

ASSESSMENT REPORT

Bodangora Wind Farm Ancillary Infrastructure Modification (10_0157 MOD 2)

1 BACKGROUND

Bodangora Wind Farm Pty Limited, a fully owned subsidiary of Infigen Energy (Infigen), has approval to construct and operate the Bodangora Wind Farm (the project), located approximately 2 kilometres (km) northeast of Bodangora and 15 km northeast of Wellington in the Dubbo Regional Council local government area (see **Figure 1**).

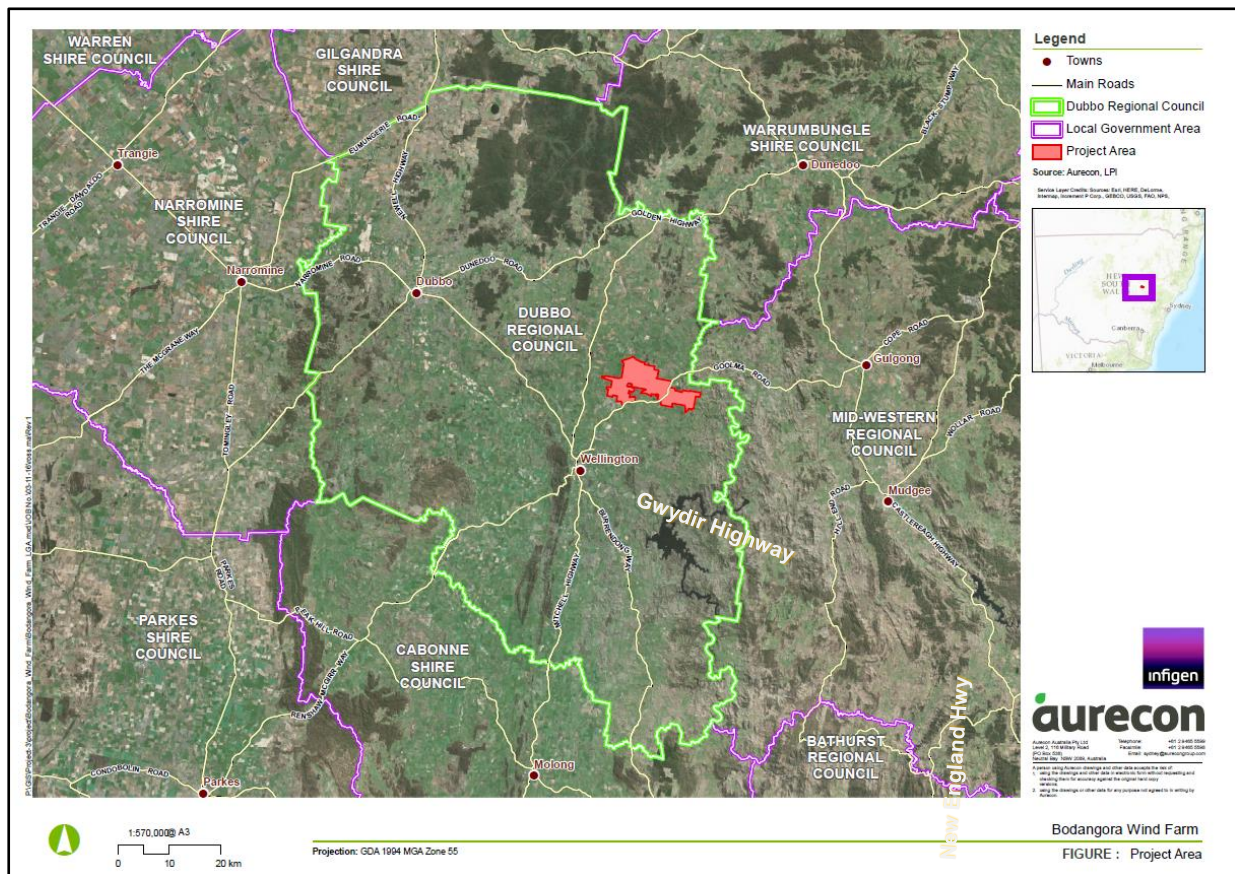


Figure 1: Regional Location

On 30 August 2013, the then Minister for Planning granted approval for the Bodangora Wind Farm (10_0157). The approval allows for:

- construction and operation of up to 33 wind turbines up to 150 meters (m) high;
- construction of a 33/132 kV substation to provide connection to the existing 132 kV Wellington – Beryl transmission line;
- construction of 39 km of new and upgraded access tracks; and
- installation of electricity cabling and other ancillary infrastructure and works including gravel quarries and an operation and maintenance centre.

The approved project layout is shown in **Figure 2**.

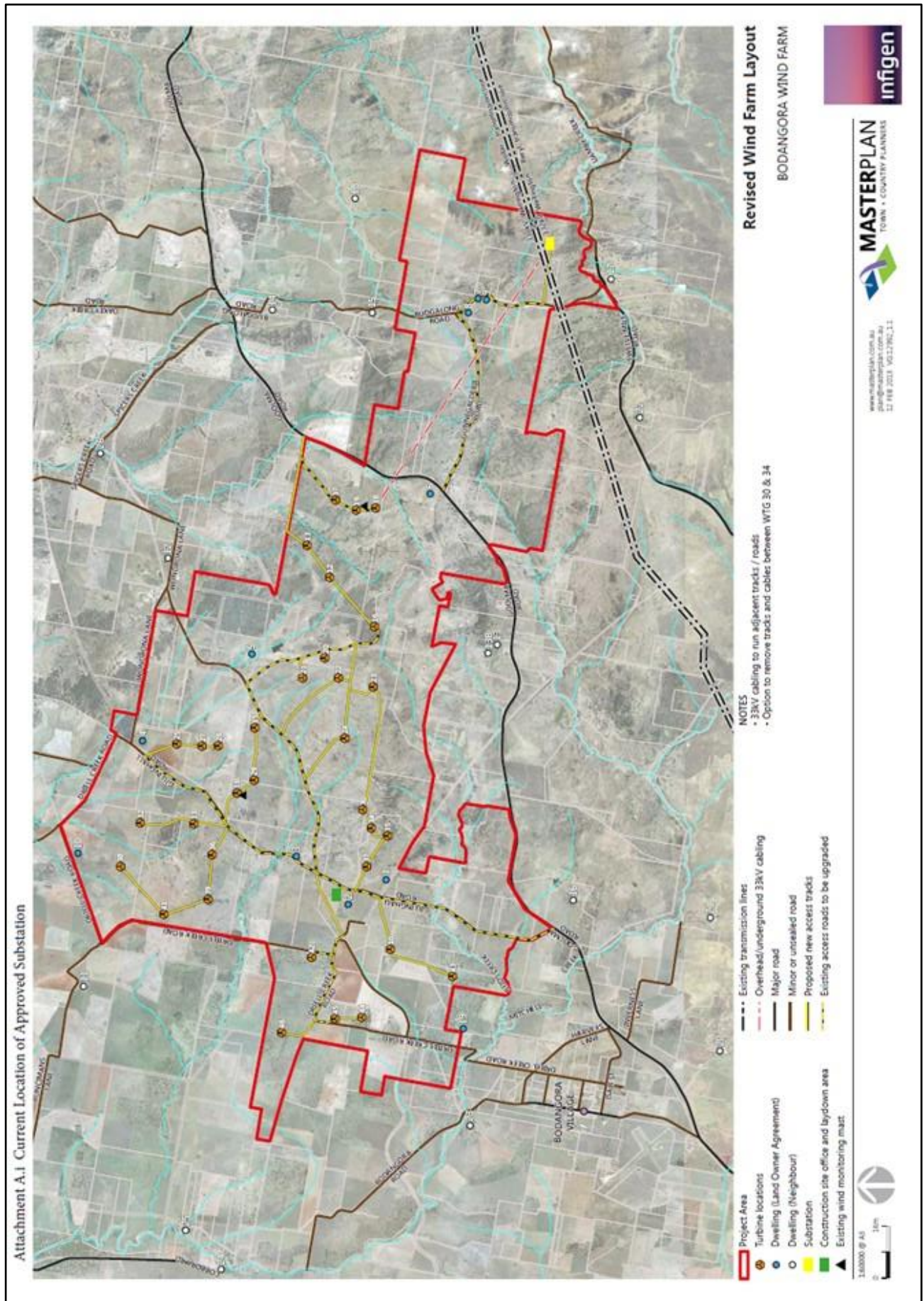


Figure 2: Approved Project Layout

Modification 1 to the project approval was approved on 29 October 2015 and allowed an increase in blade diameter from 114 m to 130 m. The increase in blade diameter remained within the maximum approved tip height of 150 m.

Infigen has yet to commence construction of the project.

2 PROPOSED MODIFICATION

In September 2016, Infigen submitted an application to modify its project approval for the Bodangora Wind Farm (10_0157 MOD 2).

Infigen is seeking the following modifications to the ancillary infrastructure layout for the approved project:

- relocation of the substation to a more centralised location within the approved project envelope, approximately 7.5 kilometres northwest from its approved location;
- realignment of the internal transmission line connecting the substation to the existing 132 kV Wellington – Beryl transmission line (operated and managed by Transgrid); and
- minor access track and underground cabling realignments.

The proposed modification is described in detail in the Environmental Assessment (EA) which accompanied the application (see Appendix C).

The modification would increase the overall efficiency of the project by simplifying the grid connection and reducing associated infrastructure costs. In particular, the relocation of the substation would provide a more efficient connection to the existing transmission network and reduce the internal access roads and cables required. The proposed modification is also supported by Transgrid.

Infigen has designed the modified ancillary elements to follow natural topography and avoid existing vegetation as far as possible. Infigen cites the additional benefits of the proposed modification including:

- reduced visual impacts due to relocation of the substation further within the approved project envelope;
- reduced potential for surface water impacts (ie. from erosion) due to relocation of access tracks to more suitable terrain; and
- reduced vegetation clearing as a result of the overall reduction in access tracks and cables, and the design of the internal transmission line corridor to avoid woodland vegetation.

The proposed modified project layout is shown in **Figure 3**.

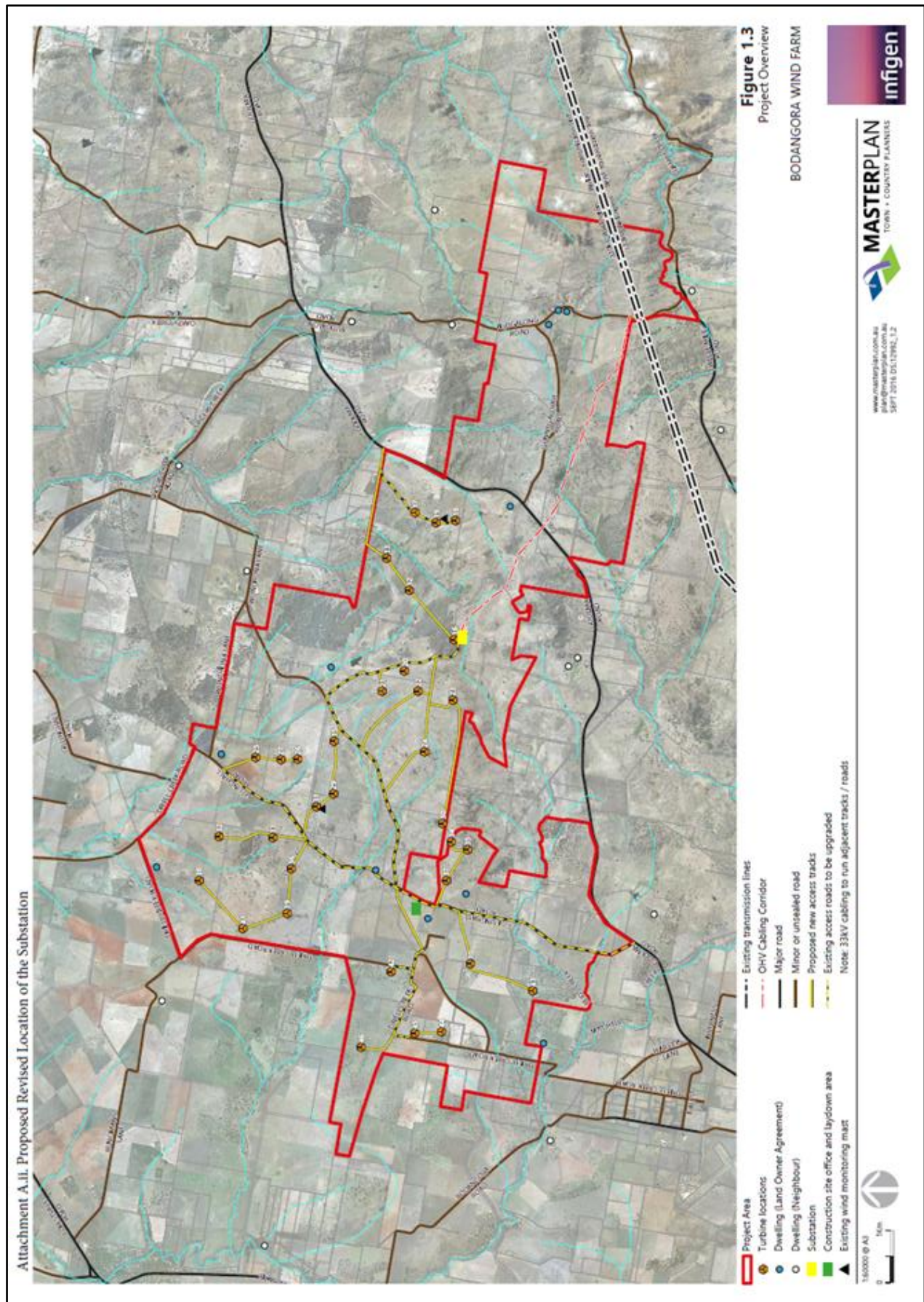


Figure 3: Modified Project Layout

3 STATUTORY CONTEXT

The project was originally approved under Part 3A of the EP&A Act.

Although Part 3A was repealed on 1 October 2011, the project remains a 'transitional Part 3A Project' under Schedule 6A of the EP&A Act, and hence any modification to this approval is to be made under the former Section 75W of the EP&A Act.

The Department is satisfied that the proposed modification is within the scope of Section 75W as the proposal would not significantly alter the approved layout of the project or significantly increase the environmental impacts of the project.

The Minister for Planning is the approval authority for the application. However, under the Minister's delegation dated 16 February 2015, the Executive Director, Resource Assessments and Business Systems, may determine the proposed modification as Dubbo Regional Council (formerly Wellington Council) has not made an objection, a political disclosure statement has been made but only in respect of a previous related application (the original project application), and there were less than 10 public submissions in the nature of objections.

4 CONSULTATION

The Department made the application and EA publicly available on its website on 11 October 2016, and wrote to Dubbo Regional Council and a number of other government agencies inviting comment on the proposed modification.

Transgrid did not make a submission, but provided a letter of support as part of the application.

The Department received advice from 6 government agencies on the modification application (see Appendix D). A summary of the issues raised is provided below.

Office of Environment and Heritage (OEH) did not object to the proposed modification but raised initial concerns regarding the level of assessment (specifically survey effort) in regard to potential impacts on biodiversity and Aboriginal heritage values. This issue is discussed further in Section 5.1.

Roads and Maritime Services (RMS) did not object to the proposed modification provided that the conditions of approval relating to traffic and access arrangement are updated to require that Safe Intersection Site Distances (SISD) at the Gillinghall/Goolma Road intersection are addressed in the Construction Traffic Management Plan for the project. This issue is addressed in Section 5.2.

Department of Industry - Division of Resources and Energy (DRE) did not object to the proposed modification providing Infigen continues to liaise with relevant Exploration Licence holders prior to, during and subsequent to construction of the project to ensure that potentially prospective mineralised areas would not be compromised by the project. The Department notes the existing conditions of approval require Infigen to consult with DRE and the relevant holders of mineral, mining and exploration titles or tenements.

Dubbo Regional Council did not object to the proposed modification however requested that the conditions of approval be updated to include provisions relating to access points onto public roads and road safety. Specifically, Council requested that the location of site access gates and 'set back' distances from adjacent roads be addressed in the Construction Traffic Management Plan for the project. This issue is addressed in Section 5.2.

Department of Primary Industries and **Environmental Protection Authority** both acknowledged the proposed modification but did not provide any comments.

5 ASSESSMENT

In assessing the merits of the proposed modification, the Department has considered:

- the modification application;
- the EA and conditions of approval for the original project;
- submissions on the proposed modification;
- relevant environmental planning instruments, policies and guidelines; and
- the requirements of the EP&A Act.

The following is a summary of the findings of this assessment.

5.1 Biodiversity

The area of the proposed modification comprises mostly cleared land that is used for grazing with some areas of sparsely vegetated woodland.

The Department notes that Infigen has designed the proposed modification layout to specifically avoid woodland vegetation and has retained its commitment to clear no more than 1.32 hectares (ha) of native vegetation for the project. This clearance limit is already an existing condition of approval.

Kevin Mills & Associates (who undertook the original project ecological assessment) completed a desktop assessment of the potential biodiversity impacts of the proposed modification. The assessment concluded that the proposed modification would not result in any significant impacts on biodiversity values within the project footprint, on the basis that:

- the proposed substation location would be within an open area of grassland and would not impact any existing vegetation (refer **Figure 4**); and
- the revised transmission line alignment would avoid more vegetation than the original transmission line alignment. This is because the original alignment traversed areas of wooded vegetation and did not allow for micro-siting (ie. straight line design), whereas the proposed alignment incorporates micro-siting up to 100 m to avoid vegetation where possible (refer **Figure 5**).

OEH initially raised concerns about the lack of detailed survey effort within the proposed new transmission line corridor alignment to confirm the desktop assessment findings. Kevin Mills & Associates provided a subsequent letter response (see Appendix E) clarifying that the area traversed by the revised transmission line route had been surveyed during the original flora and fauna surveys undertaken for the project, and that based on this knowledge and desktop assessment, the proposed modification would not have a significant impact on native flora and fauna.

Following further consultation with OEH, it was agreed that detailed vegetation mapping of the transmission line corridor should be undertaken prior to construction to identify the location of any endangered ecological communities or other threatened species and enable impacts to be avoided (where possible) through micro-siting. The Department has included this requirement in the amended conditions of approval.

The Department also notes Infigen has committed to engaging an ecological consultant to be present during the construction of the transmission line and to maintain a vegetation clearance register. This register would be used to demonstrate it has complied with the 1.32 ha clearing limit and calculate any offsets required, which Infigen would be required to account for in the Biodiversity Offset Package to be prepared under the existing conditions of approval.

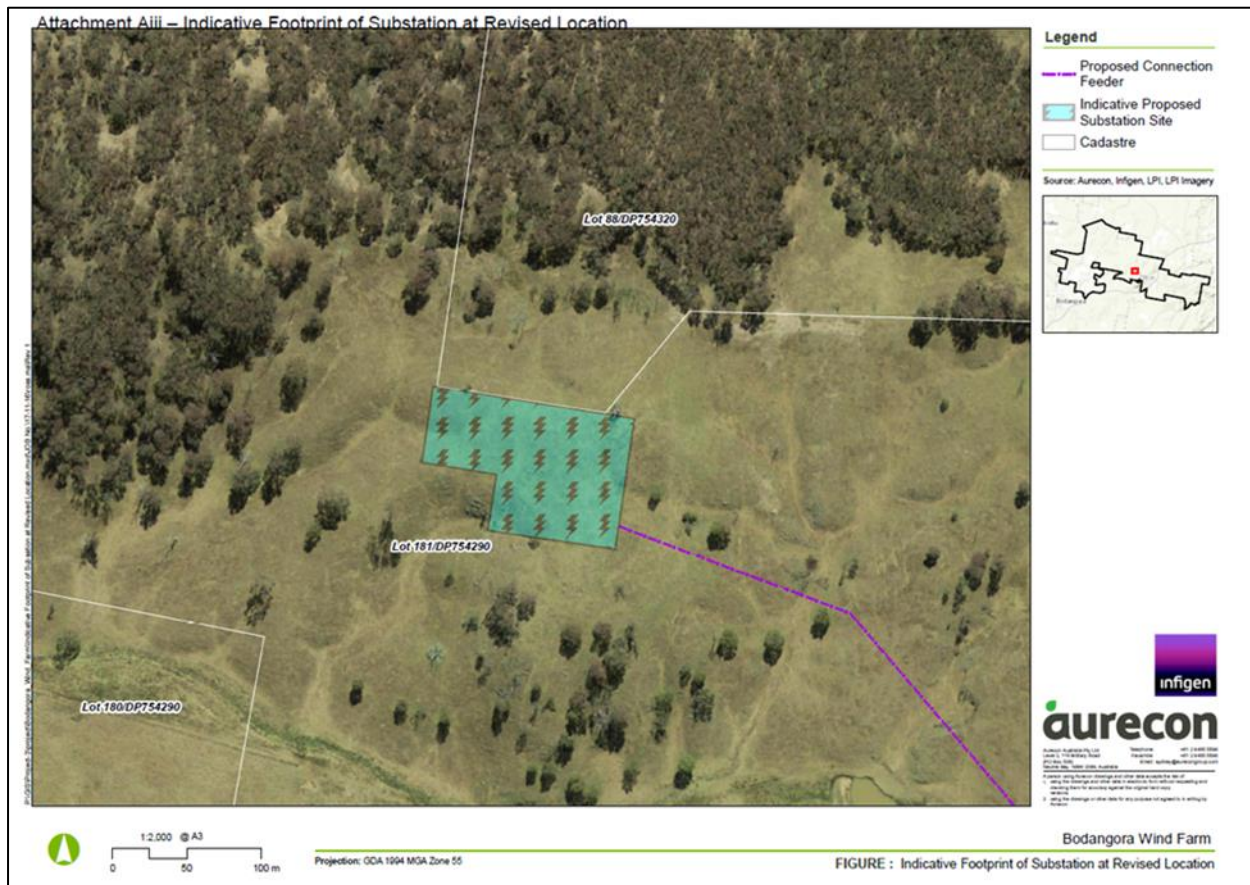


Figure 4: Proposed substation location

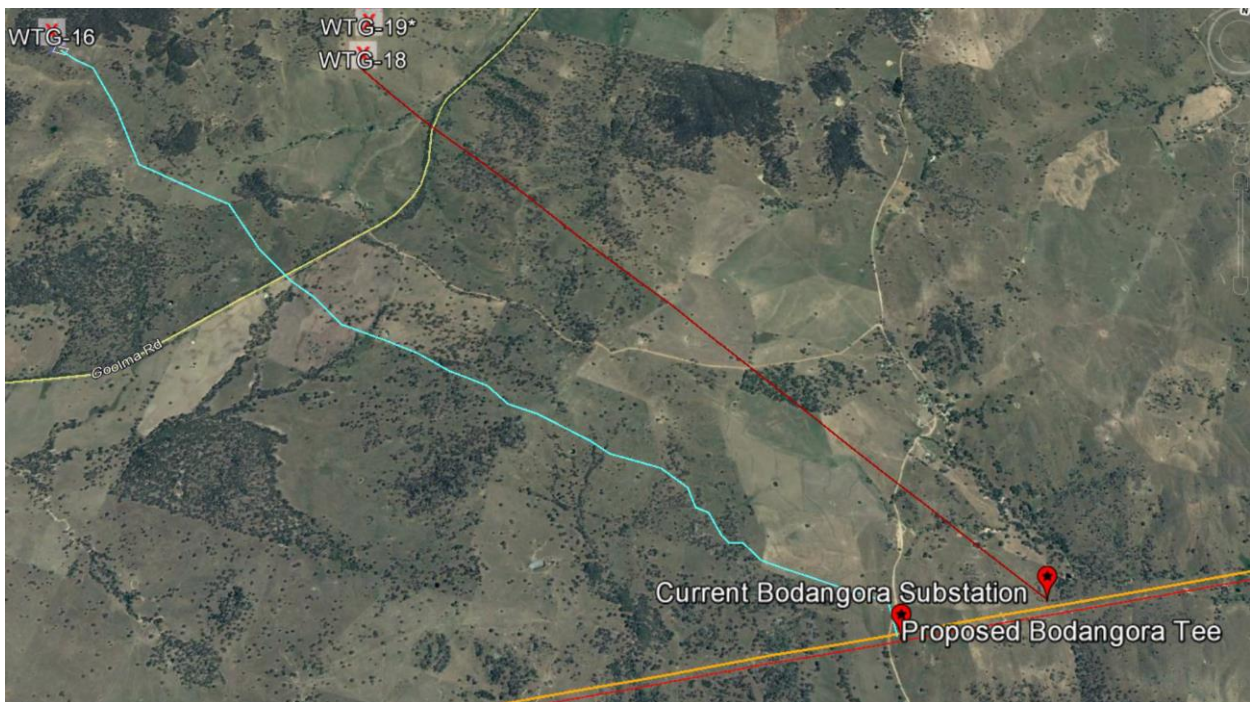


Figure 5: Comparison of original and proposed transmission line alignment

Overall, the Department's assessment has concluded that the proposed modification is unlikely to increase the biodiversity impacts of the approved project, and that any residual impacts can be managed through careful design and micro-siting of the ancillary infrastructure.

Notwithstanding, the Department has taken the opportunity to strengthen some of the existing conditions of approval relating to biodiversity, specifically requiring Infigen to:

- prepare a Construction Biodiversity Management Plan in consultation OEH that must include updated baseline mapping of the vegetation communities and key fauna habitat within the transmission line corridor and clearly identify the areas on site that would be disturbed;
- comply with a number of operating conditions including strict vegetation clearing limits and minimising impacts on fauna habitat and threatened bird populations; and
- provide final layout plans demonstrating how micro-siting has been applied to avoid impacts on native vegetation and fauna habitat.

5.2 Other Impacts

The Department's assessment of other potential impacts is outlined in Table 1 below.

Table 1: Consideration of other issues

| Issue | Consideration and Assessment | Recommendation |
|---------------------|--|--|
| Noise | <ul style="list-style-type: none"> • The existing conditions of approval require Infigen to: <ul style="list-style-type: none"> - comply with relevant operational and traffic noise criteria; - comply with specified operating hours; - undertake additional noise mitigation measures where monitoring indicates an exceedance of the noise limits; and - implement a Noise Management Plan including noise monitoring program. • Noise consultants engaged by Infigen confirmed noise generated by the relocated substation would remain below the applicable noise criteria of 35 dB(A) at all non-associated residences, including the closest non-associated residence R13B that would be located approximately 2.2 km away. • The Department's noise expert has reviewed the assessment and is satisfied that the maximum noise level at any non-associated residence would not exceed the applicable noise criteria. | Comply with existing conditions. |
| Aboriginal Heritage | <ul style="list-style-type: none"> • The existing conditions of approval require Infigen to prepare and implement a Construction Heritage Management Plan that includes measures to avoid impacts on Aboriginal heritage items, including protocols should any unidentified objects be found during construction. • Initial surveys and database searches undertaken for the original project identified limited heritage values within the project area. The original assessment identified two recorded Aboriginal objects, no Commonwealth listed heritage places and three State listed heritage places within or in close proximity to the project footprint. • The proposed modified infrastructure locations would be within mostly previously disturbed land (ie. cleared agricultural land) that were previously assessed as having low heritage significance. • The Department considers that with the implementation of the existing conditions of approval, there would be minimal risk of impacts to Aboriginal heritage values as a result of the proposed modification. | Comply with existing conditions. |
| Traffic | <ul style="list-style-type: none"> • The existing conditions of approval require Infigen to prepare and implement a Construction Traffic and Access Management Plan in consultation with RMS and Dubbo Regional Council. • RMS raised concerns about the intersection of Goolma/Gillinghall Road being utilised by public traffic and whether the intersection would have issues relating to Safe Intersection Site Distances (SISD). • Dubbo Regional Council indicated that project vehicles would pose a potential safety hazard to other road users if gate(s) were not appropriately setback from public roads. Council recommended this be addressed via a condition of approval requiring appropriate setback distances to be maintained. | Update Construction Traffic and Access Management Plan to include RMS and Council recommendations. |

The Department is satisfied that all other issues associated with the proposed modification are minor and/or would be adequately managed through the existing conditions of approval.

6 RECOMMENDED CONDITIONS

The Department has prepared a Notice of Modification (see Appendix A) and consolidated approval (see Appendix B) for the proposed modification. The Department has also taken the opportunity to update and strengthen a number of the existing conditions to better reflect contemporary conditions applying to other wind farms in NSW.

In this regard, the Department has amended the conditions requiring Infigen to:

- provide final layout plans to the Department prior to construction;
- notify the Department of the relevant project stages, including commencement of construction;
- adhere to operating conditions relating to biodiversity, including minimising native vegetation clearing and impacts on fauna habitat;
- prepare a Construction Biodiversity Management Plan in consultation with OEH that includes baseline mapping of the project site, including the modified transmission line corridor; and
- updated community consultative committee requirements.

Infigen has reviewed the proposed conditions and has raised no concerns.

7 CONCLUSION

The Department has assessed the modification applications in accordance with the relevant requirements of the EP&A Act.

The assessment found the modification would not result in any additional impacts when compared to the approved project.

The Department considers that the amended conditions of approval would effectively manage and minimise any potential residual impacts associated with the proposed modification, particularly in regard to biodiversity.

As is the case for all major projects in NSW, the Department and EPA would continue to have a compliance role in monitoring the ongoing environmental performance of the project and enforcing the conditions of approval.

Importantly, the proposed modification would simplify the electricity grid connection configuration for the project and allow the benefits of the project to be realised. In this regard, the project has a capital investment value in the order of \$200 million, would employ up to 80 people during construction, and generate at least 120 megawatts of clean energy for NSW consumers. This level of investment would also stimulate flow-on economic benefits in the local and regional economies, and contribute to Australia's Renewable Energy Target of sourcing 20 per cent of electricity from renewable sources by 2020.

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

8 RECOMMENDATION

It is recommended that the Executive Director, Resource Assessments and Business Systems, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report;
- **determines** the application under Section 75W of the EP&A Act; and
- **signs** the attached Notice of Modification for the project approval (see Appendix A).

 5.12.16

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 5/12/16

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APPENDIX A: NOTICE OF MODIFICATION

APPENDIX B: CONSOLIDATED PROJECT APPROVAL

APPENDIX C: ENVIRONMENTAL ASSESSMENT

See Department's website

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8009

APPENDIX D: SUBMISSIONS

See Department's website

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8009

APPENDIX E: ECOLOGICAL ASSESSMENT SUPPLEMENTARY LETTER