



# ***Wellington Solar Farm (Mod 1)***

*State Significant  
Development  
Modification Assessment  
(SSD 8573 MOD 1)*



December 2019

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# Executive Summary

Lightsource Development Services Australia Pty Ltd (Lightsource BP) has acquired the approved Wellington Solar Farm (the project), located approximately 2 kilometres (km) northeast of Wellington, in the Dubbo Regional local government area.

The approved project includes the construction, operation, upgrading and decommissioning of a solar farm with an estimated capacity of 174 megawatts (MW).

## Proposed Modification

The modification application seeks approval to extend TransGrid's Wellington substation layout to accommodate the equipment required to facilitate the project's connection to the electricity network following detailed design consultation with TransGrid. The proposed expansion is supported by TransGrid.

The modification application also seeks approval to convert a section of the approved transmission line between the onsite energy storage facility and TransGrid's substation from overhead to underground.

## Engagement

The Department published the modification application on its website on 8 October 2019 and sought comment from Dubbo Regional Council (Council), the Department's Biodiversity and Conservation Division (BCD), Roads and Maritime Services (RMS), Rural Fire Service, Fire and Rescue NSW and TransGrid and the nearest neighbouring landowners. None of the agencies objected to the proposed modification but provided advice related to their respective regulatory responsibilities. No comments were provided by the neighbouring landowners.

## Assessment

In assessing the merits of the proposed modification, the Department has considered the existing conditions of consent; previous environmental assessments for the project; the modification application and supporting information; the amendment letter; applicable government policies and guidelines; and requirements of the EP&A Act.

The key matters considered in the Department's assessment are the compatibility of the proposed land use and impacts on biodiversity and amenity, including visual, traffic and noise.

The modification is within the approved project site boundary. However, the development footprint would increase by approximately 0.78 hectares (ha). The changes would be on land zoned RU1 Primary Production and SP2 Infrastructure under the *Wellington Local Environmental Plan 2012*.

The land on which the changes to the transmission line are proposed (RU1) could be easily returned to agricultural uses after the project is decommissioned and the inherent agricultural capability of the land would not be affected. The proposed expansion of the substation would be entirely within SP2 zone. Although this change would be permanent, this area is mapped as designated for electricity supply. As such, the Department considers the modified project would remain consistent with objectives of these zones.

The modification would impact 0.78 ha of native vegetation, including 0.02 ha of White Box grassy woodland (planted) which is an endangered ecological community (EEC) in moderate to good condition. This impact would increase the project's offset liability by one ecosystem credit and two species credits. Both the Department and BCD are satisfied that the modification would not result in significant biodiversity impacts, subject to the provision of the revised offset liability credits.

The proposed modification would require two over-dimensional vehicles for delivery of equipment to TransGrid's substation. The existing road network and access point have sufficient capacity to accommodate this change without the need for upgrade. The Department has updated the conditions to include two over-dimensional vehicles. Subject, to the updated conditions, the Department, RMS and Council are satisfied that the proposed changes would have negligible impact on road network capacity, efficiency or safety.

The impact on visual amenity and noise is considered negligible as the nearest residential receivers are more than 1 km away from the proposed changes.

### **Summary**

On balance, the Department considers that the proposed modification has merit, and is in the public interest.

In this regard, the proposed modification would allow the benefits of the project to be realised, particularly as it would facilitate connection to the electricity network.

The Department's assessment has concluded that the modification would not result in any significant impacts beyond those that were assessed and approved. Any residual environmental and amenity impacts associated with the proposed modification could be mitigated and managed through the existing conditions of consent.

In modifying the consent, the Department has taken the opportunity to update and strengthen the existing conditions relating to compliance reporting and environmental audits to better reflect contemporary conditions that apply to other solar farms in NSW.

Importantly, the proposed changes to the transmission line and extension of the Wellington substation layout are required to ensure Lightsource BP addresses TransGrid's connection requirements. As such, the Department considers that the proposed modification should be approved.



# 1. Introduction

Lightsource Development Services Australia Pty Ltd (Lightsource BP) acquired the development consent for the Wellington Solar Farm (the project) in March 2019. The project is located approximately 2 kilometres (km) northeast of Wellington in the Dubbo Regional local government area (LGA) (see **Figure 1**).

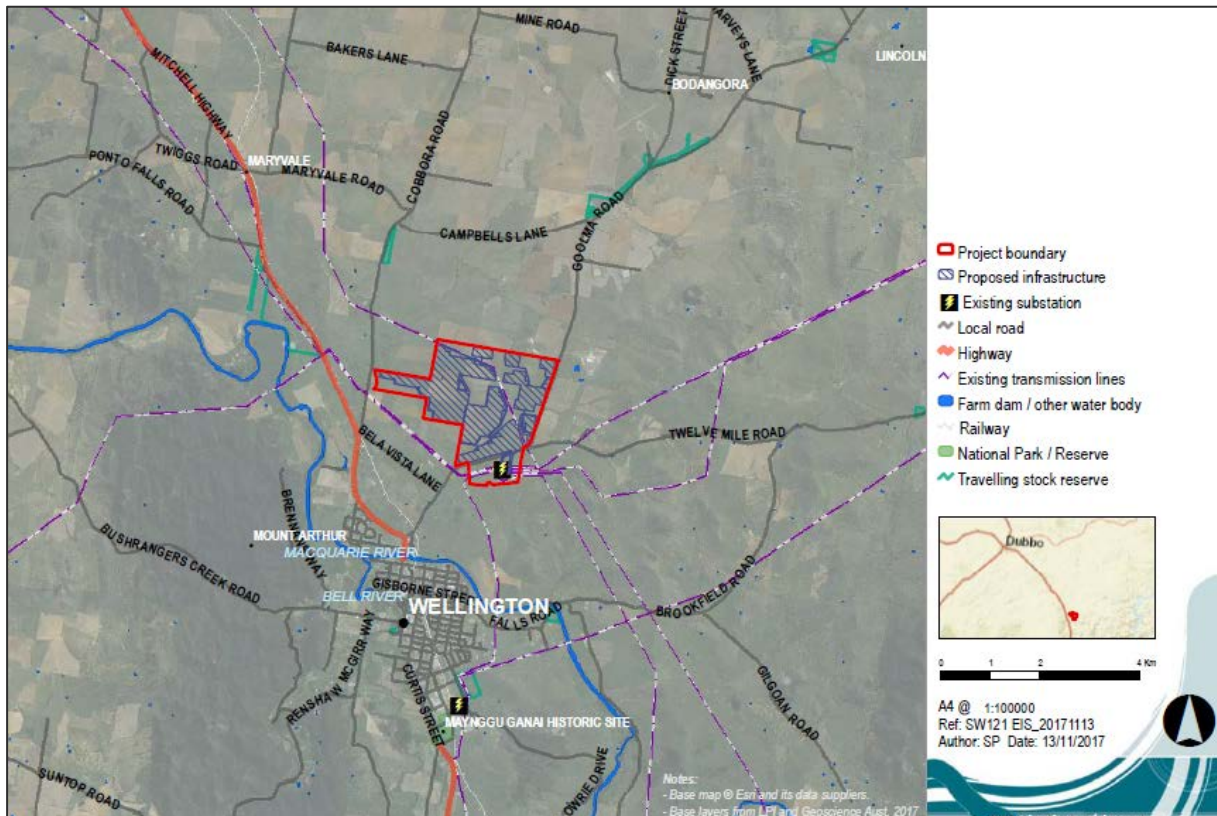


Figure 1 | Regional Context

## 1.1 Consent History

The project was granted development consent on 25 May 2018 by the Executive Director, Resource Assessments and Business Systems, as delegate of the then Minister for Planning. The consent permits the construction, operation, upgrading and decommissioning of a solar farm with a generating capacity of approximately 174 megawatts (MW) and includes:

- approximately 440,000 solar panels (up to 4.5 m in height), 50 inverter stations (up to 2.9 m in height), an energy storage facility with 25 MW / 100 MW-hour (MWh) capacity and an onsite substation;
- an overhead transmission line, connecting the energy storage facility to TransGrid's Wellington substation;
- internal access tracks, staff amenities, offices, maintenance and equipment buildings, laydown areas, onsite car parking and security fencing; and
- vegetation screening along the southeast boundary and western-most corner of the site.

Lightsource BP has yet to commence construction of the project.

## 1.2 Approved Connection

Under the existing consent a new 1,270 metres (m) overhead transmission line would connect the onsite battery storage facility with TransGrid's Wellington substation (located about 150 m south of the development footprint), via the Goolma Road road reserve (see **Figure 2**).

An area within TransGrid's substation was identified as a suitable location for connection and placing the required equipment.



## 2. Proposed Modification

The modification application seeks minor amendments to the solar farm layout. The modification is described in detail in the Modification Report (**Appendix B**) and Amendment Letter (**Appendix C**) and seeks to:

- extend the footprint of TransGrid's substation; and
- realign and convert the approved transmission line from overhead to underground.

### 2.1 TransGrid's substation extension

During the detailed design consultation between Lightsource BP and TransGrid, TransGrid determined that expansion of the substation is required to accommodate the equipment needed for the project to connect to the grid, including a switchgear and a transformer. The proposed extension area would be approximately 0.46 ha and located adjacent to the southwestern corner of the substation. TransGrid supports the proposed modification.

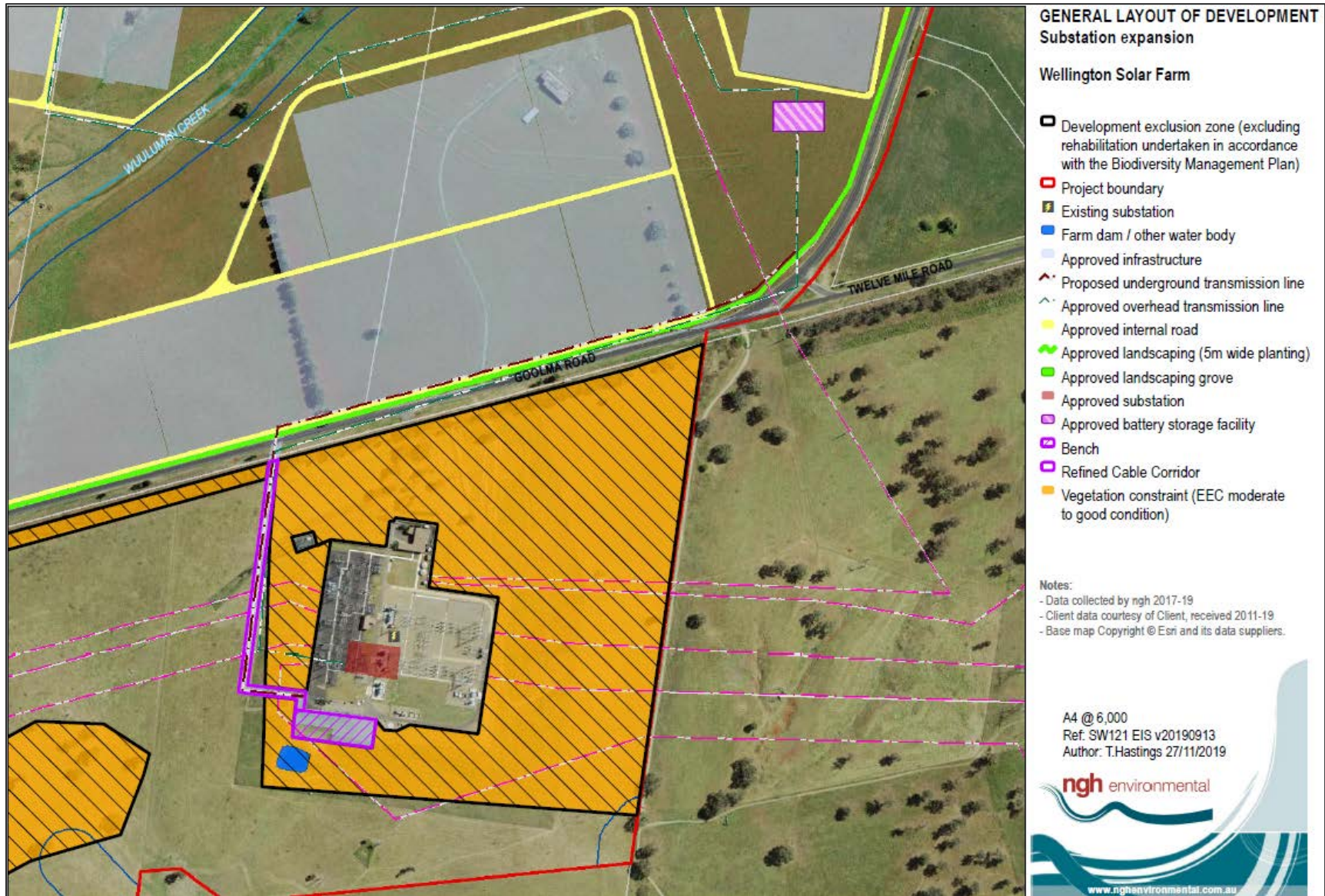
### 2.1 Transmission Line

The proposed underground transmission line generally follows the alignment of the approved overhead line. However, the proposed underground line would run parallel to Goolma Road underneath an internal access road within the development footprint (as opposed to within the Goolma Road road reserve), before it crosses Goolma Road towards to substation.

South of Goolma Road the underground transmission line would follow the approved overhead line alignment but would extend by approximately 110 m (i.e. the length between the approved and proposed connection points).

Despite this extension, the proposed underground transmission line would be longer by approximately 5 m (i.e. 1,275 m). The difference is due to the proposed realignment between the energy storage facility and the crossing of Goolma Road, which would make this section of the proposed transmission line shorter.

**Figure 2** shows the location of the proposed changes compared to the approved project.



**Figure 2** | Proposed Modification



## 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.

Lightsource BP considered that the modified project would be substantially the same as the development that was originally considered 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 the modification 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, as it would result in substantially the same project as originally approved.

### 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 11 October 2017 as Dubbo Regional Council (Council) did not object to the proposal, Lightsource BP did not make any political donations and there were no public objections. Whilst the modification application was not required to be formally exhibited, the Department informed the nearest landowners of the proposed modification.

### 3.3 Matters for Consideration

In accordance with Section 4.55(3) of the EP&A Act, the following must be considered in granting 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 *Wellington Local Environment Plan 2012* (Wellington LEP). There are no proposed or draft LEPs or development control plans (DCPs) for Dubbo LGA for consideration in this modification. A consideration of the Wellington LEP is outlined in **section 5** of this report.

### **Any planning agreement**

There are no voluntary planning agreements between Lightsource BP and Council.

### **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 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 and associated infrastructure subject to the conditions of consent. Lightsource BP is proposing to extend TransGrid's Wellington substation within the approved project site boundary on land zoned SP2 - Infrastructure under the Wellington LEP. The suitability of the site with the proposed changes is considered in **section 5.1**.

### **Submissions**

The Department notified and sought advice from Council, TransGrid and the relevant government agencies. The agencies' comments are discussed further in **section 4**. The Department notified the two adjoining landowners of the proposed modification. None of the landowners provided feedback on the modification.

### **Public Interest**

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

### **The reasons for granting the consent for the original application**

The Department 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 comment from Council, BCD, Roads and Maritime Services, Rural Fire Service and Fire and Rescue NSW. The application was also made publicly available on the Department's website on 8 October 2019.

While the Department did not formally exhibit the application, it notified two adjoining residences, with the closest located approximately 1 km from the proposed changes. None of the landowners provided feedback on the modification.

As the modification application seeks to make changes to the layout of an electricity substation and involves the placement of transmission lines under a Council road, the Department is required to notify and seek comment from TransGrid and Council under Section 45 of the *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP). TransGrid supports the proposed expansion of its Wellington substation, given the

requirement to extend the substation was a result of detailed design consultation between Lightsource BP and TransGrid.

## 4.2 Key Issues – Government Agencies

While none of the government agencies objected to the proposed modification, several provided advice. This advice is summarised below and considered in more detail in **section 5**.

**Dubbo Regional Council** (Council) did not object to the proposed modification and raised no specific concerns.

The **Department’s Biodiversity and Conservation Division** (BCD) raised no concerns, noting that the biodiversity assessment for the modification was conducted in line with the Biodiversity Assessment Method under the BC Act, and that the Aboriginal heritage assessment prepared for the original project is sufficient.

**TransGrid** advised that it provided input into the design of the proposed works at the substation and that it had no specific comments relating to the proposed modification.

**Roads and Maritime Services** (RMS) noted that a relevant approval from the National Heavy Vehicle Regulator would need to be obtained for the two over-dimensional vehicles. It also advised that the transmission line alignments within Goolma Road would need to meet RMS standards. Lightsource BP committed to the recommendations and RMS confirmed it had no further concerns related to the modification.

**Fire & Rescue NSW** (FRNSW) offered no specific comments on the proposed modification and advised that there would be little impact to the fire safety aspects of the projects.

**Rural Fire Service** (RFS) 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 comments 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 environmental or amenity impacts of the project. The key matters for consideration on this project include compatibility of the proposed land use, impacts to biodiversity, and amenity impacts (including visual, noise and traffic).

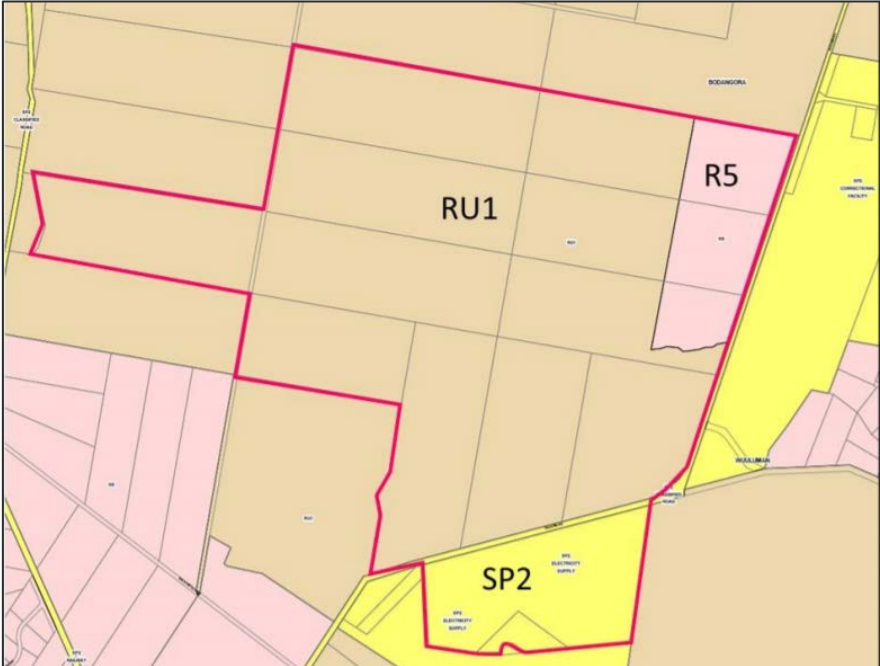
## 5.1 Compatibility of Proposed Land Use

The existing development consent allows for solar panels and associated infrastructure in a 491 ha development footprint within the 559 ha project site. The proposed changes to the transmission line and expansion of TransGrid’s substation are contained within the project site boundary. The land zoning within the project boundary is shown in **Figure 3**. The proposed modification seeks to increase the development footprint by 0.78 ha (this includes the easement area for the underground transmission line and substation expansion).

The proposed underground transmission line between the energy storage facility and Goolma Road is on land mapped as RU1 Primary Production under the Wellington LEP. The section of the transmission line is already approved for development within the development footprint and would remain consistent with the objectives of RU1 zone.

The extension of TransGrid substation and the section of transmission line south of Goolma Road would be located on land mapped as SP2 Infrastructure. This land is designated as 'Electricity Supply' on the Land Zoning Map and the solar farm and associated infrastructure is permissible with consent in this zone.

Relocation of the transmission line underground combined with the substation extension would require an additional 0.78 ha of ground disturbance. However, it would be within the approved project site boundary and on land designated for electricity supply. Further, the proposed changes to locate the transmission line underground would not limit the ability of the site returning to agricultural use in the future once the project is decommissioned.



**Figure 3 | Land Zoning within the Project Boundary**

The Department considers that the proposed changes represent an effective and compatible use of the land within the region. The existing conditions, including the decommissioning and rehabilitation objectives in the consent, adequately address the potential impacts on agricultural land.

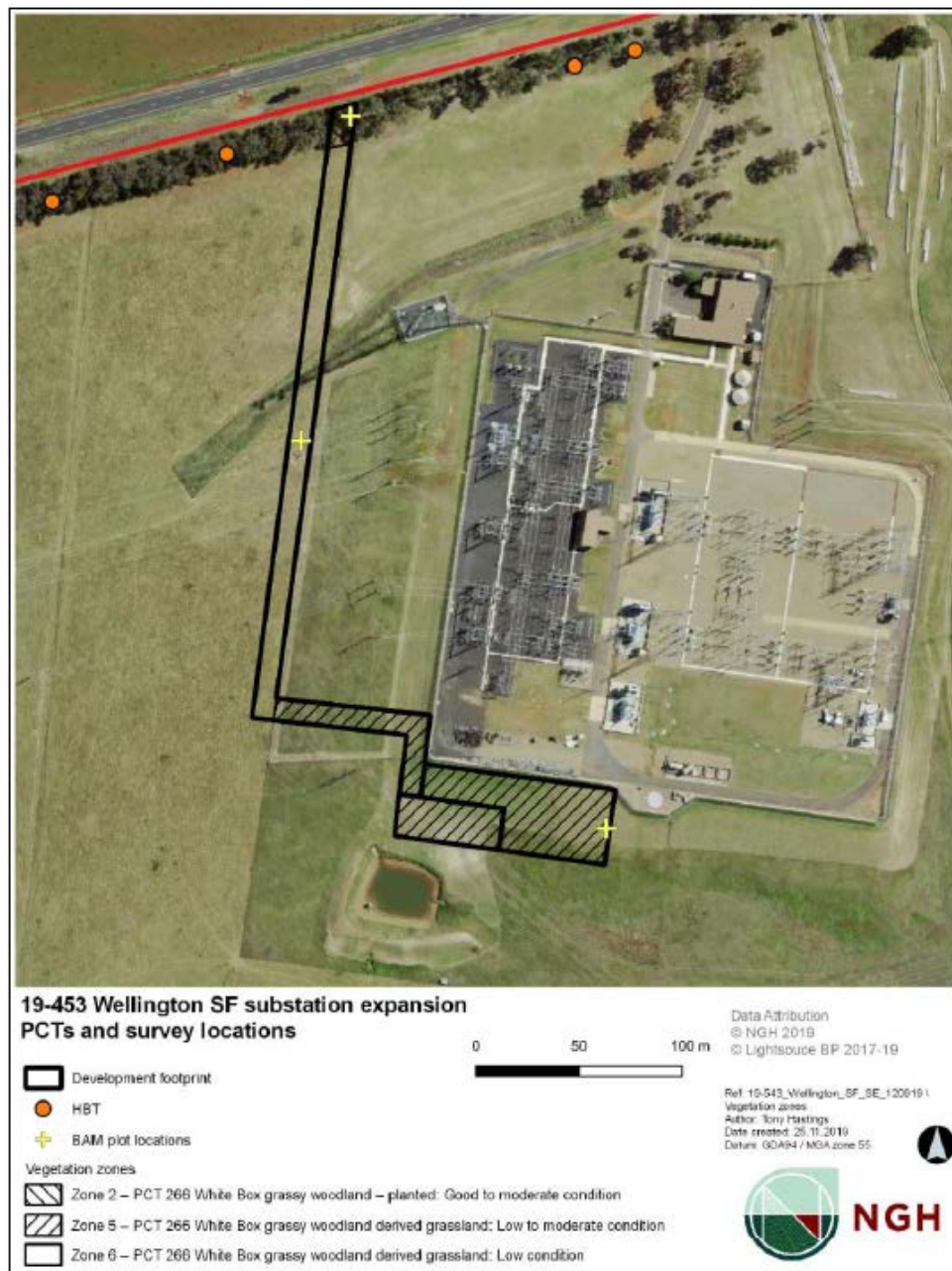
### 5.2 Biodiversity

The biodiversity assessment prepared for the original development application surveyed the project site, including the area of this modification. The area surrounding TransGrid’s substation and along Goolma Road (southern side) was mapped as a ‘Development Exclusion Zone’ due to the presence of native vegetation listed as an Endangered Ecological Community (EEC) under the *Biodiversity Conservation Act* (BC Act) (i.e. PCT 266 – White Box grassy woodland).

The Department accepts that it is not possible to avoid impact to this area as it is required for the necessary equipment to connect to TransGrid’s substation following advice from TransGrid.

Lightsource BP undertook additional field surveys for the proposed modification and included the results in a Biodiversity Development Assessment Report. The results indicated that, while the modification has been

designed to minimise the impacts to native vegetation, it would still impact 0.78 ha, including 0.02 ha of EEC in moderate to good condition. The impacts to each zone are specified in **Table 1** and **Figure 4**.



**Figure 4** | Vegetation Community Zones within the Proposed Modification

**Table 1** | Impacts to Vegetation from the Proposed Modification

Vegetation Community	PCT	Zone	Condition	Area Impacted (ha)
White Box grassy woodland – planted	266	Zone 2	Moderate to good	0.02
White Box grassy woodland – derived grassland	266	Zone 5	Low to moderate (previously moderate to good)	0.46
White Box grassy woodland – derived grassland	266	Zone 6	Low	0.30
<b>Total</b>				<b>0.78</b>

Under the NSW Biodiversity Offsets Scheme, the clearing of EEC in moderate to good condition (zone 2) would increase the project's offset requirements by an additional ecosystem credit (from 3 as originally approved to 4 required after this modification). The impacts to the other two zones (zone 5 and zone 6) would not generate any additional ecosystem credits due to the low condition of the vegetation.

In addition, the entire area of impact (0.78 ha) has been assessed as suitable habitat for the Pink-Tailed Legless Lizard which is a threatened species under the BC Act. Although a fauna survey was not undertaken, the species was assumed to be present. Therefore, this resulted in two species credits (meaning a total of two species credits is now required for the project).

Both the Department and the BCD are satisfied that the modification would not result in any significant biodiversity impacts, subject to the provision of the updated offset liability credits.

## 5.3 Amenity

### Visual

There are four non-associated residences within 2 km of the proposed modification, with the nearest residence (R8) located approximately 1 km to the west.

A visual impact assessment of the proposed modification was completed by NGH Environmental and included an assessment of the nearest residences. This assessment concluded that the visual impacts at any assessed residences would be negligible due to the scale of the modification, the distance from receivers and intervening vegetation.

The proposed modification would involve a relatively minor (0.46 ha) expansion of the existing Wellington substation. As such it would occupy a relatively small proportion of the existing view of the substation and is not expected to result in any significant visual impacts. Additionally, the approved overhead transmission line is now proposed to be located underground which would eliminate this element from the view.

Overall, the Department is satisfied that the proposed modification is unlikely to increase visual impacts and no additional mitigation measures are required.

### Traffic

The proposed modification would require two over-dimensional vehicle movements for delivery of substation equipment, such as the switchgear and a transformer. This traffic would utilise Goolma Road which is a designated Oversized Overmass Load Carrying road. The existing access to TransGrid's substation would be used and is sufficient to accommodate the additional vehicles.

Any potential impacts from the proposed modification would be minimised and managed through the measures detailed in the Traffic Management Plan (TMP) that would need to be updated following approval of the modification application.

RMS advised that the underground transmission line crossing of Goolma Road would need to meet RMS standards and Lightsource BP has committed to this. Initially RMS raised concerns about the cumulative traffic impacts with Wellington North Solar project and requested a commitment from Lightsource BP to use buses to deliver construction personnel. However, the existing conditions already include a requirement for Lightsource BP to utilise a shuttle bus and car-pooling. Council did not have any concerns relating to the proposed modification.

Subject to the recommended conditions, the Department, RMS and Council are satisfied that the modification would not result in significant impacts on road network capacity, efficiency or safety.

## Noise

The assessment identified that the noise management levels at the nearest receivers would be exceeded by approximately 4 dB(A) but would remain well below the highly noise affected level of 75dB(A). The Department is satisfied that any noise impacts from the proposed modification would be short-term and minor and would be sufficiently limited and managed by the existing conditions of consent.

## 5.4 Heritage

The Aboriginal Cultural Heritage Assessment Report (ACHAR) submitted with the original project included the area of the proposed modification and confirmed that no Aboriginal heritage sites were recorded within the proposed modification footprint. Additionally, Lightsource BP has notified the Registered Aboriginal Parties of this modification.

As such, the Department and BCD consider that the proposed modification would not increase the Aboriginal or historic heritage impacts of the project or require any changes to the heritage management conditions under the existing consent.

## 5.5 Bushfire

In regard to bushfire risk, the existing conditions require Lightsource BP to maintain a 10 m Asset Protection Zone (APZ) around the perimeter of the project site and would maintain for the modified project.

FRNSW and RFS confirmed that the proposed modification would have little impact or significance to the fire and safety aspects of the development as approved. The Department considers that bushfire risk can be adequately managed through the existing conditions including the Fire Management and Emergency Response Plan.

## 5.6 Summary

In summary, subject to the revised conditions, the Department considers that the proposed modification would not result in significant impacts on the environment or amenity impacts beyond those currently approved for the project and that the revised conditions of consent would adequately address any potential impacts.



# 6. Evaluation

### Proposed Modification

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 original project. The Department has assessed the proposed modification to allow for extension of TransGrid's Wellington substation and relocation of the transmission line underground.

### 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 modification is consistent with the objectives of the Wellington LEP;

- 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 assessed;
- 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;
- TransGrid supports the proposed expansion of its Wellington substation, given the requirement to extend the substation was a result of detailed design consultation between Lightsource BP and TransGrid;
- there are no land use conflicts between the land 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. Any residual environmental and amenity impacts associated with the proposed modification could be mitigated and managed through the revised conditions of consent.

Importantly, the proposed modification would allow the benefits of the project to be realised, particularly as it would ensure the project's constructability and ability to connect to the electricity network.

Consequently, the Department is satisfied that the proposed modification is in the public interest and should be approved.

The Department has drafted a Notice of Modification (see **Appendix D**) and a consolidated version of the development consent as modified (see **Appendix E**). To permit the proposed modification, the conditions have been updated with a new definition of the EIS, revised biodiversity offset liability and updated development layout plan.

Additionally, in modifying the development consent, the Department has taken the opportunity to update and strengthen the existing conditions relating to compliance reporting and environmental audits to better reflect contemporary conditions that apply to other solar farms in NSW (see **Appendix F**). Lightsource BP has reviewed the proposed changes to the conditions and does not object to them.



## 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 Wellington Solar Modification 1 (SSD 8573) 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 grant consent to the application;
- **modify** the consent (SSD 8573); and
- **signs** the attached consent of the modification (**Appendix D**).

Recommended by:

 10/12/19

**Tatsiana Bandaruk**

Environmental Assessment Officer  
Energy Assessments

Recommended by:

 10/12/19

**Iwan Davies**

Team Leader  
Energy Assessments



## 8. Determination

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

 11/12/19

**Nicole Brewer**

Director  
Energy Assessments





# Appendices

## Appendix A – List of Documents

Wellington Solar Farm Modification Application, Lightsource BP, October 2019.

Amendment Letter, Lightsource BP, dated November 2019.

## Appendix B – Modification Report

## Appendix C – Amendment Letter

## Appendix D – Notice of Modification

## Appendix E – Consolidated Consent

Appendices B to E – See the Department’s Major Projects Website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/5311>

## Appendix F – Summary of Administrative Changes to Conditions

Condition Number	Consideration	Reason for changes
Definitions	Definitions	Including contemporary definitions for solar farm development consents and updating agency names.
Schedule 4: conditions 2 to 3	Updating of Strategies, Plans and Programs	Condition updated to reflect contemporary solar farm development consents
Schedule 4: conditions 4 to 8	Compliance, Independent Environmental Audit and Access to Information	Conditions updated to reflect contemporary solar farm development consents