



WIND

# UUNGULA WIND FARM (SSD-6687)


## Response to Request for Additional Information

22 January 2021

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Version 1  
Author CWP Renewables Pty Ltd  
Client Uungula Wind Farm Pty Ltd

## REVISION CONTROL

| Revision | Date     | Issue        | Author   | Reviewed   | Approved   | Signature   |
|----------|----------|--------------|----------|------------|------------|---|
| 1        | 22/01/21 | Final/Issued | M Flower | Ed Mounsey | Ed Mounsey |  |

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# Contents

|  |          |
|--|----------|
| Introduction.....                        | 1        |
| Request for Additional Information ..... | 1        |
| Related Documents.....                   | 1        |
| <b>1 Response Details .....</b>          | <b>3</b> |
| 1.1 Visual .....                         | 3        |
| 1.2 Traffic & Transport .....            | 3        |
| 1.3 General .....                        | 3        |
| 1.3.1 Water Requirements.....            | 3        |
| 1.3.2 Energy Storage Facility.....       | 3        |
| 1.4 Project Figures .....                | 3        |

## Figures

|  |    |
|--|----|
| Figure 1: Regional Context.....              | 5  |
| Figure 2: Project Layout .....               | 6  |
| Figure 3: Consolidated Visual Context.....   | 7  |
| Figure 4: Transport Map 1.....               | 8  |
| Figure 5: Transport Map 2.....               | 9  |
| Figure 6: Aboriginal Cultural Heritage ..... | 10 |

## Appendices

|  |  |
|--|--|
| Appendix A: Landscape and Visual Assessment Addendum |  |
| Appendix B: Schedule of Road Upgrades                |  |

# Introduction

This document has been prepared by CWP Renewables Pty Ltd (CWPR) on behalf of Uungula Wind Farm Pty Ltd (UWF) in response to a Request for Additional Information (RFI) made by the NSW Department of Planning, Industry and Environment (DPIE) regarding the Uungula Wind Farm ('the Project') development application and environmental impact assessment (SSD-6687). The document is referred to throughout as 'RFI response'.

## Request for Additional Information

The DPIE RFI dated 18 December 2020 requested the following additional information:

### *Visual:*

- *The following information is required for all assessed non-associated residences and sensitive viewpoints:*
  - *visual impact rating;*
  - *cumulative impact rating with Bodangora Wind Farm;*
  - *closest turbines (turbine number);*
  - *number of turbines within 3.35 km and 5 km;*
- *Confirm that visual impacts from all public viewpoints have been considered and assessed.*

### *Traffic & Transport:*

- *Schedule of all proposed road works and upgrades;*

### *General:*

- *Further detail on the water requirements of the project and confirmation that an adequate and secure water supply is available*
- *Confirm MW / MWh capacity of energy storage facility*

### *Project Figures:*

- *Provide updated project figures, including regional context, project layout, transport, Aboriginal cultural heritage and visual assessment figures.*

The information forming the responses is detailed in Section 1 and relevant appendices.

## Related Documents

This RFI response is prepared following the preparation and submission to DPIE of the following documents:

- Environmental Impact Statement: Ungula Wind farm (May 2020) (Eco Logical Australia. (2020). *Ungula Wind Farm Environmental Impact Statement*. Prepared for CWP Renewables Pty Ltd on behalf of Ungula Wind Farm Pty Ltd) ('UWF EIS').
- Ungula Wind Farm: Submissions Report (November 2020) (CWPR Pty Ltd 2020) ('UWF Submissions Report').
- Ungula Wind Farm: Amendment Report (November 2020) (CWPR Pty Ltd 2020) ('UWF Amendment Report').

# 1 Response Details

Responses are detailed below under each of the relevant subheadings.

## 1.1 Visual

Appendix A contains a detailed response to the visual assessment information requested.

## 1.2 Traffic & Transport

Appendix B contains a schedule of road works and upgrades to which the Project has committed. They are comprised by the updated statements of commitment: TM006, TM007 and TM008 contained in the UWF Amendment Report section 5.1.

## 1.3 General

### 1.3.1 Water Requirements

As described in the EIS section 4.1.4 'Resource Requirements' (EIS page 132) water will be sourced in accordance with the provisions of the *Water Management Act 2000* by sourcing water from a licensed supplier. Consistent with other large-scale greenfield development, it is through this regulated approach that an adequate and secure water supply for the project will be obtained. It is estimated that approximately 95 mega litres (ML) of water will be required for construction including (but not limited to) concrete batching, road construction and dust suppression activities during construction. The water volumes provided are reasonable with regard to the types of activities proposed, however they are estimates and not limits. Prevailing weather conditions during the period of construction, temperature in particular, will affect the volume of water required.

### 1.3.2 Energy Storage Facility

The energy capacity and discharge rate of the Energy Storage Facility are nominally stated as an indicative 150MW/150MWh however the capacity and discharge rate are not intended as upper limits. The EIS and supporting studies have been prepared considering those as indicative values and the capital investment value of the project for the purposes of calculating the planning fee was calculated using a 150MW/300MWh Energy Storage Facility.

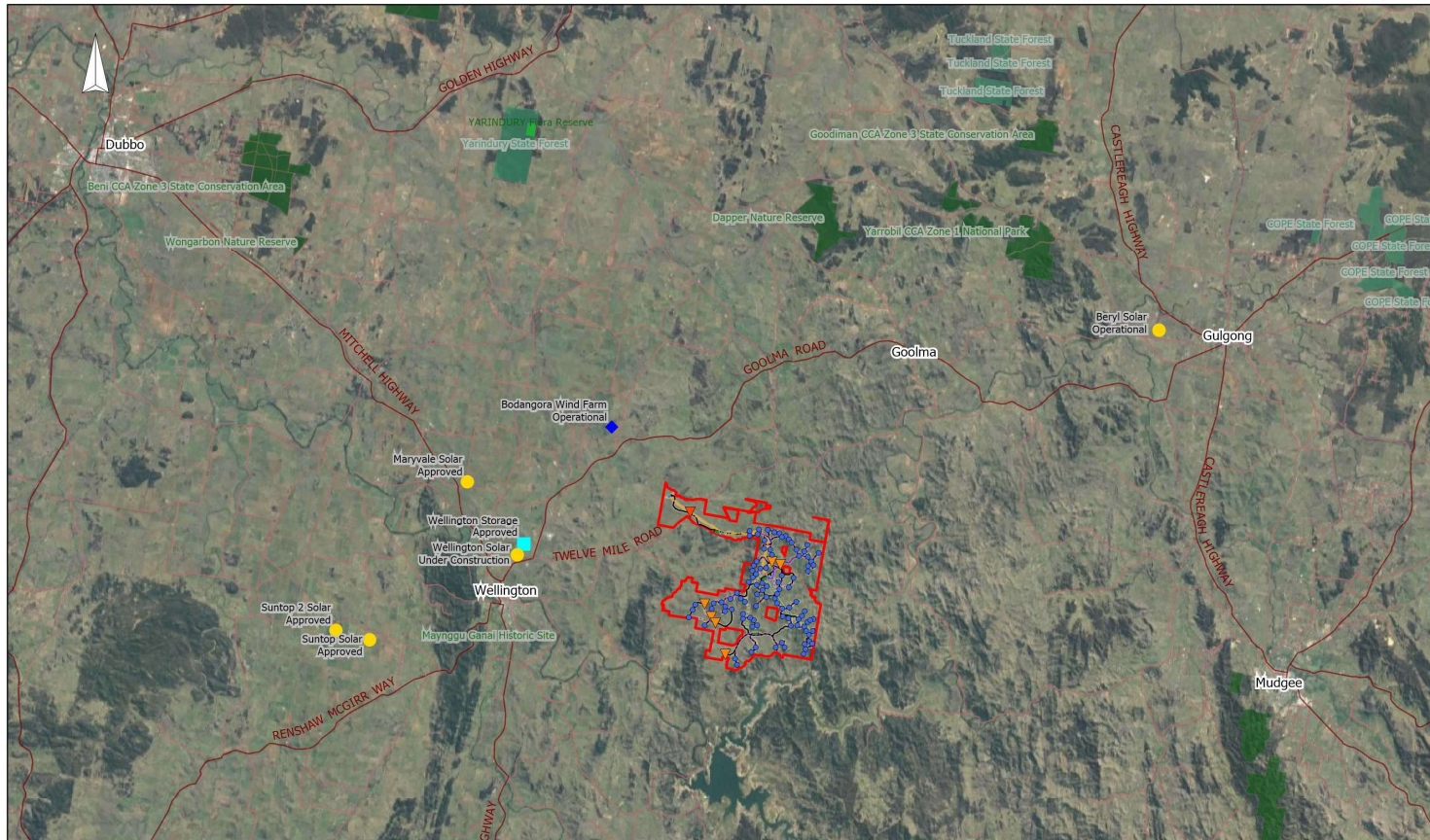
## 1.4 Project Figures

Updated figures are included in the following pages and sections as:

- Regional Context (including other State Significant Development in the region approved, under construction and operating): Figure 1
- Project Layout: Figure 2
- Consolidated Visual Context: Figure 3
- Transport Map 1: Figure 4
- Transport Map 2: Figure 5

- Aboriginal Cultural Heritage: Figure 6
- Visual Assessment (refer to Appendix A)

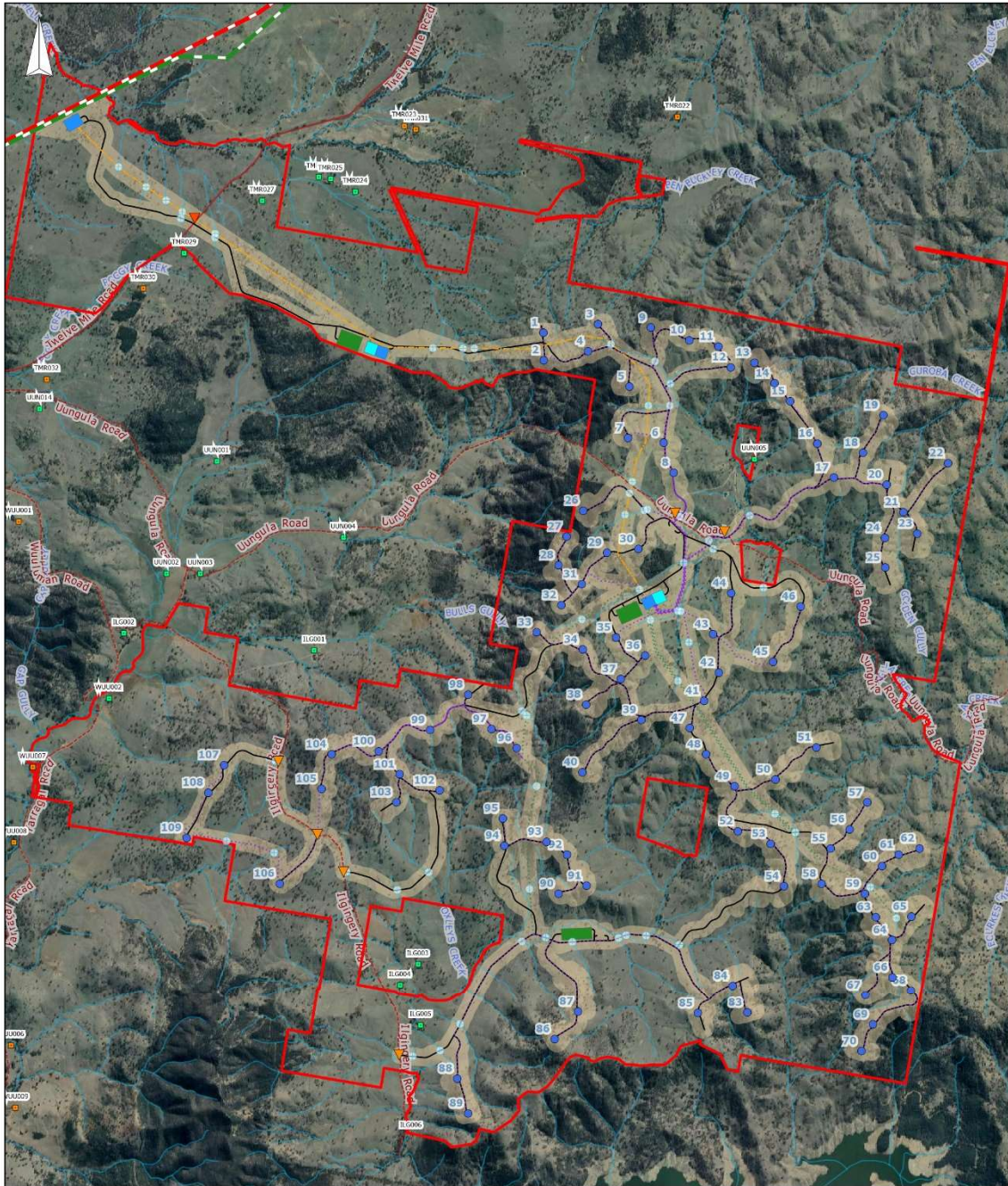
Figure 1: Regional Context



|   |            |  |          |  |         |
|---|------------|--|----------|--|---------|
| <b>LEGEND</b><br>Existing major roads (red line)<br>Existing minor roads (light red line)<br>Nature Reserve (green area)<br>State Forest (light green area)<br><b>SSD Projects:</b><br>Solar (yellow circle)<br>Storage (cyan square)<br>Wind Farm (blue diamond) |            | <b>Project Site</b><br>Primary Project Site entry (red triangle)<br>Secondary intersections (yellow triangle)<br>Project Access tracks (grey line)<br>Wind Turbine Generator (WTG) (blue circle) |          | <b>Existing Powerlines:</b><br>132kV (red line)<br>330kV (green line)<br><b>Proposed powerlines:</b><br>Overhead (high voltage) (yellow dashed line)<br>Underground (medium to low voltage) (dotted line)<br>Overhead (medium to low voltage) (grey dashed line) |         |
| <b>SCALE BAR</b><br>0 10 km   |            | <b>COMPANY</b><br>UUNGULA WIND FARM PTY LTD  |          |  |         |
| <b>TITLE</b><br>Regional Context  |            |  |          |  |         |
| DATE  | 21/01/21   | SCALE  | 1:280000 | DWG NO   | UWF-126 |
| DRAWN BY  | J PETERSEN | CHECKED BY   | M FLOWER | SHEET  | 1 OF 1  |
|   |            |  |          | REV  | A       |
|   |            |  |          | VER  | 1       |
|   |            |  |          | JOB NO   | 110247  |
|   |            |  |          | SIZE   | A3      |



Figure 2: Project Layout





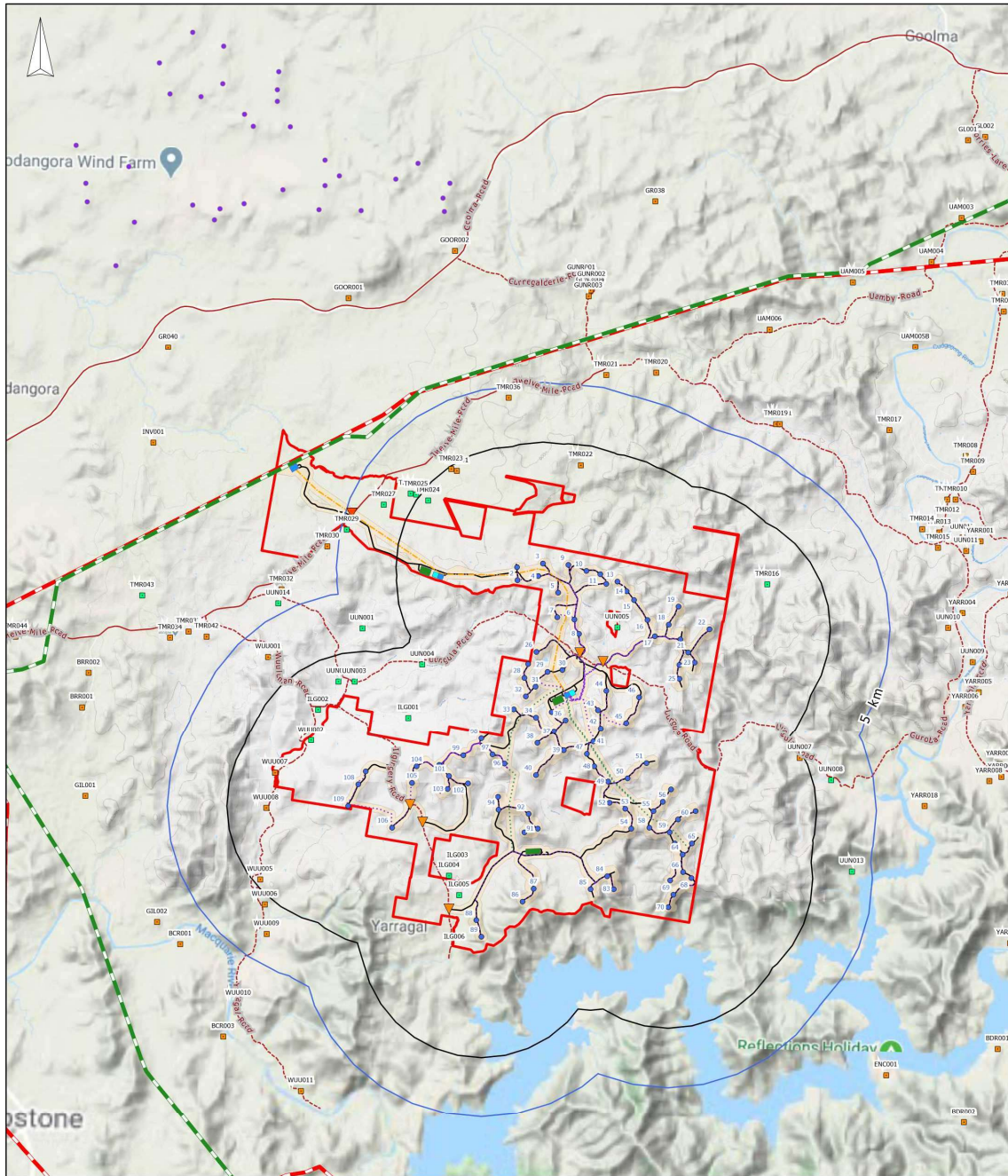
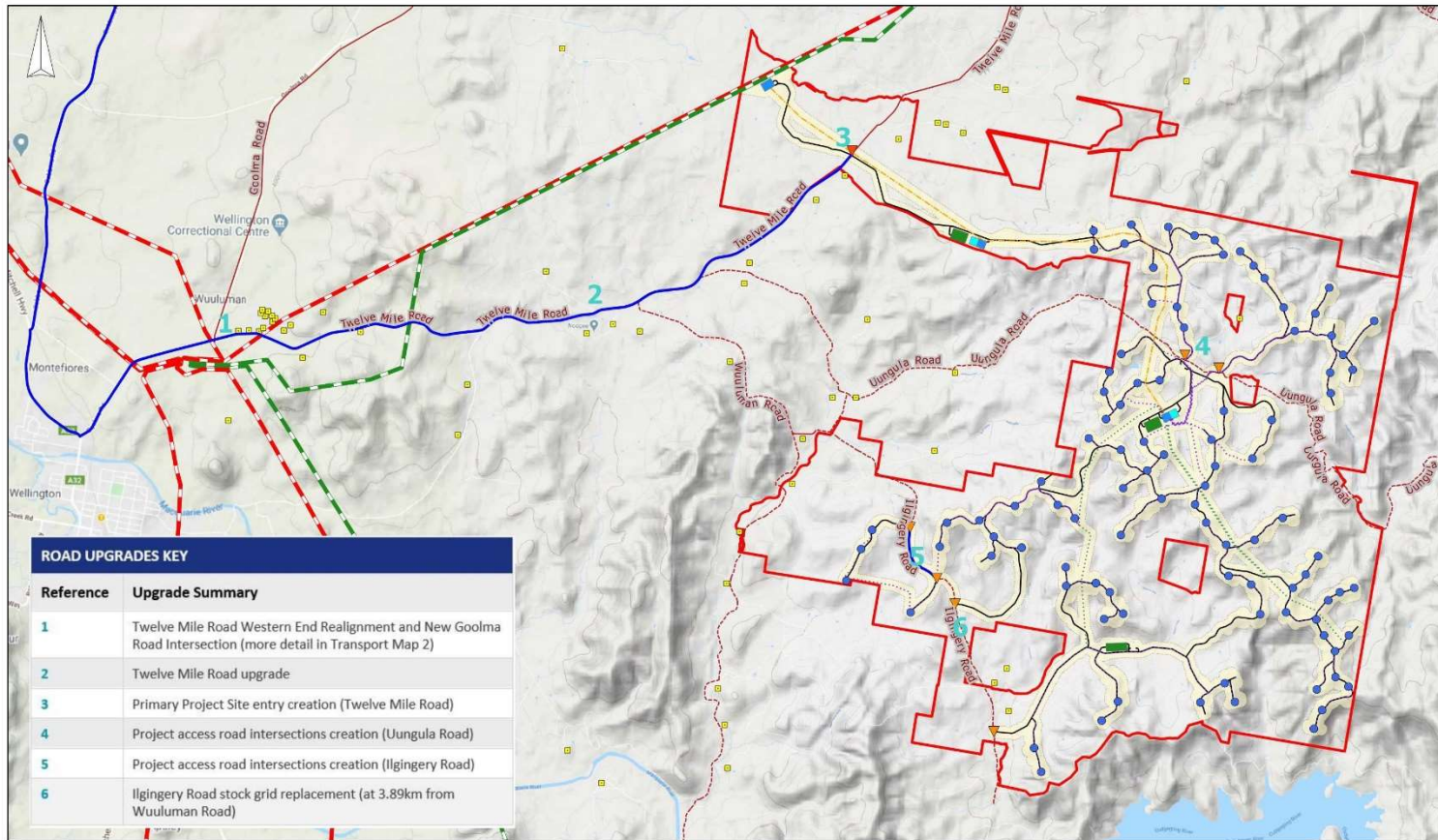
| LEGEND  |  | COMPANY   |                       |       |        |     |     |          |         |         |   |   |          |            |       |        |      |            |          |        |        |    |
|---|--|---|-----------------------|-------|--------|-----|-----|----------|---------|---------|---|---|----------|------------|-------|--------|------|------------|----------|--------|--------|----|
| <ul style="list-style-type: none"> <li><span style="color: green;">■</span> Involved Residences</li> <li><span style="color: orange;">■</span> Non-involved Residences</li> <li><span style="color: red; border-bottom: 1px dashed red;">—</span> Existing Unsealed Road</li> <li><span style="color: red; border-bottom: 1px solid red;">—</span> Existing Sealed Road</li> <li><span style="border: 2px solid red; display: inline-block; width: 10px; height: 10px;"></span> Project Site</li> <li><span style="color: black; border-bottom: 1px dashed black;">—</span> Access tracks</li> <li><span style="color: red; border-left: 1px solid red; border-right: 1px solid red; width: 0; height: 0; margin-left: 5px;">▲</span> Primary Project Site entry</li> <li><span style="color: red; border-left: 1px solid red; border-right: 1px solid red; width: 0; height: 0; margin-left: 5px;">▼</span> Secondary intersections</li> <li><span style="color: blue; border: 1px solid blue; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> Waterway Crossing</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> Wind Turbine Generator (WTG)</li> <li><span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span> Site Compound</li> <li><span style="background-color: cyan; width: 15px; height: 10px; display: inline-block;"></span> Substation</li> <li><span style="background-color: cyan; width: 15px; height: 10px; display: inline-block;"></span> Energy Storage Facility</li> <li>Existing Powerlines:                             <ul style="list-style-type: none"> <li><span style="color: red; border-bottom: 1px solid red;">—</span> 132kV</li> <li><span style="color: green; border-bottom: 1px solid green;">—</span> 330kV</li> </ul> </li> <li>Proposed powerlines:                             <ul style="list-style-type: none"> <li><span style="color: yellow; border-bottom: 1px dashed yellow;">—</span> Overhead (high voltage)</li> <li><span style="color: grey; border-bottom: 1px dashed grey;">—</span> Underground (medium to low voltage)</li> <li><span style="color: grey; border-bottom: 1px solid grey;">—</span> Overhead (medium to low voltage)</li> </ul> </li> </ul> | <p>UUNGULA WIND FARM PTY LTD</p>   | <p>Project Layout</p> |       |        |     |     |          |         |         |   |   |          |            |       |        |      |            |          |        |        |    |
| <p>SCALE BAR</p>   |  | <table border="1"> <thead> <tr> <th>DATE</th> <th>SCALE</th> <th>DWG NO</th> <th>REV</th> <th>VER</th> </tr> </thead> <tbody> <tr> <td>21/01/21</td> <td>1:49000</td> <td>UWF-127</td> <td>A</td> <td>1</td> </tr> <tr> <th>DRAWN BY</th> <th>CHECKED BY</th> <th>SHEET</th> <th>JOB NO</th> <th>SIZE</th> </tr> <tr> <td>J PETERSEN</td> <td>M FLOWER</td> <td>1 OF 1</td> <td>110247</td> <td>A3</td> </tr> </tbody> </table> | DATE                  | SCALE | DWG NO | REV | VER | 21/01/21 | 1:49000 | UWF-127 | A | 1 | DRAWN BY | CHECKED BY | SHEET | JOB NO | SIZE | J PETERSEN | M FLOWER | 1 OF 1 | 110247 | A3 |
| DATE  | SCALE  | DWG NO  | REV                   | VER   |        |     |     |          |         |         |   |   |          |            |       |        |      |            |          |        |        |    |
| 21/01/21  | 1:49000  | UWF-127   | A                     | 1     |        |     |     |          |         |         |   |   |          |            |       |        |      |            |          |        |        |    |
| DRAWN BY  | CHECKED BY   | SHEET   | JOB NO                | SIZE  |        |     |     |          |         |         |   |   |          |            |       |        |      |            |          |        |        |    |
| J PETERSEN  | M FLOWER   | 1 OF 1  | 110247                | A3    |        |     |     |          |         |         |   |   |          |            |       |        |      |            |          |        |        |    |

Figure 3: Consolidated Visual Context



| LEGEND  |  | COMPANY                   |         |        |      |  |
|---|--|---------------------------|---------|--------|------|--|
| <ul style="list-style-type: none"> <li><span style="color: green;">■</span> Residences: Involved</li> <li><span style="color: orange;">■</span> Residences: Non-involved</li> <li><span style="color: red;">---</span> Existing Unsealed Road</li> <li><span style="color: red;">---</span> Existing Sealed Road</li> <li><span style="color: red;">▭</span> Project Site</li> <li><span style="color: red;">---</span> Project Access tracks</li> <li><span style="color: red;">▾</span> Primary Project Site entry</li> <li><span style="color: red;">▾</span> Secondary intersections</li> <li><span style="color: red;">---</span> WTG buffer 3.35 km</li> <li><span style="color: blue;">---</span> WTG buffer 5 km</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> Wind Turbine Generator (WTG)</li> <li><span style="color: purple;">●</span> Bodangora WTGs (from approval)</li> <li><span style="color: green;">▭</span> Site Compound</li> <li><span style="color: blue;">▭</span> Substation</li> <li><span style="color: cyan;">▭</span> Energy Storage Facility</li> <li>Existing Powerlines:                             <ul style="list-style-type: none"> <li><span style="color: red;">---</span> 132kV</li> <li><span style="color: green;">---</span> 330kV</li> </ul> </li> <li>Proposed powerlines:                             <ul style="list-style-type: none"> <li><span style="color: yellow;">---</span> Overhead (high voltage)</li> <li><span style="color: blue;">---</span> Underground (medium to low voltage)</li> <li><span style="color: red;">---</span> Overhead (medium to low voltage)</li> </ul> </li> </ul> | UUNGULA WIND FARM PTY LTD |         |        |      |  |
| TITLE   |  |                           |         |        |      |  |
| Consolidated Visual Context   |  |                           |         |        |      |  |
| DATE  |  | SCALE                     | DWG NO  | REV    | VER  |  |
| 21/01/21  |  | 1:100000                  | UWF-128 | A      | 1    |  |
| DRAWN BY  |  | CHECKED BY                | SHEET   | JOB NO | SIZE |  |
| J PETERSEN  |  | M FLOWER                  | 1 OF 1  | 110247 | A3   |  |

Figure 4: Transport Map 1



| ROAD UPGRADES KEY |  |
|-------------------|--|
| Reference         | Upgrade Summary  |
| 1                 | Twelve Mile Road Western End Realignment and New Goolma Road Intersection (more detail in Transport Map 2) |
| 2                 | Twelve Mile Road upgrade   |
| 3                 | Primary Project Site entry creation (Twelve Mile Road)   |
| 4                 | Project access road intersections creation (Ungula Road)   |
| 5                 | Project access road intersections creation (Ilgingery Road)  |
| 6                 | Ilgingery Road stock grid replacement (at 3.89km from Wuuluman Road)                                       |

| LEGEND   |  | COMPANY  |  |
|--|--|--|--|
| <b>Existing Roads:</b><br>- - - Existing Unsealed Road<br>— Existing Sealed Road<br><b>Proposed Transport Route:</b><br>— Primary Access Route<br>— Wind Farm Access tracks<br>— Primary Project Site entry<br>▽ Secondary intersections | □ Residences<br>□ Project Site<br>● Wind Turbine Generator<br>● Site Compound<br>□ Substation<br>□ Energy Storage Facility | <b>Existing powerlines:</b><br>— 132kV<br>— 330kV<br><b>Proposed powerlines:</b><br>— Overhead (high voltage)<br>- - - Underground (medium to low voltage)<br>- - - Overhead (medium to low voltage) | UUNGULA WIND FARM PTY LTD<br>Transport Map 1                                       |
| SCALE BAR<br>0 ————— 5 km  | DATE: 21/01/21<br>DRAWN BY: J PETERSEN   | SCALE: 1:71000<br>CHECKED BY: M FLOWER   | DWG NO: UWF-129<br>SHEET: 1 OF 1<br>REV: A<br>JOB NO: 110247<br>VER: 1<br>SIZE: A3 |

Figure 5: Transport Map 2




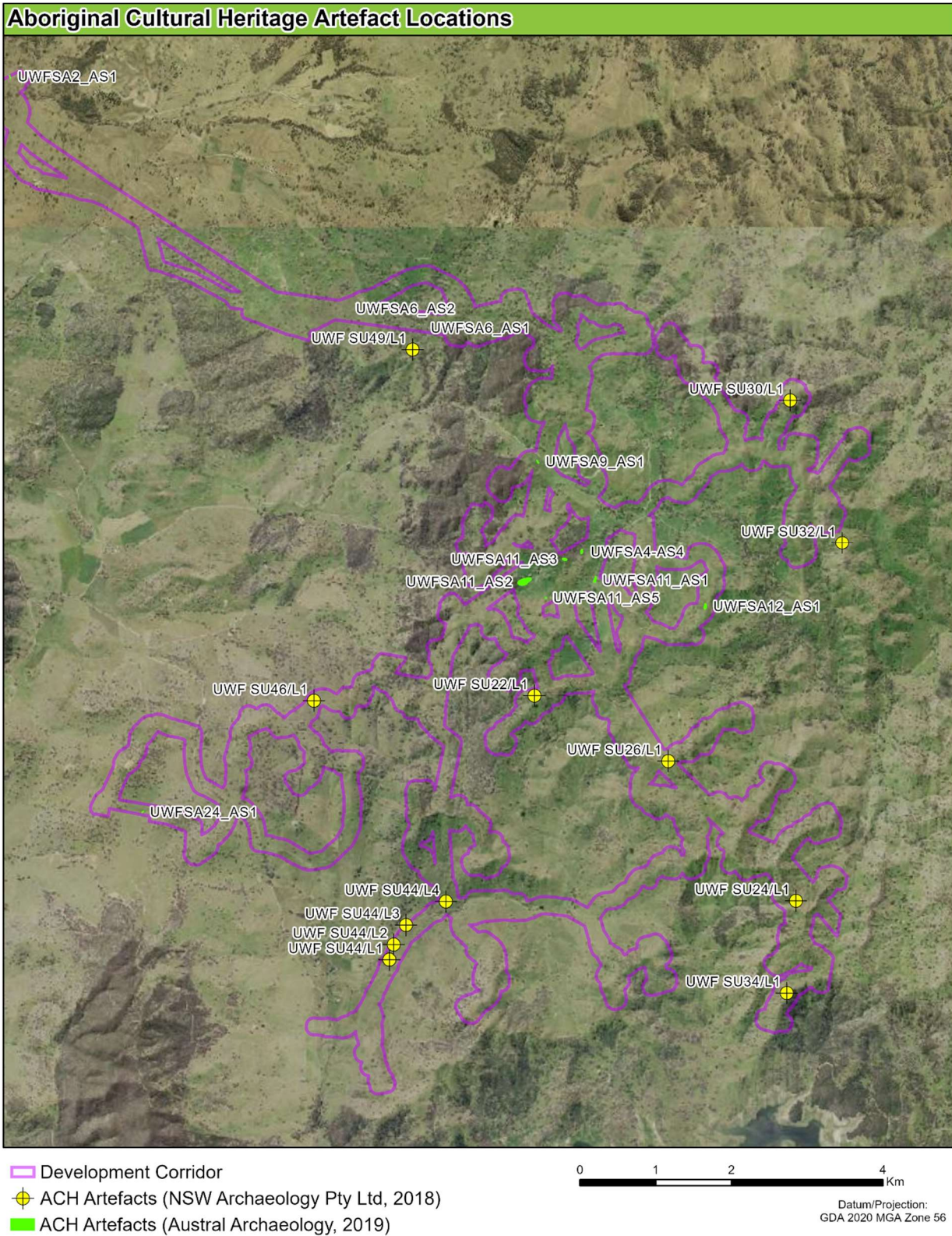
| LEGEND  |   | COMPANY  |              | TITLE   |        |      |
|---|---|--|--------------|---|--------|------|
|  | Gazetted Road Reserve (currently unformed)                                | UUNGULA WIND FARM PTY LTD  |              |  |        |      |
|  | Cadastral Boundary  |  |              |   |        |      |
|  | Twelve Mile Rd & Goolma Rd Intersection Upgrade (proposed)                | Transport Map 2: Twelve Mile Road Western End Realignment and New Goolma Road Intersection |              |   |        |      |
|  | Existing Twelve Mile Rd Realignment & Goolma Rd Intersection to be Closed | DATE   | SCALE        | DWG NO  | REV    | VER  |
|  | Public Road   | 29 OCT 2020  | Not to Scale | UWF-130   | A      | 1    |
|   |   | DRAWN BY   | CHECKED BY   | SHEET   | JOB NO | SIZE |
|   |   | B KRONENBERG   | M FLOWER     | 1 OF 1  | 110247 | A3   |

Figure 6: Aboriginal Cultural Heritage





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WIND

# UUNGULA WIND FARM (SSD-6687)

## Response to Request for Additional Information Appendix A

22 January 2021

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Version 1  
Author Matthew Flower  
Client Ungula Wind Farm Pty Ltd



# Uungula Wind Farm

## Addendum Report

Prepared for: **CWP Renewables**

Project No: **1684** Issue: **REV A** Date: **14th January 2021**



## 1.0 Introduction

The purpose of this report is to provide a response to the request for additional information in relation to the Landscape and Visual Impact Assessment (LVIA) prepared for Ungula Wind Farm in May 2020. In a letter dated 18th December 2020, the Department of Industry and Environment (DPIE) requested (note: a cross reference to where the comment is addressed is included after each bullet point as underlined text):

- *The following information is required for all assessed non-associated residences and sensitive viewpoints:*
  - o *visual impact rating; Refer to Section 3.0*
  - o *cumulative impact rating with Bodangora Wind Farm; Refer to Section 4.0*
  - o *closest turbines (turbine number); Refer to Tables A1 - A3 (Appendix A)*
  - o *number of turbines within 3.35km and 5km; Refer to Tables A1 - A3 (Appendix A)*
- *Confirm that visual impacts from all public viewpoints have been considered and assessed. Refer to Section 2.0*

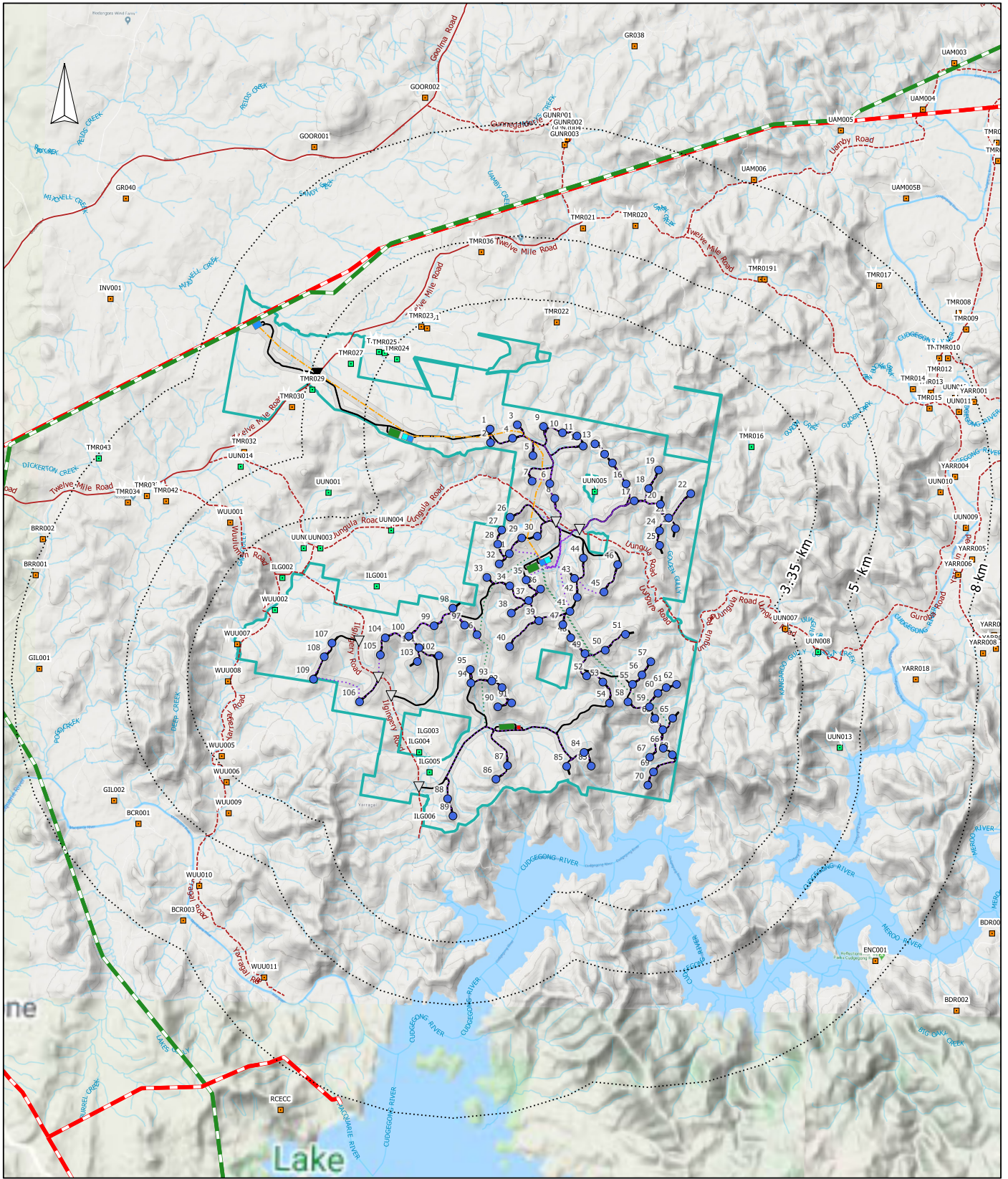
## 2.0 Study Method:

The following provides an overview of the study method applied to address the request. For the purpose of providing additional information for '*all assessed non-associated residences and sensitive viewpoints*' the following applies:

### ***Residences within 8 kilometres of the nearest turbine:***

Following the submission of the EIS in May 2020, there has been an increase in the number of residences involved with the Ungula Wind Farm (see **Figure 1**).

- As of January 2021, there are a total of eleven (11) non-involved landowners within 5 kilometres of the nearest proposed WTG. **Table A1** provides an overview of the additional information requested for each of the dwellings within 5000m.
- Seven (7) non-involved residences are located within 3350m of the nearest turbine: **TMR022, TMR023, TMR031, WUU05, WUU07, WUU08, UUN007**
- Four (4) non-involved residences are within 3350-5000m of the nearest turbine: **TMR036, WUU001, WUU006, WUU009**
- There are 38 non-involved residences assessed within 5 - 8 kilometres of the nearest turbine. **Table A2** provides a summary of the requested information from non-involved dwellings within 5 - 8 kilometres of the nearest turbine.



| LEGEND   |   |
|--|---|
| <span style="color: green;">■</span> Involved                    | <span style="color: blue;">●</span> Wind Turbine Generator (WTG)            |
| <span style="color: orange;">■</span> Non-involved               | <span style="color: green;">■</span> Site Compound                          |
| <span style="color: red;">---</span> Existing Unsealed Road      | <span style="color: blue;">■</span> Substation                              |
| <span style="color: red;">—</span> Existing Sealed Road          | <span style="color: cyan;">■</span> Energy Storage Facility                 |
| <span style="color: green;">▭</span> Project Site                | Existing Powerlines:  |
| <span style="color: black;">—</span> Access tracks               | <span style="color: red;">—</span> 132kV                                    |
| <span style="color: black;">▼</span> Primary Project Site access | <span style="color: green;">—</span> 330kV                                  |
| <span style="color: black;">▽</span> Secondary intersections     | Proposed powerlines:  |
| <span style="color: black;">○</span> WTG buffers                 | <span style="color: orange;">---</span> Overhead (high voltage)             |
|  | <span style="color: purple;">---</span> Underground (medium to low voltage) |
|  | <span style="color: black;">---</span> Overhead (medium to low voltage)     |



Figure 1: Residences (Source: CWP Renewables)

## **Sensitive Viewpoints**

A total of 46 viewpoints were assessed in the LVIA from various publicly accessible locations throughout the study area. Of these 46 viewpoints, the following Visual Influence Zone (VIZ) ratings applied:

- 3 were rated as VIZ1
- 30 were rated as VIZ2
- 13 were rated as VIZ3

As there are no performance objectives for VIZ3 these are not considered 'sensitive viewpoints' and therefore the requested information has been provided for the 33 remaining viewpoints with a VIZ1 or VIZ2 rating.

- **Table A3 (Appendix A)** provides an overview of the requested information from 'sensitive viewpoints'.

## **3.0 Visual Impact Rating:**

The application of a 'visual impact rating' of *nil, nil-low, low, low-moderate, moderate, moderate - high or high* has been provided for each of the non-associated residences and sensitive viewpoints.

The Bulletin states: *the Department adopts the widely accepted and commonly utilised approach that visual impact can be determined from a combination of receiver sensitivity and the magnitude of visual effect. This approach is documented in numerous Australian and international guidelines, and is considered to be industry best practice.*

Moir LA have developed a framework for defining and rating the level of visual effect from each dwelling. The framework in **Table 2** has been prepared with regards to the third edition of the *Guidelines for Landscape and Visual Impact Assessment (GLVIA3)*, *Residential Visual Amenity Assessment (RVAA)* and Moir LA's extensive professional experience in undertaking LVIA's for wind energy projects.

*Note this assessment has been undertaken based on a desktop assessment alone which takes into account topography and assessment of available aerial imagery.*

- The visual impact rating for each dwelling and 'sensitive viewpoint' is provided in **Tables A1 - A3** (Appendix A).

|                             | NIL                              | LOW   | MODERATE  | HIGH  |
|-----------------------------|----------------------------------|---|---|---|
| <b>Distance</b>             |                                  | Turbines may be visible in distance or very partially visible in the foreground.              | Turbines maybe visible in the middle ground or a small number may be visible in the near ground.                                      | Turbines are highly visible in the foreground.  |
| <b>Type of views</b>        |                                  | Views from the dwelling are not focused on the Project.                                       | Views from the dwelling are not focused entirely on the Project.  | Views are focused directly towards the Project.   |
| <b>Direction of view</b>    |                                  | The Project may be visible in peripheral views or form a very minor element in primary views. | The Project may be visible from, yet will not dominate primary views.   | The Project will be highly visible and has the potential to be a dominant element in primary views from the property. |
| <b>Extent of visibility</b> | The project will not be visible. | The Project may be partially visible or fragmented.   | The Project may be visible from the dwelling yet will not significantly alter the existing visual character.                          | The Project has the potential to significantly alter the existing visual character when viewed from the dwelling.     |
| <b>Scale of change</b>      |                                  | The Project may be visible yet will not change to the existing visual character.              | The Project has the potential to become a noticeable element in the view, yet will not overly diminish the existing visual character. | The Project has the potential to alter the existing visual character.   |
| <b>Degree of contrast</b>   |                                  | The Project will have a low level of contrast with the existing landscape.                    | The Project will result in a moderate level of contrast with the existing landscape.  | The scale of the Project will result in a high level of contrast with the existing landscape.                         |
| <b>Duration of change</b>   |                                  | Changes are temporary.  | Changes to the landscape have the potential to be reduced over time (with the employment of mitigation methods).                      | Changes to the landscape are continuous and / or irreversible.  |
| <b>Mitigation Options</b>   |                                  | Existing screening factors contribute to reducing the potential visibility.                   | Some existing screening factors may contribute to fragmenting the Project or there is opportunity to screen the Project.              | Limited or no opportunity to screen the Project.  |

**Table 1. Visual Effect Rating**

## **Summary of Visual Impact Rating - Non-involved Residences**

### **Residences within 5000 metres**

There are 11 non-involved residences within 5000m (black line of visual magnitude) of the nearest turbine. The majority of residences are likely to have a low or low-moderate visual impact rating . One residence has been rated as having amoderate visual impact and one with a moderate - high visual impact (refer to Table 2).

### **Residences within 5000 - 8000 metres**

There are 38 non-involved residences within 5000 - 8000m of the Project. The Project will be screened by topography and is therefore not visible from 13 of these residences (refer to Table A2).

| Visual Impact Rating | Total number of non-involved residences | Percentage of non-involved residences (Approx.) |
|----------------------|---|---|
| Nil                  | 13                                      | 27%   |
| Nil - Low            | 3                                       | 6%  |
| Low                  | 25                                      | 51%   |
| Low - Moderate       | 6                                       | 12%   |
| Moderate             | 1                                       | 2%  |
| Moderate - High      | 1                                       | 2%  |
| High                 | 0                                       | 0%  |

**Table 2. Overview of Visual Impact Rating from all assessed Non-involved Dwellings**

### **Visual Impact Rating - Sensitive Viewpoints**

Of the 33 'sensitive viewpoints' assessed, the Project will be screened by topography from 7 of the sensitive viewpoints (refer to Table A3). Of the remaining 26 viewpoints assessed, the following visual impact ratings were determined:

- 2 = Nil - low
- 10 = Low
- 3 = Low - moderate
- 3 = Moderate
- 5 = Moderate - high
- 3 = High

## 4.0 Cumulative Visual Impact

There are ten (10) non-involved residences identified within 8 kilometres of both the Bodangora and Uungula Wind Farms (see **Figure 2**).

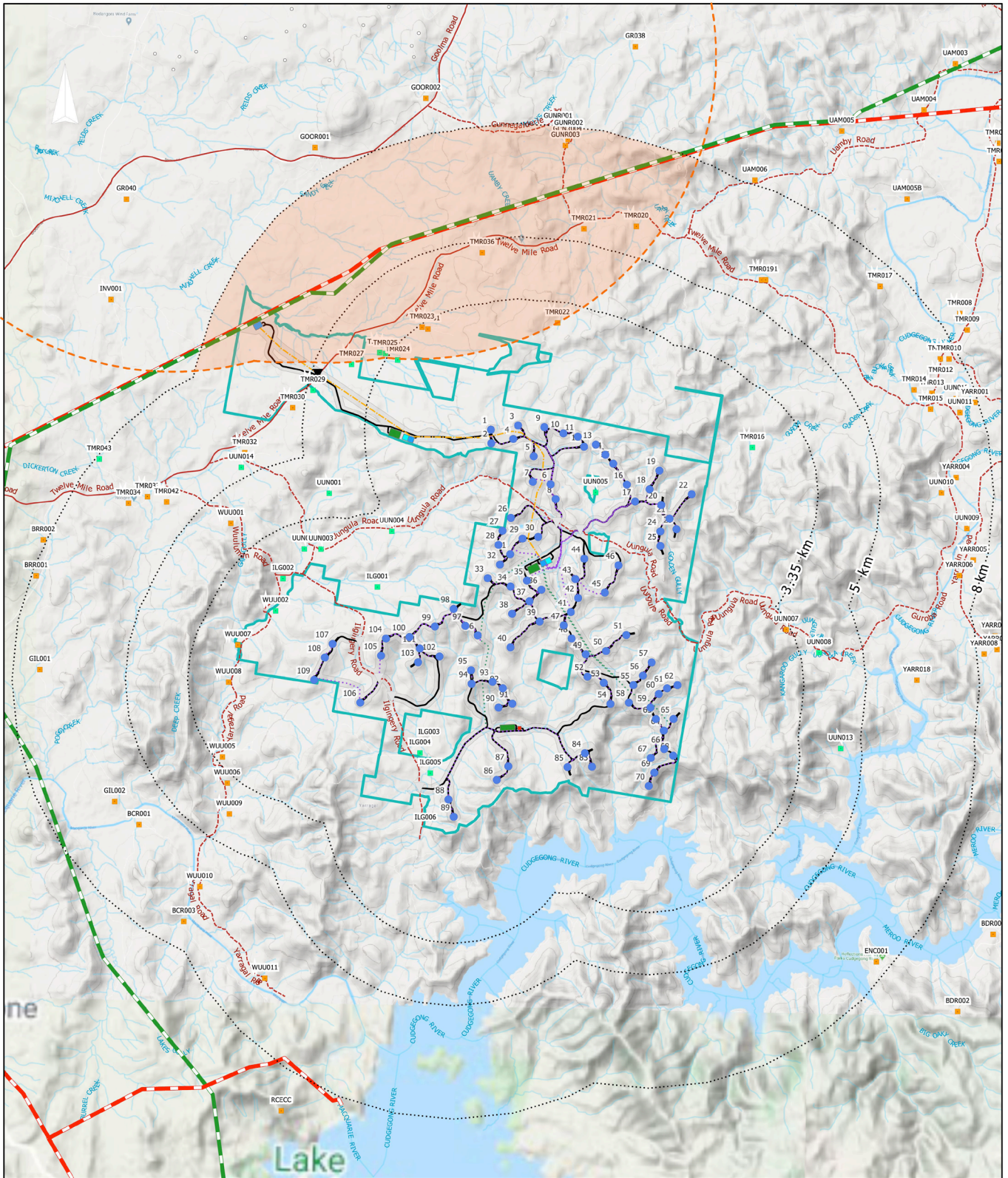
- Six residences with potential views to both wind farms are located along Twelve Mile Road: *TMR020, TMR021, TMR022, TMR023, TMR031, TMR036*
- Four residences are associated with Gunegalderie Road: *GUN001, GUN002, GUN003 AND GUN004*.

The Cumulative zone of visual influence (ZVI) diagram (Figure 14 of the LVIA) illustrates the Bodangora Wind Farm is screened by topography and would therefore have no cumulative visual impact from the following seven (7) residences: TRM020, TMR021, TMR022, GUN001, GUN002, GUN003 and GUN004.

**Table 3** provides an overview of the potential cumulative visual impact from the remaining three (3) residences (TMR023, TMR031 & TMR036) with potential views to both wind farms:

| Residence     | Distance to nearest Bodangora WF WTG | Number of WTGs within 8 kms of residence: | Cumulative Visual Impact Rating: | Assessment Notes:   |
|---------------|--------------------------------------|---|----------------------------------|---|
| <b>TMR023</b> | 7.2 km                               | 5   | Low                              | Distant views to approximately 14 WTGs associated with Bodangora Wind Farm.   |
| <b>TMR031</b> | 7.2 km                               | 5   | Nil - Low                        | Distant views to approximately 14 WTGs associated with Bodangora Wind Farm likely to be fragmented by vegetation.                   |
| <b>TMR036</b> | 5.45 km                              | 4   | Nil - Low                        | Vegetation to the north of the house and along Twelve Mile Road appears to screen views to Bodangora Wind Farm from this residence. |

**Table 3. Overview of cumulative visual impact**



- LEGEND**
- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"> <li><span style="color: green;">■</span> Residences: Involved</li> <li><span style="color: orange;">■</span> Residences: Non-involved</li> <li><span style="border-bottom: 1px dashed red; width: 20px; display: inline-block;"></span> Existing Unsealed Road</li> <li><span style="border-bottom: 1px solid red; width: 20px; display: inline-block;"></span> Existing Sealed Road</li> <li><span style="border: 1px solid cyan; width: 20px; display: inline-block;"></span> Project Site</li> <li><span style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></span> Access tracks</li> <li><span style="color: black;">▼</span> Primary Project Site access</li> <li><span style="color: black;">▽</span> Secondary intersections</li> <li><span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> WTG buffers</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> Wind Turbine Generator (WTG)</li> <li><span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span> Site Compound</li> <li><span style="background-color: cyan; width: 20px; height: 10px; display: inline-block;"></span> Substation</li> <li><span style="background-color: cyan; width: 20px; height: 10px; display: inline-block;"></span> Energy Storage Facility</li> <li><span style="border-bottom: 1px solid red; width: 20px; display: inline-block;"></span> Existing Powerlines: 132KV</li> <li><span style="border-bottom: 1px solid green; width: 20px; display: inline-block;"></span> Existing Powerlines: 330KV</li> <li><span style="border-bottom: 1px dashed orange; width: 20px; display: inline-block;"></span> Proposed powerlines: Overhead (high voltage)</li> <li><span style="border-bottom: 1px dotted blue; width: 20px; display: inline-block;"></span> Proposed powerlines: Underground (medium to low voltage)</li> <li><span style="border-bottom: 1px dotted black; width: 20px; display: inline-block;"></span> Proposed powerlines: Overhead (medium to low voltage)</li> </ul> | <ul style="list-style-type: none"> <li><span style="border-bottom: 1px dotted black; width: 20px; display: inline-block;"></span> Distance from Ungula Wind Farm</li> <li><span style="border-bottom: 1px dashed orange; width: 20px; display: inline-block;"></span> 8000m from Bodangora Wind Farm turbine</li> <li><span style="background-color: #f4a460; width: 20px; height: 10px; display: inline-block;"></span> Land within 8000m of both Ungula and Bodangora Wind turbines.</li> </ul> |
|---|---|---|

SCALE BAR  
0 10 km

**Figure 2: Residences within 8 kilometres of Bodangora & Ungula Wind Farms** (Map Source: CWP Renewables)



Appendix A  
Summary Tables



**Table A1: Non-associated residences within 5000 metres**

| Non-associated residences within 5000m |                                      |  |   |                                   |                                   |                        |   |
|--|--------------------------------------|--|---|-----------------------------------|-----------------------------------|------------------------|---|
|  | Distance to nearest WTG:             | WTGs within 3350m                      | WTGs within 3350 - 5000m  | Number of sectors (2D Assessment) | Number of sectors (3D Assessment) | Visual Impact Rating   | Cumulative Visual Impact Rating (with Bodangora WF) |
| <b>TMR022</b>                          | <b>2.78 km</b><br><i>Turbine 9</i>   | <b>6:</b><br><i>1, 3, 4, 9, 10, 11</i> | <b>11:</b><br><i>2, 5, 6, 7, 8, 12, 13, 14, 15, 16, 19</i>  | <b>3</b>                          | <b>2</b>                          | <i>Moderate</i>        | <i>Nil</i>  |
| <b>TMR023</b>                          | <b>3.20 km</b><br><i>Turbine 1</i>   | <b>1:</b><br><i>1</i>                  | <b>6:</b><br><i>2, 3, 4, 5, 9, 10</i>   | <b>2</b>                          | <b>2</b>                          | <i>Low</i>             | <i>Low</i>  |
| <b>TMR031</b>                          | <b>3.08 km</b><br><i>Turbine 1</i>   | <b>1:</b><br><i>1</i>                  | <b>8:</b><br><i>2, 3, 4, 5, 7, 9, 10, 11, 12</i>  | <b>2</b>                          | <b>2</b>                          | <i>Low - Moderate</i>  | <i>Nil - Low</i>                                    |
| <b>UUN007</b>                          | <b>3.2 km</b><br><i>Turbine 62</i>   | <b>1:</b><br><i>62</i>                 | <b>24:</b><br><i>20, 21, 22, 23, 24, 25, 45, 46, 50, 51, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68</i> | <b>2</b>                          | <b>1</b>                          | <i>Low - Moderate</i>  | <i>Nil</i>  |
| <b>WUU005</b>                          | <b>3.17 km</b><br><i>Turbine 109</i> | <b>1:</b><br><i>109</i>                | <b>4:</b><br><i>105, 106, 107, 108</i>  | <b>2</b>                          | <b>2</b>                          | <i>Low - Moderate</i>  | <i>Nil</i>  |
| <b>WUU007</b>                          | <b>2.22 km</b><br><i>Turbine 109</i> | <b>3:</b><br><i>107, 108, 109</i>      | <b>6:</b><br><i>100, 101, 103, 104, 105, 106</i>  | <b>2</b>                          | <b>2</b>                          | <i>Low - Moderate</i>  | <i>Nil</i>  |
| <b>WUU008</b>                          | <b>2.26 km</b><br><i>Turbine 109</i> | <b>3:</b><br><i>107, 108, 109</i>      | <b>4:</b><br><i>100, 104, 105, 106</i>  | <b>1</b>                          | <b>1</b>                          | <i>Low</i>             | <i>Nil</i>  |
| <b>TMR036</b>                          | <b>4.62 km</b><br><i>Turbine 3</i>   | Nil                                    | <b>3:</b><br><i>1, 3, 9</i>   | <b>2</b>                          | <b>2</b>                          | <i>Low</i>             | <i>Nil - Low</i>                                    |
| <b>WUU001</b>                          | <b>4.17 km</b><br><i>Turbine 107</i> | Nil                                    | <b>3:</b><br><i>107, 108, 109</i>   | <b>2</b>                          | <b>2</b>                          | <i>Moderate - High</i> | <i>Nil</i>  |
| <b>WUU006</b>                          | <b>3.57 km</b><br><i>Turbine 109</i> | Nil                                    | <b>4:</b><br><i>106, 107, 108, 109</i>  | <b>2</b>                          | <b>1</b>                          | <i>Low</i>             | <i>Nil</i>  |
| <b>WUU009</b>                          | <b>4.19 km</b><br><i>Turbine 109</i> | Nil                                    | <b>3:</b><br><i>106, 108, 109</i>   | <b>2</b>                          | <b>1</b>                          | <i>Low - Moderate</i>  | <i>Nil</i>  |

**Table 2: Non-associated residences within 5000 - 8000 metres**

| Non-associated residences within 5000 - 8000m |                                      |                   |                          |                                   |                                   |                      |   |
|---|--------------------------------------|-------------------|--------------------------|-----------------------------------|-----------------------------------|----------------------|---|
|   | Distance to nearest WTG:             | WTGs within 3350m | WTGs within 3350 - 5000m | Number of sectors (2D Assessment) | Number of sectors (3D Assessment) | Visual Impact Rating | Cumulative Visual Impact Rating (with Bodangora WF) |
| <b>BCR001</b>                                 | <b>7.6 km</b><br><i>Turbine 109</i>  | Nil               | Nil                      | <b>1</b>                          | <b>0</b>                          | <i>Nil</i>           | Nil   |
| <b>BCR003</b>                                 | <b>7.26 km</b><br><i>Turbine 109</i> | Nil               | Nil                      | <b>1</b>                          | <b>1</b>                          | <i>Low</i>           | Nil   |
| <b>BRR001</b>                                 | <b>7.85 km</b><br><i>Turbine 109</i> | Nil               | Nil                      | <b>1</b>                          | <b>0</b>                          | <i>Nil</i>           | Nil   |
| <b>ENC001</b>                                 | <b>7.6 km</b><br><i>Turbine 70</i>   | Nil               | Nil                      | <b>1</b>                          | <b>1</b>                          | <i>Low</i>           | Nil   |
| <b>GIL001</b>                                 | <b>7.26 km</b><br><i>Turbine 109</i> | Nil               | Nil                      | <b>1</b>                          | <b>0</b>                          | <i>Nil</i>           | Nil   |
| <b>GIL002</b>                                 | <b>6.18 km</b><br><i>Turbine 109</i> | Nil               | Nil                      | <b>1</b>                          | <b>0</b>                          | <i>Nil</i>           | Nil   |
| <b>GUNR001</b>                                | <b>7.95 km</b><br><i>Turbine 9</i>   | Nil               | Nil                      | <b>2</b>                          | <b>1</b>                          | <i>Low</i>           | Nil   |
| <b>GUNR002</b>                                | <b>7.79km</b><br><i>Turbine 9</i>    | Nil               | Nil                      | <b>2</b>                          | <b>1</b>                          | <i>Low</i>           | Nil   |
| <b>GUNR003</b>                                | <b>7.47 km</b><br><i>Turbine 9</i>   | Nil               | Nil                      | <b>2</b>                          | <b>1</b>                          | <i>Low</i>           | Nil   |
| <b>GUNR004</b>                                | <b>7.62 km</b><br><i>Turbine 9</i>   | Nil               | Nil                      | <b>2</b>                          | <b>1</b>                          | <i>Low</i>           | Nil   |

## Non-associated residences within 5000 - 8000m

|               |                                      |     |     |          |          |                  |     |
|---------------|--------------------------------------|-----|-----|----------|----------|------------------|-----|
| <b>TMR010</b> | <b>7.69 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR011</b> | <b>7.49 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR012</b> | <b>7.24 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR013</b> | <b>6.89 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR014</b> | <b>6.50 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR015</b> | <b>6.71 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR017</b> | <b>7.42 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>0</b> | <i>Nil</i>       | Nil |
| <b>TMR018</b> | <b>5.59 km</b><br><i>Turbine 19</i>  | Nil | Nil | <b>1</b> | <b>0</b> | <i>Nil</i>       | Nil |
| <b>TMR019</b> | <b>5.59 km</b><br><i>Turbine 19</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Nil - Low</i> | Nil |
| <b>TMR020</b> | <b>5.77 km</b><br><i>Turbine 13</i>  | Nil | Nil | <b>2</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR021</b> | <b>5.35 km</b><br><i>Turbine 9</i>   | Nil | Nil | <b>2</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR030</b> | <b>5.26 km</b><br><i>Turbine 1</i>   | Nil | Nil | <b>2</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR032</b> | <b>5.56 km</b><br><i>Turbine 107</i> | Nil | Nil | <b>2</b> | <b>1</b> | <i>Low</i>       | Nil |
| <b>TMR033</b> | <b>6.26 km</b><br><i>Turbine 107</i> | Nil | Nil | <b>1</b> | <b>1</b> | <i>Nil - Low</i> | Nil |
| <b>TMR034</b> | <b>6.56 km</b><br><i>Turbine 107</i> | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>       | Nil |

### Non-associated residences within 5000 - 8000m

|                |                                      |     |     |          |          |                       |     |
|----------------|--------------------------------------|-----|-----|----------|----------|-----------------------|-----|
| <b>TMR041</b>  | <b>5.77 km</b><br><i>Turbine 19</i>  | Nil | Nil | <b>1</b> | <b>0</b> | Nil                   | Nil |
| <b>TMR042</b>  | <b>5.78 km</b><br><i>Turbine 107</i> | Nil | Nil | <b>1</b> | <b>1</b> | <i>Nil - Low</i>      | Nil |
| <b>UUN009</b>  | <b>7.27 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>0</b> | Nil                   | Nil |
| <b>UUN010</b>  | <b>6.61 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>0</b> | Nil                   | Nil |
| <b>UUN011</b>  | <b>7.42 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>0</b> | Nil                   | Nil |
| <b>UUN012</b>  | <b>7.44 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>            | Nil |
| <b>WUU010</b>  | <b>6.25 km</b><br><i>Turbine 109</i> | Nil | Nil | <b>1</b> | <b>0</b> | Nil                   | Nil |
| <b>WUU011</b>  | <b>6.57 km</b><br><i>Turbine 89</i>  | Nil | Nil | <b>1</b> | <b>0</b> | Nil                   | Nil |
| <b>YARR001</b> | <b>7.88 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>            | Nil |
| <b>YARR004</b> | <b>7.01 km</b><br><i>Turbine 22</i>  | Nil | Nil | <b>1</b> | <b>0</b> | Nil                   | Nil |
| <b>YARR005</b> | <b>7.7 km</b><br><i>Turbine 22</i>   | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>            | Nil |
| <b>YARR006</b> | <b>7.4 km</b><br><i>Turbine 22</i>   | Nil | Nil | <b>1</b> | <b>1</b> | <i>Low</i>            | Nil |
| <b>YARR018</b> | <b>6.3 km</b><br><i>Turbine 62</i>   | Nil | Nil | <b>2</b> | <b>1</b> | <i>Low - Moderate</i> | Nil |

**Table A3: Sensitive Viewpoints**

| Additional Information - Sensitive Viewpoints |                                     |                   |  |                      |   |
|---|-------------------------------------|-------------------|--|----------------------|---|
|   | Distance to nearest WTG:            | WTGs within 3350m | WTGs within 3350 - 5000m               | Visual Impact Rating | Cumulative Visual Impact Rating (with Bodangora WF) |
| <b>VP10</b>                                   | <b>8.0 km</b><br><i>Turbine 9</i>   | <i>Nil</i>        | <i>Nil</i>                             | <i>Low</i>           | <i>Low</i>  |
| <b>VP11</b>                                   | <b>7.6 km</b><br><i>Turbine 9</i>   | <i>Nil</i>        | <i>Nil</i>                             | <i>Low</i>           | <i>Nil</i>  |
| <b>VP12</b>                                   | <b>6.1 km</b><br><i>Turbine 13</i>  | <i>Nil</i>        | <i>Nil</i>                             | <i>Nil - Low</i>     | <i>Nil</i>  |
| <b>VP15</b>                                   | <b>5.6 km</b><br><i>Turbine 19</i>  | <i>Nil</i>        | <i>Nil</i>                             | <i>Nil</i>           | <i>Nil</i>  |
| <b>VP16</b>                                   | <b>5.7 km</b><br><i>Turbine 19</i>  | <i>Nil</i>        | <i>Nil</i>                             | <i>Nil</i>           | <i>Nil</i>  |
| <b>VP17</b>                                   | <b>7.8 km</b><br><i>Turbine 22</i>  | <i>Nil</i>        | <i>Nil</i>                             | <i>Low</i>           | <i>Nil</i>  |
| <b>VP19</b>                                   | <b>7.6 km</b><br><i>Turbine 22</i>  | <i>Nil</i>        | <i>Nil</i>                             | <i>Nil</i>           | <i>Nil</i>  |
| <b>VP20</b>                                   | <b>7.48 km</b><br><i>Turbine 22</i> | <i>Nil</i>        | <i>Nil</i>                             | <i>Low</i>           | <i>Nil</i>  |
| <b>VP21</b>                                   | <b>9.93 km</b><br><i>Turbine 62</i> | <i>Nil</i>        | <i>Nil</i>                             | <i>Nil - Low</i>     | <i>Nil</i>  |
| <b>VP22</b>                                   | <b>6.5 km</b><br><i>Turbine 68</i>  | <i>Nil</i>        | <i>Nil</i>                             | <i>Nil</i>           | <i>Nil</i>  |
| <b>VP23</b>                                   | <b>6.6 km</b><br><i>Turbine 89</i>  | <i>Nil</i>        | <i>Nil</i>                             | <i>Nil</i>           | <i>Nil</i>  |
| <b>VP24</b>                                   | <b>3.6 km</b><br><i>Turbine 109</i> | <i>Nil</i>        | <b>4:</b><br><i>106, 107, 108, 109</i> | <i>Low</i>           | <i>Nil</i>  |

| Additional Information - Sensitive Viewpoints |                       |  |  |                    |     |
|---|-----------------------|--|--|--------------------|-----|
| VP25  | 3.1 km<br>Turbine 109 | 1:<br>109  | 3:<br>106, 107 & 108   | Low                | Nil |
| VP26  | 2 km<br>Turbine 109   | 3:<br>109, 108, 107  | 6:<br>100, 101, 103,<br>104, 105   | Low -<br>Moderate  | Nil |
| VP27  | 2 km<br>Turbine 109   | 3:<br>109, 108, 107  | 8:<br>99, 100, 101,<br>102, 103, 104,<br>105, 106                            | Moderate -<br>High | Nil |
| VP28  | 2.3 km<br>Turbine 107 | 3:<br>109, 108, 107  | 9:<br>98, 99, 100,<br>101, 102, 103,<br>104, 105, 106                        | Moderate -<br>High | Nil |
| VP29  | 4.1 km<br>Turbine 107 | Nil  | 4:<br>104, 107, 108,<br>109  | Moderate           | Nil |
| VP31  | 2.6 km<br>Turbine 107 | 3:<br>104, 107, 108  | 14:<br>105, 106, 100,<br>101, 102, 103,<br>99, 98, 97, 96,<br>33, 32, 28, 27 | Moderate -<br>High | Nil |
| VP32  | 1.6 km<br>Turbine 107 | 12:<br>98, 99, 100,<br>101, 102, 103,<br>104, 105, 106,<br>107, 108, 109                             | 13:<br>93, 94, 95, 96,<br>97, 40, 38, 34,<br>33, 32, 31, 28,<br>27           | Moderate -<br>High | Nil |
| VP33  | 1.5 km<br>Turbine 88  | 18:<br>86, 87, 88, 89,<br>90, 91, 92, 93,<br>94, 95, 100,<br>101, 102, 103,<br>104, 105, 106,<br>109 | 12:<br>83, 84, 85, 38,<br>39, 40, 96, 97,<br>98, 99, 107,<br>108             | High               | Nil |

### Additional Information - Sensitive Viewpoints

|             |                                     |   |   |                           |                  |
|-------------|-------------------------------------|---|---|---------------------------|------------------|
| <b>VP34</b> | <b>2.6 km</b><br><i>Turbine 98</i>  | <b>15:</b><br>2, 26, 27, 28,<br>29, 31, 32, 33,<br>34, 97, 98, 99,<br>100, 101, 104 | <b>27:</b><br>1, 3, 4, 5, 6, 7,<br>8, 9, 30, 35,<br>36, 37, 38, 39,<br>40, 43, 93, 94,<br>95, 96, 102,<br>103, 105, 106,<br>107, 108, 109 | <i>High</i>               | <i>Nil</i>       |
| <b>VP35</b> | <b>700m</b><br><i>Turbine 8</i>     | <b>43:</b><br>1 - 37, 41-46   | <b>15:</b><br>38, 39, 40, 48,<br>49, 50, 51, 52,<br>53, 55, 56, 57,<br>96, 97, 98   | <i>High</i>               | <i>Nil</i>       |
| <b>VP36</b> | <b>3.2 km</b><br><i>Turbine 1</i>   | <b>1:</b><br>1  | <b>6:</b><br>2, 3, 4, 5, 9, 10  | <i>Low</i>                | <i>Low</i>       |
| <b>VP37</b> | <b>3.1 km</b><br><i>Turbine 1</i>   | <b>1:</b><br>1  | <b>8:</b><br>2, 3, 4, 5, 7, 9,<br>10, 11, 12  | <i>Low -<br/>Moderate</i> | <i>Nil - Low</i> |
| <b>VP38</b> | <b>2.78 km</b><br><i>Turbine 9</i>  | <b>6:</b><br>1, 3, 4, 9, 10,<br>11  | <b>11:</b><br>2, 5, 6, 7, 8,<br>12, 13, 14, 15,<br>16, 19   | <i>Moderate</i>           | <i>Nil</i>       |
| <b>VP39</b> | <b>5.1 km</b><br><i>Turbine 9</i>   | <i>Nil</i>  | <i>Nil</i>  | <i>Low -<br/>Moderate</i> | <i>Nil</i>       |
| <b>VP40</b> | <b>5.8 km</b><br><i>Turbine 13</i>  | <i>Nil</i>  | <i>Nil</i>  | <i>Low</i>                | <i>Nil</i>       |
| <b>VP41</b> | <b>7.2 km</b><br><i>Turbine 22</i>  | <i>Nil</i>  | <i>Nil</i>  | <i>Nil</i>                | <i>Nil</i>       |
| <b>VP42</b> | <b>7.05 km</b><br><i>Turbine 22</i> | <i>Nil</i>  | <i>Nil</i>  | <i>Nil</i>                | <i>Nil</i>       |

### Additional Information - Sensitive Viewpoints

|             |                                      |                            |   |                            |            |
|-------------|--------------------------------------|----------------------------|---|----------------------------|------------|
| <b>VP43</b> | <b>3.85 km</b><br><i>Turbine 62</i>  | <i>Nil</i>                 | <b>13:</b><br>23, 55, 56, 57,<br>59, 60, 61, 62,<br>63, 64, 65, 66,<br>68 | <i>Moderate</i>            | <i>Nil</i> |
| <b>VP44</b> | <b>7.7 km</b><br><i>Turbine 68</i>   | <i>Nil</i>                 | <i>Nil</i>  | <i>Low</i>                 | <i>Nil</i> |
| <b>VP45</b> | <b>2.1 km</b><br><i>Turbine 109</i>  | <b>3:</b><br>107, 108, 109 | <b>4:</b><br>100, 104, 105,<br>106  | <i>Low</i>                 | <i>Nil</i> |
| <b>VP46</b> | <b>4.17 km</b><br><i>Turbine 107</i> | <i>Nil</i>                 | <b>3:</b><br>107, 108, 109  | <i>Moderate -<br/>High</i> | <i>Nil</i> |





WIND

# UUNGULA WIND FARM (SSD-6687)

## Response to Request for Additional Information Appendix B

22 January 2021

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Version 1  
Author Matthew Flower  
Client Uungula Wind Farm Pty Ltd

Table B1: Schedule of Road Upgrades

| Reference in Figure | Road / Intersection                           | Location   | Upgrade Summary  | Upgrades Proposed  |
|---------------------|---|--|--|--|
| 1                   | Twelve Mile Road and Goolma Road Intersection | Intersection   | Twelve Mile Road and Goolma Road Intersection                        | Twelve Mile Road intersection with Goolma Road will be upgraded prior to the commencement of construction generally in accordance with the drawing set entitled 'TMR/Goolma Road Intersection Preliminary Upgrade Design - Version 2 (Appendix F to the Project Amendment Report). |
| 2                   | Twelve Mile Road                              | Chainage 0km-13.8km (primary Project site entry) (measured from existing Goolma Road intersection) | Twelve Mile Road upgrade   | Twelve Mile Road will be upgraded prior to the commencement of construction generally in accordance with the drawing set included in the EIS as Appendix N. (noting these drawings remain subject to detailed investigations and design).  |
| 3                   | Twelve Mile Road                              | Primary Project Site entry   | Primary Project Site entry creation                                  | Construct intersection according to Section 138 (Roads Act) requirements for safe exit and entry movements and to provide adequate wind farm component access.   |
| 4                   | Uungula Road                                  | Project access road intersections  | Project access road intersections creation                           | Construct intersections according to Section 138 (Roads Act) requirements for safe exit and entry movements and to provide adequate wind farm component access.  |
| 5                   | Ilgingery Road                                | Project access road intersections  | Project access road intersections creation                           | Construct intersections according to Section 138 (Roads Act) requirements for safe exit and entry movements and to provide adequate wind farm component access.  |
| 6                   | Ilgingery Road                                | 3.89km (measured from Wuuluman Road intersection)  | Ilgingery Road stock grid replacement (at 3.89km from Wuuluman Road) | Extend stock grid approach seal to 20m x 4.5m each side of grid with a two coat flush seal.  |