Valley of the Winds
Renewable Energy from ACEN

Intended for
ACEN Australia Pty Ltd

Date
October 2023

VALLEY OF THE WINDS WIND FARM
RESPONSE TO SUBMISSIONS REPORT

RAMBOLL

ACEN | Australia

Valley of the Winds
Renewable Energy from ACEN

VALLEY OF THE WINDS WIND FARM
RESPONSE TO SUBMISSIONS REPORT

Project name	**Valley of the Winds wind farm**
Project no.	**318001172**
Recipient	**ACEN Australia Pty Ltd**
Document type	**Response to Submissions report**
Version	**V3**
Date	**27/10/2023**
Prepared by	**Clare Butterfield / Belinda Sinclair**
Checked by	**Belinda Sinclair**
Approved by	**Belinda Sinclair**
Description	**Response to Submissions Report for the Valley of the Winds wind farm project.**

Revision	Date	Prepared by	Checked by	Approved by	Description
V1	18/04/2023	C.Butterfield B.Sinclair	B.Sinclair	J.Williamson	Issued to ACEN
V2	23/05/2023	C.Butterfield B.Sinclair	B.Sinclair	J.Williamson	Soft submission to DPE
V3	27/10/2023	C.Butterfield B.Sinclair	B.Sinclair	B.Sinclair	Formal lodgement

Ramboll Australia Pty Ltd.
ACN 095 437 442
ABN 49 095 437 442

RAMBOLL

ACKNOWLEDGEMENT

Aboriginal people have had a long and continuous association with the region for thousands of years. ACEN would like to acknowledge and pay respects to the traditional owners of the country which is encompassed by the project.

The name Coolah is derived from traditional language – meaning Valley of the Winds.

PROPONENT DETAILS

The proponent for the project is ACEN Australia Pty Ltd.

EXECUTIVE SUMMARY

Introduction

ACEN Australia Pty Ltd (ACEN) proposes to construct and operate the Valley of the Winds wind farm (the project) located between the townships of Coolah and Leadville NSW, within the Warrumbungle Shire Council Local Government Area. The wind farm site is located within the Central-West Orana Renewable Energy Zone, declared by the Minister for Energy and Environment in 2021 to help meet its objective to achieve net zero emissions by 2050. The project would connect with the CWO-REZ transmission line, supplying over 800 megawatts of electricity into the National Electricity Market.

The project is a 'controlled action' under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* and therefore requires assessment and approval under the EPBC Act. This assessment has been undertaken under the Amended Bilateral Agreement between the Commonwealth Department of Climate Change, Energy, the Environment and Water and the New South Wales Department of Planning and Environment.

A State Significant Development application and accompanying environmental impact statement were submitted under Part 4, Division 4.7 of the Environmental Planning and Assessment Act 1979 in March 2022. The SSD application and EIS were placed on public exhibition from 23 May 2022 to 20 June 2022.

The Department of Planning and Environment received 110 submissions from the public, two submissions from interest groups and advice from 17 government agencies on the EIS. A separate response to submissions report has been prepared and submitted to Department of Planning and Environment in conjunction with this report, that responds to the matters raised in these submissions in accordance with clause 59(2) of the *Environmental Planning and Assessment Regulation 2021*.

Analysis of Submissions

All agencies provided comment except for the NSW Rural Fire Service, who indicated support for the project.

Warrumbungle Shire Council objected to the project on the basis that negotiations regarding a Planning Agreement have not been progressed to their satisfaction. Muswellbrook Shire Council also submitted an objection to DPE after the close of the exhibition period.

Most of the community submissions were received from localities within NSW with 96 originating from NSW and 11 from other states or territories (including Australian Capital Territory, Victoria, Queensland and the Northern Territory). One submission was received where a location was not provided. Submissions were received from locations across 24 Australian LGA's with the furthest from the project originating from Litchfield LGA in the Northern Territory.

Of the 107 public submissions received from the community, the majority (59%) were from within the Warrumbungle Shire Council LGA. The most common matters raised in the submissions included concerns around landscape character and visual amenity, hazards and risks (aviation), economic, biodiversity and noise and vibration. One objection was for another project and one submission contained only "test". These submissions have been excluded from this response to submissions assessment. Further, one submission was a duplicate of a submission already received from the same submitter.

Actions taken since EIS lodgement

In response to submissions received, further community and other stakeholder consultation, and further design works, ACEN is proposing to make amendments to the project that was included in the original development application. An amendment report has been prepared which describes in detail the proposed amendment and further assessments that have been undertaken following exhibition of the EIS.

Proposed amendments include:

- refinements to the wind farm layout to reduce environmental and social impacts, and improving the functional performance of the project
- removal of the overhead transmission line running south from the Girragulang Road and Leadville clusters
- updated project boundary to remove a property from the Mount Hope cluster
- updates to proposed access routes for the Mount Hope and Leadville clusters, and provision of an alternate access route option to the Girragulang Road cluster.

Clarifications to the information presented in the EIS are provided including:

- updates to dwelling information where their status as either associated or non-associated has changed since the EIS was exhibited
- clarification on the biodiversity mapping methodology and additional survey undertaken following feedback from BCS
- further detailed survey to assess previously unsurveyed areas and update the Aboriginal cultural heritage assessment report following feedback from Heritage NSW
- further information regarding the location and configuration of the potential battery energy storage system is provided in response to feedback from DPE's Hazards Assessment Team.

Additional technical assessments have been undertaken since the EIS to consider potential impacts associated with the proposed amendments and clarifications outlined above. These additional assessments are appended to this report and documented in the amendment report.

Response to submissions

This response to submissions report is submitted to DPE to respond to the matters raised in the submissions received from Agency advice, organisation and interest groups and community submissions, in accordance with clause 59(2) of the *Environmental Planning and Assessment Regulation 2021*.

Project evaluation and conclusion

The environmental impact assessment undertaken for the project as part of the EIS and the additional assessment of the proposed amended project undertaken as part of the amendment report, has determined that the project would not result in any significant adverse impacts to environmental, cultural, social and economic values. Any potential residual impacts can be suitably controlled with the management and mitigation measures proposed.

CONTENTS

TABLE OF TABLES

TABLE OF FIGURES

APPENDICES

Appendix 1
Submisisons register

Appendix 2
Updated mitigation measures

Appendix 3
Amended biodiversity development assessment report

Appendix 4
Amended Aboriginal Cultural Heritage Assessment

Appendix 5
Night lighting plan

Appendix 6
Addendum landscape character and visual impact assessment

Appendix 7
Addendum noise and vibration impact assessment

1. INTRODUCTION

1.1 Overview

ACEN Australia Pty Ltd (ACEN) (formerly UPC\AC Renewables at the time of the environmental impact statement (EIS)) proposes to construct and operate the Valley of the Winds wind farm (the project) located between the townships of Coolah and Leadville NSW, within the Warrumbungle Shire Council Local Government Area. The wind farm site is located within the Central-West Orana Renewable Energy Zone (CWO-REZ), declared by the Minister for Energy and Environment in 2021 to help meet its objective to achieve net zero emissions by 2050. The project would connect with the CWO-REZ transmission line, supplying over 800 megawatts of electricity into the National Electricity Market.

On 13 July 2020, a delegate of the Federal Minister for the Department of Agriculture, Water and the Environment determined that the project was a 'controlled action' under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and therefore requires assessment and approval under the EPBC Act. This assessment has been undertaken under the Amended Bilateral Agreement between the Australian Department of Agriculture, Water and the Environment and the New South Wales Department of Planning and Environment (DPE).

A State Significant Development (SSD) application and accompanying EIS were submitted under Part 4, Division 4.7 of the EP&A Act in March 2022. The SSD application and EIS were placed on public exhibition from 23 May 2022 to 20 June 2022.

DPE has received Environment received 110 submissions from the public, two submissions from interest groups, and advice from 17 government agencies and public authorities on the EIS. This response to submissions report is submitted to DPE to respond to the matters raised in these submissions in accordance with clause 59(2) of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation). This response to submissions report has been prepared in accordance with the requirements of the (Department of Planning and Environment, 2021).

1.2 Purpose of this response to submissions report

This response to submissions report has been prepared to consider and respond to the issues raised during public exhibition of the EIS. Following submission of this report and a separate amendment report, DPE will prepare an assessment report and provide their recommendation to the Independent Planning Commission (IPC) to make a determination on the project.

The IPC is the consent authority for SSD applications where:

- they are not supported by relevant council(s), or
- the DPE has received more than 50 unique public objections, or
- the application has been made by a person who has disclosed a reportable political donation in connection with the development application.

The IPC is the consent authority for this SSD application as:

- the Warrumbungle Shire Council lodged an objection
- Department of Planning and Environment received over 50 unique public objections.

The submissions received have been categorised, grouped and addressed by issue, rather than on an individual or stakeholder basis, consistent with State Significant Development Guidelines – Preparing a Submissions Report (Department of Planning and Environment, 2021).

This response to submissions report also describes the additional consultation and design response activities undertaken by ACEN since EIS lodgement.

1.3 Project refinements

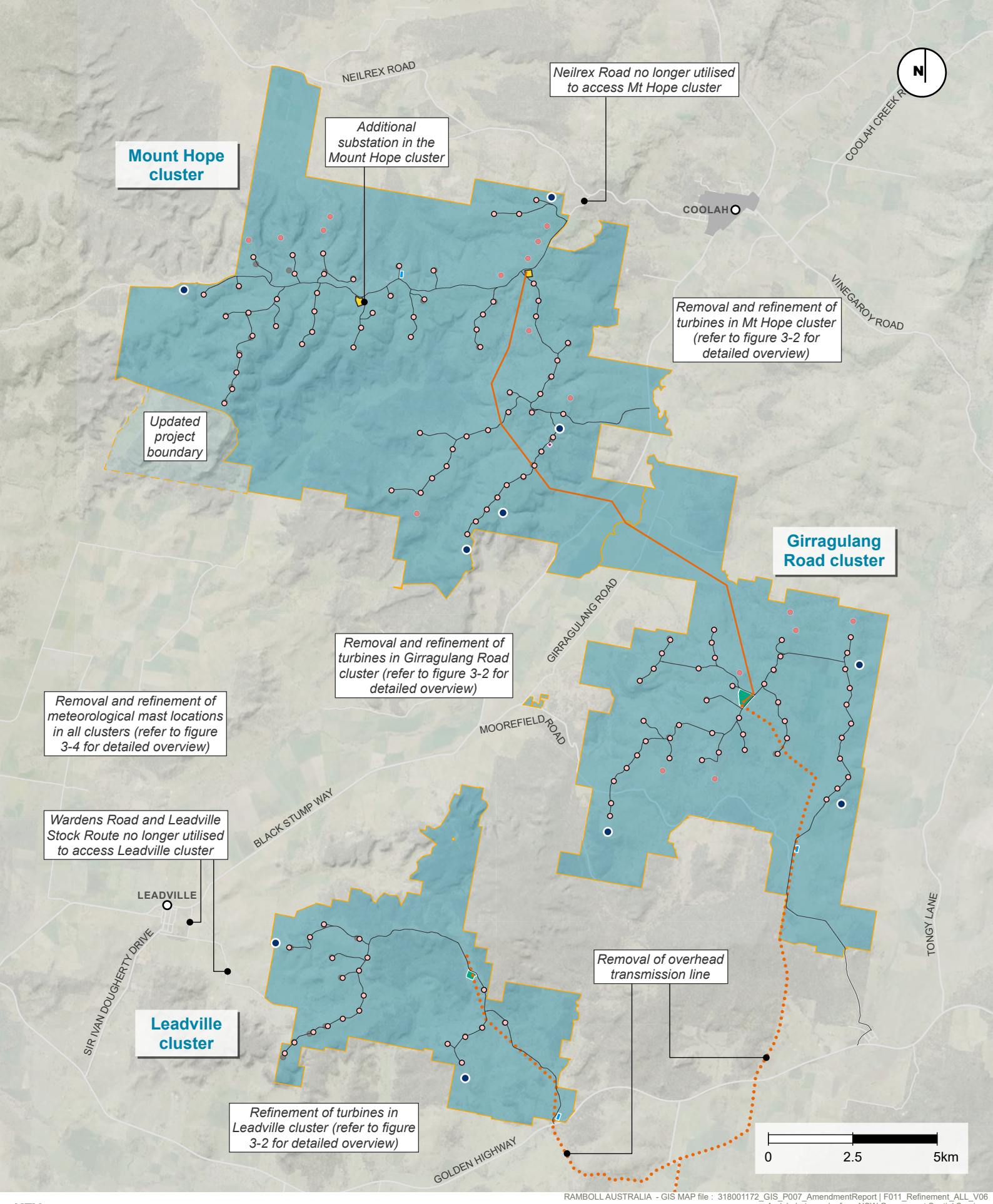
In response to matters raised in the submissions, ACEN has conducted further Agency, community and stakeholder consultation, and the Project design has been further refined to address these matters.

The project design refinements include:

- refinements to the wind farm layout to reduce environmental and social impacts, and improving the functional performance of the project:
  - removal of 17 wind turbines and associated access tracks to reduce amenity impacts for nearby dwellings and biodiversity impacts
  - further refinement of the layout and construction footprint to further avoid and minimise impacts to Box Gum Woodland and other native vegetation
  - removal of three met masts and relocation of seven others to reduce biodiversity impacts
  - an additional substation included in the Mount Hope cluster to improve the electrical connectivity.
- removal of the overhead transmission line running south from the Girragulang Road and Leadville clusters. This infrastructure will now be delivered by EnergyCo as part of the EnergyCo CWO-REZ Transmission Line project and will be assessed as part of that project by EnergyCo.
- updated project boundary to remove a property from the Mount Hope cluster.
- access routes:
  - light vehicle access to the Mount Hope cluster via Neilrex Road removed – a single point of access from Black Stump Way is now proposed
  - light vehicle access to the Leadville cluster via the Leadville Stock Route and Wardens Road removed – a single point of access from the Golden Highway is now proposed
  - provision of an alternate access route option to the Girragulang Road cluster via the Golden Highway.

The amended project layout is shown at **Figure 1-1** and is discussed further in **Section 3.1.**

A separate amendment report has been prepared to detail and assess the potential impacts of the proposed amendments and is supported by revised technical assessments. The report also provides clarifications that have been requested through ACEN's ongoing consultations with stakeholders, and the local community. The amendment report accompanies this response to submissions report.



RAMBOLL AUSTRALIA - GIS MAP file : 318001172_GIS_P007_AmendmentReport | F011_Refinement_ALL_V06
Aerial photography from NSW Government Spatial Services

KEY

- Amended wind farm site
- Amended turbine location
- Amended access track
- Amended overhead transmission line
- Amended permanent meteorological mast location
- Amended substation, BESS and construction and permanent operation and maintenance compound area
- Amended substation area
- Amended construction and permanent operation and maintenance compound area
- Amended temporary construction compound area
- Wind farm site presented in EIS
- Turbine moved since EIS stage
- Turbine removed since EIS stage
- Overhead transmission line presented in EIS

Figure 1-1 | Amended project overview

2. ANALYSIS OF SUBMISSIONS

2.1 Exhibition details

The EIS was publicly exhibited on DPE's Major Projects website (Valley of the Winds Wind Farm | Planning Portal - Department of Planning and Environment (nsw.gov.au)) from Monday 23 May 2022 until Monday 20 June 2022.

2.2 Overview of submissions received

DPE received Environment received 110 submissions from the public, two submissions from interest groups, and advice from 17 government agencies and public authorities. A summary of the submissions received is provided in **Table 2-1** and illustrated in **Figure 2-1.**

One objection was for another project and one submission contained only "test". These submissions have been excluded from this response to submissions assessment. Further, one submission was a duplicate of a submission already received from the same submitter. These have been consolidated and considered as one submission. This is reflected in the numbers shown in **Table 2-1**.

Table 2-1: Summary of submissions received

Type	Objects	Supports	Comments	Total
Public Authority	2	NIL	1	**3**
Agency	NIL	1	13	**14**
Organisation	1	NIL	1	**2**
Community	97	6	4	**107**
Total	**100**	**7**	**19**	**126**

A graphical representation of the submitters view on the project is provided in **Figure 2-1**.

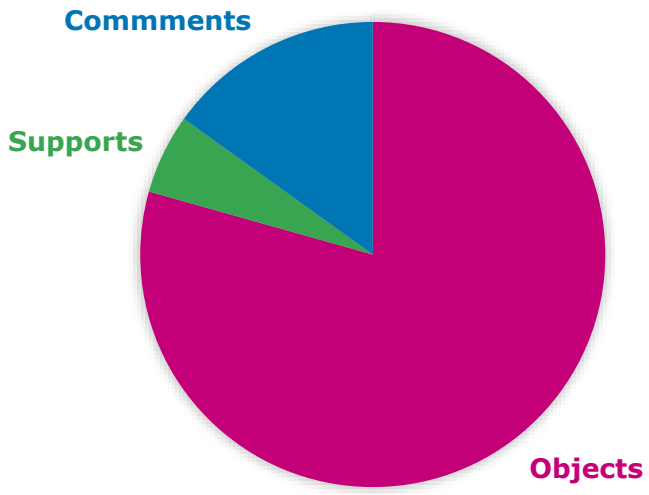


Figure 2-1: View of submitters on the project as a percentage

2.3 Response methodology

The following methodology has been applied in developing responses to the submissions received:

- collation and categorisation of submissions based on who they were from as follows:
  - agency
  - organisation and interest group
  - community
- review of the submission was undertaken, and the key issues raised in each submission identified
- responses prepared for each issue with input from specialists who prepared technical assessments for the EIS as required. The project team remained consistent with those who assisted with preparation of the EIS.

2.4 Agency Advice

2.4.1 Origin of submissions

Advice was received from the following agencies:

- Airservices Australia
- Biodiversity, Conservation and Science Directorate (BCS)
- Civil Aviation Safety Authority (CASA)
- Commonwealth Department of Defence
- Crown Lands
- DPE Water
- DPI Agriculture
- DPI Fisheries
- EPA
- Fire and Rescue NSW
- Heritage NSW
- NSW Department of Regional NSW – Mining, Exploration & Geoscience (MEG) – Geological Survey of NSW (GSNSW)
- Rural Fire Service
- Transport for NSW
- Mid-Western Regional Council
- Warrumbungle Shire Council
- Muswellbrook Shire Council
- DPE.

2.4.2 Summary of matters raised

All agencies provided comment except for the NSW Rural Fire Service, who indicated support for the project.

Warrumbungle Shire Council objected to the project on the basis that negotiations regarding a Planning Agreement have not been progressed to their satisfaction. Muswellbrook Shire Council also submitted an objection to DPE after the close of the exhibition period on the grounds that they would "*object to all State Significant Development (SSD) that nominates the use of local roads in the Shire for transport of components to another LGA, until EnergyCo, Transport for NSW and Department of Planning Industry and Environment find a more strategic solution to managing transport issues that is acceptable to Council*".

A summary of the categories of issues raised by agencies is provided in **Table 2-2**.

Table 2-2: Categories of issues raised by agencies

Issue category	Agencies
Consultation	• DPE • CASA • Muswellbrook Shire Council
Landscape character and visual	• DPE
Noise	• EPA
Biodiversity	• DPE • BCS • MEG GSNSW • Warrumbungle Shire Council • Muswellbrook Shire Council • DPE Fisheries
Traffic and transport	• DPE • Transport for New South Wales • Warrumbungle Shire Council • Muswellbrook Shire Council
Hazards and risks	• DPE • Fire and Rescue NSW • Airservices Australia • CASA • Department of Defence
Aboriginal heritage	• DPE • Heritage NSW
Water	• DPE Water • EPA
Geology, soils and land capability	• DPE Agriculture
Waste and resources	• Warrumbungle Shire Council • Mid-Western Regional Council
Social	• Warrumbungle Shire Council

Table 2-2: Categories of issues raised by agencies

Issue category	Agencies
Land use	• Crown Lands
Cumulative impacts	• Warrumbungle Shire Council
Construction workforce accommodation	• DPE • Warrumbungle Shire Council • Mid-Western Regional Council
Decommissioning and rehabilitation	• Mid-Western Regional Council
Voluntary Planning Agreement	• DPE • Warrumbungle Shire Council
EIS content	• Warrumbungle Shire Council
No issues raised	• NSW Rural Fire Service

2.5 Organisation and interest group submissions

2.5.1 Origin of submissions

Two submissions from organisations or interest groups were received:

- Coolah District Development Group, based in Coolah NSW
- Ibbai Waggan People Owner of Land, Lore & Culture, Based in Nguranbang, NSW.

2.5.2 Summary of matters raised

Issues raised by the Ibbai Waggan People were related to First Nations traditional ownership of the land on which the project is located and surrounds.

Issues raised by Coolah District Development Group related to:

- cumulative impacts resulting from the CWO-REZ
- community consultation
- agricultural land use
- hazards and risks (bushfire management and aerial firefighting and aerial cropping)
- social (rural communities)
- organisational structure and the roles and responsibilities of various authorities
- the EnergyCo Transmission Project
- voluntary planning agreement and community benefits.

2.6 Community submissions

2.6.1 Origin of submissions

Most of the community submissions were received from localities within NSW with 96 originating from NSW and 11 from other states or territories (including Australian Capital Territory (ACT), Victoria (VIC), Queensland (QLD) and the Northern Territory (NT)). One submission was received where a location was not provided. Submissions were received from locations across 24 Australian LGA's with the furthest from the project originating from Litchfield LGA in the Northern Territory.

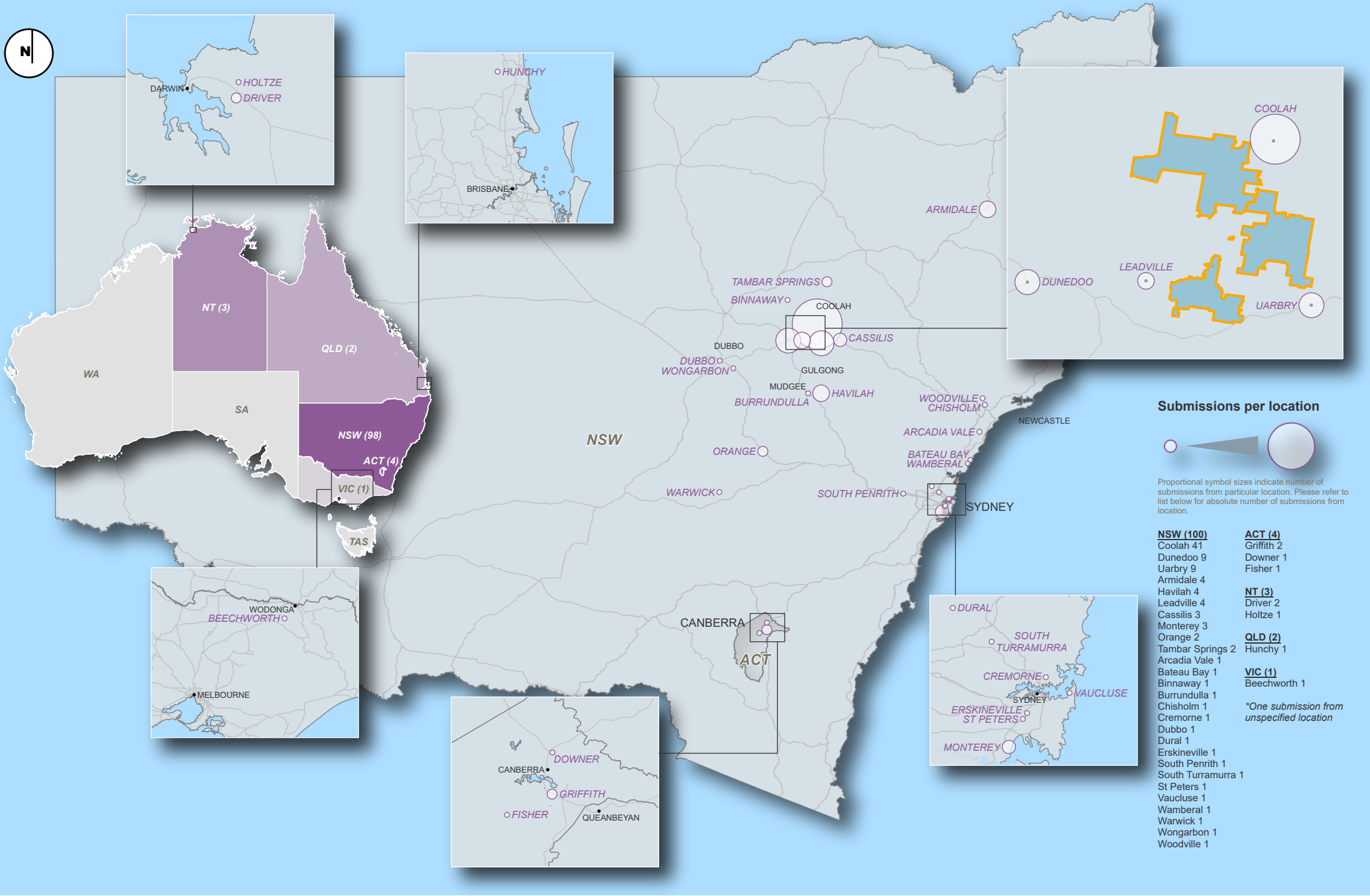
Of the 107 public submissions received from the community, the majority (59%) were from within the Warrumbungle Shire Council LGA. Details on the origin of the community submissions is provided in **Table 2-3** and illustrated in **Figure 2-2.**

Table 2-3: Origin of community submissions

Suburb	Local Government Area	State or Territory	Number of submissions from locality
Coolah	Warrumbungle Shire	New South Wales	40
Dunedoo	Warrumbungle Shire	New South Wales	9
Uarbry	Warrumbungle Shire	New South Wales	9
Armidale	Armidale Dumaresq	New South Wales	4
Havilah	Mid-Western Regional	New South Wales	4
Leadville	Warrumbungle Shire	New South Wales	4
Cassilis	Upper Hunter Shire	New South Wales	3
Monterey	Bayside	New South Wales	3
Driver	City of Palmerston	Northern Territory	2
Griffith	Canberra	Australian Capital Territory	2
Orange	Orange City	New South Wales	2
Tambar Springs	Gunnedah	New South Wales	2
Arcadia Vale	City of Lake Macquarie	New South Wales	1
Bateau Bay	Central Coast	New South Wales	1
Beechworth	Wangaratta	Victoria	1
Binnaway	Warrumbungle Shire	New South Wales	1
Burrundulla	Mid-Western Regional	New South Wales	1
Chisholm	Maitland	New South Wales	1
Cremorne	North Sydney	New South Wales	1
Downer	Canberra	ACT	1
Dubbo	Dubbo Regional	New South Wales	1
Dural	Hornsby Shire	New South Wales	1
Erskineville	City of Sydney	New South Wales	1
Fisher	Canberra	Australian Capital Territory	1

Table 2-3: Origin of community submissions

Suburb	Local Government Area	State or Territory	Number of submissions from locality
Holtze	Litchfield	Northern Territory	1
Hunchy	Sunshine Coast Region	Queensland	1
South Penrith	Penrith City	New South Wales	1
South Turramurra	Ku-ring-gai	New South Wales	1
St Peters	Inner West	New South Wales	1
Vaucluse	Waverley Council Woollahra	New South Wales	1
Wamberal	Central Coast	New South Wales	1
Warwick	Southern Downs	Queensland	1
Wongarbon	Dubbo Regional	New South Wales	1
Woodville	Maitland	New South Wales	1
Not provided	-	-	1
Total			**107**



RAMBOLL AUSTRALIA - GIS MAP file : 318001172_GIS_P008_RtS | F001_SubmisssionsLocations_V01

Origin of public submissions

2.6.2 Summary of matters raised

A summary of the matters raised by the community and where each matter has been addressed in this report is provided in **Table 2-4** and a graphical representation provided in **Figure 2-3**.

Table 2-4: Summary of matters raised by the community

Category	Matter raised	Number of submissions where the matter is raised	Where matter has been addressed in this report
The project	Site selection and justification	25	**Section 6.4**
	Project description	17	**Section 6.6**
	General objection/comment/support	12	**Section 6.23**
Procedural matters	Adequacy of EIS	17	**Section 6.1**
	Consultation	14	**Section 6.7**
Economic, environmental, and social impacts	Landscape character and visual amenity	95	**Section 6.8**
	Hazards and risks	67	**Section 6.9**
	Economic	55	**Section 6.13**
	Biodiversity	42	**Section 6.11**
	Noise and vibration	35	**Section 6.10**
	Social	31	**Section 6.20**
	Traffic and transport	23	**Section 6.12**
	Other issues (incl. land use, air quality, climate change and greenhouse gas)	21	**Section 6.15**, **Section 6.16** and **Section 6.17**
	Cumulative impacts	11	**Section 6.22**
	Outside project scope	11	**Section 6.5**
	Water and soils	6	**Section 6.18**
	Waste and resources	10	**Section 6.14**
	Historic heritage	2	**Section 6.21**
	Aboriginal heritage	1	**Section 6.19**
Justification and evaluation	Project need, justification and alternatives	17	**Section 6.3**
Issues that are beyond the scope of the project	Statutory planning and approval process	7	**Section 6.5**

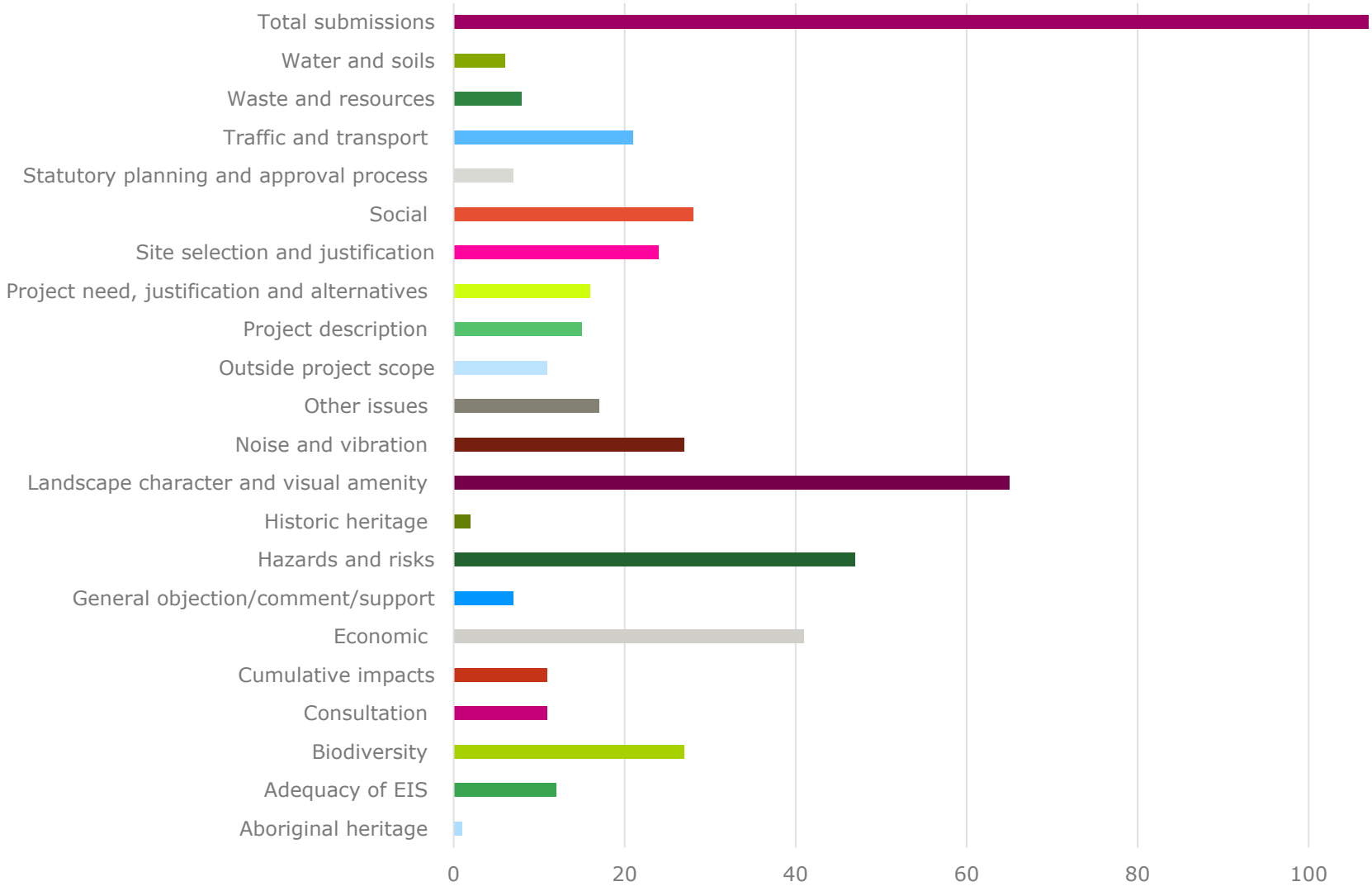


Figure 2-3: Submissions analysis

3. ACTIONS TAKEN SINCE EIS LODGEMENT

3.1 Project refinement

In response to submissions received, further community and other stakeholder consultation, and further design works, ACEN is proposing to make amendments to the project that was included in the original development application. An amendment report has been prepared which describes in detail the proposed amendment and further assessments that have been undertaken following exhibition of the EIS.

The amendment report also provides further clarification about the project where it has been sought during the exhibition period and through ongoing discussions with stakeholders, landholders, and the local community.

Proposed amendments include:

- refinements to the wind farm layout to reduce environmental and social impacts, and improving the functional performance of the project
- removal of the overhead transmission line running south from the Girragulang Road and Leadville clusters
- updated project boundary to remove a property from the Mount Hope cluster
- updates to proposed access routes for the Mount Hope and Leadville clusters, and provision of an alternate access route option to the Girragulang Road cluster.

Four clarifications to the information presented in the EIS are provided including:

- updates to dwelling information where their status as either associated or non-associated has changed since the EIS was exhibited
- clarification on the biodiversity mapping methodology and additional survey undertaken following feedback from BCS
- further detailed survey to assess previously unsurveyed areas and update the Aboriginal cultural heritage assessment report (ACHAR) following feedback from Heritage NSW
- further information regarding the location and configuration of the potential battery energy storage system (BESS) is provided in response to feedback from DPE's Hazards Assessment Team.

3.2 Revised Technical assessments

Revised technical assessments were undertaken to assess potential environmental and social impacts associated with the amended project have been considered in the amendment report.

Additional assessments were also undertaken to consider potential impacts associated with the following clarifications documented in the amendment report:

- Landscape character and visual impact – addendum landscape character and visual impact assessment (LVIA) to assess refined project layout and respond to matters raised in the submissions
- Noise and vibration – addendum noise and vibration impact assessment to assess refined project layout and respond to matters raised in the submissions
- Biodiversity – updated biodiversity development assessment report (BDAR) to assess refined project layout and present updated PCT mapping and additional Koala surveys
- Traffic and transport – traffic and transport assessment memo to consider the proposed alternate option for access to the Girragulang Road cluster.

- Hazards and risks –PHA to assess additional detailed information regarding location and configuration of the potential BESS
- Aboriginal heritage – revised ACHAR to consider refined project layout and record additional survey of previously unsurveyed areas.

3.3 Community and stakeholder engagement

Since the submission of the development application and EIS and commencement of the exhibition period, community and stakeholder consultation has continued. Details of consultation undertaken is outlined in **Table 3-1**.

Table 3-1: Summary of consultation undertaken

Stakeholder	Date	Method	Engagement activities
Individuals			
Host landowners	31/07/2022	Group meeting (face to face – site meeting)	General meeting to update host regarding the project progress and layout refinements
	15/05/2023	Group meeting (virtual)	General meeting to update host regarding the project progress and layout refinements
	Ongoing	Face-to-face / telephone / emails	Various individual communications with host landholders
Neighbours	Ongoing	Face-to-face / telephone / emails	Various individual communications with neighbouring property owners and general community
General community	10/03/2023	Group meeting (face to face)	Uarbry township discussing assessed impacts and mitigation measures
	Ongoing	Face-to-face / telephone / emails	Various individual communications including individual property impact reports and photomontages
Local Indigenous groups			
Registered Aboriginal Parties (RAPs)	21/01/2023	Letter	Project update letter was sent to all RAPs to inform them that additional survey was being undertaken across the survey boundary to address concerns raised by Heritage NSW received following public exhibition.
	19/04/2023	Letter	Letter sent to all RAPs advising that additional survey had been undertaken and no additional Aboriginal sites had been recorded.
Local Councils			
Warrumbungle Shire Council	02/09/2022	Meeting (virtual)	Targeted discussion on traffic and transport

Table 3-1: Summary of consultation undertaken

Stakeholder	Date	Method	Engagement activities
	07/11/2022	Meeting (virtual)	Targeted discussion on waste management and resources
	21/11/2022	Meeting (virtual)	ACEN led presentation and discussion at Emergency Response Forum
	06/12/2022	Meeting (face to face – site meeting)	Targeted meeting held on site to discuss road upgrades and intersection concept designs
Mid-western Regional Council	19/01/2023	Meeting (Mudgee Office)	Accommodation strategy and legacy infrastructure options
State Government Departments			
DPE	6/09/2022	Meeting (virtual)	General project update, discussion on visual impact assessment and Box Gum Woodland
	9/12/2022	Meeting (virtual)	General project update including engagement activities, landowner agreements, PCT mapping, project design and forecasted timeframes
	27/02/2023	Meeting (virtual)	Project update including engagement, landowner agreements, biodiversity, visual, noise and layout.
	02/05/2023	Site visit	Project site visit. DPE continued later without ACE to meet independently with surrounding landowners.
BCD	12/09/2022	Meeting (face-to-face)	Targeted discussion on mapping of Box Gum Woodland
	08/11/2022	Meeting and site visit	Site visit led by project ecologist (ELA) to walk BCD assessing officer across site and discuss items raised in BCD submission
Transport for NSW	26/09/2022	Meeting (virtual)	Targeted discussion on proposed road upgrades and requirements
	21/11/2022	Meeting (virtual)	TfNSW Emergency Response Forum
Heritage NSW	2/12/2022	Email / letter	OzArk, on behalf of ACEN provided further detail on the survey effort as raised in Heritage NSW submission.
EnergyCo	Various	Meeting (virtual)	Regular fortnightly meetings

Table 3-1: Summary of consultation undertaken

Stakeholder	Date	Method	Engagement activities
Other			
Roy Butlers Office – Local MP	7/11/2022	Meeting (face-to-face)	Project update and discussion regarding legacy solutions

4. RESPONSE TO AGENCY SUBMISSIONS

4.1 Warrumbungle Shire Council

Objects

4.1.1 Request for further information - construction impacts

Matter raised

It is understood from the EIS that the Proposal will have a relatively large construction footprint of 1,320 ha and an operational footprint of 550 ha.

Consequently, the likely physical impacts during construction will be significant. These physical impacts will then create potential environmental, visual and related impacts and costs.

Council seeks more detailed information on matters including the scope and extent of earthworks, road works, drainage and erosion protection aspects associated with access roads, temporary batching plants, temporary and permanent site infrastructure (eg laydown, parking areas, construction offices, etc) and the turbines themselves. Also, the management of potential environmental impacts on water quality, noise, dust, First Nations Country, flora and fauna.

Response

ACEN acknowledges the submission from Warrumbungle Shire Council and the request for more detailed information. Significant further consultation has been undertaken with Council since exhibition of the EIS, including an initial workshop held at Council chambers in Coonabarabran on 25th July 2022. The intent of the workshop was to gain a clear understanding of Council's issues and convene a series of targeted meetings with appropriate specialists to discuss each element in more detail.

Following a general project update and discussion of submissions received from other agencies and the community, the following topics were discussed:

<u>Design and construction matters (Council submission items 3,4 & 6-11)</u>

- employment of locals during the construction period
- accommodation of construction workers
- approvals process for any accommodation camp
- roads & traffic
- verification of heavy vehicle and oversize/over mass numbers/frequency/numbers
- Council's upfront road upgrade requirements
- Council's annual financial road maintenance requirements
- water supply source and approvals process
- aggregate supply source and approvals process
- management of solid and liquid wastes generated during construction and operation
- bushfire management
- cumulative impacts
- decommissioning plans.

<u>Voluntary planning agreement (VPA) matters (Council submission item 5)</u>

- clarification of EIS messaging regarding the VPA
- Council's statutory obligations under EPA Act & Local Govt Act

- options for calculating the contributions to be made under the VPA e.g. per megawatt installed, or per turbine installed
- development contributions – quantum, allocations, and management including:
  - ACEN-driven or Council-driven management of funds
  - road repair and maintenance contributions – scope, management, and quantum
  - administrative allowance for costs associated with liaison with ACEN, the community, CCC and management and reporting of VPA performance
  - REZ access scheme.

Targeted meetings that have been held with Council following the initial workshop are summarised in Table 3.1 and issues discussed are summarised below. Further information is provided in the sections following:

- traffic impacts and proposed road upgrades – including the traffic assessment undertaken for the EIS and the proposed road upgrades concept design process and collaboration opportunities with Council (refer **Section 4.1.2**)
- waste and resources – including expected waste streams, volumes and management, and water requirements for construction and operation, and proposed sourcing of water (refer **Section 4.1.3** and **Section 4.1.4**)
- Bushfire management and emergency response – including bushfire, aerial firefighting, and commitments in the EIS (refer **Section 4.1.5**)
- Biodiversity – including safeguards to be adopted to prevent catastrophic harm to birds and bats as well as owls (refer **Section 4.1.6**)
- Employment and workforce accommodation strategy – including clarification of proposed workforce accommodation area proposed in the EIS and updates on ACEN's broader accommodation strategy for their proposed projects in the broader CWO-REZ (refer **Section 0**).
- Cumulative impacts – including likely impacts and benefits associated with numerous renewable energy projects in the Warrumbungle LGA (refer **Section 4.1.8**)
- voluntary planning agreement – including quantum and proposed apportioning and management of funds (refer **Section 4.1.9**)

Proposed measures to manage potential environmental impacts were discussed for all elements of Council's submission where relevant, including clarification of measures outlined in the EIS, and other management measures that Council considered important. Further discussion on the management measures outlined in the EIS and any additional measures developed since the EIS in consultation with Council is provided in **Appendix 2**.

4.1.2 Road and traffic impacts

Matter raised

According to the EIS the Proposal will generate 'construction traffic volumes in the way of 72 heavy vehicle trips per day and 506 light vehicles per day if the construction workforce is distributed regionally'.

Or, in the scenario where a construction workforce accommodation facility is built, 'it is forecast that only 128 light vehicle trips per day would be generated to transport construction staff'.

Council requests the Proponent engage in detailed discussions with it as soon as possible to 'unpack' these numbers so there is transparency around how they have been determined, including the assumptions made.

With respect to the roads identified in the EIS as requiring upgrades; again, Council requires the Proponent to meet with it as soon as possible to enable verification of traffic types and volumes and the upgrade standards required, including but not limited to:

- *Short Street, Turee Street, Main Street, Wyaldra Street, Moorefield Road, Wardens Road, The Leadville Stock Route and Mount Hope Road;*
- *Intersection upgrades (including, inter alia, improved pavement strength on heavy vehicle turning paths) that would be required to cater for restricted access vehicles and OSOM vehicles at the following intersections:*
    - *Black Stump Way / Mount Hope Access Road. Any new access on Black Stump Way will require design approval, including turning lanes;*
    - *Turee Street / Main Street;*
    - *Wyaldra Street / Moorefield Road. Council seeks confirmation that the privately owned section of road between Moorefield Road and Moorefield East*
    - *Road/Uarbry will not become a road for which Council is responsible;*
    - *Golden Highway / Black Stump Way;*
    - *Golden Highway / Leadville Access Road. Council seeks confirmation there is no road involved that would become the responsibility of Council;*
    - *Golden Highway / Short Street; and*
    - *Sir Ivan Dougherty Drive and Wards Roads (Alternative option is Golden Highway if access road doesn't proceed).*

Council also seeks discussion and clarification as to:

- *the timing of road and intersection upgrades;*
- *roadside vegetation clearance;*
- *the implications of various causeway lengths;*
- *the use of roads during wet weather as Council may close them without warning to protect motorists and the road from structural damage; and*
- *Transport Management Plans for OSOM vehicle movements, particularly where there is urban or night time travel proposed or the load is substantially wider than the current road width/lanes.*

Dilapidation surveys and agreed management plans, secured by way of performance bonds will also be required by Council.

a) Construction Phase Traffic:

Council seeks detailed discussions with the Proponent regarding all the likely traffic movements during the construction phase. This includes, inter alia:

- *The tonnages of the various materials and equipment and how the tonnages have been determined;*
- *Vehicle types, including restricted access (eg. B-doubles, road trains, PBS) and OSOM;*
- *Number of trips per day for the various categories of vehicle and likely routes travelled;*
- *Number and size of trucks hauling water, waste, gravel, concrete, etc and likely routes travelled;*
- *Number and size of cranes and likely routes travelled;*
- *Number of light vehicle trips and likely routes travelled;*
- *Number of bus trips and likely routes travelled;*
- *Morning and end of day peaks; what will be the percentage increase in traffic in the various towns; and*
- *Will any local towns be impacted with excessive traffic flows?*

b) Operational Phase Traffic:

It is reasonably expected that it is likely there will be refurbishment and equipment upgrade work during the 30-year life of operations. Council seeks detailed discussions with the Proponent regarding the scope and extent of that activity, particularly in relation to both traffic impacts and workforce variations.

c) Decommissioning Phase Traffic:

It is noted the Proposal runs for 30 years. Council seeks detailed information on the prospect of:

1. *continued use of installed equipment;*
2. *Replacement of the generators with updated technology, or;*
3. *Decommissioning and removal of the turbines/towers and associated infrastructure.*

Each of these options would require heavy vehicle usage, to a greater or lesser extent. Additional clarity is required in this regard, including the likely destination and hence likely transport routes.

Response

A targeted meeting was held on 2nd September 2022 with Warrumbungle Shire Council and the project team to discuss all road and traffic aspects raised by Council, including assumptions made in the traffic modelling, traffic volumes during construction, operation and decommissioning, timing and ownership of road upgrades, wet weather use of Council roads, and approach to dilapidation surveys.

The meeting included an update on the project since the initial meeting in July and discussion focussing on comments raised by Council as follows.

Construction phase traffic generation

As discussed in Section 9.1.2 of the EIS, there are no specific generation rates for wind farms in the Guide to Traffic Generating Developments version 2.2 (RTA, 2002), and vehicle generation forecasts were therefore based on similar projects in the region and the forecast construction workforce, distribution of workers, and expected number of construction vehicles.

This identified that peak construction vehicle generation is relative to number of turbines being constructed. Based on other wind farm examples, a peak daily trip rate of 1.45 light vehicles and 0.47 heavy vehicles was associated with the installation of a turbine. This is discussed in Section 4.1.1 of Appendix H of the EIS and outlined in **Table 4-1**.

Table 4-1: Construction traffic generation rates from surrounding wind farm projects

Project	Peak construction traffic generation rates (vehicles per turbine/per day)		Peak hour assumptions
	Light vehicles	Heavy vehicles	
Liverpool Range Wind Farm	0.83	0.39	• Each staff member generates 2 trips per day – 1 trip in or out during each peak hour • Heavy vehicles would generate 2 trips (1 in and 1 out) during the peak hour and a peak hour factor is 10% (the proportion of daily vehicle generation)
Uungula Wind Farm	2.06	0.55	
Average rate	**1.45**	**0.47**	

The forecast volumes used in the EIS include light and heavy vehicles and present the highest construction volume associated with each cluster, based on the assumption that construction of the three clusters would be undertaken sequentially, with construction vehicle movements associated with one cluster at a given time.

As discussed in **Section 3.1**, the number of turbines proposed has been reduced by up to 17 across the project, however construction traffic generation modelling has not been rerun and a conservative approach to developing management measures has been adopted.

Heavy vehicles

The greatest number of wind turbines are scheduled at Mount Hope and a conservative estimate of a peak generation of 36 heavy vehicles (72 trips) per day was adopted, acknowledging that there would be fewer trucks on less busy days during construction.

As outlined in Appendix H of the EIS, the largest components needing to be transported to site would be the turbine blades in the range of 60 to 80 metres, and typically weighing over 20 tonnes. Transportation of these components would require over-size over-mass (OSOM) transportation with trailer lengths expected to be over 90 metres and comprising a prime mover, dolly, and steerable jigger.

Light vehicles

A peak workforce of about 400 construction workers is planned for the project. As presented in Section 9.3 of the EIS, two traffic generation scenarios were considered, one for a regional distribution of the workforce, and one for a centralised workforce accommodation area.

A regional accommodation scenario is expected to generate up to nine minibuses spread between Coonabarabran and Mudgee (18 trips) and 244 light vehicles (488 trips) across six towns. This equates to 506 trips per day.

A centralised workforce accommodation scenario offers greater opportunity to transport workers via minibuses. This is expected to generate 30 minibuses (60 trips) and 34 light vehicles (68 trips), equating to 128 trips per day, noting some of these trips would use the internal road network and may not need to access the surrounding public road network.

Construction traffic routes

Detailed discussion of the potential impacts to the regional and local road networks associated with heavy vehicle access to site, is provided in Chapter 9 of the EIS.

The final transport routes will be confirmed by the preferred EPC contractor based on procurement and origin of the wind farm components, however as outlined in Section 4.8.7 of the EIS, it is expected that components would be transported from the Port of Newcastle to the Golden Highway and Black Stump Way.

Access to the Girragulang Road and Leadville clusters would be from the Golden Highway via proposed intersection and road upgrades, and to the Mount Hope Cluster via Black Stump Way and a proposed new intersection and access road.

Operational phase traffic generation

Traffic generation during the operational phase of the project is forecast to be much less than the construction phase, with 50 operational staff forecast to generate about 100 daily light vehicle trips, consisting of 50 cars entering the site during AM peak hour and 50 cars exiting the site during the PM peak hour, with no ride sharing amongst the staff.

Heavy vehicles would only be required for infrequent repairs and maintenance and are not expected to occur on an hourly basis, unlike during the construction phase. As such, minimal hourly heavy vehicle generation is expected during the operational phase, and this would be managed through the implementation of the traffic management plan and in consultation with Council.

Decommissioning phase traffic generation

As noted in Section 9.3.4 of the EIS, the nature and timing of potential decommissioning of the project is unknown at this stage and difficult to accurately predict future traffic generation and potential impact to the surrounding road network. However, based on expected decommissioning activities that may be required, the decommissioning phase is expected to have a similar labour force and therefore result in similar traffic generation impacts as assessed for the construction phase.

A specific decommissioning phase traffic management plan would be developed in consultation with Council when the required activities are known and prior to commencement of decommissioning.

Transport management plans and dilapidation surveys

As noted in the EIS and outlined in **Appendix 2** details of the measures that will be implemented to minimise traffic impacts during construction, operation, and decommissioning will be included in a construction traffic management plan to be prepared prior to construction.

The plan will be prepared in consultation with Warrumbungle Shire Council and Transport for NSW and will include OSOM vehicle movements and a protocol for undertaking dilapidation surveys and the repair of the construction routes if dilapidation surveys identify these roads to be damaged during construction, operation, or decommissioning works.

Road upgrades

At the targeted meeting held on 2nd September, the project team provided an overview of the full schedule of proposed road upgrades as presented in the EIS, and further clarification and detailed

discussion on the intersection upgrades required to cater for oversized-over mass (OSOM) vehicles as requested by Council.

A design philosophy document was prepared following the meeting and provided to Council to provide an overview of the proposed design process as flows:

- summary of proposed road and intersection upgrades (EIS Section 9.3.4)
- overview of the proposed topographic survey scope and timing
- overview of the proposed concept design scope (for 80% and 100% concept designs)
- proposed design standards to be applied
- deliverables, timeframe, and consultation and design review 'touchpoint' opportunities for Council and the project team to discuss the proposed designs.

A subsequent meeting was held on site on 6th December with Council to discuss the proposed scope and approach for the design in more detail and undertake site inspections to confirm appropriateness of the 80% concept plans for the following:

- the proposed upgrade of the Neilrex Road and Mount Hope Road intersection
- the proposed upgrade of Mount Hope Road (12 kilometres)
- the proposed upgrade of Moorefield Road West and the intersection with Black Stump Way
- the proposed upgrade of the Leadville Stock Route and Wardens Road, including the intersection with Black Stump Way.

The topographic survey and concept design program for the proposed intersection and road upgrades is ongoing, and 80% concept plans have been progressively provided to Council for review as they are completed.

Following feedback from Council at the site meeting on 6th December, the following upgrades that were included in the EIS have been removed, and no longer form part of the project:

- upgrade of the Neilrex Road and Mount Hope Road intersection – it was agreed that the proposed light vehicle access via Neilrex Road would not be included, and this intersection upgrade would therefore not be required. A single point of access to the Mount Hope cluster via the proposed access from Black Stump Way is now proposed.
- upgrade of the Leadville Stock Route and Wardens Road, including the intersection with Black Stump Way – it was agreed that the proposed light vehicle access via Leadville Stock Route and Wardens Road would not be included. A single point of access to the Leadville cluster is now proposed.

The schedule of proposed road and intersection upgrades that would be required for the project has been revised following consultation with Warrumbungle Shire Council and is summarised in **Table 4-2**.

Following further consideration since the EIS, a possible alternate access to the Girragulang Road cluster is presented in the amendment report. Noting that only one access would be constructed, the additional option is proposed as an alternate access point should the proposed access via Uarbry not proceed. This is discussed in more detail in **Section 6.12.1** and noted in **Table 4-2**.

Proposed timing would be confirmed in consultation with Warrumbungle Shire Council to avoid impacting on other local road upgrades that may be undertaken by Council under their ongoing road maintenance program and minimise potential cumulative impacts for road users and the community (refer to management measure ID TT2 in **Appendix 2)**.

Table 4-2: Road upgrades and timing

Intersection / Road		Proposed upgrade	Length (km)	Timing
Road authority: Warrumbungle Shire Council				
1	Mount Hope Road	Within the Mount Hope cluster boundary, upgrade to the standard and satisfaction of Council for general construction traffic and OSOM vehicles.	12.0	Prior to commencing construction of the Mount Hope cluster
2	Black Stump Way / Mount Hope Access Road intersection	Extent of required works to allow access for OSOM vehicles.	N/A	Prior to commencing construction of the Mount Hope cluster
3*	Short Street	From the Golden Highway to Church Street, upgrade to the standard and satisfaction of Council for general construction traffic and OSOM vehicles. ACEN is committed to paving this section of road in response to feedback from the local community.	0.3	Prior to commencing construction of the Girragulang Road cluster
4*	Turee Street	From Short Street to Main Street, upgrade to the standard and satisfaction of Council for general construction traffic and OSOM vehicles. ACEN is committed to paving this section of road in response to feedback from the local community.	0.3	Prior to commencing construction of the Girragulang Road cluster
5*	Main Street	From Turee Street to Wyaldra Street, upgrade to the standard and satisfaction of Council for general construction traffic and OSOM vehicles.	0.1	Prior to commencing construction of the Girragulang Road cluster
6*	Wyaldra Street	From Main Street to Moorefield Road, upgrade to the standard and satisfaction of Council for general construction traffic and OSOM vehicles.	0.3	Prior to commencing construction of the Girragulang Road cluster
7*	Moorefield Road (east)	From Wyaldra Street to Girragulang Road cluster boundary, upgrade to the standard and satisfaction of Council for general construction traffic and OSOM vehicles.	2.2	Prior to commencing construction of the Girragulang Road cluster

Table 4-2: Road upgrades and timing

Intersection / Road		Proposed upgrade	Length (km)	Timing
8*	Turee Street / Main Street intersection	Extent of required works to allow access for OSOM vehicles.	N/A	Prior to commencing construction of the Girragulang Road cluster
9*	Wyaldra Street / Moorefield Road intersection	Extent of required works to allow access for OSOM vehicles.	N/A	Prior to commencing construction of the Girragulang Road cluster
10	Moorefield Road (west)	From Black Stump Way to Girragulang Road cluster boundary, upgrade to the standard and satisfaction of Council for general construction traffic.	4.6	Prior to commencing construction of the Girragulang Road cluster
Road authority: Transport for NSW				
11	Golden Highway / Black Stump Way intersection	Extent of required works to allow access for OSOM vehicles.	N/A	Prior to commencing construction of the Mount Hope cluster
12	Golden Highway / Leadville Access Road intersection	Extent of required works to allow access for OSOM vehicles.	N/A	Prior to commencing construction of the Leadville cluster
13	Golden Highway / Short Street intersection	Extent of required works to allow access for OSOM vehicles.	N/A	Prior to commencing construction of the Girragulang Road cluster

* Noting that only one access to the Girragulang Road cluster would be constructed, should the proposed access via Uarbry not proceed, these upgrades would not be required and a new intersection on the Golden Highway would be required.

4.1.3 Waste management

Matter raised

The EIS mentions the quantums of only two waste types, namely:

- *Sewage: 80,000 litres per day*
- *General domestic: 2,350 tonnes over 24 months*

It is unclear from the EIS as to the likely volumes of other waste types that will be generated by the development during the four-year construction phase as well as the operational and decommissioning phases and which waste disposal facilities or resource recovery centres owned and operated by Council are proposed to be utilised.

To enable Council to analyse the potential implications of such additional waste streams shortening the predicted lifespan of its waste management facilities, hence resultant possible upgrade or expansion - and who pays -, detailed waste generation data is required from the Proponent just as soon as possible. For instance, waste streams including paper/cardboard, other commercial waste, wood pallets, plastics and green waste. Also, whether any wood materials contain problematic chemicals.

Response

A targeted meeting was held on 7th November with Warrumbungle Shire Council and the project team to discuss all waste and resources aspects raised by Council, including assumptions and estimates of waste volumes and resource requirements presented in the EIS.

Waste

Since the meeting was held to discuss options for the disposal of project waste within the Warrumbungle Shire LGA, Council have issued a letter to ACEN (9th January) that states that Council will not accept any waste generated by the project at any Council owned and operated waste facilities.

ACEN have since approached Dubbo Regional Council to discuss options to dispose of project related waste at one or more waste facilities within the Dubbo Regional LGA. The Whylandra Waste and Recycling Centre, Dubbo has been identified by Dubbo Regional Council as being able to accept waste generated by the project.

Whylandra Waste and Recycling Centre was one option identified in Chapter 14 of the EIS, and it is expected that this facility can accept 60,000 tonnes of waste per year and has an estimated lifespan of 200 more years (Impact Environmental, 2018).

All waste generated from the project will be assessed, classified, and managed in accordance with the Waste Classification Guidelines (EPA, 2014). Management of wastes will follow the resource management hierarchy principles in accordance with the WARR Act.

ACEN will continue to liaise with Dubbo Regional Council and form an agreement for the acceptance of waste associated with the project, prior to the start of construction (refer to new management measure ID WR2 in **Appendix 2**).

Sewage

Estimated volumes of sewage expected to be generated by the project during construction as presented in Chapter 14 of the EIS were 80,000 litres per day. The primary source of sewage waste would be the proposed workforce accommodation area.

Following feedback from Warrumbungle Shire Council at the meeting held on 7th November ACEN have updated the estimates presented in the EIS to 220 litres per day per person, which equates to 88,000 litres per day for the peak workforce of 400 workers.

ACEN have undertaken additional consultation with providers of similar workforce accommodation facilities in the area and the revised estimate of 88,000 litres per day is expected to be reasonable.

ACEN are currently working with providers of workforce accommodation facilities and options for the treatment and disposal of sewage associated with the workforce accommodation area are

currently being investigated further and would include onsite treatment and 'treat and suck' for disposal offsite.

ACEN will continue to consult with Warrumbungle Shire Council as the proposed potential workforce accommodation area is developed further regarding options for the disposal of sewage waste within the LGA (refer to new management measure ID WR10 in **Appendix 2**).

4.1.4 Water management

Matter raised

The proponent estimates 1,100 ML of water will be required for construction. It is unclear from the EIS as to the definitive source of water required for concrete batching and other construction activities. Council seeks urgent talks with the Proponent regarding the planned source of such water. Is it planned to utilise Council's supply - if so from where? -, an existing nearby landowner bore, a new groundwater bore or extraction from a regulated surface water dam or river?

Response

Expected water volumes provided in Chapter 4 and Chapter 14 of the EIS are indicative this stage and subject to detailed design and procurement. Since the targeted meeting held on 7th November 2022, ACEN has clarified the water use estimates presented in the EIS with Warrumbungle Shire Council. These clarifications are summarised in **Table 4-3**.

Table 4-3: Water use estimates

Resource	Description	Indicative quantity	Potential source/s
Potable water			
Water -Amenities Water - Potential workers accommodation facility	Assume 400 persons peak workforce, 180L/day/person, 78-weeks* duration	33,696 kilolitres (for the construction period)	Option 1 – groundwater bore and on-site treatment Option 2 – truck in from external supplier.
Non-potable water			
Water - Dust suppression (incl. concrete batching plant)	Assume 45km track length at once, 8m application width application rate 2.5L/m^2/day, 78-weeks* duration = 900 kilolitres per day	421,200 kilolitres	Dust suppression water to be sourced onsite for as much as possible or from existing locally contracted groundwater sources
Water - Pavements	Access tracks, wind turbine hardstands, internal substation benches, O&M facilities, concrete batching plant, construction compounds	647,464 kilolitres	5-10% supply from recycled water from within batching plant Remainder to be sourced from existing surface or groundwater allocations within and / or surrounding the site or external supplier

Table 4-3: Water use estimates

Resource	Description	Indicative quantity	Potential source/s
Water -Wind turbine foundations	Concrete and binding	27,612 kilolitres	5-10% supply from recycled water from within batching plant Remainder to be sourced from existing surface or groundwater allocations within and / or surrounding the site or external supplier

* Consistent with the EIS, a period of 78 weeks has been used to calculate water usage volumes. This is based on the expected period that the peak workforce of 400 people would be on site over the duration of the 24 to 42-month construction period. This assumption has been used to account for peaks and troughs in workforce on site at different times during construction.

ACEN is currently in discussions with landholders regarding utilising existing groundwater access licences (Refer to **Section 4.7.1**).

Expected volumes will be forecast by the EPC contractor and ACEN will consult further with Council on this matter (Management measure ID WR1 in **Appendix 2**).

A water use approval under Section 89 of the WM Act, a water management work approval under section 90, or a controlled activity approval (other than an aquifer interference approval) under section 91 of the WM Act, are not required for SSD by virtue of Section 4.41 of the EP&A Act. It is expected that approval in principle for the sourcing of water would be under the existing SSD DA as part of the broader project.

4.1.5 Bushfire management and emergency response

Matter raised

Council requires further information regarding the mechanisms the Proponent intends to action to avoid and minimise catastrophic bushfire outbreaks. Clarification is requested of the potential of the turbines to impact on the ability to undertake aerial firefighting duties. Council also requires the Proposal, if approved, to retain on each of the three clusters, firefighting equipment to the written satisfaction of the local RFS.

Response

ACEN attended the Warrumbungle Shire Council's Emergency Response Forum on 21st November to provide a general introduction to the project and discuss matters raised by Council and seek feedback from the emergency response services present. The presentation by ACEN included the following:

- Project introduction and overview
- Discussion of bushfire management
- Discussion of aerial firefighting
- Presentation of emergency response commitments in the EIS

Bushfire

As noted in Section 10.8 of the EIS, a bushfire emergency management and operations plan (BEMOP) will be prepared and form part of the CEMP and OEMP. The BEMOP will include:

- detailed measures to prevent or mitigate fires igniting
- 24-hour emergency contact details including alternative telephone contact
- inductions for construction personnel on bushfire risk management and other fire related risks that could present at the wind farm site, the project bushfire contingency plan and emergency response procedures
- availability of fire-suppression equipment, access, and water including site infrastructure plans and site access and internal road plans
- location of hazards (physical, chemical, electrical) that will impact on the firefighting operations and procedures to manage any identified hazards during firefighting
- storage and maintenance of fuels and other flammable materials
- notification of the local NSW RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation, proposed to be carried out during a bush-fire fire danger period to ensure weather conditions are appropriate
- appropriate bush fire emergency management planning
- Such additional matters as required by the NSW RFS District Office.

A dedicated static water supply (approximately 50- 80kL) for bush firefighting purposes will be provided at strategic locations within the construction workforce accommodation and each wind farm cluster with respect to essential equipment and accessibility.

In addition to the bushfire management measures included in Section 10.8 of the EIS, it was also discussed at the Emergency Response Forum, that access roads constructed as part of the project may be beneficial during bushfire events and assist firefighters by:

- providing access to otherwise inaccessible areas
- serving as a control line
- creating linear fire breaks
- providing staging areas for firefighting in their cleared areas.

Aerial firefighting

It was noted at the Emergency Response Forum that aerial firefighting can occur amongst an operational wind farm, and the relevant findings of the aviation assessment undertaken as part of the EIS were presented, notably:

- Aerial firefighting operations (firebombing in particular) are conducted under day VFR, sometimes lower than 500 feet (152.4 metres) above ground level with certain conditions such as smoke and haze reducing visibility
- Most aerial firefighting organisations have formal risk management programs to assess the risks associated with their operations and implement applicable treatments to ensure an acceptable level of safety can be maintained. For example, pilots require specific training and approvals, additional equipment is installed in the aircraft, and special procedures are developed.
- The Australasian Fire and Emergency Services Council (AFAC) developed a national position on wind turbines: Wind Farms and Bush Fires Operations, version 3.0, dated 25 October 2018.

In response to the AFAC Wind Farms and Bush Fires Operations, version 3.0, ACEN noted an additional bushfire management measure that requires wind turbines to be shut down immediately during emergency operations, and where possible and if appropriate turbine blades should be stopped in the 'Y' or 'rabbit ear' position to provide the maximum airspace for aircraft to

manoeuvre underneath the blades and removes one of the blades as a potential obstacle(Management measure ID BF14 in **Appendix 2**).

4.1.6 Biodiversity

Matter raised

Council seeks commentary on the safeguards to be adopted to prevent catastrophic harm to birds and bats as well as owls. For example, it is known by locals that three pairs of Wedge-tailed Eagle live in the Crappy Creek Valley, plus Nankeen Kestrels and owls.

In addition, within 2 kms of the nearest turbine within the Girragulang Road Cluster lies a designated wildlife corridor. Has this corridor been factored into any predictive impact modelling?

Response

Biodiversity issues raised by Warrumbungle Shire Council were discussed at the workshop held with Council on 25th July. It was noted that a biodiversity development assessment report (BDAR) has been prepared by an accredited assessor to meet the requirements of the Biodiversity Assessment Method (BAM) established under Section 6.7 of the *NSW Biodiversity Conservation Act 2016.*

- Biodiversity management measures outlined in Section 8.5 of the EIS will be documented in a biodiversity management plan, that includes an approved bird and bat adaptive management plan (BBAMP). The BBAMP will include:
- up to 12 months of bird utilisation studies at designated sites, across four seasons, to provide more accurate risk data
- carcass monitoring during the first two years of operation, to estimate the number of birds and bats struck by turbine blades
- scavenger assessment, to allow adjustment of carcass search data for carcasses removed prior to surveys
- bird utilisation studies at a subset of the 33 designated sites, to measure the ongoing impacts on bird populations locally
- monitoring of bats across four seasons, to measure the ongoing impacts of the wind farm on microbat populations locally
- a strategy and notification protocol in the event that the wind farm significantly impacts protected or threatened species.
- The BBAMP will be implemented for the first 5 years of operation.

The BDAR prepared as part of the EIS includes consideration of wildlife corridors and connectivity. Areas of connectivity are mapped in Figure 8-2 of the EIS and reflect areas of denser vegetation within the wind farm site that may facilitate movement of threatened species across their local range.

4.1.7 Employment of locals and construction workforce accommodation

Matter raised

The Proponent plans to use an Engineering, Procurement and Construction (EPC) contractor to build the project. From experience, such service providers generally have limited appetite to employ and train locals. This is a major concern for Council and it requires the Proponent to meet with it to reach an agreement on what percentage of local workers will be employed, and trained as necessary, with that commitment to be taken on board by the contractor.

The EIS notes that up to 400 full-time employees will be required during the peak construction period and approximately 50 full-time employees during operation and ongoing maintenance. It also notes the difficulty of accommodating such a large construction workforce in the surrounding towns. Hence an alternative option proposed is to build a workforce accommodation facility.

Such a facility is proposed to feature 400 rooms and amenities, car parking, a dining hall, gymnasium, library, and other recreational facilities and occupy 5 ha.

Council seeks an urgent meeting with the Proponent to discuss this matter in more detail and secure an agreed way forward, well before there is any contemplation of the granting of project approval.

Response

Issues raised by Warrumbungle Shire Council related to employment of locals and construction workforce accommodation were discussed at the workshop held with Council on 25 July 2022. It was noted that as discussed in Chapter 15 of the EIS, feedback from the local community and other regional councils suggests that there is a 'real' lack of available housing and/or other accommodation to support the proposed workforce. It was also noted that a potential centralised workforce accommodation area is expected to be the preferred solution.

Since the meeting on 25th July 2022, ACEN have been working with management consultants Nouse Group in consultation with both Warrumbungle Shire Council and Mid-Western Regional Council, to identify a preferred solution to housing the estimated workforce of up to 400 workers during peak construction, and to develop the accommodation strategy for the project.

Warrumbungle Shire Council noted a preference for workers to be accommodated close to town to encourage local spending and economic benefit during construction and ideally located close to Dunedoo, which is considered of regional strategic importance.

Insights from both Warrumbungle Shire Council and Mid-Western Regional Council during the engagement process with ACEN and Nouse Group have helped identify potential options for long-term legacy solutions that might be able to contribute towards future development in the area. Examples of potential options include:

- assisting local businesses to diversify into the supply chain for current and future energy projects
- provision of training and apprenticeship schemes
- investing in semi-permanent or permanent accommodation solutions in towns such as funding subdivision of lots, or installing 'in-ground' services to temporary accommodation to support future development on the site
- provision of evacuation centres that may be used during natural disasters
- collaboration with telecommunications providers to address 'black spots'
- partnering with local campgrounds to upgrade cabins and wastewater facilities

- supporting future water security by funding investigations in deep-aquifer water sources
- supporting under-developed public transport in the region.

ACEN will continue to work closely with Warrumbungle Shire Council to develop the workforce accommodation and employment strategy (WAES) for the project and identify opportunities for legacy solutions that may facilitate future development of the region. An additional measure (ID S14) has been included in **Appendix 2** to reflect this commitment.

The exact numbers and types of jobs are currently unknown and subject to detailed design, construction methodology and scheduling, but ACEN will continue to engage with Council and the preferred EPC contractor through detailed design to investigate options for prioritising local workers where feasible. This is reflected in updated to commitment ID S12 in **Appendix 2**. For example, this would include introducing local workers and sub-contractors that have expressed an interest in the project during development and through an online construction register, which has already been established, to assist in maximising the local work force onsite. Further, ACEN would continue to engage with local business to build an understanding of the local service capacity. ACEN would work to maximise local service contracts by:

- providing assistance and mentorship to smaller regional businesses to support the start-up of management contracts
- simplifying the bidding process to make it easier for smaller businesses to participate and compete for contracts
- setting aside contracts and reserving a certain percentage specifically for smaller businesses. In larger contacts, awarded to bigger business, provisions can be included to encourage subcontracting opportunities for smaller local businesses.

ACEN will also advocate with industry bodies such as EnergyCo for a strategic approach to understanding and managing the cumulative impacts on the REZ on regional communities regarding access, accommodation and housing and the use of infrastructure and service.

4.1.8 Cumulative impacts

Matter raised

Approximately ten renewable energy projects are planned for location within and around the Warrumbungle LGA. Council is concerned about the myriad of impacts this will generate on its residents and ratepayers. Thus, it seeks substantive information from both the Proponent - and the NSW Government - on the likely cumulative impacts in Shire and what benefits will be forthcoming to both Council and the region generally to compensate for these imposts.

Response

Issues raised by Warrumbungle Shire Council related to cumulative impacts in and around the Warrumbungle Shire LGA were discussed at the workshop held with Council on 25th July. It was noted that ACEN are currently involved in industry-wide discussions with other proponents for renewable energy projects in the CWO-REZ and the NSW Government (EnergyCo) to provide a coordinated process for the identification and management of cumulative impacts associated with the development of the CWO-REZ.

Other developments in the vicinity of the project were considered to assess potential cumulative impacts in Chapter 19 of the EIS, in accordance with the SSD Guidelines. The projects identified for assessment were considered relevant to the project based on proximity, type of development, size of the construction and or operational workforce and project timing.

The projects include other renewable energy projects, large scale mines and other infrastructure projects. The potential combined cumulative impacts include visual, traffic, noise, biodiversity, social, air quality and land use impacts. Identifying these impacts at an early stage has informed significant design refinements throughout the project development.
The project specific mitigation measures have been developed in consideration of cumulative impacts and are considered appropriate to satisfactorily address the potential combined effects of other surrounding developments. Measures include coordinated management plans for construction, operation and decommissioning of the project and ongoing engagement with the proponents of nearby activities, particularly the Liverpool Range Wind Farm.

In March 2023, EnergyCo released *Central-West Orana Renewable Energy Zone – Coordinating community impacts and benefits in the REZ* (EnergyCo, 2023). The report outlines the key findings of investigations into how potential cumulative impacts will be mitigated within the CWO-REZ while also providing long-term benefits to the community.

EnergyCo investigations have included engagement with local councils, government agencies and other key stakeholders to understand key local issues and priorities including road upgrades, training and skills development, workforce accommodation, telecommunication improvements and waste management.

ACEN will continue to engage with other renewable energy proponents in the CWO-REZ and EnergyCo to provide a coordinated process for the identification and management of cumulative impacts wherever possible. This has been reflected in a new management measure (ID CU5) in **Appendix 2**.

4.1.9 Securing a Planning Agreement

Matter raised

As the sphere of government directly responsible for the day-to-day governance of Warrumbungle LGA, the issues confronting Council are significant and diverse. Whether it be roads and bridges, water and sewerage systems, waste, community buildings, recreation or day care facilities, the availability and quality of this infrastructure and social services has a significant influence on the quality of life and wellbeing of our citizens and ratepayers.

Council thus seeks development contributions from the Proponent via a Planning Agreement that acknowledges the tangible and intangible environmental, social and economic costs arising from the Proposal. Such funds will be applied to a public purpose that will ensure the provision of a public benefits.

The EIS states that the Proponent has consulted with Council as follows:

- *briefing (19 December 2019)*
- *Councillors briefing (3 February 2020)*
- *Community information session (27 February 2020)*

To assist with transparency, Council notes there has been other dialogue with the Proponent in relation to a Planning Agreement including, inter alia:

- *Letters from the Proponent to Council dated 8th July 2021 and 6th October 2021;*
- *Virtual meetings between the parties on 16th September 2021 and 22nd September 2021;*
- *A phone conversation between the parties on 27th October 2021;*

- *A letter from Council to the Proponent dated 10th December 2021; and*
- *A virtual meeting between the parties on 1st April 2022.*

Discussions with the Proponent on formulating a Planning Agreement have been challenging.

Whilst the EIS outlines the Proponent's view of the scope of the Planning Agreement, it fails to report Council's position.

The EIS suggests that some Coolah community members are critical of the one and only renewable energy project Planning Agreement secured by Council, namely the Liverpool Range Wind Farm in 2018. Because the project is yet to become operational, neither the Planning Agreement nor the funding allocation mechanism, are yet to be tested, hence Council considers the criticism somewhat hasty and without evidence to support the claims.

The form and content of the Liverpool Range Wind Farm Planning Agreement was structured in accordance with State Government policy and guidelines.

Council notes that the Proponent proposes that the development contributions be split into two funding streams, one to a community group to administer ($100,000 - $150,000 pa) and the balance to Council.

Council remains to be convinced that a separate allocation to a community group, rather than all the development contributions being managed by Council, is justified for the following reasons:

a) As per the provisions of the EP&A Act, the Planning Agreement is with the Local Government Authority. With that comes certain statutory responsibilities and obligations for which Council is liable. Outsourcing Council management responsibilities to the general public, for instance a community group, carries considerable governance and legal risks. Similarly, under the Local Government Act, the Council has statutory obligations that are at odds with outsourcing to a community group;
b) Under the EP&A Act Council is legally responsible for managing and reporting on the performance of the Planning Agreement in all its facets. These aspects include decision-making for the allocation of funds, the appropriate management of said funds, the performance of projects allocated funding and annual reporting;
c) Funds administered by a community group may result in additional assets within the community that the Council is expected to maintain and replace throughout the assets lifecycle. Such assets might not be in accord with Council's four-year Delivery Program and Operational Plan, thus creating an unwanted and unsustainable financial burden on Council; and
d) The Proponent plans to provide direct financial compensation to around 100 landholders, (other those that host turbines) who are neighbours potentially impacted by noise and visual impacts. Hence, allowing for family members, potentially 400 locals could receive some direct financial compensation.

Council thus remains to be convinced as to why it is necessary to have a local community committee established to allocate another $100,000 -$150,000, when that responsibility under the EP&A Act is quite properly Council's mandate.

Council requires a Planning Agreement to be negotiated prior to any contemplation by the NSW Government of the granting of development approval. In addition, Council requires the Agreement's key terms to be included as a specific condition within any project consent.

Council is of the view that the total quantum of development contributions be provided to it and it will manage the finances and determine how decisions are made, in accordance with standard

practice widely adopted by Councils across rural NSW on many other energy and mining projects.

Council is however amenable to having a management committee comprising local representatives, Council and the Proponent be involved in the decision-making process.

Response
Warrumbungle Shire Council, together with other Councils within the CWO-REZ, has now published a policy that requires a Planning Agreement be entered into for the amount equivalent to 1.5% of the Project's capital investment value.

In line with this, ACEN commit to a total financial contribution equivalent to 1.5% of the projects capital investment value to be spent within the local community. This commitment totals $25,500,000 to be spent over the operational life of the project. This contribution will be administered under a Planning Agreement with Council, or other appropriate means to ensure the money is being spent within the impacted community.

In addition, a significant portion of the access fees payable allowing connection into the renewable energy zone infrastructure will be apportioned to community and employment activities. ACEN understands that these funds will be administered by the EnergyCo. in consultation with the local community and regional Councils.

Comments

4.2 Mid-Western Regional Council

4.2.1 Construction workforce accommodation

Matter raised

The EIS notes there will be an estimated 400 workers during the peak construction period, which is expected to commence in the first quarter of 2023 and run for a period of approximately 24 – 42 months. The EIS has proposed that accommodation be sourced from surrounding towns and has assumed 60 of these workers would reside within Gulgong and 80 within Mudgee, totalling 140 beds.

Council are strongly concerned with this aspect of the project as there is currently a severe shortage of appropriate accommodation in both these towns for tourism, made worse by the competing demands placed upon accommodation availability by State Significant Developments (SSD) and other major project construction workforces for developments approved by Council.

This shortage/competition will be particularly evident during the construction phase which coincides with the peak construction periods of several other SSD projects in the region that are either approved or in the assessment/consultation phase, with more projects being planned every day aiming to meet the objectives of the Renewable Energy Zone. This includes:

- *Wollar Solar (400 workers)*
- *Stubbo Solar Farm (400 workers)*
- *Burrendong Wind Farm (450 workers)*
- *Tallawang Solar Farm (430 workers)*
- *Barney's Reef Wind Farm (340 workers)*
- *Birrawa Solar (800 workers)*
- *Bellambi Heights Solar (400 workers)*
- *Bowdens Silver (320 workers)*

- *Local Coal Mine expansions (250 workers)*

In total, the projects above require 3,200 workers with the majority needing to be housed in the Mid-Western Region LGA and does not account for the workforces of other significant projects such as the transmission line construction for the Renewable Energy Zone, Inland Rail or other significant local construction projects approved by Council.

Mid-Western Region has limited accommodation capacity with only 3,300 visitor beds spread over 602 venues, as sourced from Localis Data. The majority of these beds are required to service the Region's Tourism Sector which generates upwards of $160M annually for the area. Any competition with tourism accommodation and the long-term economic viability of the sector by short-term construction workforces is not supported and is strongly opposed by Council.

Although Warrumbungle Shire Council have expressed a preference for the construction workforce to be spread out around the nearby towns, Mid-Western Regional Council strongly opposes this option and seeks either the revision of accommodation sourced from surrounding towns or strongly supports the development of purpose-built workforce accommodation.

Response

The peak construction period for the project is expected to commence in the first quarter of 2024. ACEN notes issues raised by Mid-Western Regional Council related to construction workforce accommodation and as discussed in Section 0, ACEN have been working with management consultants Nouse Group in consultation with both Warrumbungle Shire Council and Mid-Western Regional Council, to identify a preferred solution to housing the estimated workforce of up to 400 workers during peak construction, and to develop the accommodation strategy for the project.

Mid-Western Regional Council has reiterated the preference for workers to be accommodated away from towns in a purpose-built accommodation area to reduce potential social impacts in town. Council also noted that economic benefits associated with accommodating workers in town may not have necessarily been realised in the past.

Insights from both Warrumbungle Shire Council and Mid-Western Regional Council during the engagement process with ACEN and Nouse Group have helped identify potential options for long-term legacy solutions that might be able to contribute towards future development in the area. Examples of potential options include:

- assisting local businesses to diversify into the supply chain for current and future energy projects
- provision of training and apprenticeship schemes
- investing in semi-permanent or permanent accommodation solutions in towns such as funding subdivision of lots, or installing 'in-ground' services to temporary accommodation to support future development on the site
- provision of evacuation centres that may be used during natural disasters
- collaboration with telecommunications providers to address 'black spots'
- partnering with local campgrounds to upgrade cabins and wastewater facilities
- supporting future water security by funding investigations in deep-aquifer water sources
- supporting under-developed public transport in the region.

ACEN will continue to consult with Mid-Western Regional Council through development of the workforce accommodation strategy for the project (Refer to ID S14 in **Appendix 2**) Additional measures (ID 15 and ID 16) has also been added to address Councils comments on the social impacts of workers accommodation.

4.2.2 Waste management

Matter raised

The EIS notes that the Gulgong Waste Facility and Mudgee Waste Facility are potentially available waste facilities for the disposal or management of wastes. In this regard, Council wishes to advise that neither facility is appropriate or capable to handle the disposal of wastes generated by the project. Gulgong Waste Facility is not a landfill facility, accepting mainly residential type wastes. All material deposited at Gulgong Waste Facility are transported to Mudgee's Waste Facility. The Mudgee Waste Facility has no capacity to take large quantities of material likely to be generated by the project as the capacity of the existing Waste Cell is almost exhausted.

Response

ACEN notes issues raised by Mid-Western Regional Council related to disposal of waste generated by the project.

Since exhibition of the EIS, ACEN have since approached Dubbo Regional Council to discuss options to dispose of project related waste at one or more waste facilities within the Dubbo Regional LGA. The Whylandra Waste and Recycling Centre, Dubbo has been identified by Dubbo Regional Council as being able to accept waste generated by the project.

Whylandra Waste and Recycling Centre was one option identified in Chapter 14 of the EIS, and it is expected that this facility can accept 60,000 tonnes of waste per year and has an estimated lifespan of 200 more years (Impact Environmental, 2018).

All waste generated from the project will be assessed, classified, and managed in accordance with the Waste Classification Guidelines (EPA, 2014). Management of wastes will follow the resource management hierarchy principles in accordance with the WARR Act.

ACEN will continue to liaise with Dubbo Regional Council and form an agreement for the acceptance of waste associated with the project, prior to the start of construction (Management measure ID WR2 has been updated in **Appendix 2** to reflect this).

4.2.3 Decommissioning and rehabilitation

Matter raised

Council requests that a detailed decommissioning and site restoration plan be provided so that the impacts of the development be property assessed and Council, as well as residents, would have confidence that the land could be returned to an agricultural use. It is appropriate for such a plan be prepared and conditioned to include the following, at a minimum:

- *The anticipated present value cost of decommissioning works, along with an explanation of the calculation of that cost (including a buffer for changes in market values/ inflation).*
- *The physical plan for decommissioning, prepared or certified by an engineer, confirming that full remediation/ restoration of the site to its former primary production use/ class land capability is possible.*
- *Commitment to a financial security to cover the cost of decommissioning.*

- *Management and waste reduction initiatives proposed during all 3 phases of the development and a commitment as to where this waste will be disposed and/or recycled, without impacting on local waste facilities and in accordance with:*
  - *Protection of the Environment Operations Act 1997*
  - *Protection of the Environment Operations (Waste) Regulation 201*
  - *Waste Avoidance and Resource Recovery Act 2001*
  - *NSW Environment Protection Authority (EPA) Waste Classification Guidelines*
- *Ideally, the above information should be updated every 5 - 7 years to keep up with changes.*

Response

It is noted that decommissioning and rehabilitation of the wind farm is discussed in the EIS and a commitment was included in the EIS (mitigation measure ID LU6) as follows:

"A decommissioning and rehabilitation plan will be prepared that outlines the rehabilitation objectives and strategies to return the study area to its pre-existing condition for agricultural land use. This will include but not be limited to:

- *rehabilitation objectives and strategies*
- *describing the design criteria of the final land use and landform*
- *performance indicators to be used to guide the return of the land back to agricultural production*
- *expected timeline for the rehabilitation program.".*

ACEN will engage with Mid-Western Regional Council where it is relevant, but notes that the project is wholly located within the Warrumbungle Shire LGA, and Warrumbungle Shire Council and host landholders would be the primary stakeholders regarding rehabilitation of land affected by the wind farm.

It is also noted that the nature of the project being a wind farm, means that generally the land will retain its existing agricultural land use during operation, except where directly impacted by project infrastructure.

4.3 Muswellbrook Shire Council

Objects

4.3.1 Traffic and transport

Matter raised

Section 5.5 of the Traffic Impact Assessment for the Project states the following:

"Vertical and horizontal limitations of the Denman Bridge truss structure, located at Denman Hunter River, could be too short and narrow to facilitate the Over Size Over Mass movements (OSOM) . As such, alternate routes for the OSOM movements may need to be investigated to use the New England Highway via Scone."

Alternate route investigations have not been included in the assessment. Furthermore, the road between Scone and Merriwa would still require access along Bengalla Link Rd, Wybong Rd and Kayuga Rd until the Muswellbrook Bypass is complete.

Council Officers have become aware that there are several projects currently in the planning system for the CWO REZ that are proposing to use Council owned local roads to transport wind farm components to site. Specifically, the use of Bengalla Link Road, Denman Road and Edderton Road.

Response
Since the exhibition of the EIS, EnergyCo has undertaken further investigations to better understand the cumulative impacts associated with the development of the CWO-REZ. A cumulative transport study was undertaken as part of these investigations to identify and define potential transport routes and constraints for transporting the larger components from the Port of Newcastle to the CWO-REZ. This study considers OSOM routes for the transport of wind turbine blades, masts, and transformers (and associated vehicle types) and identifies the likely road upgrades required to facilitate these OSOM vehicle movements.

EnergyCo is not the proponent for generation projects, but it is noted that as the NSW statutory authority appointed to lead the delivery of the CWO-REZ under the NSW Electricity Infrastructure Roadmap, EnergyCo's role extends to coordinating the delivery of required road upgrades between the Port of Newcastle and the CWO-REZ where they are common to several renewable generation projects and EnergyCo's Transmission Project.

The responsibility for delivering the identified road upgrade works is as follows:

- upgrades to main OSOM route between Port of Newcastle and the CWO-REZ, will be delivered by Transport for NSW
- upgrades to local roads for the provision of access to generator development sites will be delivered by each proponent.

The cumulative transport assessment undertaken by EnergyCo extends to the identification of a proposed alternate route to avoid the constraints at Denman Bridge and this includes a route that utilises Denman Road, Bengalla Road and Wybong Road. An overview of the OSOM vehicle route between Port of Newcastle and the CWO-REZ, that is part of the EnergyCo cumulative transport study is provided in **Figure 4-1.**

It is noted that EnergyCo is continuing to undertake further detailed consultation with Transport for NSW as the state road authority, local councils, energy generation projects, and the community to determine the scope and timing for work required to enable OSOM deliveries.

Ongoing consultation will help determine priorities for road upgrades in consideration of feedback from communities and councils and investigate mechanisms for delivering local road upgrades, including funding provisions and delivery bodies.

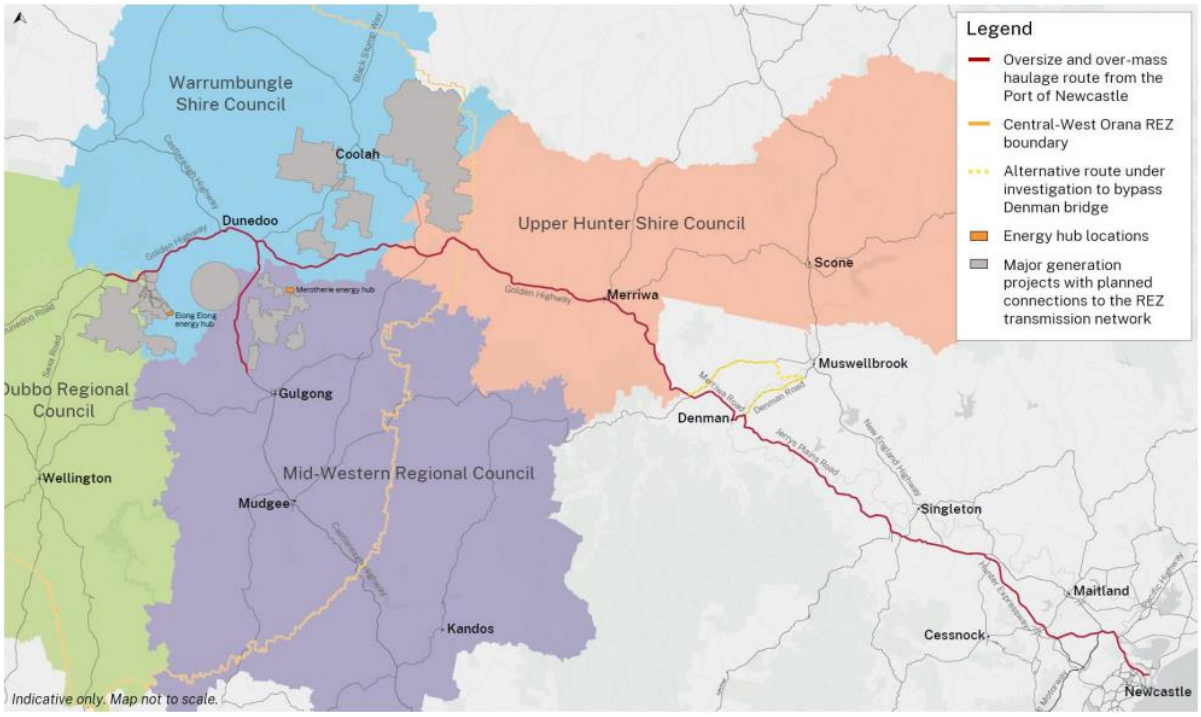


Figure 4-1: OSOM vehicle route between Port of Newcastle and the CWO-REZ (Central-West Orana Renewable Energy Zone - Coordinating community impacts and benefits in the REZ. EnergyCo, March 2023)

4.3.2 Route assessment and traffic impacts

Matter raised

- *A Detailed Route Analysis considering road furniture, geometry, load limits, safe sight distance, private property and Council Road impacts, turning circles by a suitably experienced and practicing consultant is to be provided to Council.*
- *Written consent of the impacted private property owners along the route, including any written correspondence between parties and contact information.*
- *A joint dilapidation survey with Council.*
- *Structural assessment of all drainage structures along the proposed route that has not had a recent condition assessment with proposed design loads exceeding existing load compliant traffic along the proposed road route.*

The Traffic Impact Assessment should include a separate section to describe traffic impacts for the Muswellbrook Shire LGA i.e. traffic generation, transport impacts and mitigation measures.

Response

As discussed above since the exhibition of the EIS, EnergyCo has undertaken route assessment and constraints analysis to identify and define potential transport routes and constraints for transporting the larger components from the Port of Newcastle to the CWO-REZ. The scope of the study included:

- identification of haulage route and constraints along that route
- identification of key components and load dimensions required
- analysis of impacts to the road network because of combined OSOM vehicle movements including consideration of additional traffic volumes and associated road upgrades required to facilitate swept paths

- upgrades to roads from Port of Newcastle to the intersection of the Golden Highway and Saxa Road in the CWO-REZ
- intersection upgrades along the Golden Highway to access the local road network. It is noted that this does not include access off Castlereagh Highway or Golden Highway for individual project access
- Passing bays and rest stops as required to minimise impacts of OSOM transport in the region.

Based on consultation with renewable generation proponents, the following assumption were used to inform the cumulative transport assessment:

- components will be imported via Port of Newcastle
- maximum mass of components is 200 tonnes
- maximum blade length is 85 metres, transported on vehicles of approximately 95 metres
- maximum OSOM vehicle height clearance is 5.9 metres
- maximum wind turbine tower base width 5.5 metres
- priority is given to OSOM vehicle movements through appropriate traffic control where possible.

The detailed scope of upgrade works to be delivered is subject to detailed design and assessment by Transport for NSW in conjunction with EnergyCo, however the following works were identified by the cumulative transport assessment.

Upgrades

The assessment identified upgrades to 25 locations to facilitate OSOM blades transport. This typically includes intersections and section of road with constrained geometry. This has been determined using the longest vehicles expect, which would be for the transport of the turbine blades.

Works are expected to be within the public road corridor and are likely to include construction of new hardstand or pavement widening, drainage adjustments, relocation of signage, lighting and utilities, adjustment of signalised intersections, tree trimming and/or removals, and other works.

Traffic control measures

Traffic controls would be required in 17 locations to facilitate OSOM vehicle movements.

Bridge restrictions

The assessment identified ten bridges along the route with height restrictions, but most of these are expected to provide clearance of over 5.9 metres, which will be confirmed through detailed survey. Two bridges are known to have potential height restrictions:

- Denman Bridge – EnergyCo is discussing potential solutions with Transport for NSW, which may include bridge modifications or utilisation of a diversion route via Denman Road, Bengalla Road and Wybong Road
- Putty Road beneath Mount Thorley Road – it is expected that a service Road would be needed to avoid the bridge.

Bridge and structures loading assessment

A structural assessment will be conducted by Transport for NSW to determine any strengthening works and load limitations to facilitate OSOM vehicle movements.

OSOM movement policy and other works

The total volume of OSOM vehicle movements required to develop the CWO-REZ is estimated to be in the order of 2000 blades, 60 high voltage transformers, and 4000 tower segments.

EnergyCo are in discussions with Transport for NSW and proponents to determine vehicle movements and the requirements for passing bays and other measures to minimise impacts to the road network associated with the number and frequency of OSOM vehicle movements.

It is noted that the scope of the assessment undertaken by EnergyCo refers to modifications to the road network required to facilitate OSOM vehicle movements and other construction traffic. Upgrades to deliver dilapidated or sub-standard roads up to standard, is being managed separately.

Transport for NSW and EnergyCo are progressing a formal position regarding the commitment to undertake the road upgrade works outlined above ahead of construction of the CWO_REZ transmission Line Project and associated projects. These works would be completed by Transport for NSW under a separate environmental planning mechanism to that of this project.

Works are expected to commence approximately Q3, 2023 with transport of components expected to commence in Q4, 2024, however timing will be confirmed in consultation with Transport for NSW and the individual project proponents.

4.3.3 Transport management plan

Matter raised

A Transport Management Plan submitted to Council for the route by a suitably experienced and practicing consultant showing:

i. Distribution and number of loads, including frequency per week, expected time of travel, standard axle design loads, total vehicle widths and lengths, proposed route;
ii. Traffic Management Plan for the route, including use of wide swept paths across private property, movement and replacement of identified road furniture to prevent short-cuts by the community, pull-over bays for road furniture interchanging;
iii. Proposals for any details of any intersection upgrades through private property;
iv. Consider and determine any impacts to existing school bus routes;
v. Vertical geometry for clearances of long loads to be considered, including any side-track;
vi. Details of the pilots to be provided as part of the S138 permit stage; and
vii. vii. Applicant to fund the cost of hiring a Council Traffic Observer for the duration of the project to follow OSOM transport through Council's municipality during operations.

Response

As noted in the EIS and outlined in **Appendix 2** details of the measures that will be implemented to minimise traffic impacts during construction, operation, and decommissioning will be included in a construction traffic management plan to be prepared prior to construction.

The EIS notes that the plan will be prepared in consultation with Warrumbungle Shire Council regarding impacts and upgrades to local roads required to provide access to the project. Delivery of road upgrades in the Muswellbrook Shire Council LGA are identified in the EnergyCo cumulative traffic assessment as discussed above.

It is noted that EnergyCo is continuing to undertake further detailed consultation with Transport for NSW as the state road authority, local councils, energy generation projects, and the community to determine the scope and timing for work required to enable OSOM deliveries.

Ongoing consultation will help determine priorities for road upgrades in consideration of feedback from communities and councils and investigate mechanisms for delivering local road upgrades, including funding provisions and delivery bodies.

4.3.4 Road improvements and maintenance

Matter raised

A description of requirements for impacted roads within the MSC LGA, similar to Table 14 of the Liverpool Range Modification Report (MOD1) developed in consultation with Council.

Any works or maintenance on Council public roads are subject to applications under s138 of the Roads Act and will be required to be delivered in accordance with the conditions of the s138 permit.

Note that Council Officers have recently been restricting OSOM movements on Wybong due to lack of passing opportunities caused by saturated table drains.

The applicant will need to enter a formal maintenance management plan as part of the S138 permit for Council roads along the route for the entire duration of the project, to Council's written satisfaction including:

a) *The maintenance management plan will be based on TfNSW M3 Maintenance Plan (a proforma will be provided on request);*
b) *Maintenance work to be coordinated to Council's satisfaction including timing and day/night work;*
c) *Dilapidation survey of the route to be undertaken every twelve weeks of the project and provided to Council;*
d) *A Bank Guarantee will be required for the period of the project plus six months to cover any damage determined by Council; and*
e) *An Indemnity Deed Poll to be provided for emergency works to any assets that may suffer damage during the project.*

Response

As discussed above, the EnergyCo cumulative transport study has identified the roads in the Muswellbrook Shire Council LGA that would be impacted by the proposed development of proposed renewable energy generating projects in the CWO-REZ.

It is noted that EnergyCo is continuing to undertake further detailed consultation with Transport for NSW as the state road authority, local councils, energy generation projects, and the community to determine the scope and timing for work required to enable OSOM deliveries. Through this ongoing consultation, EnergyCo will investigate mechanisms for delivering local road upgrades, including funding provisions and delivery bodies.

4.3.5 Communication

Matter raised

The applicant will need a formal community consultation management plan for the entire duration of the project, to Council's written satisfaction.

The community consultation management plan is to be developed in consultation with Council including but not limited to:

Monthly meetings with Council staff to discuss progress, issues and community feedback;

f) Complaints and incident handling procedure including contact details of the applicant;
g) Identifying residents, businesses, emergency services, school bus and mines (shift change times) and key contacts in these operations and necessary liaising with these road users;
h) Details of the Transport Management Plan and progress to be included and updated on both the applicant's website as well as Council's website;
i) Applicant to provide updates to Council with regards to any planned maintenance works and/or upgrades and replacements.

Response
ACEN acknowledges the comments raised by Council and has included an additional commitment as part of the environmental management measures (ID C1 in **Appendix 2**).

In addition, ACEN notes that community and stakeholder engagement will continue throughout construction, operation and decommissioning of the project. Engagement activities would include:
- Regular updates on the project website and Facebook page
- Distribution of newsletters, fact sheets and FAQs to the local community
- Letter box drops
- Operation of the community enquiry line
- Operation of a complaints line and recording in a complaints register.

4.3.6 Amenity

Matter raised

There are extensive remnant patches of vegetation adjacent to Wybong Road that serve as a link between the Manobalai Nature Reserve and Wollemi National Park. These patches provide scenic amenity values for road users and Council officers would prefer vegetation remain in-situ.

Response
ACEN acknowledge this issue raised by Council and note that upgrades to Wybong Road are not proposed as part of the project. The intersection of Wybong Road and the Golden Highway has been identified to be completed by Transport for NSW and coordinated by EnergyCo.

4.4 Environment Protection Authority

Comments

4.4.1 Operational noise

Matter raised

The assessment is based on representative contemporary wind turbine generators with a 119m hub height, with final turbine selection to be made during the detailed design process. Having regard to this, the EPA has recommended further noise assessment prior to construction following detailed design and final turbine selection.

Response
Noted. Management and mitigation measure (ID NV1 in **Appendix 2**) of the EIS includes a commitment to update the predicted operational wind turbine noise levels with final layout and sound power levels of the final turbine technology selected.

4.4.2 Construction noise

Matter raised

Appendix M of the ENA identified that both a mobile crushing and screening plant, and concrete batching plants may operate during the construction phase of the project. Potential locations have been identified. The mobile crushing screen may require an Environment Protection Licence depending on the volume of material to be crushed.

The batching plant is proposed to be operated in the early morning which is during the night period prescribed by the Noise Policy for Industry. No justification is provided for out of standard hours works in the Noise and Vibration Assessment. The EPA has recommended conditions to address this matter.

Response
Standard daytime construction hours consistent with the Interim Construction Noise Guideline (Department of Environment and Climate Change 2009) (ICNG) are as follows:

- 7am to 6pm Monday to Friday
- 8am to 1pm on Saturdays
- No works on Sunday or public holidays.

ACEN is seeking approval for standard construction hours, plus additional time at the start and end of each day (Monday to Saturday) and Saturday afternoon, referred to as 'extended construction hours'. The extended working hours would maximise construction efficiency, maintain flexibility for large concrete pours and curing cycles during adverse weather conditions (heat) and reduce the overall construction program. The proposed working hours would be:

- 6am to 6pm Monday to Friday
- 6am to 6pm on Saturdays
- No works on Sunday or public holidays.

The proposed extended hours would represent one hour at the start of each day (Monday to Friday), two hours at the start of the day on Saturdays, and five hours on Saturday afternoons in addition to the standard daytime working hours. Where possible, activities conducted within the extended hours period will be inaudible at noise sensitive receivers. High noise level activities, such as those involving noisy machinery, would be deferred to standard working hours where possible.

Out of hours work would also be required on limited occasions such as when transporting large components including turbine blades, nacelles, and transformers to site, using over-size over-mass vehicles under police escort. Some staff arrival/departure movements and emergency response may also be required from time to time.

The proposed extended hours are required to facilitate large concrete pours and curing cycles that can't be undertaken during the extended working hours due to temperature constraints or erecting a turbine outside of the windy periods. The ability to undertake these at cooler times of the day (outside of standard construction hours would reduce the overall construction program would result in improved social outcomes through minimising amenity impacts to the community.

ACEN requests that the conditions of consent include flexibility to allow for these extended hours.

The Secretary, Warrumbungle Shire Council and surrounding landholders would be notified of any planned out of hours works.

4.4.3 Water quality

Matter raised

The site of the proposed wind farm is in steep country with shallow erodible soils. The EPA has recommended conditions to ensure the management of erosion and sediment. The EPA has also recommended standard conditions related to bunding and spill containment and management.

Response
Noted. ACEN accepts the standard conditions. Management measure included in the EIS incorporate these recommended by the EPA.

Comments

4.5 Biodiversity and Conservation Division

4.5.1 Important aspects of BAM-C calculations require revision – errors will impact on the credit obligation

Matter raised

1.1 BAM-C cases must be split between IBRA sub-regions, with separate cases for each sub-region, noting the exception suggested for the Talbragar Valley IBRA subregion.

1.2 Lists of candidate threatened species in each IBRA subregion should be reviewed to determine whether any additional species need to be assessed.

1.3 Plot data be reviewed to ensure the minimum number of plots and transects required for each IBRA subregion has been met.

1.4 Each proposed stage of the development be assigned its own separate BAM-C case and be described in detail within the BDAR.

1.5 Biodiversity credits be recalculated for each IBRA sub-region.

2.1 Undertake an audit of Stem Size Class scores for all plots and for all data which may need manual revision as part of the RTS.

Response
An amended BDAR has been prepared and is at **Appendix 3.**

- 1.1 All calculations have been split between four IBRA subregions - with the exception of Talbragar Valley, which has been incorporated into the Pilliga subregion.
- 1.2 The list of candidate species in each subregion has been updated in **Appendix 3**.
- 1.3 Plot data has been replicated across each subregion for each vegetation zone. Where the minimum number of plots was not collected, benchmark data has been included to supplement remaining plots.
- 1.4 Each proposed stage of the development has been assigned a separate BAM-C case as provided in Appendix P of **Appendix 3**.

- 1.5 Biodiversity credits have been calculated for each subregion.
- 2.1 All stem size classes have been reviewed in the BAM-C and are correct.

4.5.2 Vegetation integrity plots may not be representative of site context

Matter raised

3.1 Include all plots in the BAM-C or provide justification in the BDAR as to why they have not been entered.

4.1 Revise the plot duplication method to meet the principles outlined in this response.

4.2 Submit a plot duplication proposal for review.

5.1 Where vegetation plots are not located in the project footprint, justification must be provided, including evidence that the plot is in the correct PCT and vegetation zone.

Response

- 3.1 All plots collected by ELA have been entered into the BAM-C in the appropriate subregion.
- 4.1 No plots have been duplicated in the BAM-C.
- 4.2 No plot duplication proposal is required.
- 5.1 All plots collected for this assessment were captured within appropriate PCT for the project footprint. Multiple iterations of the development footprint has resulted in some plots not occurring within the RtS Development Footprint. The Accredited Assessor has reviewed the plot data in conjunction with knowledge of the site and has identified in Chapter 3 the (1) distance from the plot for the development site, (2) suitability of the plot to measure vegetation integrity. Given the homogeneity of vegetation across the Development Footprint, all plots have been included in the BAM-C to measure vegetation integrity.

4.5.3 Vegetation mapping and vegetation identification may not be representative of site context

Matter raised

6.1 Conduct an assessment to determine if the benchmarks applied to the vegetation on site are relevant given the extreme fire impact sustained.

6.2 If it is determined that the current benchmarks are not applicable, provide more appropriate local data in accordance with Section 1.4.2 of the BAM.

7.1 In the absence of data supporting CEEC absence, land be designated as Category 2 Regulated Land and Box Gum Woodland be assumed present.

7.2 If the proponent wishes to collect further evidence to justify the absence of Box Gum Woodland/Box Gum Grassland from portions of the project site, liaise with BCS to determine an acceptable approach.

8.1 Revise all EPBC TEC equivalency assessments to exclude the provisions of the LLS Act.

9.1 Revise vegetation mapping for grassy woodlands within the project site according to the information and advice provided within this response.

10.1 Audit the vegetation zone mapping to identify areas mapped as derived native grassland which contain trees and update the mapping and BAM-C calculations accordingly.

11.1 Provide evidence that all vegetation has been appropriately surveyed in detail to inform TEC equivalency assessments and support the determination of non-equivalence to EPBC Act listed TECs.

11.2 If evidence has not been collected, assume the presence of EPBC Act listed TEC.

12.1 Revise the TEC equivalency assessment of EPBC Act listed Grey Box Woodland TEC extent within the project site according to the advice contained within this response.

12.2 Contact DCCEEW for advice if there are impacts to the EPBC Act representation of this TEC which is not consistent with the TECs BC Act listing.

13.1 Undertake a TEC equivalency assessment for PCT 42.

14.1 Provide explanation in the BDAR why a significant proportion of flora species detected could not be identified to the species level.

14.2 If BAM plots were surveyed during a period which has limited the appropriate identification of flora, provide further justification regarding the applicability of more appropriate local data in accordance with Section 1.4.2 of the BAM.

15.1 Include all areas of native vegetation within the landscape vegetation cover class assessment.

Response

- 6.1 and 6.2 Review of the burned areas of vegetation included consideration of the vegetation integrity score as well as the characteristics identified in the Biodiversity Assessment Method at severely burnt sites (DPIE, 2020). Review is included in Section 2.1 of **Appendix 3**. No changes to benchmark data were undertaken as a result.
- 7.1 An additional 88 BAM plots were collected across the project. The grassland layer of the PCT map was reviewed and areas that were consistent with the Final Determination for Box Gum Woodland were remapped as PCT483 Low condition. Areas that were previously mapped as Category 1 Land have been mapped as PCT Poor condition, and vegetation integrity data collected. The assessment found that the condition of PCT483 Poor is not consistent with the Final Determination of Box Gum Woodland, and the vegetation integrity score is generally very low (<10).
- 7.2 Additional evidence is presented in the Vegetation Integrity Plots within Chapter 3 and Appendix D of **Appendix 3**.
- 8.1 All EPBC Act TEC equivalencies have been reviewed and are presented in **Appendix 3**.
- 9.1 A revised approach to woodland mapping is presented in Chapter 3 of **Appendix 3**. The woodland mapping approach was reviewed and agreed to by BCD Dubbo.
- 10.1 An audit of all grassland areas was undertaken and is described in Chapter 3 of **Appendix 3**.
- 11.1 All EPBC Act TEC equivalencies have been reviewed and are presented in **Appendix 3**.
- 11.2 EPBC Act TECs have been assumed present in patches that do not contain site data.
- 12.1 EPBC Act listed Grey Box Woodland EEC has been reviewed as described in Chapter 3 of **Appendix 3**.
- 13.1 The development site is not in the Hunter Catchment, and there are no PCTs that could potentially align with Hunter Floodplain Red Gum Woodland TEC.
- 14.1 Flora species were identified to species level where possible. Due to the intensive grazing and agricultural practices present across the development site. Section 4.2.1.2 of the BAM provides guidance on identifying flora species, and the BDAR (**Appendix 3**) complies with this section of the BAM.

- 14.2 There is no prescribed survey period for collecting BAM plots, and grazing cannot be excluded from the development site.
- 15.1 All areas of native vegetation cover are included in the landscape assessment.

4.5.4 Aspects of the development footprint are not clearly articulated in the BDAR

Matter raised

16.1 Clarify that all development components, which will result in surface disturbance to biodiversity values, have been included within the consolidated development footprint and are reflected in the BDAR.

Response

Development components are all included in the development site and are shown on Figure 1 of **Appendix 3**.

4.5.5 Candidate species assessed will require review – inadequate exclusion of species will impact on the credit obligation

Matter raised

17.1 Conduct a targeted survey to determine the presence or absence of Brush-tailed Phascogale and Delma impar, obtain an expert report or assume presence.

18.1 Review and/or revise the candidate species exclusion determinations based on the information and recommendations contained within this response.

18.2 For each vegetation zone provide a list of associated species (according to the TBDC), and provide evidence-based justification on species exclusions from each associated vegetation zone, ideally in a tabularised format.

19.1 Review and/or revise species polygons based on the information and recommendations contained within this response.

19.2 Provide evidence-based justification for the exclusion of each vegetation zone from species polygons.

20.1 Conduct a targeted survey to determine the presence or absence of the Koala from previously unsurveyed areas within the project site, obtain an expert report or assume presence.

21.1 Clarify impacts to the Large-eared Pied Bat.

22.1 Provide mapping of rocky habitat so BCS can review the spatial adequacy of targeted reptile surveys conducted.

23.1 Provide a spatial file of the grid points which were surveyed during targeted flora survey and display these grid points within the BDAR.

23.2 Provide clarification regarding the approximate proportion of the direct impact area which was surveyed for each threatened species during the correct survey window.

23.3 If multiple species were simultaneously surveyed together, provide further detail on this giving reference to Section 6.6 of the Surveying threatened plants and their habitats guidance document.

24.1 Provide species polygons for species assumed to be present.

24.2 Provide justification on the exclusion of any specific areas and/or vegetation zones from assumed species polygons.

Response

- 17.1 Correspondence was undertaken with the BAM Helpdesk, as well as BCD Dubbo. The development site has been identified and agreed, to be outside the normal distribution of these species, and as such removed from this assessment.
- 18.1 Due to review of the vegetation zones and calculations, a new list of candidate species has been generated. Detail is provided on species exclusion based on the habitat features present within the development site in Chapter 4 of **Appendix 3**.
- 18.2 A table containing the vegetation zones and associated species is provided in Chapter 4. Species exclusion has been based on habitat and geographic constraints presented in the BAMC. A targeted survey has been undertaken in suitable habitat for all remaining species.
- 19.1 All species identified as present within the development site have had species polygons generated. The methodology for generating species polygons includes the PCTs in which the species is predicted, as well as any other limitations identified in TSPD (such as buffers from hollow-bearing trees and caves).
- 19.2 Species polygons include all areas of predicted PCTs where appropriate. The only exception to this is where the TBDC identifies a particular constraint on the species polygon shape (such as modifying the shape of the buffer where the potential nest tree is already located near the edge of the wooded area - as described for Barking Owl).
- 20.1 The Koala (Phascolarctos cinereus) Biodiversity Assessment Method Survey Guide (DPE, 2022) was published more than 6 months after completion of surveys and submission of the BDAR. Assessor update 36 – item 4 describes the application of new or revised survey guidelines:
  "Where survey has been completed prior to the publication of a survey guide, the Department expects the assessor (or surveyor) to have applied current best-practice in searching for the target species (in accordance with BAM s6.5.1.4). Assessors can use information from other published, peer-reviewed sources to guide survey technique and effort, but this must be clearly documented and justified in the BAR as well as indicating how this differs from our recently published guide."
  As such the level of survey effort presented in the BDAR, prior to any guideline existing, is considered adequate. In recognition of the importance of this species, a further 22 SAT surveys were undertaken (total 48 surveys and approximately 1,440 trees surveyed). This SAT effort is in addition to the 465 kilometres of spotlighting undertaken across the development site. Details of the results of this survey are provided in Chapter 4 the amended BDAR (**Appendix 3**).
- 21.1 A total of 3.94 hectares of Large-eared Pied Bat foraging habitat will be impacted by the amended project.
- 22.1 The development site does not impact any rocky habitat that is consistent with the habitat requirements of this species. The project is located on fine basalt that is free from rocks. No further surveys have been undertaken.
- 23.1 The location of threatened flora searches, including grid points has been included in the revised footprint.
  23.2 The level of survey effort for each flora species has been clarified in Chapter 4 of the amended BDAR (**Appendix 3**).
- 23.3 Multiple species were surveyed together, with a maximum of three flora species searched for concurrently in February 2021 that could not be identified at in September. In September, six species were surveyed that could not be identified in September. The remaining four species could be surveyed in both February and September. All flora are part of similar functional groups, and the survey team was experienced in all target species. In light of

section 6.6 of the threatened flora survey guidelines, weather conditions during the survey are presented in section 4.2.4 of Chapter 4 the amended BDAR (**Appendix 3**).
24.1 All species polygons are presented in section 4.3 of Chapter 4 the amended BDAR (**Appendix 3**).

- 24.2 No areas have been excluded. For species credits known or assumed, all areas of predicted PCTs have been included, and adjusted whereby the TBDC identifies a specific buffer zone (i.e. around caves or hollow-bearing trees).

4.5.6 Justification of avoidance and minimisation methods will require revision

Matter raised

25.1 Revise determination on impact avoidance and minimisation after other matters raised in this response are addressed.

25.2 BCS suggest that justification of avoidance could be improved by providing a comparison of the areas of land intersected by the development footprint which contain biodiversity values and areas which contain no biodiversity values.

Response

- 25.1 Avoidance to biodiversity has been a priority when designing the amended project. The total footprint has been reduced, and the impacts to native vegetation have been reduced from 494 hectares to 307 hectares (38%) compared to the exhibited project.
- 25.2 A map showing avoided areas and project comparison is now included in Figure 56 of **Appendix 3**.

4.5.7 Avoidance and appropriate assessment of Serious and Irreversible impacts will require revision

Matter raised

26.1 That the consent authority note BCS advice in relation to SAII impacts to Box Gum Woodland CEEC when considering the adequacy of avoidance and minimisation to biodiversity impacts proposed, conditioning of the project and potential project approval.

26.2 The proponent revises the currently presented development footprint and avoidance and minimisation strategies proposed to further reduce impacts to Box Gum Woodland CEEC.

27.1 Undertake an SAII assessment for the Large-eared Pied Bat and Large Bent-winged Bat.

Response

- 26.1 BCS advice subject to review following consideration of revised footprint.
- 26.2 An avoidance strategy has been applied to areas of Box Gum Woodland across the development site. The revised footprint has reduced impacts from 428 hectares to 281 hectares (34% reduction). Impacts to the woodland component of this TEC have been prioritised and have reduced from 234 hectares to 119 hectares (49% reduction). It should be noted that these numbers include both accessways to Girragulang Road, and therefore are inflating the total impacts of the project.
- 27.1 A SAII assessment has been undertaken for both Large-eared Pied Bat and Large Bent-winged Bat. The SAII assessment concluded that there will be no impacts to breeding habitats for either of these species. Assessment of prescribed and indirect impacts associated with the operation of the project will require review.

Matter raised

28.1 Explanation is required as to why fewer songmeters were analysed than were reported as deployed.

28.2 Justification of the number and placement of songmeters within the Mount Hope turbine cluster is required.

29.1 Flight path data be presented at a scale where flight paths can be clearly seen.

29.2 The location of the bird utilisation survey locations should be provided on these maps and differentiated from diurnal bird surveys so the spatial adequacy of BUS surveys can be reviewed.

30.1 If the Kernel density analysis maps are to be used they should be relevant, presenting meaningful data that will assist in the analysis of migratory pathways.

30.2 Maps be labelled correctly and represent the species intended.

31.1 Definitions of likelihood and metrics applied to the collision risk assessment be amended to better reflect the chances of occurrence.

31.2 If there is an absence of data or impacts are uncertain for specific species apply the precautionary principle and assume a worst-case scenario and/or seek advice from a suitably qualified species expert.

32.1 Further assessment of turbine barrier effects on fauna is required.

33.1 Provide a more detailed BBAMP framework giving reference to the specific points identified in this response and in consultation with BCS.

34.1 Provide further detail regarding the assessment of residual prescribed impacts to connectivity.

34.2 Provide an offsetting method and quantum which is justifiably commensurate to the residual prescribed impacts expected to occur.

35.1 Ecosystem credits be calculated for the indirect impacts of turbine operation on native vegetation and threatened species habitat.

Response

- 28.1 There was a duplication error in Table 16 of the BDAR. This is corrected in the amended BDAR (**Appendix 3**).
- 28.2 The Mount Hope cluster contains cliffs in areas outside the development site. ACEN has deliberately avoided these areas, and their buffers. Within the Mount Hope cluster there is 2.69 hectares of potential foraging habitat and 0 hectares of breeding habitat. For this area of habitat the 261 nights of survey exceeds the survey requirement.
- 29.1 Flight data has been shown at the development site scale, as well as separately for each cluster as requested.
- 29.2 An additional BUS map has been provided in Figure 45 of the amended BDAR in **Appendix 3**.
- 30.1 Kernel density analysis has been removed from the amended BDAR.
- 30.2 Not applicable.
- 31.1 The likelihood metrics raised in BCDs advice is not the metrics applied in the BDAR.
- 31.2 The outcome for Black Falcon has been revised in recognition of BCDs advice and is described in Chapter 6 of **Appendix 3**.
- 32.1 Additional assessment on barrier effects is provided in Chapter 6 of **Appendix 3**.

- 33.1 Additional information relating to the BBAMP framework has been sought from BCD and incorporated into the amended BDAR.
- 34.1 Impacts to connectivity have been reduced and the requirement for a 70 metre wide easement is no longer considered as part of the amended project. Similarly, the infrastructure corridor in the amended BDAR has been reduced from 50 metres to 20 metres within the wind farm clusters. Given the current level of fragmentation present, connectivity is unlikely to be impacted by the amended project.
- 34.2 Due to the change in development site, the impacts of connectivity loss have been avoided. No offsets are therefore proposed for connectivity.
- 35.1 Ecosystem credits have been calculated for woodland areas over which a 90 metre blade would arc. Given the lower blade tip will be approximately 90 metres from the ground, the impacts are likely to be minimal. In recognition of this a 10% loss has been applied to over swept areas of woodland. The 10% loss has been calculated as 1/10th of the area and added to the relevant vegetation zone as a total loss. Given the small areas of this impact (3 hectares across 6 BAMC calculations), these areas have been added to existing area calculations, and no separate BAMC case has been opened.

4.5.8 Like-for-like credit reports should be appended to the BDAR – this assists compliance with approval conditions

Matter raised

36.1 The accredited assessor should generate and attach a biodiversity credit report (like-for-like) from the BAM-C to the BDAR.

Response

A like-for-like BAMC credit report is included for all calculations in the amended BDAR in **Appendix 3**.

4.5.9 Information provided for the convenience of the accredited assessor

Matter raised

37.1 Further investigation be conducted, prior to the credit obligation for the project being captured within consent conditions. If access cannot be obtained prior to consent being granted, a worse-case scenario must be assumed, and a maximum credit obligation calculated accordingly.

38.1 Review the supporting guidance document in Attachment D and provide a consistency table to facilitate review of bilateral assessment requirements.

Response

- 37.1 The project has been amended to only include host landholders and publicly accessible areas. No assumed areas are included in the amended BDAR.
- 38.1 A consistency table has been included with respect to bilateral assessment requirements.

4.6 Heritage NSW

Comments

4.6.1 Recommended additional reporting and management measures

Matter raised

We recommend that the ACHAR is revised to address the following:

- *We are concerned that full archaeological survey has not been completed. We particularly note an area identified as having high potential for Aboriginal cultural heritage that is proposed for survey post-approval. We recommend that this area is surveyed to inform the EIS and ensure that there are no significant Aboriginal cultural heritage sites present that may require project redesign.*
- *The ACHAR needs to clarify whether archaeological test excavation is required. If test excavation is needed, we recommend this is conducted pre-approval to inform the EIS.*
- *Without this information there is a risk that additional, unrecorded Aboriginal cultural heritage sites and values are present in the project area. It is important that this information is provided to all parties, including the Registered Aboriginal Parties (RAPs), to inform this application.*

Further detailed comments are provided at Attachment A.

Attachment A

1. Archaeological survey extent needs to be clarified as follows:

a. Section 6 and Figure 6-1 of the ACHAR show large sections of the project area that have not been subject to survey or were only covered by vehicle transects. As per Requirement 5 of the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010), vehicle traverses are considered reconnaissance activities only and are not equivalent to survey by foot. Survey by vehicle is inadequate for informing the archaeological potential of the area.

b. Updated figures and tables that include only those areas surveyed by foot and the areas deemed unsafe to conduct survey need to be included in the ACHAR.

c. If, as Figure 6-1 of the ACHAR indicates, large sections of the project area have not been surveyed then Heritage NSW recommends that these areas are surveyed prior to any project approval.

d. Figure 6-2 of the ACHAR identifies an area that will be subject to survey post-approval. However, this area has been identified as having high potential for Aboriginal cultural heritage. Heritage NSW recommends that this area be subject to survey prior to any approvals to determine whether Aboriginal cultural heritage sites are present that may require project redesign.

e. If additional sites are identified, then subsurface testing may be required in areas where impacts cannot be avoided to ensure that the significance of those sites is known prior to impacts.

2. The ACHAR needs to clearly explain whether archaeological test excavation is required. Where archaeological test excavation is needed we recommend this is conducted as part of the EIS to ensure the Aboriginal cultural heritage values and potential impacts are understood prior to any project approval.

3. The impact assessment needs to consider if secondary impacts will impact any of the potential archaeological deposits recorded in the ACHAR adjacent to construction areas. Consideration of secondary impacts (e.g., road grading, road widening, compaction, erosion) on areas of potential archaeological deposit (PAD) at Orana OS-1 and Cainbil Creek OS-1 should

be included in the ACHAR. While the ACHAR proposes that direct impacts to the PADs will be avoided, the PADs are within or directly adjoining the construction impact area. If there is potential for the PADs to be impacted and/or extend further into the construction impact area, then Heritage NSW recommends test excavations to identify the nature, extent, and significance of any subsurface deposit. This will ensure that further impacts can be avoided and the site appropriately managed.

4. Clarify whether there the project area contains a grinding groove with rock engravings as shown in Figure 5-2. No further details are provided on this site in the ACHAR.

5. Clarify why the Mudgee Guardian was chosen as the local newspaper for the advertisement as required for Stage 1 of Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010) rather than a newspaper from the Dubbo or Coonabarabran areas.

Response

Revised ACHAR

Following release of the EnergyCo Transmission Project scoping report (EnergyCo, 2022) and extensive consultation with EnergyCo, the transmission line has since been removed from the project as detailed in **Section 3.1** and described in the amendment report for the project submitted under separate cover. The unsurveyed area associated with the transmission line has been removed from the study area and is reflected in the revised ACHAR (see **Appendix 4**)

Archaeological survey

The revised ACHAR has also been updated in response to Heritage NSW submission. Two additional days of survey were completed on 24 and 25 January 2023. No additional Aboriginal sites or areas of PAD were identified during the additional survey.

Previously, the ACHAR submitted as part of the EIS showed vehicle tracks to highlight that where landforms were not surveyed on foot, they were still inspected. This inspection assisted in determining landforms which should be surveyed on foot, in consultation with the RAPs, to ensure sensitive landforms across the survey units were not missed, while ensuring the lower potential areas were sampled. Regardless, the extent of survey undertaken by foot is presented in updated figures and tables in the ACHAR at **Appendix 4**.

Mitigation measure ID AH1 has been removed from the management measure table as additional survey is no longer recommended and AHIMS site, 36-3-0111 is no longer within the survey boundary.

Test excavations

Section 8.1.2 and 9.2 of the ACHAR outlines that all areas of PAD associated with recorded Aboriginal sites will be avoided through detailed design and will be protected from inadvertent harm through fencing. Further detail has been added to these sections of the ACHAR to reiterate that as all PADs are being avoided, test excavation is not warranted.

Secondary impacts

Section 8.1.2 of the ACHAR considers impacts associated with road grading and road widening. As noted in Section 8.1.2 of the ACHAR, Cainbil Creek OS-1 will be partially impacted by a proposed access track which extends from the Golden Highway to the southeast of the Leadville cluster. While the proposed access track will follow the current alignment of a graded road, further ground

surface disturbance work is likely required to allow access across the drainage line of Cainbil Creek. Efforts have been made to avoid the area of PAD associated with Cainbil Creek OS-1.

Further, ACEN has committed to ensuring the access track and electricity towers associated with the overhead transmission line avoid the area of PAD identified at Orana OS-1 and that all land-disturbing activities will be confined to within the survey boundary. A commitment is included at **Appendix 2** for further archaeological assessment if works extend beyond the area of surveyed land.

Grinding groove and rock engravings
The grinding groove and rock engraving site is not located within the wind farm site boundary or the survey boundary for the ACHAR.

Local newspaper for advertisement of ACHAR
The Mudgee Guardian was chosen following consultation with Fairfax who advised that it has the greatest distribution in the local area.

4.6.2 Recommended draft conditions

Matter raised

Should this application be approved, we have provided recommended draft conditions of consent at Attachment B.

Response
Noted.

4.7 Department of Planning and Environment - Water

Comments

4.7.1 Water Supply and Licensing

Matter raised

Recommendations – Prior to Determination:

- *Clarification should be provided of the ability to obtain the necessary water volumes for construction from the site, or else confirm a viable supply is available for the supply, via an indication of an agreement from a water supplier.*
- *Provide confirmation that the proposed quarry sites do not require water entitlements. Should they be required provide details of entitlements held or evidence they can be obtained.*

Explanation:

Insufficient evidence has been provided on the ability to obtain the necessary water volumes from the site or confirm a viable supply is available for the supply, via an indication of an agreement from a water supplier.

Provide confirmation that the proposed quarry sites do not require additional water entitlements in terms of demands, groundwater intercept or surface water take.

Response
As outlined in Section 1.2.8 of Appendix C of the EIS, a water use approval under Section 89 of the WM Act, a water management work approval under section 90, or a controlled activity approval (other than an aquifer interference approval) under section 91 of the WM Act is not required for the project by virtue of Section 4.41 of the EP&A Act.

Indicatively, water demands for the project during construction, operation and decommissioning would be sourced from suppliers and water access licence holders in the region and brought to site via water trucks, from farm dams located on the site or from treated wastewater or town water if available in the nearby region (Refer to Chapter 14 of the EIS). Therefore, approvals are unlikely to be required under the WM Act for the project.

ACEN is currently in discussions with water suppliers to confirm the necessary quantities are available for the project. Refer to **Section 4.1.4** for further discussion on water use estimates. ACEN will continue to investigate viable and appropriate water supplies to ensure the community's access to water is not impacted by the project.

If the extraction of groundwater is deemed a suitable water source option for the project, ACEN will obtain the required water access license and/or trading of groundwater access rights prior to commencing. ACEN is currently in negotiations with landholders to secure groundwater through existing groundwater access licences. Investigations show that there is sufficient groundwater available to supply the project. Current negotiations include potential access to 742 megalitres per annum.

The WM Act contains provisions relating to harvestable rights. Harvestable rights allow landholders to collect a proportion of the runoff from their property. Any runoff harvested from the development footprint would be within the volume permitted under harvestable rights.

4.7.2 Controlled Activities on Waterfront Land

Matter raised

Recommendation – Prior to Determination:

- *Clarification should be provided of the proposed infrastructure layout to meet the buffer requirements from watercourses as defined in the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018)*

Recommendation – Post Approval:

- *Works within waterfront land should be in accordance with the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018), including any watercourse crossings.*

Explanation:

Clarification is requested for the proposed infrastructure layout to meet the buffer requirements from watercourses as defined in the Guidelines for Controlled Activities on Waterfront Land (NRAR 2018). It is currently unclear if the setbacks have been provided particularly for the quarry locations and permanent operations and maintenance compounds.

Response

Prior to determination
The areas identified for the quarry's (including in Girragulang Road cluster, where the quarry location is indicated across a watercourse) and the permanent operations and maintenance compounds (including in the Leadville Cluster, where the permanent operations and maintenance compound is indicated close to a watercourse) are indicative only and incorporate adequate flexibility to allow for the application of buffers from watercourses.

Buffers from watercourses will be applied in accordance with the requirements defined in the *Guidelines for Controlled Activities on Waterfront Land* (Department of Planning and Environment, 2022).

As described in Section 13.3.1 of the EIS, no artificial structures are planned to be installed within 40 metres of any watercourses within the wind farm site.

Post approval
Post approval recommendations are noted.

As described in Section 13.3.1 of the EIS, any access road and cable crossings of waterways would be designed and constructed in compliance with the Guidelines for Controlled Activities on Waterfront Land (Department of Planning and Environment, 2022) series, including *Guidelines for riparian corridors on waterfront land (2012)* and *Guidelines for watercourse crossings on waterfront land (2012*). This is included as a management and mitigation measure in the EIS (ID SW1).

4.7.3 Aquifer interference

Matter raised

Recommendation – Post Approval:

- *The proponent should undertake an assessment to determine if the construction of any section of the project will constitute an aquifer interference upon completion of final design and characterisation of groundwater levels across the sites. The proponent should submit a hydrogeological assessment against the NSW Aquifer Interference Policy (2012) (AIP) to DPE Water, if the project is found to be an aquifer interference activity.*

3.2 Explanation

The project is generally low risk to groundwater, however the site is incompletely characterised and issues could potentially arise. A full groundwater study prior to determination is not warranted due to the degree of risk. However, an assessment against the AIP would be required if the project is found to include aquifer interfering activities at the detailed design stage, to be submitted to DPE Water for review. The proponent should note that this may yield requirements to manage any groundwater impacts arising.

The proponent should note that SSD projects are only exempt from requiring a water supply work and/or use approval where the impacts were included as part of the EIS. Should works be required and not assessed as part of the SSD process, a water supply work and/or use approval under the Water Management Act 2000 will be required unless another exemption applies.

Response
In line with the Department of Primary Industry – Water request, ACEN has included an additional commitment (management and mitigation measure ID SW14) to undertake a hydrogeological assessment against the NSW Aquifer Interference Policy should the project be identified to include aquifer interfering activities.

4.8 Department of Planning and Environment - Agriculture

Comments

4.8.1 Soil investigations

Matter raised

The NSW Department of Primary Industries (DPI) Agriculture is committed to the protection and growth of agricultural industries, and the land and resources upon which these industries depend. The proposal has outlined the impacts on agricultural land and the loss of agricultural productivity as a result of the conversion of land for infrastructure.

The main comment we wish to raise, in relation to the construction phase is further soil information is to be collected in addition to the geophysical assessment as part of Environmental Management and Mitigation Measures ID SW7 (Land and Soils) (13.4 Page 371 and Table 19-1, page 472).

We encourage additional investigations as part of this. An assessment of representative soil profiles including soil features such as horizon presence and depth, structure, texture, pH, CEC, etc is recommended. This would need to be done on a representative land unit basis only to form the base information for the decommissioning and rehabilitation plan in partnership with greater knowledge for the Soil and Water Management Plans being developed for construction.

Response
As per environmental management and mitigation measure ID SW7 of the EIS, soil testing will be conducted as part of geotechnical investigations to inform detailed design, prior to construction. Environmental management and mitigation measure ID SW7 has been revised to include additional detail on the soil sampling as per the advice provided by DPE -Agriculture in its submission. Revised management and mitigation measure ID SW7 is included in **Appendix 2**.

4.9 Department of Planning and Environment - Fisheries

Comments

4.9.1 Watercourse crossings

Matter raised

The construction of all watercourse crossings or services through Key Fish Habitat should be in accordance with DPI document Policy and Guidelines for Fish Habitat Conservation and Management (Update 2013).

Response
As described in Section 13.3.1 of the EIS the waterway road and cable crossings would be designed and constructed in compliance with the Guidelines for Controlled Activities (Department of Planning and Environment, 2022) series, including for riparian corridors and watercourse crossings.

In line with the Department of Primary Industry – Fisheries request, ACEN has amended management and mitigation measure ID SW1 to address this matter. Refer to mitigation measure ID SW1 in **Appendix 2**.

4.9.2 Riparian buffer zones

Matter raised

DPI Fisheries policy advocates the use of terrestrial riparian buffer zones adjacent to areas of Key Fish Habitat as per the Policy and Guidelines for Fish Habitat Conservation and Management (Update 2013) available on the Department's website at www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation in order to maintain the riparian buffer zone and limit disturbance and susceptibility to bed or bank erosion. These Riparian Buffer Zones are to be established and maintained as per Figure 65 Key Fish Habitat.

Response
Works within waterfront land will be in accordance with Policy and guidelines for fish habitat conservation and management (Update 2013) and Guidelines for Controlled Activities (Department of Planning and Environment, 2022) .

Disturbance will be limited in and around areas of riparian vegetation. Where a crossing is proposed (as described in response to matter raised in **Section 4.9.1** above), it will be designed and constructed in compliance with the relevant guidelines.

In line with the Department of Primary Industry – Fisheries request, ACEN has amended management and mitigation measure ID SW1 to address this matter.

4.10 Transport for NSW

Comments

4.10.1 Electronic copy of SIDRA analysis

Matter raised

The TIA includes a SIDRA analysis of affected intersections purporting to address the peak construction traffic volumes. A copy of the electronic analysis is to be provided for review for TfNSW to ascertain the inputs used to generate the outputs (in particular, consideration of 'Large Trucks' consistent with the June 2021 traffic count data) and final conclusions of the TIA. Should the analysis include changes to software defaults, justification should be provided.

Response
Noted. SIDRA files have been provided to TfNSW.

4.10.2 Intersection treatments

Matter raised

Reconsideration of the proposed minimum BAR/BAL intersection treatments along the Golden Highway, noting the high percentage of heavy vehicle traffic on the major freight route and the high-speed limit (i.e. 85th percentile is likely to be higher on the rural road than the signposted speed). The TIA shows that right-turns associated with AM peak construction traffic at the

Golden Highway / Leadville Access (both access locations for Leadville cluster) and Golden Highway / Short Street (Girragulang cluster) are considerably greater than existing traffic movements.

Response
BAR/BAL intersection reviews were undertaken with design speeds ≥ 100km/hr in the traffic and transport impact assessment. Further discussions with TfNSW (26 September 2022) revealed that the isolated nature of the region means that there is likely a freight peak as opposed to commuter peak that needs to be considered and that a workers afternoon peak may occur outside of the traditional "commuter peak". Likewise, the harvest peak will also need to be considered. ACEN together with SCT have re-assessed the intersection performance during the abovementioned peaks and confirmed that the geometry and design of the proposed intersection upgrades is sufficient to accommodate the various peaks.

4.10.3 OSOM route assessment

Matter raised

An amended OSOM route assessment inclusive of pinch points between Port of Newcastle and the Golden Highway, particularly through Jerrys Plains, and across the Denman Bridge. Navigation around the S-bend of the Golden Highway through Jerrys Plains has not been identified. Furthermore, it is noted in the TIA that the bridge presents vertical and horizontal limitations however a viable alternative route has not been nominated. It is requested that further investigations be undertaken to understand the bridge limitations based on transportation of the proposed 90m blade or an alternative route be nominated and assessed.

Response
OSOM route assessment inclusive of pinch points between Port of Newcastle and the Golden Highway, particularly through Jerrys Plains, and across the Denman Bridge has been assessed since EIS submission. Refer to response to Muswellbrook Shire Council in **Section 4.3.2.**

4.10.4 Road work construction

Matter raised

An environmental assessment of the proposed road work construction at each intersection affected by the OSOM intersections (DPE's consideration). TfNSW highlights that in determining the application under Part 4 of the Environmental Planning & Assessment Act, 1979 it is the consent authority's responsibility to consider the environmental impacts of any road works which are ancillary to the development, such as (inter alia) removal of trees, relocation of utilities, stormwater management, etc. It is noted that one of the two options for Leadville Site access via the Golden Highway is positioned over multiple drainage culverts and a local access. Furthermore, the swept path of the Girragulang Site access appears to require removal of several trees at Short Street and further along the local road network.

Response
The environmental impacts of proposed road works which are ancillary to the development including noise and vibration, removal of vegetation, potential impacts on Aboriginal heritage, Historic heritage, sediment and erosion and stormwater management, land use and air quality have been assessed in Chapter 7 to Chapter 17 of the EIS.

As described in management and mitigation measure TT2 in **Appendix 2**, the road upgrades required by the project would be subject to engineering detailed design developed to the standard and satisfaction of Warrumbungle Shire Council and referred to TfNSW under Section 138 of the *Roads Act 1993*. Any requirements for relocation of utilities would be incorporated into the engineering detailed design.

4.10.5 Construction traffic associated with construction workers accommodation

Matter raised

The proposal seeks approval for a "potential" worker camp to justify lower construction peak traffic however the additional construction traffic required for the proposed on-site accommodation has not been provided. The traffic study needs to include an assessment of the worst-case scenario for construction traffic generation and proposed measures to be employed that mitigate the risks of these additional movements on the public road network. Details of additional haulage and OSOM movements associated with on-site accommodate should be considered in a revised analysis of the worst-case scenario.

Response

The construction of a construction workers accommodation camp would occur in advance of any significant construction activity and the peak construction period. The heavy and light vehicle volumes required in the setup of the workers camp is forecast to be less than the peak construction period volumes that have been assessed.

It is therefore considered that the worst-case scenario is the one that has been assessed in the EIS and the impacts and associated mitigation measures proposed for the worst-case scenario would also manage and mitigate the risks of the additional movements on the public road network associated with the construction of the construction workers accommodation camp.

4.11 Crown Lands

Comments

4.11.1 For use and access to Crown land/roads/waterways

Matter raised

Authority to use, traverse, access or build infrastructure on Crown land, waterways and roads is required under the Crown Land Management Act 2016 and/or the Roads Act 1993.

The Department will need to be referenced, prior to any use or occupation of any Crown land, waterways or roads, during the assessment phase.

If infrastructure needs to be built on Crown land, waterways or roads, the consent of the Minister for Lands and Water must be obtained, via Crown Lands, and constructed roads may need to be transferred to Council.

As per the EIS Main Report, Crown Lands notes that there are a number of Crown roads within the project area. These roads may provide legal access to the development but may not provide practical access. The Department advises that these roads should not be relied upon for practical access to the project site. Any Crown road required for access to the development/proposal, will need to be transferred to Council, or application made to close and purchase the roads. As authority to access or use Crown roads is required prior to the

commencement of any works or access, and to avoid any delays for the proposal, a tenure may be required in the interim.

Response
Noted. ACEN is in discussions with crown land to address these comments (separate to EIS approval process).

4.11.2 Lineal Infrastructure (e.g. Pipelines and/or Electricity Transmission lines) traversing Crown land/roads

Matter raised

If lineal infrastructure (such as pipelines and/or electricity transmission lines) are expected to traverse Crown land, roads and/or waterways, an easement over said Crown land, roads and/or waterways will be required for protection of the infrastructure. To discuss easement requirements, please contact the Acquisitions team at the earliest opportunity at:

cl.acquisitions@crownland.nsw.gov.au

Information regarding the easement process is available at the below link:

https://www.industry.nsw.gov.au/lands/use/easements

As the easement process may be lengthy, it is also recommended that the proponent apply for a licence for each Crown road and Crown land lot as soon as possible. A licence will temporarily authorise use and access for the infrastructure to traverse Crown roads and Crown land whilst the easement applications are being processed.

Details on how to apply for a licence are available at the below link:

https://www.industry.nsw.gov.au/lands/use/licences

It is important to note that authority such as licences or easements must be in place before Crown land, waterways or roads can be used, traversed, accessed or infrastructure can be built.

Response
Noted. ACEN is in discussions with crown land to address these comments (separate to EIS approval process).

4.11.3 Travelling Stock Reserves/ Reserves/Aboriginal Land Claims/Native Title

Matter raised

It is noted there are multiple reserves within the project are including Travelling Stock Reserve. Travelling Stock Reserves are managed by Local Land Services. There are also a number of reserves currently the subject of an undetermined Aboriginal Land Claim (ALC). As such, concurrence with the NSW Aboriginal Land Council (NSWALC) would be required. Additionally, a tenure will be required to authorise any use of and/or access to these lots, which may be subject to Native Title. This will need to occur prior to the commencement of any works.

Further information regarding Aboriginal Land Claims can be found at the following link:

https://www.industry.nsw.gov.au/lands/what-we-do/our-work/aboriginal-land-claims

If at any stage these parcels are required for the proposal or will be impacted in relation to operations associated with the proposal, a tenure may be required to authorise use of and/or access to the land. Native Title will need to be a consideration for the tenure.

Information regarding Native Title can be found at the below link:

https://www.industry.nsw.gov.au/lands/what-we-do/our-work/native-title

If encroachment of any Crown waterways are required, authority to access and/or use the Crown waterway will be required.

It is recommended that the proponent contact Crown Lands to discuss any requirements as soon as possible, to avoid any possible delays and to ascertain to what extent Crown land, roads or waterways are required for the proposal.

Response
Noted. ACEN is in discussions with crown land to address these comments (separate to EIS approval process) prior to commencement of any works within any parcels of Crown Land.

4.12 Fire and Rescue NSW

Comments

4.12.1 Emergency Response Plan

Matter raised

In the event of a fire or hazardous material incident, it is important that first responders have ready access to information which enables effective hazard control measures to be quickly implemented. Without limiting the scope of the emergency response plan (ERP) requirements of Clause 43 of the Work Health and Safety Regulation 2011 (the Regulation), the following matters are recommended to be addressed:

1. That a comprehensive ERP is developed for the site.

2. That the ERP specifically addresses foreseeable on-site and off-site fire events and other emergency incidents (such as fires involving solar panel arrays, battery energy storage systems, bushfires in the immediate vicinity) or potential hazmat incidents.

3. That the ERP details the appropriate risk control measures that would need to be implemented to safely mitigate potential risks to the health and safety of firefighters and other first responders (including electrical hazards).

Such measures will include the level of personal protective clothing required to be worn, the minimum level of respiratory protection required, decontamination procedures to be instigated, minimum evacuation zone distances and a safe method of shutting down and isolating the photovoltaic system (either in its entirety or partially, as determined by risk assessment).

4. Other risk control measures that may need to be implemented in a fire emergency (due to any unique hazards specific to the site) should also be included in the ERP.

5. That two copies of the ERP (detailed in recommendation 1 above) be stored in a prominent 'Emergency Information Cabinet' located in a position directly adjacent to the site's main entry point/s.

Response
This issue is noted and ACEN has included an additional commitment (ID BF13) in **Appendix 2** to develop an ERP for the site, in consultation with Fire and Rescue NSW.

4.13 NSW Rural Fire Service

4.13.1 Project support

Supports

Matter raised

- *The NSW RFS supports the recommendations of the Bush Fire Assessment Report prepared by Cool Burn Fire & Ecology, dated February 2022.*
- *The recommendations shall be included in any approval granted.*

Response
Noted. The recommendations of the Bush Fire Assessment Report prepared by Cool Burn Fire & Ecology, dated February 2022 are incorporated into the management and mitigation measures.

ACEN acknowledges that the commitments will be included in the conditions of consent. Since exhibition of the EIS, ACEN has been in consultation with the TfNSW, Fire and Rescue NSW Coolah and Coolah Rescue Squad to discuss the project and continue open dialogue with local emergency services.

4.14 Airservices Australia

Comments

4.14.1 Overhead air-route (W627)

Matter raised

- *There are 2 turbines which impact an overhead air-route (W627). Provided that these 2 turbines can be held at/ below the maximum height we have specified in our response, there is no further issue with the wind farm from an Airservices perspective.*
- *Alternatively, the proponent can make a request to amend the air-route to accommodate the wind farm, noting that any changes will be considered on a case by case basis and then only done after a commercial agreement is in place.*

Response
Airservices have noted that at their maximum heights (1013m/3324ft AHD and 1022m/3354ft AHD respectively), MH13 and MH25 will affect the lowest safe altitude (LSALT) for air route W627. This will require either the turbines to be lowered, or a submission from ACEN to request an amendment to the air route to accommodate the wind farm.

MH13 has been removed through our latest design refinements to reduce biodiversity and social impacts. MH25 remains the same overall height as originally planned (1022.252 m AHD) and will be the only WTG that will infringe the W627 air route.

ACEN will make a request for the air route to be amended following detailed design and based on the final known turbine height for MH25. ACEN has amended commitment (AV3) in **Appendix 2** to continue consultation with Airservices Australia and allow for time required to amend the W627 air route prior to construction of that turbine. ACEN notes that any changes will be considered by Airservices on a case by case basis and only when a commercial agreement is in place.

4.14.2 Airspace procedures

Matter raised

With respect to procedures designed by Airservices in accordance with ICAO PANS-OPS and Document 9905 at the various heights provided, the wind farm will not affect any sector or circling altitude, nor any instrument approach, departure procedure at any aerodrome. At the maximum heights of 1013m/3324ft AHD and 1022m/3354ft AHD, wind turbines MH13 and MH25, respectively, will affect the air route lowest safe altitude W-627.

The maximum height of wind turbines MH13 and MH25 without affecting any air route lowest safe altitude is 1005.8m/3300ft AHD.

Note: procedures not designed by Airservices were not considered in this assessment.

Response
Noted. See **Section 4.14.1** above.

4.14.3 Communications / Navigation / Surveillance (CNS) facilities

Matter raised

We have assessed the proposal to a maximum height of 1022m/3354ft AHD for any impacts to Airservices Precision/Non-Precision Navigation Aids, Anemometers, HF/VHF/UHF Communications, A-SMGCS, Radar, PRM, ADS-B, WAM or Satellite/Links and have no objections to it proceeding.

Response
Noted.

4.15 Civil Aviation Safety Authority

Comments

4.15.1 Visual Flight Rules operations and obstacle lighting

Matter raised

The proposed wind farm will comprise approximately 148 wind turbines with a maximum tip height of approximately 250 m (853 ft) AGL. With regard to Visual Flight Rules (VFR) operations, pilots are permitted to fly as low as 500 ft AGL and may need to fly lower due to weather, emergency situations or aircraft performance issues. The turbines will reach to a height of 853 ft AGL, and therefore the turbine blades will infringe navigable airspace by 353 ft and may impact VFR aircraft operating in the vicinity of the proposed turbines.

Due to the height proposed AGL, CASA considers the proposed wind farm likely be a hazard to aviation safety and recommends that the wind farm is obstacle lit. While international standards and the NASF guideline recommend 2,000 candela lighting intensity, CASA would accept 200 candela lighting intensity based on trial installation at another site where 200 CD was found to be sufficient in areas with low backlighting.

To minimise lighting impact on local residents CASA would also recommend the installation of radar activated hazard lights or lighting activated by low visibility measuring equipment. If the lighting fails, it should fail in the 'on' condition until it can be rectified.

Response
Obstacle lighting (or night lighting) is not proposed as part of the project however ACEN will continue to consult with Civil Aviation Safety Authority (CASA) during detailed design.

Precedence has been set in NSW where the requirement for aviation lighting on several wind farms has been reviewed post-construction and has led to the requirements set by CASA being withdrawn. Cullerin Wind Farm and Crookwell 2 Wind Farm for example, have been allowed to turn aviation lighting off (McCabe, 2019).

Notwithstanding the above, a night lighting plan has been prepared by Aviation Projects since the EIS and is provided in **Appendix 5**. The plan has been assessed against the principles outlined in the Dark Sky Planning Guideline and Section 5.14 of the LEP to ensure that all potential visual impacts of night lighting have been considered as a worst-case assessment.

The night lighting plan has nominated that 92 of 130 turbines have lighting installed at hub height. This includes 17 of 21 turbines in the Leadville Road Cluster, 30 of 45 turbines in the Girragulang Road cluster and 45 of 64 turbines in the Mount Hope cluster.

With the implementation of mitigation measures such as low-intensity lighting and shielding, the aviation lighting could be constructed with a negligible visual impact on the surrounding landscape.

The addendum LVIA (**Appendix 6**) provides and assessment of the proposed lighting.

4.15.2 Small airstrips

Matter raised

CASA notes there are a number of small airstrips in close proximity to the proposed wind farm development. CASA recommends each strip operator be consulted with regard to potential impact on these strips.

Response
Management and mitigation measure (ID AV1) of the EIS commits to ACEN contacting the landowners and aerial operators for Coolah Airport (YCAH), Coolah ALA, Ozton Tongy ALA and local aerial agricultural operators and aerial firefighting operators to inform them of the project prior to construction.

Details of the project, including location and height information of wind turbines, WMT and overhead powerlines will be provided to facilitate the flight planning of aerial application operators.

4.15.3 Pre-construction requirements

Matter raised

The coordinates and estimated survey heights of each turbine must be reported to Airservices Australia via email at vod@airservicesaustralia.com for inclusion in the En Route Supplement Australia publication prior to works commencing.

One month prior to works commencing CASA must be advised so that a NOTAM (Notice to Airmen) can be published advising pilots that tall structures will be constructed in the area.

Submissions to raise a NOTAM for this location should be sent by email to: easternregion@casa.gov.au.

Response
Noted. Management and mitigation measure (ID AV5) of the EIS includes a commitment for ongoing consultation with Airservices Australia and the provision of as constructed' details of wind turbines and meteorological mast coordinates and elevations.

4.16 Commonwealth Department of Defence

Comments

4.16.1 Restricted Area R559B and Danger Area D538B

Matter raised

The project site is located partly within the Restricted Area R559B and Danger Area D538B utilised by aircraft originating from RAAF Base Williamtown. The proposed location of the wind farm will result in a reduction of useable airspace by Defence aircraft for low flying activity. Therefore, Defence requests that the Wind Farm be obstacle lit in accordance with Civil Aviation Safety Regulation 139 and the Civil Aviation Safety Authority (CASA) Manual of Standards 139. If Light Emitting Diode (LED) lighting is applied, the frequency range of the LED light emitted should be within the range of wavelengths 665 to 930 nanometres to allow for visibility to persons using night vision devices.

Response
Noted. Refer to response to CASA in **Section 4.15.1**.

4.16.2 Tall structures

Matter raised

The proposed turbines meet the requirements for reporting of tall structures. There is an ongoing need to obtain and maintain accurate information about tall structures so that this information can be marked on aeronautical charts. Marking tall structures on aeronautical charts assists pilot navigation and enhances flight safety. Airservices Australia (ASA) is responsible for recording the location and height of tall structures. The information is held in a central database managed by ASA and relates to the erection, extension, or dismantling of tall structures, the top of which is above:

(a) 30 metres AGL, that are within 30 kilometres of an aerodrome; and
(b) 45 metres AGL elsewhere.

The proposed structures will meet the above definition of a tall structure. Defence therefore requests that the applicant provide ASA with "as constructed" details. The details can be emailed to ASA at vod@airservicesaustralia.com.

Defence has no objection to the proposed wind farm provided that the project complies with the above conditions.

Response
Noted. Refer to response to CASA in **Section 4.15.3.**

Comments

4.17 Geological Survey of NSW – Mining, Exploration and Geoscience

4.17.1 Mineral sterilisation

Matter raised

MEG-GSNSW has reviewed the Environmental Impact Statement for Valley of the Winds Wind Farm and requests to be consulted in relation to the proposed location of any biodiversity offset areas or any supplementary biodiversity measures to ensure there is no consequent reduction in access to prospective land for mineral exploration, or potential for sterilisation of mineral or extractive resources.

Response
Noted.

5. RESPONSE TO ORGANISATION AND INTEREST GROUP SUBMISSIONS

5.1 Coolah District Development Group

Comments

5.1.1 Cumulative impacts

Summary of matter raised
The Coolah District Development Group state that the nomination of the CWO REZ has attracted eight renewable projects, together with the proposed Energy Co study corridor for high voltage transmission line and they are not able to comprehend the cumulative impacts this will have on their community. The topics of concern raised by the community group relate to:

- unknown impacts for the community relating to social, health, transport, accommodation, housing fluctuation and availability as a result of the renewable energy projects in the area, and possible demise of the rural communities.
- issues that relate to the whole of CWO REZ include a perceived lack of wholistic planning, local communication, and consultation around potential cumulative impacts
- impacts on social cohesion and lack of knowledge on how and where to obtain relevant project information across the various proponents and agencies
- foreign owned companies owning and operating these projects.

Response
It is noted that this submission does not relate directly to the project, however ACEN has completed an assessment of cumulative impacts as part of the EIS and is committed to implementing, the proposed management measures included in **Appendix 2** to work towards minimising the project's contribution to cumulative impacts associated with the CWO-REZ.

5.1.2 Land use

Summary of matter raised
The Coolah District Development Group commented on the loss of prime productive agricultural land resulting from the project.

Response
Assessment of impacts to agriculture because of the project is included in Section 17.1.4 of the EIS. Loss of agricultural land would be temporary and only for the life of the project. Agricultural land practices would continue in areas of the property not utilised by turbines or access tracks.

The area of properties not utilised by the project (and available for agricultural use) is significantly greater than the footprint of the project. The area of agricultural land unavailable for agricultural land use during the life of the project is approximately 550 ha, however not all this land is currently used or suitable for agriculture.

ACEN is in close consultation with all host land holders, and landholder agreements consider the current land use and any impacts associated with hosting project infrastructure.

5.1.3 Hazards and risks

Summary of matter raised
The submission suggests that there are risks associated with the project in relation to aviation activities and bushfire. It suggests that the project created an increased bushfire risk and impacts on bushfire management practices. This includes limiting access to firefighting resources and turbines limiting the capacity for aerial firefighting. Comment is also made on the direct impacts the wind farm may have on aerial agricultural activities.

Response
Refer to **Section 4.1.7** and **Section 4.12** and **Section 4.13** for discussion on bushfire risk and management.

5.1.4 Community benefits

Summary of matter raised
The submission suggests that the VPA should be developed in consultation with the community and that community investment and benefits should be seen prior to the commencement of the development, and therefore when impacts are experienced. The submission also notes that significant resources are required to consult with the developers and respond to development applications which itself is having a significant negative impact to some community members.

Response
As presented in **Section 4.1.9**, ACEN commit to a total financial contribution equivalent to 1.5% of the projects capital investment value to be spent within the local community. This commitment totals $25,500,000 to be spent over the operational life of the project. This contribution will be administered under a Planning Agreement with Council, or other appropriate means to ensure the money is being spent within the impacted community.

In addition, a significant portion of the access fees payable allowing connection into the renewable energy zone infrastructure will be apportioned to community and employment activities. ACEN understands that these funds will be administered by the EnergyCo. in consultation with the local community and regional Councils.

Further, ACEN have developed a social investment program for the project, which will continue to be implemented throughout its development. This program allows individuals, businesses and community organisations to apply for funding for local community initiatives. This has been very successful to date and will continue throughout the project's development. Current sponsorships under the social investment program are summarised in **Table 5-1**.

Table 5-1: Sponsorships under the social investment program

Year	Organisation	Activity
2022	Coolah Men's Shed Inc	Toilet Upgrade
2022	Coolah Junior Sports Club Inc	Rugby uniforms
2022	Dunedoo Area Community Group Inc	Indigenous Yarning Circle
2022	Black Stump Rodeo	Ladies Barrel Race Sponsor
2023	Coolah Lions Club	Coolah Driver Reviver upgrade

Table 5-1: Sponsorships under the social investment program

Year	Organisation	Activity
2023	Coolah Lions Club	Community Radio program
2023	Can Assist- Dunedoo	Donation to organisation
2023	Coolah Senior Citizens Association	Seniors Lunch 2023
2023	Black Stump Rodeo	Ladies Barrel Race Sponsor
2023	Coolah District Diary	Community Events page sponsorship

ACEN appreciates the effort that the local community make in raising local issues and initiatives. Because of this ACEN is trying to make the Social Investment Program as easy and accessible as possible to anyone with a community initiative that fits the core values of the project and organisation. Part of this is opening a local office within Coolah which not only allows interested community members easy access to project information, but also supports the local economy.

5.1.5 CWO REZ

Summary of matter raised
The submission raises issues on the impacts resulting from the CWO-REZ transmission line project and the location of the recently exhibited study corridor. The group suggests that an impact assessment be completed for the whole of the CWO-REZ including community, cultural and agricultural impacts.

Response
ACEN acknowledges this comment, however notes that the issues raised are subject to a separate environmental approval currently being undertaken by EnergyCo.

5.1.6 Planning processes outside the project scope

Summary of matter raised
The Coolah District Development Group suggest that there be an extension of time for submissions as well as provide ongoing consultation for all renewable developments in Coolah area. Further, the submission notes that communications around the myriad of developments should be made more accessible to the community.

Response
ACEN acknowledges this issue however the issues raised relate to the planning approvals process and are not dictated by ACEN. ACEN continues to engage and consult with the local communities, as per the summary table of engagement activities provided above.

5.1.7 Community capacity to respond to CWO-REZ developments

Summary of matter raised
Coolah District Development Group state that proponents themselves can't determine how they can best assist local communities and there are inadequate resources for community groups to respond and consult appropriately due to the increased development in the area.

Response
ACEN acknowledges this issue however the issues raised relate to the planning approvals process and are not dictated by ACEN.

Objects

5.2 Ibbai Waggan People Owner of Land, Lore & Culture

Summary of matter raised
Issues raised by the Ibbai Waggan People were related to Aboriginal peoples traditional ownership of the land on which the project is located and surrounds and their objection to the systems governed by the State and Federal Governments.

Response
We acknowledge the receipt of this submission. ACEN continues to engage with the traditional owners of the land on which the project is located in order to understand and protect any indigenous heritage significance.

6. RESPONSE TO COMMUNITY SUBMISSIONS

6.1 Adequacy of EIS

6.1.1 Level of detail in assessments

Summary of matter raised
Submission/s suggest that the assessments included in the EIS are reliant on desktop assessment and modelling and do not adequately assess the impacts of the development.

Response
The EIS for the project was prepared in accordance with the NSW State Significant Development Guidelines and the NSW Wind Energy Guidelines (Department of Planning and Environment, 2016a). The planning process in NSW requires that environmental assessment of a project be undertaken in accordance with the Secretary's Environmental Assessment Requirements (SEARs. DPE will not accept an EIS, nor approve a project, which does not address the assessment requirements set by the Secretary. The environmental assessments included in the EIS involved onsite surveys and data collection in accordance with the relevant guidelines. Predictive modelling for noise is an appropriate form of assessment of the potential noise impacts associated with a project and is in accordance with the *Wind Energy: Noise Assessment Bulletin for State Significant Wind Energy Development* (Department of Planning and Environment, 2016b) (Noise Bulletin).

6.1.2 Real or perceived errors and omissions in EIS

Summary of matter raised

Incorrectly allocated dwelling not assessed
Dwelling 284 has erroneously been referred to as an associated dwelling however no landowner agreements are in place.

Response
Dwelling 284 was incorrectly identified as being an associated dwelling in the EIS. Since being made aware of the error, ACEN has been in communications with the landholders and undertaken a visual impact dwelling assessment and photomontage as well as updated the noise assessment criteria for the dwelling. The visual impacts to the dwelling are predicted to be low and are presented in **Appendix 6**. The noise impacts associated with the project are predicted to be well below the criterion for non-associated dwellings (35 dB) at less than 30 dB.

Summary of matter raised

Non-associated dwellings not assessed:
Submission/s suggest that an historical dwelling on Tongy Station which was burned down is going to be replaced and should be assessed for impacts. Submissions also suggested that there is a dwelling on property referred to as "Turee", in addition to the three known dwellings, within five kilometres of proposed turbines which has not been assessed in the EIS. Other submissions received in relation to the same matter noted that dwellings are "missing from the non-associated dwellings listings" and that there is lack of assessment for dwellings within 10 kilometres of proposed turbines such as the entire town of Coolah, villages of Leadville and Uarbry.

Response
The villages of Coolah, Leadville and Uarbry have been assessed in the EIS in accordance with the following guidelines:

- Cumulative Impact Assessment Guidelines for State Significant Project (Department of Planning, Industry and Environment, 2021).
- Wind Energy Guideline for State Significant Wind Energy Development (Department of Planning and Environment, 2016a)(Wind Guideline)
- Wind Energy: Visual Assessment Bulletin for State Significant Wind Energy Development (Department of Planning and Environment, 2016c) (Visual Bulletin)
- Wind Energy: Noise Assessment Bulletin for State Significant Wind Energy Development (Department of Planning and Environment, 2016b).

The Visual Bulletin states: *"where relatively close clustering of houses belonging to different landowners or occupants occur, representative viewpoints may be selected and assessed in lieu of every single dwelling in the following types of areas:*

- *rural residential clusters*
- *rural villages*
- *urban residential and commercial areas."*

Representative viewpoint assessment locations are shown in Figure 17 of the LVIA exhibited with the EIS. Locations of these representative assessment include VOW35 within the village of Uarbry, VOW21, VOW22, VOW 23 and VOW 40 for the town of Coolah and VOW10, VOW 11, VOW25 and VOW 28 for the village of Leadville.

Eight non-associated dwellings are located within eight kilometres of both the project and Liverpool Range Wind Farm, eight of which were identified as potentially having views to both Liverpool Range windfarm and the project in three or more view sectors. Potential cumulative visual impacts on these eight dwellings was provided in Table 18 of the LVIA exhibited with the EIS.

Photomontages have been prepared representative of Coolah (Photomontage 04 - Appendix C) and Leadville (Photomontage 02 - Appendix C) and an additional photomontage prepared from Tongy Lane (Photomontage 08 - Appendix C) in **Appendix 6**.

The predicted wind turbine noise levels from the project would be below the NSW Noise Assessment Bulletin base (minimum) criterion of 35 dB L_{Aeq} at all of the assessed non-associated receivers identified as potentially impacted by the project. The villages of Coolah, Leadville and Uarbry were included in the NVIA and are located outside of the 30 dB noise level contours (for turbine model GE 6.0-164).

<u>Tongy Station</u>
Seven non-associated dwellings were assessed in the EIS on Tongy Station (1340 Tongy Lane COOLAH 2843). These dwellings are shown in **Figure 6-1** below and are Dwellings 7, 8, 9, 10, 11, 12 and 283.

No additional historical dwelling locations were identified during consultation with land holders during preparation of EIS. Since exhibition, ACEN has undertaken a review of historical aerial imagery for Tongy station to attempt to identify the dwelling referred to in the submissions. The review revealed that dwelling 10 and a potential dwelling northwest of dwelling 10 were both burnt down in the 2017 Sir Ivan fire, along with sheds and other ancillary structures on the property. Dwelling 10 and the potential dwelling are shown on **Figure 6-2**.There were no

dwellings identified to have burnt down on the property during this period within two to three kilometres of a proposed turbine. Dwellings 7, 8, 9, 10, 11 and 12 are approximately 4.7 kilometre from the nearest turbine.

The area where the potential dwelling previously stood northwest of dwelling 10 was not assessed in the EIS as a dwelling. Although this is the case, Dwelling 10, together with the five other dwellings present on the property were assessed for potential impacts. If a new dwelling is proposed in the same location as the previously burnt down dwelling, the impacts would be expected to be no greater than those concluded for cluster of dwellings assessed for the property. A revised landscape and visual impact assessment (LVIA) and a revised noise and vibration assessment (NVIA) has been prepared as part of the amendment report and reflects the amended turbine layout for the project. Overall, the amended project has seen a reduction in the number of potentially visible turbines from Dwellings 7, 8, 9, 10, 11 and 12 and the noise impacts associated with the amended project are predicted to be well below the criterion for non-associated dwellings (35 dB) at less than 30 dB.

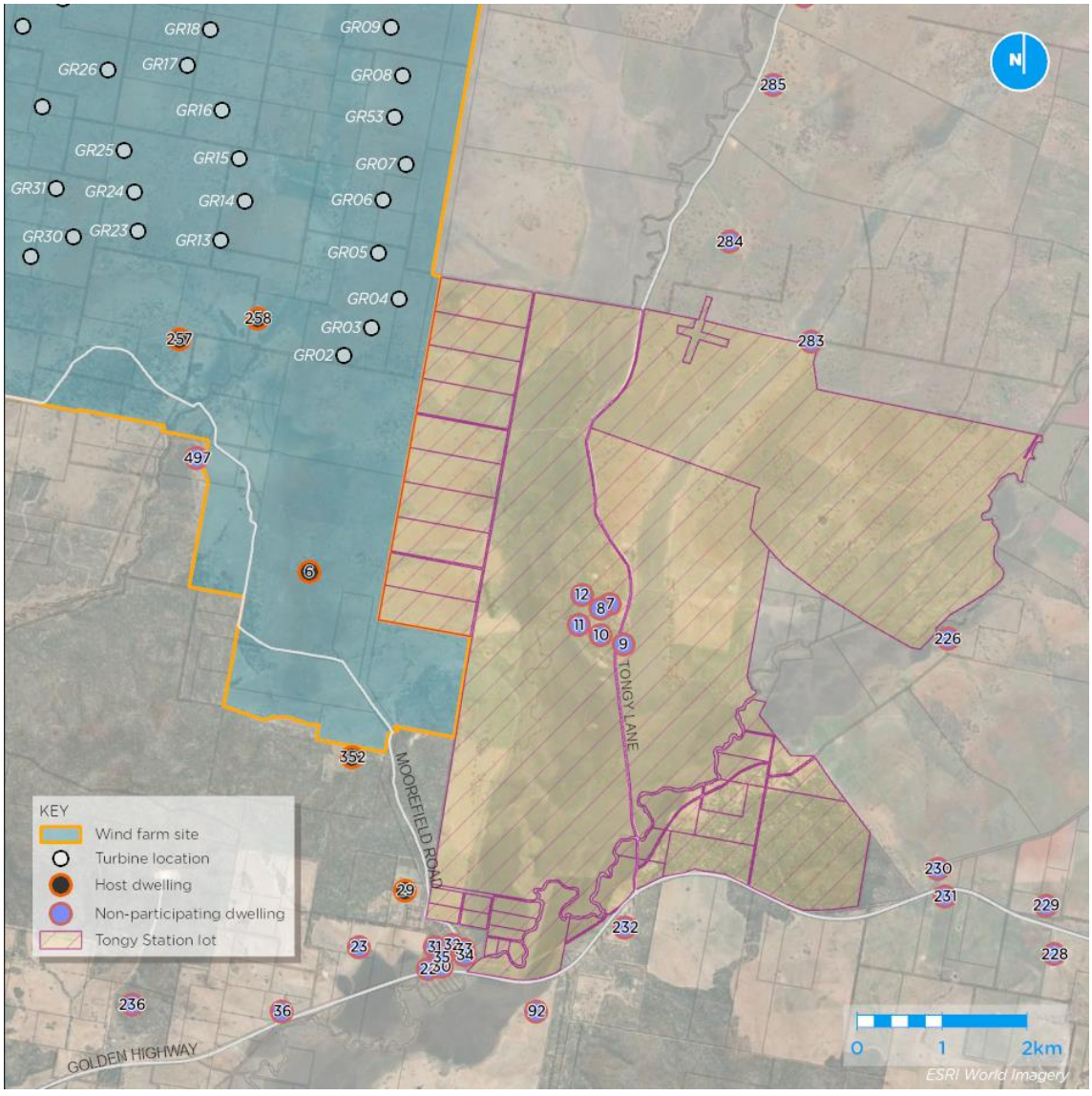


Figure 6-1: Dwellings (7, 8, 9, 10, 11, 12 and 283) assessed on Tongy Station in the EIS

Figure 6-2: Aerial view of Tongy Station post 2017 Sir Ivan's fire event (location of burnt potential dwelling circled)

Turee Creek property

The location of the property referred to as Turee has been identified as Lot 1 in DP 850592 (based on review of landowner details consistent with the submitters details and the location of this property within the vicinity of Turee Creek Valley). Three dwellings on "Turee" have been included in the EIS. These dwellings are dwellings 287, 288 and 289 approximately 4.3 kilometres – 4.7 kilometres from the nearest turbine (and now 4.5 kilometres – 4.8 kilometres from the nearest turbine in the amended layout). In response to this submission ACEN has undertaken a detailed review of structures on this property, based on aerial imagery. The review has found that a potential fourth dwelling exists within the cluster of the dwellings that have been assessed (approximately 10 meters to the west of dwelling 287, refer to **Figure 6-3**). Other structures on this property are likely to be farm buildings and sheds (refer to **Figure 6-4**) and are located within 200 meters (south) of the cluster of assessed dwellings.

The impacts of the project on the fourth dwelling within the cluster would be expected to be no greater than those concluded for dwelling 287, 288 and 289. A revised LVIA and NVIA has been prepared as part of the amendment report and reflects the amended turbine layout for the project.

Figure 6-3: Turee Creek dwellings assessed in EIS (dwellings 287, 288 and 289) (Images show land prior to Sir Ivans bushfire in 2017 on the left and post 2017 on the right)

Figure 6-4: Other structures not assessed as dwelling at Turee Creek property (Images show land prior to Sir Ivans bushfire in 2017 on the left and post 2017 on the right)

Summary of matter raised

Project refinements
Submissions suggest that the eastern cluster (identified in Figure 2.4 of the EIS) never existed as landholders were not aware of the cluster and would have objected.

Response
Section 2.4.2 of the EIS states that the Eastern Cluster was considered during preliminary desktop analysis of potential wind farm layouts undertaken during the early project feasibility assessment phase. This early assessment phase considered the potential planning, environmental and social constraints from the proposed wind farm and the Eastern Cluster, along with the northern cluster referred to as the 'Mundroola Cluster', were removed due to the potential to generate unwarranted cumulative impacts.

Both of these clusters were previously made public in the publicly available scoping report submitted to DPE in May 2020. ACEN (then UPC\AC) released a project update in May 2020 to advise the community that the scoping report was available on the DPE website.

Summary of matter raised

Incorrect calculation of LSALT in Aviation Impact Assessment
One submission received stated that the lowest safe altitude (LSALT) in the EIS was incorrectly calculated.(Submitter ID 60)

Response
Response to Submitter ID 60: MH13 has been removed from the project since the EIS was submitted. MH25 remains in the same location as when it was assessed by Airservices Australia as part of the Aviation Impact Assessment. The height of MH25 remains 1022 metre (3354 ft AMSL) without a five metre buffer or 1027 metres AHD (3369.4 ft AMSL) with a five metre buffer. MH25 is the highest wind turbine in the project.

The submitter has not correctly interpreted conclusions of paragraph 15 and 17. Conclusion 15 states *"below the LSALT MOC of 4000 ft AMSL"*. The MOC is a way of describing the controlling height which provides the applicable separation of 1000 ft from obstacles for the published LSALT. The LSALT over MH25 is 5400 ft AMSL, so the controlling height is 4400 ft AMSL. The lower section of the project is within a grid with an LSALT of 5000 ft AMSL, for which the controlling height for obstacles is 4000 ft AMSL. All wind turbines are below this altitude so there is no impact to Grid LSALTs.

In response to the comment the submitter made on conclusion 17, the LSALT for route W627 is 4300 ft AMSL, with a controlling height of 3300 ft to assure the 1000 ft obstacle clearance. Wind turbine MH25 will extend to an overall height of 3354 ft AMSL and therefore 54 ft above the current controlling height. This will require the LSALT for route W627 to be raised by 100 ft to 3400 ft AMSL to assure 1000 ft separation from obstacles. Further discussion on this process and ACENs commitment to amend the route W627 is in **Section 4.14.1**.

The conclusions of the EIS Aviation Impact Statement are not erroneous, grossly or otherwise. Grid LSALTs are not affected. The route LSALT for W627 may need to be raised by 100 ft (as discussed above and referred to in **Section 4.14.1**. Aircraft operating under the instrument flight rules (IFR) are required to fly at hemispherical levels of round thousands of feet according to the planned track – odd thousands when tracking east (in the case of W627, 5000 ft, 7000 ft, 9000 ft) and even thousands (6000 ft, 8000 ft, 10,000 ft) when tracking west. Aircraft encountering difficulty, such as icing, may elect to descend to the LSALT. Raising the route LSALT by 100 ft will have negligible impact on aircraft operations.

Summary of matter raised

General real or perceived errors
Submissions received in this category commented on "numerous errors" reflecting a lack of appropriate attention and care given to the environment and the landowners. They also raised there not being a detailed lighting plan submitted with the EIS and an out dated Energy Co transmission study corridor presented. One submission mentioned that the statement that the project would have a 25 year operational life is an exaggeration.

Response
ACEN and its technical consultants have sought to source, through various mechanisms including desktop assessment, extensive ground truthing where access was available and consultation, the most accurate information available to inform all assessments included in the EIS. ACEN is

continuing to investigate potential impacts from the project as they are made known through submissions received, ongoing consultation and continued environmental assessment.

Appendix D of the EIS (Landscape and Visual Impact Assessment) included an assessment of night lighting, including consideration of the *Dark Sky Planning Guideline: Protecting the observing conditions at Siding Spring* and provision of guidance on the minimisation of impacts to residents should lighting be required by CASA. Refer to **Section 6.8.1** (Visual impact of the project on residences and villages) for further detail.

The operational life of a modern wind farm is up to 30 years.

ACEN submitted the draft EIS to DPE on 28 February 2022 to allow DPE to confirm that the minimum Secretary's Environmental Assessment Requirements had been met. Detailed environmental investigations to support the EIS were under preparation since the scoping report was submitted in March 2020. The revised EnergyCo transmission corridor was released on 3 March 2022 and the scoping report for the transmission line was submitted in September 2022. As such, ACEN and its technical consultants prepared the detailed assessments with the most up to date information available to them at the time of submission of the EIS.

Summary of matter raised

Incorrect reference to the Local Strategic Plan
One submitter stated that various references to the Local Strategic Plan (LSP) in Section 17.1.3 of the EIS needs to be updated to reflect relevant plans and policy: the Central West Local Land Services Local Strategic Plan (LSP) needs to be updated to refer to the latest document (i.e. 2022-2026). The submission suggests that the LSP for Central Tablelands and Hunter LLS districts are included in this section of the EIS and shouldn't be given these regions are within 10-20 kilometres of the project footprint site.

Response
The Central West LSP 2021 – 2016 referred to in the EIS was the current LSP at the time of preparing the EIS. Further, this version of the plan is still the most current LSP for the Central West Orana Region. The LSP for Central Tablelands and Hunter LLS districts are not referred to in this section, or any other section of the EIS.

It is noted that the Central Tablelands LSP erroneously appears in the reference list of the EIS. Although the reference list refers to an additional LSP, it is not actually used or referred to within the body of the EIS.

Summary of matter raised

Weed management
One submitter raised that the EIS needs to detail weed management during construction and operations, in reference to the Central West Weed Action Plan and to comply with biosecurity legislation and stated that the EIS only specifies weed management during construction in the Management/Mitigation Measures table (LU4).

Response
Management and mitigation measure (ID LU4) has been updated to include weed management during operation. (Refer to **Appendix 2**).

6.2 Statutory planning and approval process

6.2.1 Request for additional time to comment

Summary of matter raised
Submitters commented on the time available to make a submission during exhibition of the project. Some submissions suggested that there was not enough time to review all information and adequately comprehend it. One submitter stated that exhibition should be re-opened once the transmission strategy is decided for the project so that they can consider that in their submission.

Response
Noted. The exhibition period is a statutory timeframe and requirement and not dictated by ACEN. The connection to the CWO-REZ transmission project has been removed from the project a discussed in **Section 3.1** as approval for this infrastructure will be sought by EnergyCo.

6.2.2 Planning and approval process

Summary of matter raised
Submitters highlighted concern that the Department of Planning and Environment would have too many projects to be able to adequately assess each individual DA and that the SSD approval process has dis-empowered the local government. The submissions suggested that the planning framework and guidelines for visual and noise assessment and approach to neighbour agreements needs to be revised.

Response
Noted. This is a statutory process and not dictated by ACEN. In the same way, the planning guidelines and not dictated by ACEN. Therefore, this submission is outside the scope of this response.

6.3 Project need, justification and alternatives

6.3.1 Need for the project

Summary of matter raised
Submitters questioned the necessity of the project in its overall contribution to the electricity supply network. Submitters questioned the reliability of wind energy and one noted nuclear as a preferred option. It was also noted that energy production should be located closer to the users of the energy (i.e. closer to capital cities) or focused on sustainable buildings rather than large scale energy projects. One submission also noted support for renewable energy in the region.
It was also raised that the project was not in the public interest and would not benefit the region or the country.

Submitters questioned the benefits of the project in comparison to alternative power generating facilities such as coal fired power plants, nuclear plants, offshore wind and roof top /small scale solar suggesting they have less associated impacts. There was suggestion to research more into alternative options such as solar on dwellings, self-sustaining buildings and industries and one suggestion of carbon storage on farming land instead of larger scale energy projects. The submissions also stated that wind energy was not reliable and the cost of the project is concerning.

There were two submissions in support of the project stating it was a cleaner alternative to coal in the region and assists in meeting renewable energy targets.

Response
As recognised by the NSW Government in its Electricity Infrastructure Roadmap and by the AEMO, between 7,000 and 8,000 gigawatts of coal fired generation capacity is closing in NSW in the next 10-15 years. Given the relative costs of different generation technologies and the outlook for continuing cost reductions in renewables and batteries, projects such as the Valley of the Winds wind farm forms a key part of the future energy system of NSW.

The AEMO is ultimately responsible for assessing the demand versus supply outlook of the overall energy system and does this every year in its Electricity Statement of Opportunities (ESOO) in which it forecasts the need for new capacity. In NSW, a small shortfall after the closure of Liddell in 2023 will likely be further exacerbated towards the end of the decade when Vales Point and potentially one more major coal plant are anticipated to close.

The AEMO has also become responsible for developing the optimal path for the longer-term transition to the future energy system in its Integrated System Plan (ISP). The 2020 ISP recognises that over 26 gigawatts of new renewable generating capacity will be needed in the NEM by 2040 to replace ageing coal fired power stations, with much of this being built in renewable energy zones such as the Central West Orana Renewable Energy Zone.

6.4 Site selection and justification

6.4.1 Site selection and justification

Summary of matter raised
Submissions received relating the site selection and justification for the project commented on the location and the scale of the project not being suitable. These comments were in relation to the size and proximity of the infrastructure being located close to rural towns and villages and suggested alternative locations such as closer to larger population centres. Generally, submissions suggested that the project should be situated closer to the east coast of NSW where the energy is consumed, population and development is more concentrated and on land that is less productive and would have less impacts. Some submissions commented on the location of the project (and the CWO-REZ) being too close to natural attractions such as Turee Creek Valley and Coolah Tops National Park.

One submitter noted that wind farm projects have been discussed in the Coolah Valley for over 20 years and that the Coolah Valley has excellent wind resources, high ridges with little vegetation and provides a good option for the project location.

Response
As described in Section 2.3 of the EIS, ACEN carried out preliminary assessments of potential sites and turbine layouts as part of project development. The evaluation of site options and layouts considered various factors including technical feasibility, as well as potential or perceived impacts on the local community and the environment. The following justifications support the decision to proceed with the project in its current location:

- the project is in the CWO-REZ, which has been identified by the NSW Government as a priority area for the delivery of new renewable energy generation and storage
- this location is supported by transmission infrastructure providing a connection to dispatch electricity to the NEM

- quality of the wind resource in the area
- suitability of the land for project infrastructure
- it is suitably located in a region with ideal climatic and physical conditions for large-scale wind energy generation
- it would create employment opportunities and benefits to the local and regional economy.

The project is largely located on agricultural land of which associated land uses are compatible with large-scale wind energy generation infrastructure. As discussed in Section 17.1.4 of the EIS, the area of land that would be impacted by the construction footprint and the operational footprint gives an indicative representation of the potential impact of the project on agricultural land over its operational life. During construction, approximately 0.23% of agricultural land within the Warrumbungle Shire LGA would be impacted by the project, and approximately 0.02% of the total agricultural land within NSW.

6.5 Outside project scope

6.5.1 Renewable energy development generally and the REZ

Summary of matter raised
Submissions discussed renewable energy development in general and the transition from coal fired power stations to renewable energy generation. Some suggested that renewable projects are encouraging the demise of other energy generation industries.

Submissions commented on the inadequate implementation of the CWO-REZ, policy improvements, the inappropriate location of the CWO-REZ and the lack of community consultation that has been undertaken by the government in relation to the CWO-REZ.

Concerns were raised on the impacts associated with the CWO-REZ transmission infrastructure and others commented on the lack of information on the cumulative impacts associated with the renewable energy projects and the transmission infrastructure across the region and NSW resulting from the declaration of the REZ and the transition to renewable energy in general.

Response
Noted. The items raised in these submissions do not directly relate to the Valley of the Winds Wind Farm project and are matters that are outside the project scope.

6.6 Project description

6.6.1 Request more detail

Submissions received commented on the lack of detail on transmission line connection for the project and details on associated infrastructure. Submissions received stated that there was a lack of impact assessment for this component of the project.

Response
As discussed in **Section 3**, ACEN submitted the EIS prior to the release of the EnergyCo Transmission Line scoping report (September 2022) and as such did not have sufficient detail in the final location of the proposed transmission line. However, following release of the EnergyCo Transmission Line scoping report and extensive consultation with EnergyCo, the transmission line has since been removed from the project as detailed in **Section 3.1** and described in the amendment report for the project submitted under separate cover.

6.7 Consultation

6.7.1 Lack of consultation undertaken

Summary of matter raised
Submitters raised concerns around the lack of community consultation that was undertaken on the project prior to submission of the EIS. Some submitters feel they have not been made aware of the potential impacts of the project on their residences of their community and feel that the process has not allowed for the community to adequately consider and comment on the project.

Response
Stakeholder engagement, including activities carried out before and during the preparation of the EIS, is described extensively in Chapter 5 of the EIS. Since July 2018, ACEN has been building a local presence in the region through both one-on-one and group meetings with local landholders, neighbouring property owners, community groups and local service providers.

ACEN used a variety of consultation methods and tools to communicate with the local community and to provide various avenues for individuals to comment on the project throughout the assessment process. These included:

- one on one meetings with host landholders, neighbouring landholders, special interest groups and the wider community
- community information sessions between February 2020 and February 2022
- virtual community information sessions in September 2021 (during COVID-19 lockdowns)
- group meetings with special interest groups
- 20,000 random surveys surrounding the projects site
- semi-structured interviews with nearby neighbours, host landholders, community groups, elected representatives, emergency services and local business
- online surveys
- community Information Line 1800 571 185
- project email address: vowt@upc-ac.com
- project website https://valleyofthewinds.com.au/
- project Facebook page https://www.facebook.com/valleyofthewinds
- project office in Coolah (49 Binnia Street Coolah)
- project mailing list providing an avenue for community members to subscribe to receive regular project updates
- newsletters, notifications and fact sheets delivered via letterbox to the local community and published on the project website
- various media releases print and online journalism and paid advertisements, television and radio including publications in Coolah District Diary, Dunedoo District Diary, Coonabarabran Times and Mudgee Guardian.

It is therefore considered by ACEN, that contrary to some of the views put forward regarding the absence of consultation with various stakeholders, a significant effort was made to contact neighbouring landholders and extensive opportunities were made available to the local community, including neighbouring landholders, to obtain further information about the project, raise specific concerns or to provide feedback on the project design.

In addition, **Section 3.3** of this response to submissions report provides a summary of the additional stakeholder engagement activities that have been undertaken by ACEN both during and after the public exhibition of the EIS.

ACEN is committed to ongoing consultation and maintaining the established methods of communication (Facebook, project website, email etc.). ACEN has included an additional commitment as part of the environmental management measures (ID C1 in **Appendix 2**).

6.8 Landscape character and visual

6.8.1 Visual impact of the project on residences and villages

Summary of matter raised

Turee Creek Valley and Tongy Lane
Submissions were received that commented on the visual impact associated with the Girragulang Road cluster on residences (including primary living spaces) at Turee Creek Valley and Tongy Lane (including impacts on public view points) stating that the project would dominate the western skyline and overshadow residences and that the turbines would be up to 350 metres higher than the dwellings. One submission stated that the visual impact on Tongy Station would be high not medium per the LVIA rating.

Response
Six turbines have been removed from the Girragulang Road cluster as part of the amended project. Additional Photomontage prepared from Tongy Lane (Refer to Photomontage 08 - Appendix C). A detailed dwelling assessment has been prepared for the dwellings on Tongy Station and is provided in **Appendix 6**. The dwelling assessment prepared for Tongy Station during the EIS was from a representative dwelling due to restricted access to this property. The detailed dwelling assessment prepared for this dwelling found that turbines would be visible in one 60 degree sector. Majority of the turbines would be screened by existing scattered vegetation in the dwelling's foreground to the north west. Due to the distance of between the turbines and the dwelling, the project does not dominate the visual catchment at this location. It was determined that the visual impact rating for this dwelling would be low.

Generally, the dwellings located along Tongy Lane see a reduced number of turbines as a result of the amended project. The detailed dwelling assessments suggest intervening topography will likely filter views to the Mount Hope and Leadville clusters.

Summary of matter raised

Impact on non- associated dwellings / properties
Submitters raised concern around the visual impacts on non-associated dwellings and noted impacts from both primary living spaces as well as views from other parts of the property (for those working outdoors) and noted how the project would change their view of the landscape. One submitter commented that vegetation and topography is not sufficient to reduce the impacts. Visual impacts associated with the Mount Hope Cluster were noted as a concern and the visual impacts on residences at the northern end of the Girragulang Road cluster.

Submitters suggested that there is a lack of compensation for visual impact for wider community and that the project would impact the value of their property.

One submission suggested that visual impacts should be reassessed, and all non-associated dwellings should be provided with a photomontage prepared by an independent party to the project.

Response
The assessment of visual impact on non-associated dwellings (including the adopted location for photomontages) has been prepared accordance with the Visual Bulletin (Department of Planning and Environment, 2016c). Mitigation measures such as vegetation shielding, if relevant and desired have been included in **Appendix 2**.

Since exhibition of the EIS, and in response to submissions received, the project has been refined. The details of the proposed changes are summarised **Section 1.3** and detailed in the separate amendment report. ACEN has proposed to remove 11 turbines from the Mount Hope Cluster and six turbines from Girragulang Road Cluster. An LVIA has been prepared for the amended layout and is at **Appendix 6**.

ACEN has also progressed agreements with nearby dwellings and as a result of an increase in dwellings associated with the project, and the amended layout, the number of non-associated dwellings within the black line of visual magnitude has been reduced by 15 dwellings. The number of non-associated dwellings located within the blue line of visual magnitude has been reduced by six dwellings. These results are summarised in **Table 6-2** and discussed more in **Appendix 6**.

Table 6-1: Results of revised application of visual magnitude tool

Distance from the nearest turbine	EIS project layout	Amended layout	Variation
	number of non-associated dwellings		
Within black line of visual magnitude: 3,350 m	42	27	Reduction of 15 non-associated dwellings
Within blue line of visual magnitude: 4,950 m	70	64	Reduction of six non-associated dwellings
Total	112	91	Reduction of 21 non-associated dwellings

The number of visible turbines has been reduced for six non-participating dwellings compared to the layout presented in the EIS (Dwellings 11, 84, 90, 180, 190 and 199).

A Neighbouring Property Benefit Scheme (NPBS) has been prepared for the project. This scheme sees all primary dwellings, outside of the designated township zones, within five kilometres of a wind turbine being eligible to take part and see a financial benefit paid annually for the life of the project. This scheme includes a mechanism for calculating the financial benefit for each individual dwelling that relates predominantly to distance to wind turbines. In addition, the scheme places a financial value on the visual impact categorisation as per the Visual Bulletin. This scheme has been well publicised with an initial letter being sent to all eligible landholders in August 2021. The scheme is currently available and being actively pursued.

Refer to response in **Section 6.13.1** regarding the potential impact on land value associated with the project.

Summary of matter raised

Impacts on properties in Coolah and other villages
Submitters commented on the project visual impact including overshadowing properties in Coolah as well as the visual impact associated with the transmission lines on nearby towns and villages.

Response
The villages of Coolah, Leadville and Uarbry have been assessed in the EIS in accordance with the Bulletin (Department of Planning and Environment, 2016c). Representative photomontages have been prepared for the townships of Coolah (Photomontage 04 - Appendix C of **Appendix 6**) and Leadville (Photomontage 02 - Appendix C of **Appendix 6**). Impacts associated with these locations from the amended project are expected to be similar or very slightly reduced from what was presented in the EIS. An additional photomontage has also been prepared from Tongy Lane (Photomontage 08 - Appendix C of **Appendix 6**).

Summary of matter raised

Impact from obstacle lighting
Submissions highlighted the visual impact associated with night lighting and stated that the project should provide an assessment of impacts from obstacle lighting on dwellings, the night sky and wildlife.

Response
As discussed in **Section 4.15.1**, Obstacle lighting (or night lighting) is not proposed as part of the project however ACEN will continue to consult with Civil Aviation Safety Authority (CASA) during detailed design. To ensure that the potential impacts of night lighting have been considered, a night lighting plan has been developed since the EIS and has been assessed as a worst-case assessment as part of the addendum LVIA presented in the amendment report, to ensure that all potential visual impacts of obstacle lighting have been considered.

With the implementation of mitigation measures such as low-intensity lighting and shielding, the aviation lighting could be constructed with a negligible visual impact on the surrounding landscape.

6.8.2 Impacts on landscape character and public viewpoints

Summary of matter raised

Visual impact from public viewpoints
Submitters raised visual impact on public viewpoints such as public roads (including the Black Stump Way and Tongy Lane) and the Coolah and Turee Creek valleys.

Response
Response is provided in **Section 6.8.1** in relation to the visual impact on views from dwellings to Turee Creek Valley and also from Tongy Lane. The LVIA prepared for the EIS included assessment of the potential impact of the project on public land and landscape character. Viewpoint analyses were prepared across 41 public locations. Additional public viewpoint assessments for public viewpoints have been completed since exhibition of the EIS. Photomontages have been prepared for the townships of Coolah and Leadville as described in **Section 6.8.1**. Impacts associated with these locations from the amended project are expected to be similar or very slightly reduced from what was presented in the EIS. An additional photomontage has also been prepared from Tongy

Lane (Photomontage 08 - Appendix C of **Appendix 6**) and wireframes for Vinegaroy Road, Black Stump Way, Coolah Creek Road and Tongy Lane with consideration to both the amended project and Liverpool Range Wind Farm (Figure 23 to Figure 28 in **Appendix 6**).

Summary of matter raised

Impacts due to scale and type of infrastructure
Submissions received stated that the turbines and transmission infrastructure are too large for the rural context of the projects setting and the scale of the project and nearby projects will change the rural character of the area and dominate the landscape.

Response
As discussed in **Section 6.4.1** the siting of the project has been influenced by the designation of the area as part of the CWO-REZ. The selected location is supported by transmission infrastructure providing a connection to dispatch electricity to the NEM which is coordinated by EnergyCo. ACEN notes that the increase in energy generation projects and infrastructure in the area as a result of the CWO-REZ. A zone of visual influence (ZVI) diagram illustrating the areas of land surrounding the transmission line with potential to view to the infrastructure (Refer to **Appendix 6**).

Five non associated dwellings are located within three kilometres of the proposed transmission lines including Dwelling 86, Dwelling 87, Dwelling 282, Dwelling 277 and Dwelling 278. Views to the proposed transmission lines will be screened by vegetation from Dwelling 282, Dwelling 86 and Dwelling 87. Photomontages have been prepared from Colliers Road northeast of the transmission line and from Black Stump Way to the southwest of the transmission line. These photomontages are presented in Appendix D of **Appendix 6**.

A ZVI diagram has been prepared for each of the substations in the amended project to provide an analysis of the potential visibility of each substation from surrounding public and private viewpoint locations. The ZVI diagrams are presented in Figure 16 to Figure 19 in **Appendix 6**. The Mount Hope substation would not be visible from Black Stump Way or the nearest dwellings. views may be available from Girragulang Road (however, at a distance). Topography and existing roadside vegetation will fragment views to the additional substation at Mount Hope cluster with similar restricted views to the Girragulang Road and Leadville substations from most surrounding land.

Summary of matter raised

Conflict with existing landscape
Submitters commented on the broader visual impacts associated with wind farms on the region as well as on Coolah and its surrounding rural context. One submitter commented on the impact the project would have on Turee Valley Creek and Croppy Creek and the local landscape character. Submitters stated that the area will lose attractiveness for tourists and residents as result of the project and the impact on the scenic quality, amenity and landscape character.

Response
Table 6-8 in Section 6.3.6 of the EIS provides an overview of the assessment of the potential visual impacts on the existing landscape character of the local area. The assessment concluded that due to the undulating topography surrounding the project area, there would be limited opportunities to view the project in its entirety.

Additional photomontages have been prepared to illustrate the potential view of the proposed transmission line from public viewpoints (Collier Road (Photomontage D1) and Black Stump Road (Photomontage D2).

6.8.3 Approach to visual assessment

Summary of matter raised
Submissions received referred to the Visual assessment guidelines being outdated, and that the assessment should be extended greater than the recommended eight kilometres. One submitter suggested that a photomontage should be included for all dwellings within 10 kilometres of the project stating that the recommendation would align with "The Australian Energy Infrastructure Commissioner's Neighbour Matters".

Submitters stated that the LVIA only considers impact on views from dwelling locations such as other important areas of the property (such as Turee Creek Valley) that are more frequented during the day. One submitter commented that the impact from the Girragulang cluster would be greater than "moderate" from various parts of their property. Some submitters suggested that the allocation of "low" and "moderate" visual impact rating for dwellings and scenic quality class was incorrect. A submitter specifically stated that for dwelling 298, the impact should be rated "high" as the topography has not been considered.

A submitter stated that the proposed mitigation strategy of planting is not adequate as it will block the view of the landscape and that the photomontage provided for their property is from behind a deciduous tree which blocks the view of the closest turbines.

A submitter stated that there was a lack of assessment for properties outside 4.95 kilometres of the project and another commented on there not being enough photomontages from the township of Coolah.

Response
The LVIA has been prepared in accordance with the Visual Bulletin (Department of Planning and Environment, 2016c). Refer to **Section 6.1.1**.

Summary of matter raised

<u>Assessment approach for public viewpoints</u>
Submitters comments on the lack of assessment of public viewpoints at Tongy Lane, Turee Valley Creek and Coolah Tops National Park. One suggested that the assessment should include all the transmission lines in the area (including both NSW Government infrastructure and AEMO).

Response
Refer to **Section 6.8.2** which discusses the additional assessment of public viewpoints prepared since public exhibition. Impacts on public view points in accordance with Visual Bulletin (Department of Planning and Environment, 2016c) in **Appendix 6**.

Summary of matter raised

<u>Photomontages</u>
Submissions commented on the weather conditions depicted in the photomontages presented in the LVIA and suggested they should all be on a blue-sky background. One submission noted that there was a lack of photomontages for Turee Creek Valley landholders and Tongy Lane.

Response
It is noted that all photomontages have been prepared to meet the *Scottish Natural Heritage Guidelines*, which is in accordance with the requirements of the NSW Wind Energy Visual Assessment Bulletin. Base photographs for the preparation of photomontages in the EIS were taken over multiple site visits, and great effort was made to capture clear sky conditions for each trip to site.

Additional site visits were undertaken in January 2023 to update the base photographs where possible. Publicly accessible viewpoints have been updated to show clear sky conditions and have been provided in Appendix C of the updated LVIA (**Appendix 6**), as part of the amendment report. However, it is noted that some variations to the sky conditions appear in the viewpoints and photomontages for private dwellings, where blue-sky conditions could not be aligned with landowners' availability for access.

Where it has not been possible to update the photomontages with completely blue-sky conditions, and in lieu of altering the photomontages by superimposing a blue-sky background, a series of contrasting photomontages have been prepared and provided in Appendix F of the **Appendix 6**.

Contrasting photomontages have been prepared for all private dwellings. These present a worst-case view as the turbines have been coloured black for maximum contrast against the sky backdrop. Each turbine has been displayed with the tip at the maximum height and the rotor facing towards the viewer. A wireframe diagram has been aligned below the photomontage to allow the turbine numbers to be referenced.

Five photomontages were included in the EIS relevant to residents at Turee Creek Valley and Tongy Lane included Dwelling 12 (representative of Dwellings 7-11), Dwelling 283, Dwelling 285, Dwelling 286 and Dwelling 288 (representative of Dwellings 287 and 289) (refer to Appendix E of the EIS LVIA). One photomontage was included from a public viewpoint location on Tongy Lane. Since EIS submission, ACEN have undertaken additional dwelling assessments where access has been granted. This includes a detailed assessment for Dwelling 11 where the EIS assessment was undertaken from a representative dwelling location.

Refer to **Section 6.8.2** for additional assessment that has been prepared for public locations (including Turee Creek Valley and Tongy Lane).

Summary of matter raised
One submission received noted that Appendix D (LVIA) Section 5 Visual Baseline Study does not identify BSAL and SSAL in land use designations in the study area.

Response
Appendix D (LVIA) Section 5 visual baseline study intends to briefly describe the sensitive land use designations within the project area, including agricultural lands, nature conservation and minimal use areas, rural towns and villages. The LVIA considers value of the landscape character to and from these land use designations. It is not in the scope of the visual impact assessment to assess BSAL and SSAL as visual impacts do not reduce the productivity of the land. Assessment of potential impacts to agricultural land is provided in Section 17.1 of the EIS, including to areas of BSAL.

6.8.4 Cumulative visual impacts

Summary of matter raised
Submitters commented on the cumulative impacts of the project and Liverpool Range Wind Farm as well as windfarms in general throughout the Central West. Comments related to cumulative visual impacts on the scenic character of the area including Coolah and Coolah Tops National Park. One submitter commented on the impacts for Turee and Croppy Creek Valley and the cumulative impacts of the 500kV transmission lines over Coolah and Leadville. Submitters stated that dwellings would see approximately 100 wind turbines from the project and approximately 140-150 turbines from Liverpool Range Wind Farm and commented on how visually prominent they would be.

Response
A comparison of the results of the multiple wind turbine tool (including assessment of views to both the project and Liverpool Range Wind Farm) for the EIS layout and the amended layout is summarised in **Table 6-2**.

Additional Cumulative Impact Assessment has been undertaken, including additional wire frame diagrams illustrating the potential visibility of the project and Liverpool Range Wind Farm.

Views are available from parts of Tongy Lane but the views to Liverpool Range Wind Farm would be distant for the most part. Views to the amended project are likely to be available in the far distance when travelling on Coolah Creek Road towards Coolah.

Table 6-2: Results of revised application of multiple wind turbine tool

Number of 60 degree Sectors with turbines	EIS project layout	Amended layout	Variation
	Number of non-associated dwellings		
Three 60 degree sectors (the project only)	14	17	Increase of three non-associated dwellings
Three 60 degree sectors (LRWF and the project)	8	5	Reduction of three non-associated dwellings
Four 60 degree sectors	8	3	Reduction of five non-associated dwellings

6.8.5 Visual impacts during construction

Summary of matter raised
Submissions received commented on the visual impacts during construction on nearby dwellings and villages including Uarbry.

Response
The Visual Bulletin (Department of Planning and Environment, 2016c) does not require a visual impact assessment for the construction phase of the project. Refer to **Section 6.1.1**.The impacts associated with the construction phase of the project with consideration to the village of Uarbry are discussed in **Section 6.10.1** and **Section 6.12.1**.

6.8.6 Shadow flicker and blade glint

Summary of matter raised
Submitters commented that shadow flicker on property would be in excess of tolerable limits non-associated land holders and the assessment should consider the moving and handling livestock across Turee Creek Valley. One submitter suggested that the LVIA made and inadequate conclusion that shadow flicker will be 30 hours per year and another mentioned that adequate assessment had not been undertaken for dwellings on Tongy Lane.

Response
As there is no methodology for the assessment of shadow flicker in The Bulletin, the LVIA refers to the Draft National Wind Energy Guidelines (Environment Protection and Heritage Council, 2010) to define the parameters for the assessment. In accordance with the Bulletin, shadow flicker at non-associated dwellings should not exceed 30 hours per year.

Modelling of the shadow flicker was conducted using specialist industry software (Wind Pro), assessing the largest turbine (based on a 250 metre maximum tip height to represent the worst case impact scenario.

A total of five non-associated dwellings were identified with potential shadow flicker hours all of which were calculated to be below 20 hours per year. Of those, one (Dwelling 86) has the potential to experience 20 or more hours per year, however this has not increased as a result of the amended project and remains consistent with the results presented in the EIS (20:36 hrs / year).

6.9 Hazards and risks

6.9.1 Aviation

Summary of matter raised

<u>Impacts on Tongy Airstrip</u>
Submitters commented on the operations (agricultural operations) of Tongy Airstrip (also referred to in submissions as Tongy ALA / Tongy Airfield) and other emergency services (such as the Royal Flying Doctor) being limited by the project, some submitters specifically mentioned the wake turbulence impacts from the Girragulang Road cluster making operations of Tongy Airstrip unsafe.

Response
OZTON is the five letter identifier used by OzRunways to identify Tongy ALA. The aviation impact assessment prepared by Aviation Projects and submitted as part of the EIS provides an analysis of the potential impacts to OZTON (refer to Sections 6.6 to Section 6.8).

Wake turbulence generated by the wind turbines in this cluster may extend into the circuit area on the western side of the ALA during generally westerly and north-westerly wind conditions. When the wind is from all other directions, it is unlikely that downstream wake turbulence will affect the circuit area of OZTON.

Operations on the longer runway oriented north-east/south-west can be conducted on the southern side of the runway without being affected. This would require non-standard right hand circuits when taking off to the north-east. The use of non-standard right-hand circuits is not an uncommon solution to this type of situation.

On the shorter runway oriented roughly east/west, an aircraft landing to the west will be unlikely to be affected by downstream wake turbulence. An aircraft taking off to the west on the shorter runway may be affected by downstream wake turbulence during generally westerly and north-westerly wind conditions. Operations in an easterly wind (i.e taking off and landing to the east) will be unlikely to be affected by downstream wake turbulence.

Summary of matter raised

Omissions of assessment of impact on other ALAs
Submissions were received that suggested the EIS had not assessed the impacts of wake turbulence on an airstrip Turee and another (or the same) ALA that is located 1.2 nautical miles from nearest turbine. One submitter noted that the ALA on Turee has been ignored as a potential critical fire management resource (given its proximity to a large dam (located -31.90660, 149.764545) as well as agricultural activities and pest control.

Response
ACEN and Aviation Projects have carried out further investigation into the presence of airstrips that were possibly not included in the assessment, however have not been able to identify the ALA on Turee or an ALA 1.2 nautical miles from nearest turbine.

Summary of matter raised

Impacts of wake turbulence on aviation activities in the area
Submitters commented on the impacts the project may have on aviation operations in the area such as aerial agricultural practices such as aerial cropping and impacts on Coolah Aerodrome

Response
Section 6.7 of the aviation assessment submitted with the EIS provided a detailed discussion about downstream wake turbulence.

The Bureau of Meteorology defines turbulence intensity as light, moderate, severe or extreme, according to the perceived effect upon aircraft and occupants in terms of airspeed fluctuations, vertical gust velocity, aircraft reaction and reaction inside the aircraft.

There is no data available to enable use of these turbulence intensity terms in respect of the distance from a wind turbine that a certain level of turbulence will be experienced. NASF Guideline D suggests that turbulence may be noticeable up to 16 times rotor diameters from the turbine.

Assuming a 180 metres diameter rotor, that means wake turbulence may be noticeable at a distance of 2880 metres from the wind turbines. There are various studies that suggest 10 times rotor diameter may be a more appropriate determinant of the extent of wake turbulence that may affect aircraft operations (1800 m in this case). There is no basis for correlating the wake turbulence separation requirement for a small aircraft following a large RPT aircraft to the downstream wake turbulence of a wind turbine.

Summary of matter raised

Impacts on Williamtown RAAF Base flight training
Submissions received noted the potential restriction the project will have on Williamtown RAAF Base and low level flight training.

Response
Refer to ACENs response to agency advice received from Airservices in **Section 4.14.1** in relation to Air route W627.

Summary of matter raised

Obstacle lighting
Some submitters commented on the need for the project to include obstacle lighting as a requirement of CASA.

Response
Refer to ACENs response to agency advice received from CASA in **Section 4.15.1** in relation to requirements of obstacle lighting.

Summary of matter raised

Aerial firefighting
Submissions mentioned that the project (and wind farms in general) restrict aerial firefighting. Some submissions made specific refence to nearby local airstrips and access to firefighting resources such as farm dams.

Response
Refer to response above in relation to impacts on aerial activities in proximity to the project. In terms of impacts on aerial fire fighting, NSW RFS was consulted during the preparation of the AIA and advised as follows:

- "We have no comments on the proposed wind farm. Wind farms will be treated like any other potential hazard to aircraft operations."
- Operational guidelines regarding water bombing setbacks from WTGs will be developed and distributed to fire authorities.

Response in **Section 4.1.5** provides further information on the discussions that ACEN has had with Warrumbungle Council at Council's Emergency Response Forum on 21st November. It was noted at the Emergency Response Forum that aerial firefighting can occur amongst an operational wind farm. In response to the AFAC Wind Farms and Bush Fires Operations, version 3.0, ACEN noted an additional bushfire management measure. An emergency response plan will be developed to address aerial firefighting for the project (refer to new management measure ID BF14 in **Appendix 2**).

Summary of matter raised

Blade throw
Two submissions received related to the impacts of potential blade throw. One suggested that the impact of turbine failure seemed to be understated in terms of likely distance of blade throw and the other stating a reason for their objection was because turbines pose a danger to human life in the event of a blade throw incident.

Response
As discussed in Section 10.6 of the EIS, detailed, publicly available information on actual blade throw incidents is limited. There is currently no comprehensive database of blade throw incidents that includes accurate measurements of the throw distance and fragment size, details of the wind turbine model and the environmental and operating conditions involved, or information about the consequence of the incident. In response to this, the risk assessment methodology presented in the Wind turbine risk zoning handbook (Rijksdienst voor Ondernemend Nederland, 2014) (Dutch Handbook) and a review of literature that adopts a conservative interpretation of historical data and supplements it with theoretical modelling where appropriate has been used in the EIS and accompanying blade throw risk assessment.

A number of theoretical studies have been undertaken to assess the likely distribution of turbine blade fragments in the event of a blade throw incident. The predicted throw distances increase slightly as the size of the turbine increases but are not directly proportional to the turbine dimensions. That is, a doubling of the turbine rotor diameter or tip height does not correspond to a doubling of the predicted throw distance for either an entire blade or a blade fragment.

The theoretical maximum blade throw distances for the project could potentially reach approximately 480 metres for an entire blade and approximately 1800 metres for a blade fragment.

6.9.2 Bushfire

Summary of matter raised
Submissions received highlighted concern around potential increase in fire risk related to the wind farm infrastructure and the increase in vehicle and machinery use in the area. One submitter suggested that the and the increased risk of bushfire would increase cost of insurance on land and cattle stock.

Response
Management of bushfire risks is discussed in the response to Fire and Rescue NSW (**Section 4.12**) and NSW Rural Fire Service (**Section 4.13**). ACEN has included an additional commitment (ID BF13) in **Appendix 2** to develop an ERP for the site, in consultation with Fire and Rescue NSW.

In response to the comments related to increased insurance cost, the project does not introduce any unmanaged risk that would directly correlate with increased insurance cost for land or cattle stock.

6.9.3 Human health

Summary of matter raised
One submitter raised concern about electromagnetic fields and the human health risk arising from the infrastructure being too close to villages and towns but suggests that the management measure to monitor the project area would alleviate this issue if it were to arise. Another submission on the same topic was received but specifically related to the general health impact arising from the turbines at northern end of the Girragulang cluster and the potential impacts they may have on the health of non-associated residences.

Response
Management and mitigation measure ID HH1 and HH2 (**Appendix 2**) are included to appropriately address human health risk arising from all electrical equipment including the substation, step-up facility and high voltage transmission lines. As discussed in **Section 3.1** and in further detail in the amendment report, in response to submissions received, the project has been refined and amended since the exhibition period. The amendments to the project layout include the removal of three wind turbines in the northern area of the Girragulang cluster.

6.9.4 Telecommunications

Summary of matter raised
Submissions received related to the potential impacts associated with the project on already reduced mobile service and coverage as well as internet reception, cumulative impacts on DTV signals and UHF radios. One submitter raised that the EIS does not incorporate appropriate mitigation measures and another stating that the presented solutions are inadequate, costly and time consuming.

Response
The EIS assessment found that dwellings in the vicinity of the project may experience interference to digital television broadcast signals from two of the nearby towers, although coverage maps suggest that dwellings within these interference zones may not be receiving signal from these towers in the existing conditions. Existing weak mobile phone services may be susceptible to interference, but the overall likelihood of interference is considered low and there are a range of options available to rectify difficulties.

6.10 Noise and vibration

6.10.1 Construction noise and vibration

Summary of matter raised

Construction traffic noise disturbing residents of Uarbry
Submissions received related to the impacts of the project associated with traffic noise and vibration during construction, particularly on the residents of Uarbry.

Response
Noise modelling for the EIS focused on aggregated noise emissions as a worst-case scenario, with other construction stages expected to generate lower noise levels at the nearest receivers. The extent of public road upgrades was accounted for in the construction activity identified as 'Access road construction' in Section 8.0 of the EIS Noise and Vibration Impact Assessment prepared by Marshall Day. These results are presented again for clarity in **Appendix 7**.

The predicted noise levels indicate levels would be exceeded at some of the nearest non-associated receivers, generally located at the entrance of access roads to each wind farm cluster, during the construction of access roads such as those residents in Uarbry village. This scenario is not unique to this project and is characteristic of most construction noise impact assessments and typical for the construction of a wind farm.

The additional vehicle flows during construction, particularly on roads carrying very little existing traffic as noted in these submissions around Uarbry, would increase noise levels noticeable for some residents. Calculated noise levels indicate that compliance would still be achieved with the

NSW Road Noise Policy (NSW Department of Environment, Climate Change and Water, 2011) during the construction phase at all identified receivers, both for absolute noise levels and the relative increase criteria.

Although proven to be complaint with the relevant guidelines and policies, ACEN understand that there will be an impact on the residents of Uarbry. Since inception of the project, ACEN has been investigating alternative options for access into the Girragulang Road cluster instead of the proposed access through Uarbry. An option that was investigated included constructing a bypass from the Golden Highway to the west of the village and into the Girragulang Road Cluster. **Section 6.12** provides details on other alternative access route that have been considered by ACEN.

Another alternative that is still being explored by ACEN is the co-location of the access road within the CWO-REZ transmission line corridor as it extends north from Golden Highway into the project site. The opportunity to co-locate the access track in this location would see a coordinated approach to reducing impacts and alleviating the impacts on Uarbry Village. This option is continuing to be discussed with Energy Co, however, at the time of submitting this response, no formal agreement has been made. Continued engagement with Energy Co will occur to confirm if this is a viable alternative. The potential impacts associated with the alternative route is presented in the amendment report for the project.

Further, ACEN is continuing to engage with the directly affected residents of Uarbry to ensure that these impacts are mitigated and managed appropriately and response to the communities specific concerns.

Summary of matter raised
Submissions received noted concern around impacts from construction noise on rural setting and environment in general. They also highlighted the cumulative noise impacts that would result from the construction of electrical infrastructure (CWO-REZ transmission infrastructure) together with the Project.

Response
At the time of preparing the EIS for the project, EnergyCo had not released the scoping report for the CWO-REZ transmission line and therefore the location of the study corridor associated with this project was not yet determined. However, as noted in response to the submission above, noise modelling for the EIS focused on aggregated noise emissions as a worst-case scenario, with other construction stages expected to generate lower noise levels at the nearest receivers.

The predicted noise levels indicate levels would be exceeded at some of the nearest non-associated receivers, generally located at the entrance of access roads to each wind farm cluster, during the construction of access roads.

This scenario is not unique to this project and is characteristic of most construction noise impact assessments and typical for the construction of a wind farm. Compliance monitoring will be conducted to satisfy the NSW Noise Assessment Bulletin including evaluation of special noise characteristics for the project as required by management and mitigation measure ID NV6.

Summary of matter raised
A submitter commented on the noise and vibration impacts on biodiversity as a result of blasting required to put the foundations in for the wind turbines and then the construction will greatly affect the animal and human population, causing great disturbances and ruining ecosystems.

Response
Indirect impacts on biodiversity as a result of noise and vibration during construction has been assessed in the BDAR prepared as part of the EIS. The management measures prescribed in relation to biodiversity include commitments for construction management techniques that would reduce the impacts on biodiversity as a result of noise and vibration.

6.10.2 Wind turbine noise emissions

Summary of matter raised

Submitters were concerned that the operational noise of the project would impact residents and outdoor workers, especially in a rural environment where the background noise is generally low. Submissions received stated that the operational noise would interfere on farming practices, would be in excess of tolerable limits and would cause health and wellbeing impacts for landholders and workers. One submission commented on the cumulative impacts of the combined operational noise of the electrical infrastructure and the three nearby wind farm projects.

Response
Considering the rural settings of the project, it is required to adhere to strict noise controls. Wind farm policies in Australia are among the most stringent international standards and set limits using a combination of a base (or fixed value) limit and an allowable margin above the background for both the project alone and when considering the cumulative impacts of nearby projects.

The predicted wind turbine noise levels from the project would be below the NSW Noise Assessment Bulletin derived limits (base (minimum) criterion of 35 dB L_{Aeq}) at all the assessed non associated receivers. This result is applicable for two candidate turbine models outlined in **Section 7.3.1** of the EIS. A third candidate turbine model was also used in the assessment and the predicted turbine noise levels were below the derived limits for all non-associated dwellings at all wind speeds. Noise modelling has been updated to incorporate the revised wind turbine layout and updated category of relevant sensitive receivers and is presented at **Appendix 7**.

6.10.3 Approach to noise assessment

Summary of matter raised
Submitters suggested that the noise impact assessment should consider the impact across the whole property and not just the dwellings and needs to consider all infrastructure including substations. Some commented on the assessment guidelines being outdated and not adequately considering the background noise levels in rural settings. One submission noted that the assessment does not consider the wind speeds and topography in relation to noise impacts on dwellings. One submission was accompanied by a peer-review prepared by L Huson & Associates Pty Ltd of the EIS Noise Assessment.

Response
The Huson peer-review incorrectly states that the EIS Noise Assessment was not undertaken in accordance with NSW Noise Assessment Bulletin, as required by the SEARs. The noise impact assessment has been prepared in accordance with the Noise Bulletin (Department of Planning and Environment, 2016b). Refer to response in **Section 6.1.1**.

The EIS Noise Assessment presents a comprehensive assessment of operational turbine noise levels which accounts for:

- Background noise monitoring at multiple representative locations around the project; and
- Detailed noise modelling accounting for representative noise emissions based on manufacturer data for 3 candidate turbine models and the terrain profile for the area.

All aspects of the assessment were conducted in full accordance with the SEARs, NSW Bulletin, and the South Australia EPA Wind farms environmental noise guidelines (South Australia EPA, 2009). In particular, the background noise monitoring was conducted using the highest class of instrumentation used for environmental surveys applications, and all equipment was calibrated in accordance with the requirements of relevant Australian Standards.

Further, the predictions are based on well-established and fully documented noise modelling procedures (see Appendix F of the EIS Noise Assessment) that have been widely and consistently used for wind farm developments across Australia.

The EIS Noise Assessment therefore fully demonstrated that the wind farm can be successfully developed and operated in accordance with NSW policy requirements.

6.11 Biodiversity

6.11.1 Approach to biodiversity assessment

Summary of matter raised
Submissions suggested that the BDAR has not considered impacts to the Swift Parrot, Wedge Tail Eagle, Red tailed black cockatoo, Black Falcon, Little Lorikeet owls, microbats and the Regent Honeyeater and other wildlife or the impacts on adjacent property and access routes. It was mentioned that the Koala survey and the aerial fauna surveys were insufficient and that the proposed offsetting scheme was not appropriate justification for impact on local fauna. One submission commented that the assessment hasn't considered the impact on bird behaviour from EMF. Some submissions commented on the BDAR having been prepared while the environment was still recovering from the Sir Ivan's fire while others suggested that specific land adjacent to the project had only been subject to desktop assessment.

Response
The BDAR was prepared to meet the requirements of the BAM established under Section 6.7 of the NSW BC Act. The BDAR was referred to BCS during exhibition of the EIS for review and comment. Advice was received from BCS and has been responded to in **Section 4.5**. No assessment has been conducted on non-associated landholders properties. Impacts to threatened bird species have been assessed across the development site. Aerial survey was consistent with industry standard and there are no known impacts to bird behaviour due to EMF.

Koala survey exceeded survey requirements at the time of lodgement. An additional 21 SAT surveys were conducted in 2023. No Koala were identified.

An amended BDAR has been prepared to assess changes to the project since the EIS and aims to satisfy queries raised by both members of the public, as well as the advice received from the DPE's BCS and is included in **Appendix 3**.

6.11.2 Direct impacts

Summary of matter raised
Submissions commented on the direct impacts on native flora and fauna resulting from vegetation clearance and bird strikes associated with the construction and operation of the project and suggested that the project has not avoided biodiversity impacts through its refinement.

Response
ACEN has designed the development site by taking steps to avoid, minimise and mitigate impacts to biodiversity values. An original larger investigation area was surveyed in 2019, and the site selected and refined over several iterations to avoid the areas of highest biodiversity value. Since exhibition of the EIS, ACEN has removed 18 turbines from the EIS wind farm layout to reduce amenity impacts for nearby dwellings and biodiversity impacts. This refinement follows extensive consultation with The Department of Planning and Environment as well as BCS regarding the extent of potential impact on threatened ecological communities and other native vegetation and the project's ability to demonstrate the principles of 'avoid and minimise' regarding impacts to biodiversity. In addition to the removal of turbines, ACEN has refined the internal layout of the wind farm, to propose a narrower construction corridor, which steers around areas of higher biodiversity value (where possible).

The removal of 17 turbines (11% reduction in turbines) and associated infrastructure, including revised access tracks and hardstands, and removal of the electrical connectivity to the CWO REZ transmission line, has resulted in a 51% reduction in the development site from 1,318 to 695 hectares. Impacts to CEEC have been reduced by 38%.

Flora and fauna habitats across the development site have been found to be generally degraded, typical of a highly modified farming landscape. Assessment and survey of potential threatened species habitats recorded sixteen threatened fauna species and one flora species within or adjacent to the development site. Impacts to aerial species known to occur in the project are detailed in the Prescribed Impacts chapter of the amended BDAR (**Appendix 3**). The potential impacts of the amended project are discussed further in the Amended Report submitted under separate cover.

6.11.3 Cumulative biodiversity impacts

Summary of matter raised
Submissions related to the cumulative biodiversity impacts resulting from the project and Liverpool Range Wind Farm. Submitters were concerned about the destruction of habitats and native flora through ongoing clearing to facilitate the projects and noted that the environment was only just recovering from Sir Ivan Fire. Some submitters noted the potential impacts on wildlife that is present in around Turee and Croppy Creek Valley.

Response
The assessment of cumulative impacts impact was prepared to meet the requirements of the BAM established under Section 6.7 of the NSW BC Act. An amended BDAR has been prepared to assess the amended project and aims to satisfy queries raised from BCS and is included in **Appendix 3**.

6.12 Traffic and transport

6.12.1 Traffic generated during construction and access routes

Summary of matter raised
Submissions received commented on the traffic impacts of the project during construction and comparison of existing traffic volumes compared to those anticipated by the project, some with particular concern around the proposed access route through Uarbry. There was suggestion that the traffic volumes noted to be existing were not accurate. Submissions mentioned that ACEN should look at alternative access routes that have less impacts such as through host land holder properties and that the impacts caused by increase in traffic generation is not offset by the economic advantages of the project. One submission stated that the increase in traffic would impact on local farming operations including transporting livestock and freight.

Response
The existing traffic volumes presented in the EIS are based on data gathered through peak-period traffic surveys at key intersections including Golden Highway and Short Street, daily traffic profile counts on the Golden Highway taken from a Transport for NSW permanent traffic counter, and a seven-day count on the Black Stump Way.

As noted in the EIS and outlined in **Appendix 2** measures will be implemented to minimise traffic impacts during construction, operation, and decommissioning and will be included in a construction traffic management plan to be prepared prior to construction. The plan will be prepared in consultation with Warrumbungle Shire Council and Transport for NSW.

Timing of road upgrade works would be confirmed in consultation with Warrumbungle Shire Council to minimise community disruption and avoid cumulative impacts with other planned road maintenance. This is discussed further in **Section 4.1.2**.

In response to issues raised regarding the proposed access to the Girragulang Road cluster during construction and operation, and further consultation undertaken since the EIS, ACEN have re-evaluated a range of previously considered route options, to test if the proposed access via Uarbry is still the most viable option.

Four potential access options were considered prior to the EIS, at an early stage in the project's planning, with two new potential access options being considered in consultation with EnergyCo since the EIS. The options are shown on **Figure 6-5**, and include the following:

- Option A: existing public road along Moorefield Road, from Black Stump Way
- Option B: access from Tongy Lane via private property
- Option C: bypass through private property to the west of Uarbry Village, from Golden Highway
- Option D: existing public road through Uarbry, from Golden Highway (option presented in EIS)
- Option E: new access via private property co-located within EnergyCo transmission easement, from the Golden Highway
- Option F: new access via private property adjacent to the EnergyCo transmission easement, from the Golden Highway.

Evaluation of potential options considered possible biodiversity impacts, heritage constraints, topography, and functional design (particularly grade, or steepness of incline and decline and therefore accessibility for OSOM vehicles, and bends), social impact, and landowner requirements. A summary of findings is presented in **Table 6-3**.

Following consideration of the four previously explored options and the two new potential options, the proposed access via Uarbry as presented in the EIS is still considered viable as the biodiversity impact is minimised where the proposed upgrade affects existing public road. Notwithstanding, in response to concerns raised since the EIS, a new alternate access option has also been included in the amended project (Option F).

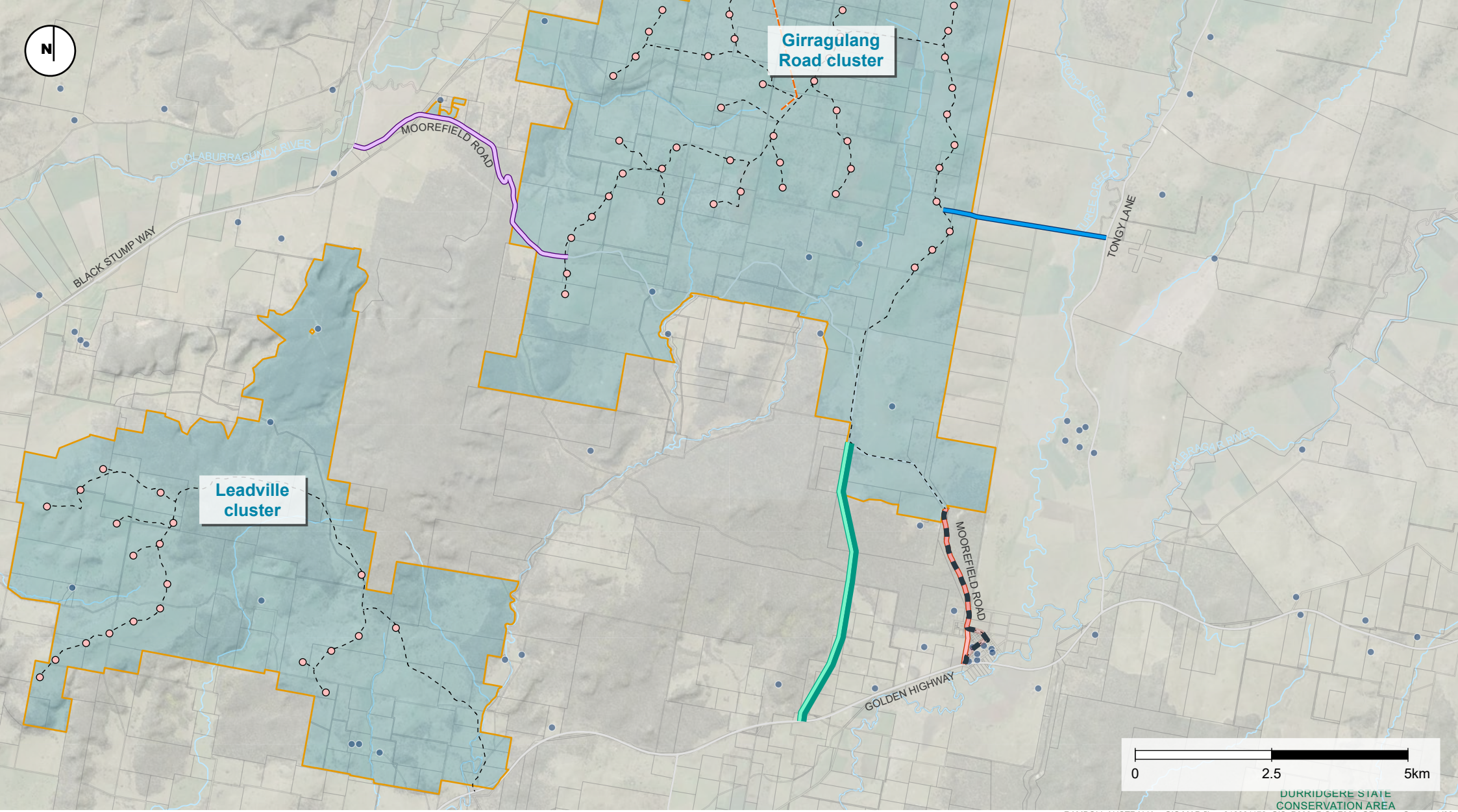
The Option F proposed alternate access would be constructed on private property, running parallel to the alignment of the proposed EnergyCo Transmission Line, from the Golden Highway to the Girragulang Road cluster. The proposed alternate access and additional environmental assessment since the EIS is discussed in more detail the amendment report. It is noted that only one access to the Girragulang Road cluster would be constructed. The additional option is proposed as an alternate access point should the proposed access via Uarbry not proceed. Response to submissions received regarding the potential noise impacts associated with the access though Uarbry is provided in **Section 6.10.1**.

Table 6-3: Girragulang Road cluster access options summary

	Social risk		Biodiversity risk	Heritage constraints	Functional design rating	Suitable (Yes / No)	Comments
	Community/ landholder impacts	Impact rating					
Option A (Via Moorefield Road)	Public road	Low	High	Unknown (unsurveyed for EIS)	High (>10%, plus switchback)	No	Switchback and grade would prevent OSOM accessibility, and require realignment – extensive earthworks and clearing listed vegetation and State Reserve
Option B (Via Tongy Lane – indicative alignment only)	Private landholder	Medium/high	Low	Unknown (unsurveyed for EIS)	High (>15%)	No	Access consent restriction. Floodplain would require extensive structure, elevated in landscape.
Option C (Immediately west of Uarbry)	Community – proximity to Uarbry	Medium/high	Medium/high	Unknown (unsurveyed at EIS, potential unidentified finds close to Uarbry Cemetery	Medium/low (≤5-10%, plus new intersection with Golden Highway too close to Short Street intersection)	No	Restrictions from TNSW – new intersection would be too close to Short Street and require realignment of Short Street. Close to Uarbry cemetery
Option D (Via Uarbry – option presented in EIS)	Community – Uarbry residents	High	Low	Low	Medium/low (≤5-10%)	Yes	Can utilise existing cleared road alignment, minimising biodiversity impacts

Table 6-3: Girragulang Road cluster access options summary

	Social risk		Biodiversity risk	Heritage constraints	Functional design rating	Suitable (Yes / No)	Comments
	Community/ landholder impacts	Impact rating					
Option E (New access co-located with EnergyCo transmission line easement)	Private landholder	Low	Low (within precleared EnergyCo easement)	Low	High (easement restrictions)	No	Transmission line restrictions due to proposed co-location within transmission line easement
Option F (New access adjacent to EnergyCo transmission line easement)	Private landholder	Low	Medium	Low	Medium	Yes	Would avoid impacts to Uarbry residents. Higher biodiversity impacts when compared to Option D



KEY

- Wind farm site
- Turbine location
- Dwelling
- Overhead transmission line

Options considered

- A - existing public road along Moorefield Road from Black Stump Way
- B - access from Tongy Lane – alignment indicative only due to access restrictions
- C - bypass to the west of Uarbry Village from Golden Highway
- D - existing public road access from Golden Highway through Uarbry (option presented in EIS)
- E - access co-located within EnergyCo transmission easement from the Golden Highway
- F - access adjacent to the EnergyCo transmission easement from the Golden Highway

RAMBOLL AUSTRALIA - GIS MAP file : 318001172_GIS_P008_RtS | F002_GRAccessOptions_V03
Aerial photography from NSW Government Spatial Services

Figure 6-5 | Girragulang Road Cluster access route options

6.12.2 Road network condition and road upgrades

Summary of matter raised
Submissions received commented on various aspects of road upgrades proposed as part of the project including the removal of vegetation and potential impacts on private property to facilitate OSOM vehicles and the extent of upgrade works to public roads particularly noting proposed road works within Uarbry. Submitters stated that the local roads are currently in poor condition and will not sustain traffic movements required by the project and the cumulative traffic impacts from the nearby projects. Submissions specifically commented on the existing road condition and traffic movements along the Golden Highway, Blackstump Road and roads through Leadville.

Response
The items raised in these submissions have been the topic of consultation with the relevant local councils and TfNSW. Upgrades to the existing roads that are required to facilitate access to the site are proposed as part of the project. Refer to responses presented in **Section 4.1.2**, **Section 4.3.1**, **Section 4.3.2**, **Section 4.3.4**, **Section 4.10.3** and **Section 4.10.4**. The schedule of proposed road and intersection upgrades that would be required for the project has been revised following consultation with Warrumbungle Shire Council and is summarised in **Table 4-1** in **Section 4.1.2**.

6.13 Economic

6.13.1 Land values

Summary of matter raised
Submitters raised concern that the project would devalue their property by having the development near their home and the change in landscape, loss of scenic views and reduced peacefulness would decrease the appeal of the area (in relation to resale value of property). Submitters also raised concern that there was not enough information available on the potential impacts of renewable energy project to property values. One submitter highlighted that the NSW Valuer General the assessment of windfarms on surrounding land values in Australia is outdated.

Response
ACEN recognizes that lack available studies on the impacts of windfarm developments on land and property values. However, as discussed in Section 16.3.4 of the EIS, Urbis (2016) found that the majority of published reports (Australian and international) which identified a negative impact on land values because of wind farm developments were based in the northern hemisphere and are associated with countries with higher population densities, closer to windfarm developments. This is generally contrary to the Australian experience, with most wind farms such as the project being located in low population density environments that derive the majority of their value from productive farming purposes. The agricultural impacts of the project are less than 0.26% of agricultural activity in the region and hence are insignificant.

6.13.2 Economic impact on local industries

Summary of matter raised
Submissions received related to the potential impacts the project would have on local industry and business. One submission stated that the noise impacts from Girragulang Road Cluster would impact the ability to recruit workers to work on their property whilst other submissions suggested the project would cause local labour shortages for existing local business as they cannot compete

with the employment opportunities that the project would offer. Some submitters commented on the pressure the additional construction worker population would put on local services and businesses.

Response
The noise impacts associated with the project have been assessed in accordance with the Noise Bulletin (Department of Planning and Environment, 2016b) with the results of the amended layout provided at **Appendix 7**. The requirement for assessment in accordance with the Noise Bulletin is to demonstrate compliance of the acceptable noise limits at all associated and non-associated receivers (dwelling locations) not across the property. Wind farm policies in Australia are among the most stringent international standards and set limits and an allowable margin above the background noise. These limits will form part of the noise management plan for the project (refer to **Appendix 2**).

The economic impacts for the region are described in Chapter 16 of the EIS and relevant local economic benefits of the project presented as part of the response in **Section 6.13.3** below together with **Section 6.13.4** below which provides a response in relation to the NPBS for the project.

As discussed in **Section 4.1.9**, a VPA will be entered into with Warrumbungle Shire Council generally in accordance with Division 7.1(a) of Part 7 of the EP&A Act. Payments to council can then be directed to a range of community infrastructure needs and programs that will be required as a result of the project.

6.13.3 Local economic benefits of the project

Summary of matter raised

Support
Submissions commented on the local economic benefits of the project and support the project. The submissions make note of improvements to sustainability and resilience for the local agriculture industry with regard to droughts and market variability as the project will provide various income streams for host land holders and local businesses. They support the local injection of money into the economy and the job creation that the project realises.

Local businesses will benefit from this injection of additional capital into the local economy directly from host land holder benefits. They also recognised that the project encourages local apprenticeships and educational opportunities which support the growth of the local economy.

Object:
Submissions commented on the lack of employment opportunities and benefits for local businesses and towns more broadly. One submission specifically mentioned the lack of local compensation for the township of Coolah while others suggested that the project would only benefit host land holders and other impacted residents would not receive any benefits. The introduction of skilled labour from other areas was noted to have negative economic impacts on rental prices. One submission stated that there was not enough detail on the potential impacts of the alternative solution being a construction workforce accommodation camp. One submission stated that the project should be 100% subsidy free from all government or private subsidies and a personal bank guarantee bond provided by proponent for the decommissioning of the project and rehabilitation of land as well as all benefits being shared by the public.

Response
ACEN aims to target up to 70% local hires for the construction phase of the project, with the remaining 30% expected to be sourced from outside the region.

In estimating the total regional impacts, it is important to separate the flow-on effects that are associated with firms buying goods and services from each other (production-induced effects) and the flow-on effects that are associated with employing people who subsequently buy goods and services as households (consumption-induced effects). This is because these two effects operate in different ways and have different spatial impacts. Both production-induced effects and consumption-induced effects were considered in the estimated economic impacts of the project presented in Section 16.3 the EIS.

The average annual construction impacts of the project on the regional economy are estimated at between:
- $274M and $284M in annual direct and indirect output.
- $109M and $115M in annual direct and indirect value-added.
- $41M and $43M in annual direct and indirect household income.
- 518 and 569 direct and indirect jobs.

Section 4.1.9 provides a discussion on ACENs Planning Agreement with Warrumbungle Shire Council that will provide investment on local infrastructure and **Section 6.13.4** below provides a response in relation to the NPBS for the project. The intent of the NPBS is to allow the wider community to see a benefit from the project. This is a tried and tested approach, however if there is a better way of doing things then ACEN would offer to sit down with the relevant submitter to talk through the options.

The construction workforce accommodation camp was presented in the EIS as a possible option for the project that would alleviate concerns regarding rental prices. This is discussed in more detail in response to Warrumbungle Shire and Mid-Western Council submissions in **Section 0** and **Section 4.2.1**. In response to the suggestion that the project should be subsidy free, ACEN is a private developer and does not rely on government subsidies. ACEN will construct, operate and decommission the project in accordance with the statutory and strategic framework within which the project is seeking approval.

6.13.4 Social impact of financial compensation

Summary of matter raised
One submission received referred to the following report: "Renewables & rural Australia - A study of community experiences in Renewable Energy Zones in NSW and the case for more equity and coordination of the clean energy transformation - Research report".

The report speaks generally to renewable energy in the REZ's and the submission notes: "Page 59 *Neighbours may only learn of these visits by word of mouth or chance observation. They are the second order of 'non-involved' or 'associated' landholders, in developer parlance, destined to receive lesser amounts or possibly no direct benefit from projects."*

Response
As discussed in **Section 6.7**, since July 2018, ACEN has been building a local presence in the region through both one-on-one and group meetings with local landholders, neighbouring property owners, community groups and local service providers.

ACEN used a variety of consultation methods and tools to communicate with the local community and to provide various avenues for individuals to comment on the project throughout the assessment process.

Non-host land holders, (neighbours) directly impacted by the project are directly compensated by ACEN through the NPBS and have been consulted with specifically in relation to potential impacts. A number of agreements are in place which establish compensation commensurate to the potential impacts in accordance with the publicised NPBS financial benefit mechanism.

Those who are not associated with the project still have opportunity to benefit from it. ACEN will develop a Community Benefit Scheme Framework consolidating the various community benefit initiatives, including the VPA (with Warrumbungle Shire Council and Mid-Western Regional Council), Neighbouring property benefits scheme and community grants.

This framework will provide a framework for distribution of benefit and mechanisms to track and monitor the effectiveness of community benefits. The framework will invest in education and training outcomes for youth, community transport and connectivity, small business and enterprise capacity building, various community grants and scholarships in arts, sporting and culture.

6.14 Waste and resources

6.14.1 Disposal of turbines and electrical infrastructure following decommissioning

Summary of matter raised
Submitters raised concern around the disposal the wind turbines following decommissioning of the project along with the transmission line infrastructure. There is concern that the material used in the turbines would not be recyclable and would generate waste concerns. Submitters were concerned that waste management at the end of operational life of the project is limited and the options that may be available are not beneficial for the environment.

Response
At the end of the projects operational life, ACEN will have the opportunity to re-power the wind farm or decommission and dispose of the turbines.

The waste disposal strategy for all stages of the project will be developed in consultation with Warrumbungle Shire Council and the Mid-Western Regional Council (refer to **Section 4.1.3** and **Section 4.2.2** for further discussion). This will include options for the disposal or recycling of turbine components following decommissioning of the project.

ACEN acknowledges that wind turbine blades are challenging to recycle due to the composite materials they are made from, however, approximately 85–94 per cent of a wind turbine (by mass) is recyclable This recovery rate is well above the national average for commercial and industrial streams in 2018–2019 (Clean Energy Council, 2023). These composites are not only used in wind turbine blades however are important materials used in other sectors such as aviation, automotives, marine transport, aeronautics, leisure and sports equipment, construction and building. In Europe there are some technologies available to recycle the composite materials in blades, and an increasing number of companies offer composite recycling services. As the wind industry in Australia is significantly younger than that in Europe, there is no market for recycling plants. However, as the industry grows, it is likely the availability of recycling technologies will expand and ACEN will consider reasonable and feasible alternative disposal methods based on the industry standards at the time of decommissioning.

6.14.2 Embodied energy and resources

Summary of matter raised
Submitters commented on the mineral resources needed for the project and the embodied energy of the materials required to manufacture, construct and operate the project. One submitter questioned the time that was needed for the project to operate before it was considered carbon neutral.

Response
A response to the items raised in these submissions has been provided in the context of climate change and greenhouse gas in **Section 6.17.1** below.

6.14.3 Waste generated during construction and waste management

Summary of matter raised
Submitters were concerned that the EIS has not identified a waste disposal strategy for the project. One submission noted that the Gulgong Waste Transfer Station is already under pressure from existing residential wastes alone. One submitter raised concerns around the waste generated by the construction workforce during construction of the project

Response
Noted. ACEN has been in ongoing discussion with both Warrumbungle Council and Mid-Western Council since exhibition of the project. Refer to responses provided to both the Councils submissions in **Section 4.1.3** and **Section 4.2.2**).

6.15 Land use

6.15.1 Land use conflict and biosecurity

Summary of matter raised

Biosecurity
Submissions received relating to biosecurity questioned the management and mitigation measures that would be implemented by ACEN to protect biosecurity both during construction and the ongoing operation of the project (commenting on the movement of vehicles, machinery and personnel) and one suggested that the implementation and cost of biosecurity management should be in partnership with landowners. Some submissions mentioned that the project would impede on the ability to control weeds through aerial spraying.

Response
ACEN will coordinate all access rights and agreements with all landholders whereby, construction machinery and / or vehicles are required to access private property. These agreements will ensure unique biosecurity measures and other potential impact on farming operations are addressed and adhered to for each property. Biosecurity management measures will also be included in the biodiversity management plan that will be implemented during construction and operation of the project. The measure consider impacts of vehicular movements outside the project boundary and include vehicular washdown requirements). Further, management measures ID B11, LU3 and LU5 in **Appendix 2** address biosecurity related commitments. Response to submissions that relate to impacts on agricultural aerial spraying is provided in **Section 6.9.1**.

Summary of matter raised

Land use
One submitter suggested that alternative land uses are more highly valued than electricity generation.

Response
Refer to response presented in **Section 6.4.1** in relation to site selection and justification.

6.15.2 Impacts on agricultural land and operations

Summary of matter raised
Submissions commented on the impacts of the project on prime and / or strategic agricultural land in relation to disturbance of soils, loss of land and the long term effects on the land value and the use of the land for agricultural purposes. Submissions commented that there would be impacts on the community due to a loss of agricultural produce and noted the interference the project would have on agricultural operations and practices resulting from noise and traffic, aerial restrictions, and biosecurity issues.

Response
In response to matters relating to loss of agricultural land, similar matters were raised by The Coolah District Development Group. A response to this submission is provided in **Section 5.1.2**. **Sections 6.9.1**, **Section 6.10**, **Section 6.10.2**, **Section 6.12**, **Section 6.13** and **Section 6.15.1** provide further responses in relation to aviation, noise, traffic, economic, and biosecurity impacts.

6.16 Air quality

6.16.1 Dust control

Summary of matter raised
Submitters were concerned about the dust impacts from the project, generally associated with upgrades to public roads and from the increased traffic on unsealed roads.

Response
Dust impacts have been considered in **Section 17.2.4** of the EIS. It is noted that construction and decommissioning activities associated with the project have the potential to result in nuisance impacts (e.g. dust soiling) and impacts to human health, however this is usually manageable through standard management methodologies such as application of water and minimising the carrying out of dust generating work during adverse weather conditions. Protocols to minimise air quality impacts will be included in the Construction Environmental Management Plan (refer **Appendix 2** ID AQ1- AQ6).

6.17 Climate change and greenhouse gas

6.17.1 Emissions involved in the production of project materials

Summary of matter raised
Submitters raised concern around the resources required to produce materials for the project and the indirect impacts that would result from the project. This included comments on the carbon footprint of wind farms (including components and construction impacts, including transport).

Response
The SEARs did not require an assessment of the project's potential climate change and greenhouse gas impacts, however, to address concerns raised by the neighbouring landholders, a qualitative assessment of the project's potential climate change and greenhouse gas impacts was undertaken as part of the EIS (refer to Section 17.3 of the EIS).

As stated in the EIS, the estimated amount of CO_2 emissions the project would generate over its lifecycle is approximately 2,262 kilotonnes (based on the average lifecycle emissions for wind projects (26 tCO2e/GWh) according to the World Nuclear Association (World Nuclear Association, 2011). Lifecycle emissions include:

- upstream processes – raw material extraction, material production, material transportation to site, and installation and construction
- operational processes – power generation and operational maintenance
- downstream processes – decommissioning and disposal.

Further, it is noted that all power generation technologies, regardless of whether they are renewables such as wind and solar, or fossil fuel based technologies such as coal plants and gas plants, require resources to be mined and extracted for the manufacture of the required equipment (e.g. steel for the boilers and concrete for the cooling towers in a coal plant). A full comparison of the lifecycle resource requirements of these different technologies is considered outside of the scope of the EIS and is not a planning consideration for the project under the NSW planning framework.

6.18 Water and soils

6.18.1 Water supply and quantity

Summary of matter raised
Submission/s raised questioned the water requirements for batching plants and the project generally, including whether extraction of groundwater would be required.

Response
A response to the matter raised in these submissions has been provided in response to the submission received from Warrumbungle Shire Council (refer to matters raised and associated response in **Section 4.1.4**).

6.18.2 Flooding

Summary of matter raised
Submission/s suggest that there will be erosion and increased run off in heavy rainfall events due to vegetation clearance.

Response
Controls to mitigate potential sediment runoff and erosion during earthworks and construction activities will be documented in an Erosion and Sediment Control Plan (ESCP) in accordance with Managing Urban Stormwater: Soils and Construction (Landcom 2004) and will be implemented as part of the construction soil and water management plan (CSWMP). This requirement is committed to in management and mitigation measure ID SW5 in **Appendix 2.**

6.18.3 Contamination

Summary of matter raised
A submission suggested there is a need for constant monitoring to prevent contamination from hazardous materials.

Response
Noted. Management and mitigation measure ID SW5 (refer **Appendix 2**) outlines the requirements of the (CSWMP) that will be prepared to outline measures to manage soil and water impacts associated with the construction works, including contaminated land. Ongoing monitoring for contamination is not considered necessary as contamination is not expected as a result of the project.

6.18.4 Erosion and sediment control

Summary of matter raised
One submitter highlighted that the location of workers camp is not appropriate to for the construction workers accommodation as the soil is sandy loam that erodes during rain events.

Response
This comment is noted and has been considered by the project. The construction workers accommodation will not accommodate the whole of the area / site nominated in the EIS. This is an indicative location only and is subject to further investigations that will be carried out as part of the detailed design and has been committed to as part of management and mitigation measure ID SW3 (**Appendix 2**). This investigation and planning will be undertaken during the detailed design to manage erosion risk associated with stormwater. Measures such as inclusion of culverts and rock armouring would be included to address the potential for erosion impact specifically during flood events.

6.19 Aboriginal heritage

6.19.1 ACHAR

Summary of matter raised
Areas unsurveyed need to be surveyed - Recent conversations with residents in the Uarbry area have included mention of numerous hides and rock art, seen in the 1990s to the N-NW of Uarbry Village, that have not yet been identified by the ACHAR.

Response
Noted. A revised ACHAR has been prepared since the exhibition of the project and has been submitted with this response. The revised ACAHR incorporates additional survey effort undertaken to date with site officers from Gilgandra LALC in response to the submission received from Heritage NSW (refer to **Section 4.6**). No sites were recorded as part of this additional survey. Details of the additional surveyed areas can be found in **Appendix 4.**

In relation to potential Aboriginal sites in the Uarbry area, there are no previously recorded rock shelters / hides / rock art within the survey boundary. Within the survey boundary, there is no known sandstone escarpment or outcropping land forms which are needed for these site types to be present.

There are a number of rock shelters / hides / rock art sites recorded to the northwest of Uarbry. These known sites are shown in the AHIMS figure in **Appendix 4.** These sites are not within the survey boundary for the project and will not be impacted by construction, operation or decommissioning of the project.

6.20 Social

6.20.1 Impacts on community cohesion as result of financial compensation to host landholders

Summary of matter raised
Submissions suggest that the project and other large scale developments in the area are causing divide in the community between those who will benefit from the project and those that will be subject to impacts without compensation.

Response
ACEN has sought to maintain transparency during all phases of the project development and through this consultation and development of the social impact assessment for the EIS, has committed to developing a Community Benefit Scheme Framework to consolidate the various community benefit initiatives to ensure the benefits of the project are felt more widely across the local region, including:

- VPA
- Neighbouring property benefits scheme
- Community grants

This scheme will provide a framework for distribution of benefit and mechanisms to track and monitor the effectiveness of community benefits.

The framework will include targets to enhance the community benefit sharing scheme by linking to outcomes that meet community priorities identified in the social impact assessment. For example, education and training outcomes for youth, community transport and connectivity, small business and enterprise capacity building, various community grants and scholarships in arts, sporting and culture.

The neighbouring property benefit scheme provides all primary dwellings, outside of the designated township zones, within five kilometres of a wind turbine being eligible for ongoing involvement opportunities throughout the project's operational life. The Neighbouring Property Benefit Scheme framework was setup as a direct response to the issues raised regarding equality and fair distribution of benefits.

ACEN is committed to working with the community to facilitate the best possible community outcomes as a result of the project.

6.20.2 Broader impacts on community and residents

Summary of matter raised
Submissions noted the broader impacts to general amenity of the area and the peaceful way of life of the existing community, including Uarbry, Leadville, Coolah Valley and Turee Creek Valley. One submission also indicates that the EIS has not considered impacts to landholders in Turee Creek valley landholders between Vinegaroy Road and the Golden Highway who will be adversely affected and all oppose the project. Further, it is suggested that a workers accommodation facility would have negative impacts to crime rates in the area.

Response
ACEN acknowledges that the development of the project will generate a change in the amenity of the area. Significant effort has been undertaken to identify and minimise negative impacts to the community, through project refinement and management measures. Updates to and inclusion of additional management measures (ID S12, ID S14, ID S15 and ID S16 in **Appendix 2**) have been included to address these concerns.

6.20.3 Perceived impacts leading to impacts on wellbeing

Summary of matter raised
Submissions raised concerns around the stress and anxiety caused to the community as a result of the project and other developments and the impacts of all stages of the development to the wellbeing of the community.

Response
As assessed in sections 7.1.8 and 8.2.8 of the SIA submitted with the EIS, the SIA acknowledges the interrelationship between mental health and multiple socioeconomic factors, including a person's access to services, living conditions, and employment status. During specific engagement to inform the SIA and EIS, increased levels of stress and anxiety as a result of the was raised by one respondent. Notwithstanding, an extensive range of both proactive and reactive / adaptive management measures are proposed for the Project to minimise the potential for unexpected impacts to both physical and mental health. Management measures are proposed to ensure that the community is accurately informed of Project progress including maintaining transparent, open and timely communications with the community. The monitoring of social performance, including how people respond to the change will also be crucial to ensure adaptive management and mitigation measures are implement where required. The community benefits framework will also identify opportunities to create environmental and community benefits and provide positive social outcomes respond to community priorities and needs of the surrounding community.

Further, ACEN acknowledges the potential stress and pressure some community members may be experiencing a result of the project and the other large-scale projects occurring simultaneously in the area. ACEN commits to maintaining transparent, open and timely communications with the community to ensure they are well informed and have access to readily available information on the project as things change and progress. ACEN also commits to the preparation of a Social Performance and Communications Plan to ensure that their engagement is open and inclusive, easy to access, relevant, timely and meaningful.

6.20.4 Approach to social assessment

Summary of matter raised
One submitter suggested that the SIA needs to consider impacts on Gulgong, Cassilis and Mudgee.

Response
A key component of the social baseline was the collation and interpretation of relevant demographic data to provide statistical analysis of the primary areas of interest. The social impact assessment identified those primary areas of influence as though people living closest to the project and most likely to experience direct impacts including:

- The Warrumbungle Shire
- The rural township of Coolah (the closest to the project site)
- Leadville (of which the Leadville cluster of the project is named after)
- Uarbry (small village that providing an access to the Girragulang Road cluster)
- The rural township of Dunedoo (closest to the Leadville cluster of the project).

The SIA both acknowledges, discusses and assesses the cumulative impacts that Project may contribute to both in the direct primary area of influence, as well as at a wider regional level and the state – inclusive of surrounding regional centres such as Mudgee and smaller towns of Gulgong and Cassilis (refer to Chapter 7 and 8). During engagement, a number of cumulative impacts were raised relating to the project in combination with other relevant planned future projects. Primarily these related to the rate of change across the Central West and Orana region, due to the growing number of proposed and active development projects combined with the REZ and the associated cumulative changes caused by these activities. These impacts including increased pressure on community services, increase in workers and pressure on accommodation providers, the impact on the road network along with the potential of multiple projects leading to reduced levels of social cohesion, creation of skills shortages or a shortfall in supplies social risk.

In direct response to these issues, ACEN has proposed a number of mitigation and management measures, including, as suggested during community consultation, a workers accommodation facility as part of the project. This will assist to reduce the pressure of incoming workforce on the local housing and accommodation market. Other mitigation and management measures directly linked to cumulative impacts include community benefit sharing or investment, workplace strategies that encourage the integration of incoming populations with local communities and promote positive workforce behaviours, early investment in partnerships that build local business development and capacity and advocating with industry bodies such as EnergyCo. for a strategic approach to understanding and managing the cumulative impacts on the REZ on regional communities in regard to access to and use of infrastructure and service.

6.20.5 Cumulative social impacts

Summary of matter raised
One submitter commented on positive impacts including impacts on housing and medical services due to the influx of people to the area.

Response
Noted.

6.21 Historic heritage

6.21.1 Construction impacts on heritage items

Summary of matter raised
A submission states that while the project (haulage route) does not go directly past the Uarbry Cemetery, it is very close, at approximately 100 metres from the road. The vibration from heavy vehicles and high traffic flow may impact some already delicate monuments in the historic cemetery, with burials going back to the earliest days of Uarbry (earliest monument 1863xliii).

Response
To avoid the potential for harm to historic objects on unassessed adjacent landforms, all ground surface disturbing activities will be confined to the impact footprint outlined in this EIS. The survey area that was used in the heritage impact statement (HIS) for the project and submitted with the EIS, was determined by the suitably qualified archaeologists (Ozark) to assess potential impact to heritage items during all stages of the project including construction and associated traffic and transport impacts.

Summary of matter raised
Submissions related to the lack of survey outside of the project site and development footprint and suggested that there were items of heritage significance that have not been considered by the EIS and HIS. One submission suggested that the mitigation measures proposed to protect the heritage items within proximity to the project were not adequate. Once submission was accompanied by an attachment from the Coolah & District Historical Society which nominated heritage items that are suggested to have not been considered by the project.

Response
The HIS was completed in accordance with the SEARs issued by the NSW Department of Planning and Environment. The desktop component of the HIS included research into the history of Coolah and surrounds and searches of the local, state, Commonwealth and national statutory heritage registers. These searches found there are no statutory listed items within the survey boundary or the wind farm site.

A subsequent field assessment was completed over ten days from 17–21 May and 24–28 May 2021. An additional day of survey was completed on 19 April 2022. The field assessment involved both pedestrian survey and vehicle reconnaissance and focussed on the survey boundary which includes an appropriate buffer on the construction impact footprint for the project.

Four potential historic heritage items were identified during the field assessment. While these items were assessed as having no heritage significance and therefore no protection under the *Heritage Act 1977*, they will be avoided by the project. An exclusion zone will be erected around the extent of each item prior to works commencing in the vicinity of each item (refer to **Appendix 2**).

Following approval of the project, ACEN has committed to preparing a Historic Heritage Management Plan (HHMP) prior construction of the project commencing. The HHMP will include an Unanticipated Finds Protocol for historic items and/or human skeletal materials.

The advice received from Heritage NSW during exhibition of the Environmental Impact Statement, including the HIS, made no comment on the recommendations of the HIS. It is also noted that the historic heritage items identified in the response from the Coolah & District Historical Society

are located outside the construction impact footprint and the survey boundary for the project. As such, they will not be impacted by the project.

6.22 Cumulative impacts

6.22.1 Developments in the Central-West Orana Renewable Energy Zone

Summary of matter raised
Submitters were concerned about the number of developments in the CWO-REZ including the EnergyCo Transmission Project, both current and future, and their cumulative impacts on the region. Of particular concern was the negative influence the heavy concentration of turbines could have on the town of Coolah and surrounding community and the impacts of the additional transmission infrastructure required to facilitate the REZ.

Response
The Central-West Orana Renewable Energy Zone has been legislated by the NSW Government to help meet its objective to achieve net zero emissions by 2050. ACEN notes that the question of whether this is an appropriate choice by the NSW Government is not within the control of an individual project developer.

6.23 General comments

6.23.1 Objections

Summary of matter raised
Submissions received included general objections to the project and request DPE refuse the application.

Response
Noted.

6.23.2 Support

Summary of matter raised
Submissions received included general comments of support for the project highlighting the need for the project and contribution of the project to meet clean energy targets. Comments were made on the potential positive impact to the nearby towns such as Coolah with increased influx of people including tourists and the local economic impacts and job creation. One submitter commented on the transparency of ACENs communication and positive dealings with them as developers.

Response
Noted.

7. PROJECT EVALUATION AND CONCLUSION

7.1 Overview

This response to submissions report has been prepared in accordance with the requirements of the *NSW State Significant Development Guidelines – preparing a submissions report, October 2022*, to summarise issues raised in community and stakeholder submissions and provide ACEN's response to those issues. It also provides clarification where required, and summarises actions undertaken by ACEN, including additional consultation and further impact assessment since the EIS.

A separate amendment report has been prepared and submitted to Department of Planning and Environment, that outlines the proposed amendments to the project that was included in the original development application and assesses the potential environmental, economic, and social impacts of the amended project. This report should be read in conjunction with the amendment report and all documentation that forms the environmental impact statement package.

At the conclusion of the exhibition period, Department of Planning and Environment received 110 submissions from the public, two submissions from interest groups, and advice from 17 government agencies and public authorities on the EIS. The submissions received have been categorised, grouped and addressed by issue, rather than on an individual or stakeholder basis, consistent with the guidelines.

Most of the community submissions were received from localities within NSW with 96 originating from NSW and 11 from other states or territories (including Australian Capital Territory (ACT), Victoria (VIC), Queensland (QLD) and the Northern Territory (NT)). One submission was received where a location was not provided. Submissions were received from locations across 24 Australian LGA's with the furthest from the project originating from Litchfield LGA in the Northern Territory.

Of the 107 public submissions received from the community, the majority (59%) were from within the Warrumbungle Shire Council LGA. The most common matters raised in the submissions included concerns around landscape character and visual amenity, hazards and risks (aviation), economic, biodiversity and noise and vibration. One objection was for another project and one submission contained only "test". These submissions have been excluded from this response to submissions assessment. Further, one submission was a duplicate of a submission already received from the same submitter. An overview of submissions received is provided in **Table 7-1**.

Table 7-1: Overview of submissions received

Type	Objects	Supports	Comments	Total
Public Authority	2	NIL	1	**3**
Agency	NIL	1	13	**14**
Organisation	1	NIL	1	**2**
Community	97	6	4	**107**
Total	**100**	**7**	**19**	**126**

7.2 Project refinements

In response to matters raised in the submissions and further agency, community and stakeholder consultation, ACEN has amended the project design to further mitigate environmental and social impacts associated with the proposed wind farm. Proposed project amendments include the following:

- refinements to the wind farm layout to reduce environmental and social impacts, and improving the functional performance of the project:
  - removal of 18 wind turbines and associated access tracks to reduce amenity impacts for nearby dwellings and biodiversity impacts
  - further refinement of the layout and construction footprint to further avoid and minimise impacts to Box Gum Woodland and other native vegetation
  - removal of three met masts and relocation of seven others to reduce biodiversity impacts
  - an additional substation included in the Mount Hope cluster to improve the electrical connectivity.
- removal of the overhead transmission line running south from the Girragulang Road and Leadville clusters. This infrastructure will now be delivered by EnergyCo as part of the EnergyCo CWO-REZ Transmission Line project and will be assessed as part of that project by EnergyCo.
- updated project boundary to remove a property from the Mount Hope cluster.
- access routes:
  - light vehicle access to the Mount Hope cluster via Neilrex Road removed – a single point of access from Black Stump Way is now proposed
  - light vehicle access to the Leadville cluster via the Leadville Stock Route and Wardens Road removed – a single point of access from the Golden Highway is now proposed
  - provision of an alternate access route option to the Girragulang Road cluster via the Golden Highway.

Four clarifications to the information presented in the EIS are provided in the amendment report as follows:

- Dwelling 284 was mistakenly identified as an 'associated' property in the EIS, and clarification is provided noting this property correctly as 'non-associated'. It is noted however, that the assessment of potential impacts for the EIS was correctly applicable to a non-associated dwelling and the outcomes of the assessment undertaken and associated management measures remain consistent with the EIS for this property.
- since exhibition of the original DA, ACEN has progressed agreements with five nearby neighbours who are now associated with the project. An additional dwelling has also been added to the assessment of the amended project that was previously burnt down.
- the methodology for mapping the extent of Plant Community Types (PCT) for Box Gum Woodland and associated Derived Native Grasslands has been updated following feedback from DPE's Biodiversity, Conservation and Science Directorate (BCS). Additional survey for Koalas has also been undertaken following release of new Koala Guidelines by BCS since the EIS. Further assessment and update to the biodiversity development assessment report (BDAR) has been undertaken, and findings presented in Chapter 6 of the amendment report.
- further detailed survey has been undertaken to assess previously unsurveyed areas of the project and update the Aboriginal cultural heritage assessment report (ACHAR) following feedback from Heritage NSW. No new items of heritage significance were found, and the updated ACHAR is provided as part of the amendment report.
- further information regarding the location and configuration of the potential battery energy storage system (BESS) is provided in response to feedback from DPE's Hazards Assessment Team. Further assessment has been undertaken and the findings are presented in Chapter 6 of the amendment report.

The amended project layout is shown in **Figure 1-1** of this report and discussed in detail in **Chapter 3** of the amendment report, and an updated project description for the amended project is provided in Appendix 1 of the amendment report.

A revised summary of management and mitigation measures has been provided to address the proposed amendments to the project and to address matters raised in the submissions.

7.3 ACEN project commitments

As a signatory to the Clean Energy Council's *Best Practice Charter for Renewable Energy Developments*, ACEN has demonstrated their intention to:

- engage respectfully with the communities in which they plan and operate projects
- be sensitive to environmental and cultural values
- make a positive contribution to the regions in which they operate.

Stakeholder engagement on the Valley of the Winds Wind Farm has been comprehensive to date and reflects the importance ACEN places on this aspect of its business. ACEN will continue to work with all stakeholders as the approval process for the project progresses and detailed design and approval schedule for the project is better defined.

The environmental management strategy will govern the avoidance, minimisation, and management of impacts during the construction and ongoing operation of the project and will be set out to ensure the responsibilities and accountabilities for environmental performance are clear.

Throughout the community engagement to date, ACEN has also demonstrated their intention to establish a positive, long-term connection with the local community. As part of this, ACEN has already committed to develop a community benefit sharing model with the local community, stakeholders, and local business groups.

ACEN also agrees to enter into a voluntary planning agreement with Warrumbungle Shire Council and commits to a total financial contribution of $25,500,000 to be spent within the local community. This is equivalent to 1.5% of the project's capital investment value, in line with Council position.

7.4 Conclusion

The environmental assessment undertaken for the project as part of the EIS and the additional assessment undertaken for the subsequent amendments to the project as part of the amendment report, has determined that the project would not result in significant adverse impacts to the environmental, cultural, social and economic values. Any residual impacts can be appropriately controlled with the recommended management and mitigation measures. Furthermore, the project is consistent with the principles of ESD, and the objectives of the EP&A Act.

Throughout the project refinement process, ACEN has made considerable effort to avoid potential environmental impacts, where possible. In those instances where potential impacts cannot be avoided, ACEN's design principles have sought to avoid and minimise environmental impacts and/or implement mitigation measures to manage any residual environmental impacts. During detailed design and prior to the commencement of construction, the placement of infrastructure and extent of construction activities would be further refined to ensure avoidance and minimisation objectives are met.

The project forms an important part of Australia's transition to renewable energy generation and would positively contribute to the achievement of Commonwealth and State targets. The project would enhance the reliability and security of electricity supply by contributing to the anticipated supply gaps in the electricity market following the planned closures of all coal-fired power generators within NSW.

Approval of the project would ensure that the project benefits described within the EIS would be realised.

8. REFERENCES

Australian Bureau of Statistics. (2020). *Employment in Renewable Energy Activities, Australia*. Retrieved from https://www.abs.gov.au/statistics/labour/employment-and-unemployment/employment-renewable-energy-activities-australia/latest-release

Australian Renewable Energy Agency. (2021). *Large-scale solar*. Retrieved from ARENA: https://arena.gov.au/renewable-energy/large-scale-solar/

Clean Energy Council. (2020). *Clean Energy at Work.*

Clean Energy Council. (2021). *Australian Guide to Agrisolar for Large-Scale Solar.*

Clean Energy Council. (2021, March 11). *New Guide Showcases the Potential of Agrisolar*. Retrieved from https://www.cleanenergycouncil.org.au/news/new-guide-showcases-the-potential-of-agrisolar

Clean Energy Council. (2023). *Winding Up: Decommissioning, Recycling and Waste Management of Australian Wind Turbines.*

Department of Agriculture, Water and Environment. (2020). *National Waste Report 2020.*

Department of Planning and Environment. (2016a). *Wind Energy Guideline.*

Department of Planning and Environment. (2016b). *Wind Energy: Noise Assessment Bulletin for State Significant Wind Energy Development.*

Department of Planning and Environment. (2016c). *Wind Energy: Visual Assessment Bulletin for State Significant Wind Energy Development.*

Department of Planning and Environment. (2021). *State Significant Development Guidelines - Preapring a Submissions Report.*

Department of Planning and Environment. (2022). *Guidelines for controlled activities on waterfront land.*

Department of Planning, Industry and Environment. (2021). *Cumulative Impact Assessment Guidelines for State Significant Project.*

DPI. (n.d.). *Policy and Guidelines for Fish Friendly Waterway Crossings.*

EnergyCo. (2022). *Central-West Orana Renewable Energy Zone Transmission project Scoping Report.*

EnergyCo. (2023). *Central-West Orana Renewable Energy Zone - Coordinating community impacts and benefits in the REZ.*

Environment Protection and Heritage Council. (2010). *National Wind Farm Development Guidelines - Draft.*

Kovac, M and Briggs, G. (2013). *Infrastructure proposals on rural land*. Retrieved from http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0020/359030/infrastructure-proposals-on-rural-land.pdf

Macdonald-Smith, A. (2021). Energy Australia commits to carbon-neutral gas plant. *Financial Review*.

McCabe, C. (2019). *Aircraft safety lighting switches off.* Retrieved from Crookwell Gazette: https://www.crookwellgazette.com.au/story/6427940/who-turned-out-the-lights-at-crookwell-2-wind-farm/

NSW Department of Planning and Environment. (2016). *The Dark Sky Planning Guideline: Protecting the observing conditions at Siding Spring.*

NSW Department of Planning and Environment. (2017). *Responding to Submissions: Draft Environmental Impact Assessment Guidance Series.*

Rijksdienst voor Ondernemend Nederland. (2014). *Wind turbine risk zoning handbook.*

RTA. (2002). *Guide to Traffic Generating Developments version 2.2 .*

South Australia EPA. (2009). *Wind farms environmental noise guidelines.*

World Nuclear Association. (2011). *Comparison of Lifecycle Greenhouse Gas Emissions of Various Electricity Generation Sources.*


Valley of the Winds
Renewable Energy from ACEN
Appendix 1
Submissions register
RAMBOLL
ACEN | Australia

Public Submissions register

ID	Name	Section where issues addressed in submissions report
1	Carol Richard	Section 6.13
		Section 6.9
		Section 6.15
		Section 6.17
		Section 6.5
		Section 6.3
		Section 6.12
		Section 6.18
2	Name withheld	Section 6.11
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.6
3	Les Williams	Section 6.11
		Section 6.9
		Section 6.8
		Section 6.10
4	Jamie Inglis	Section 6.13
		Section 6.8
		Section 6.10
		Section 6.6
6	Name withheld	Section 6.13
		Section 6.9
7	Name withheld	Section 6.3
8	Ralph Kuhn	Section 6.13
		Section 6.20
9	Name withheld	Section 6.13
		Section 6.9
		Section 6.6
		Section 6.4

Public Submissions register

ID	Name	Section where issues addressed in submissions report
10	Richard Inglis	Section 6.8
		Section 6.10
		Section 6.6
		Section 6.2
11	Sarah Inglis	Section 6.6
		Section 6.8
		Section 6.10
12	Name withheld	Section 6.11
		Section 6.13
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.3
		Section 6.20
13	Name withheld	Section 6.13
		Section 6.9
		Section 6.8
		Section 6.5
		Section 6.3
		Section 6.4
		Section 6.20
		Section 6.12
14	Perry and Yvette Fulton	Section 6.11
		Section 6.10
		Section 6.15
		Section 6.20
		Section 6.12
15	Angela and David Copeland	Section 6.13
		Section 6.8
		Section 6.18

Public Submissions register

ID	Name	Section where issues addressed in submissions report
16	Simon Reynolds	Section 6.11
		Section 6.7
		Section 6.13
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.15
		Section 6.3
		Section 6.14
17	Name withheld	Section 6.11
		Section 6.13
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.6
		Section 6.2
		Section 6.12
18	John O'Brien	Section 6.1
		Section 6.7
		Section 6.13
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.6
		Section 6.20
19	Name withheld	Section 6.1
		Section 6.11
		Section 6.22
		Section 6.9
		Section 6.8

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Section 6.10
		Section 6.5
		Section 6.6
		Section 6.2
20	Name withheld	Section 6.23
21	Name withheld	Section 6.23
22	Name withheld	Section 6.22
		Section 6.13
		Section 6.8
		Section 6.5
		Section 6.20
23	Talita Stein	Section 6.11
		Section 6.13
		Section 6.8
		Section 6.4
24	Shane Mills	Section 6.11
		Section 6.12
25	Name withheld	Section 6.9
		Section 6.4
		Section 6.14
26	David Satchell	Section 6.8
		Section 6.10
		Section 6.6
27	Name withheld	Section 6.13
28	Name withheld 1	Section 6.10
		Section 6.6
		Section 6.12
29	Leonie Emmott	Section 6.11
		Section 6.22
		Section 6.20

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Section 6.12
30	Name withheld	Section 6.8
		Section 6.6
31	Name withheld	Section 6.4
32	Name withheld	Section 6.9
		Section 6.8
		Section 6.10
33	Name withheld	Section 6.1
		Section 6.8
		Section 6.14
34	Name withheld	Section 6.8
		Section 6.10
		Section 6.9
		Section 6.5
		Section 6.2
35	Langdon Piper	Section 6.11
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.3
		Section 6.4
		Section 6.12
36	Name withheld	Section 6.8
		Section 6.10
		Section 6.5
		Section 6.6
		Section 6.4
		Section 6.20
		Section 6.12
37	Name withheld	Section 6.9

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Section 6.15
38	Annette Piper	Section 6.1
		Section 6.11
		Section 6.7
		Section 6.13
		Section 6.23
		Section 6.9
		Section 6.21
		Section 6.8
		Section 6.10
		Section 6.15
		Section 6.5
		Section 6.20
		Section 6.12
39	Name withheld	Section 6.8
		Section 6.20
40	Name withheld	Section 6.13
		Section 6.23
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.3
		Section 6.12
		Section 6.18
41	Name withheld	Section 6.8
		Section 6.3
		Section 6.12
42	Name withheld	Section 6.11
		Section 6.9
		Section 6.8

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Section 6.10
		Section 6.6
		Section 6.20
43	Shirley Holden	Section 6.11
		Section 6.13
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.16
		Section 6.3
		Section 6.20
		Section 6.12
		Section 6.14
44	Name withheld	Section 6.11
		Section 6.22
		Section 6.8
		Section 6.3
		Section 6.12
		Section 6.14
45	Kathyrn Reynolds	Section 6.1
		Section 6.11
		Section 6.7
		Section 6.22
		Section 6.9
		Section 6.8
		Section 6.10
		Other issues
		Section 6.6
		Section 6.20
		Section 6.2

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Section 6.12
		Section 6.14
		Section 6.18
46	John Purcell	Section 6.11
		Section 6.7
		Section 6.20
		Section 6.12
47	Name withheld	Section 6.13
		Section 6.8
		Section 6.20
48	Name withheld	Section 6.13
		Section 6.9
		Section 6.8
		Section 6.20
49	Celia Piper	Section 6.19
		Section 6.1
		Section 6.13
		Section 6.21
		Section 6.8
		Section 6.10
		Other issues
		Section 6.4
50	Grosvenor Francis	Section 6.1
		Section 6.11
		Section 6.7
		Section 6.13
		Section 6.23
		Section 6.9
		Section 6.8
		Section 6.10

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Other issues
		Section 6.5
		Section 6.4
		Section 6.20
52	Andrew Reynolds	Section 6.1
		Section 6.11
		Section 6.7
		Section 6.22
		Section 6.13
		Section 6.9
		Section 6.8
		Section 6.5
		Section 6.20
53	Name withheld	Section 6.22
54	Graeme Ferguson	Section 6.11
		Section 6.13
		Section 6.9
		Section 6.8
55	Hvitserk Ragnasson	Section 6.22
		Section 6.13
		Section 6.8
56	Name withheld	Section 6.22
		Section 6.2
57	Name withheld	Section 6.11
		Section 6.13
		Section 6.9
		Section 6.8
		Section 6.15
		Section 6.5
		Section 6.3

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Section 6.20
		Section 6.14
58	Shirley Holden/Wayne Holden	Section 6.13
		Section 6.9
		Section 6.16
		Section 6.20
		Section 6.12
59	Murdo Cadell	Section 6.9
		Section 6.4
60	Grant Piper	Section 6.1
		Section 6.13
		Section 6.9
		Section 6.4
61	Jaime Rojas	Section 6.8
		Section 6.10
		Section 6.12
62	Mark Young	Section 6.13
		Section 6.9
		Section 6.8
		Section 6.10
		Section 6.20
		Section 6.12
63	Name withheld	Section 6.8
		Section 6.12
64	Name withheld	Section 6.12
65	Peter Quera	Section 6.13
		Section 6.23
		Section 6.9
		Section 6.8
66	Nick Oxley	Section 6.9

Public Submissions register

ID	Name	Section where issues addressed in submissions report
67	Stella Morton	Section 6.22
68	Brianna Simmonds	Section 6.4
69	Name withheld	Section 6.9
70	Jason and Nikki Veale	Section 6.8
71	Hugh Haigh	Section 6.4
72	Name withheld	Section 6.8
73	Martin Austin	Section 6.9
		Section 6.8
		Section 6.10
74	Name withheld	Section 6.13
		Section 6.9
		Section 6.8
		Section 6.4
75	Name Withheld	Section 6.4
76	Christine White	Section 6.1
		Section 6.9
		Section 6.5
		Section 6.20
		Section 6.18
77	Name Withheld	Section 6.1
		Section 6.7
		Section 6.22
		Section 6.13
		Section 6.9
		Section 6.8
78	Name Withheld	Section 6.20
79	Name Withheld	Section 6.11
		Section 6.9
		Section 6.8
80	James McMaster	Section 6.11

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Section 6.7
		Section 6.9
		Section 6.8
		Section 6.15
		Section 6.4
		Section 6.18
81	Name withheld	Section 6.13
		Section 6.8
82	Name withheld	Section 6.11
		Section 6.8
		Section 6.2
83	Benjamin Reynolds	Section 6.1
		Section 6.8
		Section 6.3
		Section 6.20
84	Name withheld	Section 6.3
85	Name withheld	Section 6.9
86	Name withheld	Section 6.13
		Section 6.9
		Section 6.8
		Section 6.15
		Section 6.3
87	Name withheld	Section 6.15
88	Name withheld	Section 6.9
		Section 6.8
		Section 6.4
		Section 6.20
89	Name withheld	Section 6.8
90	Name withheld	Section 6.8
91	Ainsley Price	Section 6.23

Public Submissions register

ID	Name	Section where issues addressed in submissions report
92	Name withheld	Section 6.8
		Section 6.4
93	Name withheld	Section 6.13
		Section 6.8
		Section 6.15
94	Gawain Bowman	Section 6.13
		Section 6.9
		Section 6.8
		Section 6.4
95	Name withheld	Section 6.13
		Section 6.9
		Section 6.8
		Section 6.15
97	Name withheld	Section 6.23
98	Name withheld	Section 6.13
		Section 6.8
99	Simon Reynolds	Section 6.23
100	Viginia Knyvett	Section 6.7
		Section 6.13
		Section 6.9
		Section 6.8
		Section 6.6
		Section 6.4
		Section 6.20
101	Name withheld	Section 6.13
		Section 6.8
102	David Knyvett	Section 6.11
		Section 6.7
		Section 6.9
		Section 6.8

Public Submissions register

ID	Name	Section where issues addressed in submissions report
		Section 6.4
103	Louise Jewiss	Section 6.3
		Section 6.14
104	George Knyvett	Section 6.9
		Section 6.15
		Section 6.4
105	Name withheld	Section 6.13
		Section 6.20
106	Harrison Reynolds	Section 6.9
107	Name withheld	Section 6.8
		Section 6.4
108	Rosemary Reynolds	Section 6.23
109	Name withheld	Section 6.13
		Section 6.3
		Section 6.4
		Section 6.20
110	Name withheld	Section 6.11
		Section 6.8