially the same as the project that was originally approved in accordance with Section 115(1) of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

The Department has considered the scope of the modification application and the original consent and considers that it can be characterised as a modification involving minimal environmental impacts, it is substantially the same development as originally approved and can be considered as a modification and does not require a new development application.

Type of modification

The Department has reviewed the scope of the modification application and considers that the application can be characterised as a modification involving minimal environmental impacts as the proposal:

- would not significantly increase the environmental impacts of the project as approved;
- would not substantially change the approved development footprint; and
- is substantially the same development as originally approved.

Consequently, the Department is satisfied that the application can be characterised as a modification to the existing consent under Section 4.55(1A) of the EP&A Act. Accordingly, the application may be assessed and determined under this section.

3.2 Consent authority

Although the Minister for Planning and Public Spaces is the consent authority for the application, the Director, Energy Assessments, may determine the application under the Minister's delegation dated 9 March 2020 as Narrandera Shire Council (Council) did not object to the proposal, RES did not make any political donations, and there were no public objections.

3.3 Mandatory matters for consideration

In accordance with Section 4.55(3) of the EP&A Act, the following must be considered in determining the modification application as relevant to the application:

- environmental planning instruments, proposed instrument or development control plan;
- any planning agreement;
- EP&A Regulation;

- likely impacts of the modification application, including environmental impacts on both the natural and built environments, and social and economic impacts;
- suitability of the site;
- any submissions;
- the public interest;
- the reasons for granting the consent for the original application.

The Department has considered the relevance of the considerations for the modification application below.

Environmental planning instruments, proposed instrument or development control plan

The environmental planning instrument relevant to this modification is the *Narrandera Shire Council Local Environmental Plan 2013* (the LEP). There are no proposed or draft LEPs or development control plans (DCPs) for Narrandera Shire Council LGA for consideration in this modification. The modification is entirely within the approved project site boundary, specifically within land zoned RU1 – Primary Production under the *Narrandera Shire Council Local Environmental Plan 2013*.

Any planning agreement

There are no voluntary planning agreements between RES and Narrandera Shire Council.

EP&A Regulation

The modification application satisfies the requirements of Section 115 of the EP&A Regulation. There are no additional considerations relevant to the modification application in the EP&A Regulation.

Likely impacts of the modification application

The likely impacts of the modification are considered in **section 5**.

Suitability of the site

The Department's assessment of the original application concluded that the site was suitable for a solar farm subject to the conditions of consent. RES is proposing to modify the development footprint but would not substantially change the approved project.

Submissions

The Department notified and sought advice from Council and relevant government agencies, and this is discussed in **section 4**.

Public Interest

The consideration of public interest is provided in **section 6**.

The reasons for granting the consent for the original application

The Department has considered the reasons for granting consent to the original application and is satisfied that the proposed modification is consistent with those reasons. The Department also considered the impacts and benefits of the solar farm in accordance with the EP&A Act in granting consent.

4 Engagement

4.1 Department's engagement

In accordance with the EP&A Regulation, the Department is not required to notify any other parties of the modification application. Notwithstanding, the Department sought comments from the Department's Biodiversity and Conservation Division (BCD), Narrandera Shire Council (Council), Transport for NSW (TfNSW), TransGrid and Heritage NSW. The application was also made publicly available on the Department's website on 13 October 2020. There were no public submissions.

4.2 Key Issues – Government Agencies

While none of the government agencies objected to the proposed modification, BCD, TfNSW, TransGrid, Council and Heritage NSW provided advice, summarised below and considered in more detail in **section 5**.

BCD advised that the Biodiversity Development Assessment Report (BDAR) adequately addressed the proposed changes to the development footprint and considers the exclusion of the Old Man Saltbush vegetation previously mapped as native vegetation but now excluded from the revised biodiversity offset calculator is appropriate. BCD also sought clarity on whether the subdivision of land to accommodate the onsite substation would result in any additional clearing. The Department confirmed that clearing for the substation subdivision has been accounted for in the BDAR. These matters are discussed in **section 5.1**.

Heritage NSW requested that RES undertake a new search of the Aboriginal Heritage Management System (AHIMS) database to confirm no additional sites of Aboriginal cultural heritage value have been recorded since the development was originally approved. In response, RES completed an AHIMS search which found no additional Aboriginal heritage sites within the development site and has updated mapping showing the proposed development footprint against known Aboriginal heritage sites.

TfNSW, TransGrid and Council did not object to the proposed modification and raised no specific concerns.

5 Assessment

The Department has considered the merits of the proposed modification application in accordance with the relevant matters for consideration described in **section 3.3**.

In assessing the merits of the proposed modification, the Department has considered the existing development consent; previous environmental assessments for the project; the modification application; applicable government policies and guidelines; agency advice and requirements of the EP&A Act. A list of the key documents that informed the assessment is provided in **Appendix A**.

The Department has considered whether the proposed changes would result in any material increases in the impacts of the project. Changes to biodiversity impacts are discussed in **section 5.1**, while other matters for consideration are discussed in **section 5.2**.

5.1 Biodiversity

The proposed modification would reduce the clearing of *Western Grey Box – White Cypress Pine tall woodland on loam soil on alluvial plains of NSW South Western Slopes Bioregion and Riverina Bioregion* by 0.18 ha, including 0.15 ha which meets Endangered Ecological Community (EEC)¹ criteria.

The revised BDAR submitted with the modification application has reclassified a 0.9 ha area of vegetation previously considered as *Old Man Saltbush – mixed chenopod shrubland of the semi-arid hot (persistently dry) and arid climate zones (north-western NSW)*. This area is no longer considered natural vegetation as the plant community type does not occur naturally in this region, and has been planted in rows to provide fodder for livestock.

BCD confirmed that the removal of the 0.9 ha of Old Man Saltbush from the biodiversity offset calculations is appropriate. The changes to biodiversity impacts as a result of this modification and reductions to the biodiversity credit requirements are summarised below in **Table 1**.

BCD sought clarification on whether subdividing the lot for the substation would involve future clearing not considered in the BDAR. The Department confirmed that the revised BDAR assumes that in order to build the substation, the subdivided lot would be cleared completely.

The Department supports the refinement of the project layout which reduces the clearing of Western Grey Box Woodland EEC, resulting in an improved biodiversity outcome and accepts that the proposed layout amendments have avoided impacts on native vegetation as far as practicable. The existing conditions of consent should be updated to reflect the applicable biodiversity offset credit liability.

¹ Western Grey Box Woodland forms part of the *Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregion* EEC.

Table 1 | Summary of biodiversity impacts and credit requirements

Item	Approved project		Proposed modification		Change
	Clearing	Credits required	Clearing	Credits required	
Ecosystem credits					
Western Grey Box – White Cypress Pine tall woodland on loam soil on alluvial plains of NSW South Western Slopes Bioregion and Riverina Bioregion (PCT 80)	1.90 ha	83	1.75 ha ¹	76	-0.15 ha (7.9 %)
Old Man Saltbush – mixed chenopod shrubland of the semi-arid (persistently dry) and arid climate zones (PCT 158)	0.9 ha	15	0.0 ha	0	-0.9 ha (100 %)
Total ecosystem credits		98		76	-22 (22.4 %)
Species credits					
Sand-hill Spider Orchid (<i>Caladenia Arenaria</i>)		58		40	-18
Oaklands Diuris (<i>Diuris</i> sp.)		58		40	-18
Pine Donkey Orchid (<i>Diuris tricolor</i>)		29		21	-8
A Spear Grass (<i>Austrostipa wakoolica</i>)		38		27	-11
Superb Parrot (<i>Polytelis swainsonii</i>)		6		6	0
Major Mitchell Cockatoo (<i>Lophochroa leadbeateri</i>)		6		6	0
Total species credits		195		140	-55 (28.2 %)

Note: ¹ There are decreased impacts in vegetation zones 1 and 2 and increased impacts in zones 3, 4 and 5; the net impact is a decrease in clearing.

5.2 Other considerations

Table 2 | Summary of other impacts as a result of the proposed modification

Issue	Assessment	Potential for additional impacts
Aboriginal and historic Heritage	RES undertook a search of the AHIMS database, confirming no additional items of Aboriginal cultural heritage value have been recorded on site since receiving development consent. The proposed layout is generally consistent with the assessed project site and would not result in additional impacts to known Aboriginal sites. There are no known sites of historic heritage value within or surrounding the site. Impacts to Aboriginal heritage items are adequately covered by the existing consent conditions which require the avoidance, or the salvage of Aboriginal sites undertaken in accordance with a Heritage Management Plan.	No

Issue	Assessment	Potential for additional impacts
Traffic	The proposed modification would not change the traffic and transport impacts of the approved project on the local or State road networks. The removal of the BAL treatment from the Muntz Road and Sandigo Road intersection design was identified by Council (the relevant roads authority) in consultation during detailed design. TfNSW and Council have raised no concerns regarding the modification application.	No
Visual	The proposed modification would not have visual impacts beyond those assessed for the approved project. The additional clearing of 0.018 ha of vegetation at the Sandigo Road and Muntz Road intersection (see Figure 3), as well as the minor relocation of the substation would be indiscernible from the nearest non-associated receiver located more than 2 km away. Existing consent conditions are adequate.	No
Noise	Noise impacts would be consistent with the approved project. The previous assessment concluded that the operational noise would be below the 'noise affected' criteria of 45 dB(A) at all non-associated residences. Existing consent conditions are adequate.	No
Soils and water	Erosion and sediment controls would be put in place around the development footprint to manage sediment mobilisation and run-off. Existing consent conditions are adequate.	No
Socio-economic	No changes to socio-economic impacts would occur.	No
Hazards	The layout changes for the substation allow for an increase in the substation lot size from 1 ha to 2 ha to allow for a suitably sized asset protection zone and safe access for TransGrid. The existing consent conditions for hazards are adequate.	No
Waste	No changes in waste generation or management would result from the approved project. Existing consent conditions are adequate.	No
Decommissioning	RES requested to extend the operational period from 30 to 35 years. The existing consent does not limit the operational period of the project. Existing consent conditions are adequate.	No
Subdivision	The size of the lot to be subdivided for the substation would increase from 1 ha to 2 ha. This would allow for a suitably sized asset protection zone and safe access for TransGrid. Subdivision plans would be updated in the revised consent.	No

5.3 Summary

The Department is satisfied that the modification is necessary to amend the project layout and remove the BAL treatment at the Sandigo Road and Muntz Road intersection following detailed design of the project in consultation with Council (the relevant roads authority). The revised BDAR accurately reflects the biodiversity impacts and biodiversity credits requirements.

The Department is satisfied that the modification would not result in any significant additional environmental or amenity impacts, beyond those currently approved for the project and that the revised conditions of consent would adequately address any potential impacts.

The Department has also taken the opportunity to update the original consent with new agency names, and new standard compliance conditions (see a summary of the administrative changes in **Appendix E**).

6 Evaluation

Proposed modification

The modification proposes to remove the BAL treatment at Sandigo Road and Muntz Road intersection, amend the layout of the development footprint of road upgrades, reconfigure internal roads in the project site and layout of the substation, and amend the substation subdivision plan. The Department has assessed the modification application in accordance with the relevant statutory requirements, having regard to the Modification Report and documentation relating to the currently approved project.

Likely impacts of the modification application

In assessing the merits of the proposal, the Department has considered the:

- relevant matters for consideration identified in **section 3.3**;
- existing conditions of approval;
- previous Environmental Assessments for the project; and
- requirements of the EP&A Act.

The Department considers that the proposed modification application meets these requirements as:

- the relevant road authorities support the proposed roadworks modifications;
- the proposed substation subdivision plan meets TransGrid's requirements;
- the proposed modification would not significantly impact on the natural and built environments, and there would not be any social and economic impacts beyond those already approved;
- there are no draft environmental planning instruments, development control plans and planning agreements or requirements in the EP&A Regulation relevant to the modification application;
- there are no land use conflicts between the site and the use of surrounding land in the locality (including agricultural land) noting that the solar farm and associated infrastructure have been assessed in detail and the existing consent would effectively manage and minimise any residual impacts associated with the project; and
- the modification application is consistent with the reasons given for the original consent.

The Department's assessment has found that the proposed modification would not result in any significant impacts beyond those that were assessed and approved under the existing consent.

The Department has drafted a Notice of Modification (see **Appendix C**) and a consolidated version of the development consent (see **Appendix D**). The Department has recommended updated conditions for amended road upgrades requirements, revised biodiversity offset liability and an updated development layout plan. RES has reviewed the conditions and does not object to them.

The Department is satisfied that the proposed modification is in the public interest and should be approved subject to these conditions.

7 Recommendation

It is recommended that the Director, Energy Assessments, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report;
- **determines** that the application Avonlie Solar Modification 1 (SSD 9031) falls within the scope of Section 4.55(1A) of the EP&A Act;
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to approve the modification;
- **modifies** the consent (SSD 9031);
- **signs** the attached approval of the modification (**Appendix C**).

Recommended by:



Javier Canon
Senior Assessment Officer
Energy Assessments

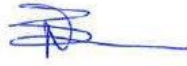
Recommended by:



Anthony Ko
Team Leader
Energy Assessments

8 Determination

The recommendation is **Adopted** / ~~Not adopted~~ by:



24/11/20

Nicole Brewer

Director

Energy Assessments

as delegate of the Minister for Planning and Public Spaces

Appendices

Appendix A – List of referenced documents

Avonlie Solar Farm SSD 9031 Modification Report, NGH & RES, October 2020

Response to Department's request for information dated 5 November 2020

Appendix B – Modification Application

<https://www.planningportal.nsw.gov.au/major-projects/project/40126>

Appendix C – Notice of Modification

<https://www.planningportal.nsw.gov.au/major-projects/project/40126>

Appendix D – Consolidated consent

<https://www.planningportal.nsw.gov.au/major-projects/project/40126>

Appendix E – Summary of Administrative Changes to Conditions

Condition Number	Administrative changes	Reasons for Change
Definitions	Delete old agency names and acronyms and insert current agency names and acronyms.	These updates ensure the correct agencies are consulted in accordance with the consent following changes to agency names and divisions.
	Update the definition of EIS.	To include the Modification Application Report and additional information provided to the Department.
Schedule 4: conditions 4 and 5	Insert the Department's current website portal details into the incident and non-compliance reporting condition.	The Department no longer operates incident and non-compliance reporting by email and instead requires notification via its website portal.
Schedule 4: condition 6	Delete the condition that requires regular compliance reporting to the Department.	The Department now relies on independent audits to report on compliance with the consent.
Schedule 4: condition 7	Replace the independent environmental audit condition with the Department's new condition that requires pre- and post-construction audits as well as audits at any time when directed by the Secretary.	This change reflects the Department's latest compliance auditing scheme set out in the <i>Independent Audit Post Approval Requirements 2020</i> .