Goyder North Renewable Energy Facility

Visual Assessment

Prepared for NEOEN Australia Pty Ltd 4 April 2024

GBD

Landscape Architecture

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GBD is a leading specialist in renewable energy landscape character and visual impact assessment, setting a course that others follow.

Servicing the renewable energy industry for over 18 years, GBD has gathered a wealth of unrivalled project experience in a variety of landscapes from Far North Queensland to western Tasmania.

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Green Bean Design Pty Ltd
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The methodology adopted and sources of information used are outlined in this report. GBD has made no independent verification of this information beyond the agreed scope of works and GBD assumes no responsibility for any inaccuracies or omissions.

No indications were found during our investigations that information contained in this report as provided to GBD was false.
This report was completed between October 2022 and April 2024 and is based on the conditions encountered and information reviewed at the time of preparation. GBD disclaims responsibility for any changes that may have occurred after this time. This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Cover image: Photomontage view east to south east from Old Belcunda Road

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Table 1 Glossary

Term	Definition
Battery Energy Storage System (BESS)	BESS are devices that enable energy from renewables, such as wind farms, to be stored and then released when the power is needed.
Cumulative effects	The summation of effects that result from changes caused by a development in conjunction with other past, present or reasonably foreseeable actions.
Human scale indicators	Natural landscape features or constructed elements that form relatable scaled visual characteristics based on human sensory capabilities.
Landscape	A visible area of the earth's surface defined by natural or human induced change with discernible characteristic of landform, land use and human cultural overlays.
Landscape character	A distinct and consistent pattern of elements in the landscape that create an area of landscape visually different from other areas.
Magnitude	A combination of the scale, extent and duration of an effect.
Mitigation	Measures, including any processes, activity or design to avoid, reduce, remedy or compensate for adverse landscape and visual effects of a development project.
Photomontage (Visualisation)	Computer simulation or other technique to illustrate the appearance of a development.
Sensitivity	Susceptibility of a receiver to a specific type of change.
Skyline	An outline of the land as defined against the sky.
Stacking	The visual effect of multiple wind turbine rotors overlapping within a view
Topographical variety	A various arrangement of forms and features of land surfaces.
Viewshed	The total landscape area seen from a location or path of travel
Visibility	A relative determination at which the proposal can be clearly discerned and described.
Visual amenity	The value of a particular area or view in terms of what is seen.
Visual effect	The change in character of an available view that results from a development or the changes in visual amenity of people living beyond the project.

Table 1 Glossary

Visual Assessment	A process of applied professional and methodical techniques to assess and determine the extent and nature of change to the composition of existing views that may result from a development.
View location	A place or situation from which a proposed development may be visible.
Visual receiver	Individual and/or defined groups of people who have the potential to be affected by a proposal.
Visual significance	A measure of the importance or gravity of the visual effect culminating from the degree of magnitude and receiver sensitivity.

Section 1. Executive summary

1.1 Introduction

This Visual Assessment has been prepared to consider potential visual effects associated with the proposed Goyder North Renewable Energy Facility (the Project) and to address various 'landscape' and 'scenic amenity' statutory requirements of the Government of South Australia (PlanSA) Planning and Design Code requirements and objectives as applicable to the Project.

1.2 Professional judgement in landscape and visual impact assessment

The process of landscape and visual assessment incorporates both qualitative and quantitative analysis; however, a determination of visual effect is ultimately based on an interpretation informed by professional judgement. The application of professional judgement is outlined in the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition 2013, which notes that professional judgement is a very important part of landscape and visual assessment. The Guideline notes that professional judgement is applied to several other environmental topics (e.g., ecology and cultural heritage) and that judgements made should be:

- Reasonable and based on clear and transparent methods
- Based on training and experience and
- Made, in general, by suitably qualified and experienced landscape professionals.

The Guideline notes that qualified and experienced landscape professionals may not agree on various aspects of a landscape and visual assessment which may arise from the application of different approaches or criteria; however, the core principals of receiver sensitivity and visual magnitude should provide some consistency in determinations of effects.

1.3 Landscape characteristics

This Visual Assessment has determined that landscape characteristics within and immediately surrounding the Project site, as well as characteristics within the wider landscape, are visually robust and defined by strong lineal forms and broadscale, consistent landscape patterns within the rural landscape.

Whilst recognising sensitivities and values applied to the landscape surrounding the Project site, the overall landscape characteristics within and surrounding the Project site are considered to exhibit characteristics which tend to result in a moderate low sensitivity to accommodate change.

Landscapes with a moderate low sensitivity include those associated with broad, simple patterns and consistent colour and texture. These landscape characteristics are also generally common within the perspective of the broader sub-regional landscape which supports several renewable energy projects.

Landscapes beyond the Project site display characteristics of moderate scenic value with occasional steeper rising landforms providing a higher degree of scenic values.

Landscape characteristics and the overall potential visibility of the Project have been illustrated in a series of panoramic photographs and in Zone of Theoretical Visibility (ZTV) diagrams. The ZTV diagrams demonstrate the screening influence of undulating landforms surrounding the Project site.

The Project would incorporate new built features into the landscape and create a visual landmark from elevated view locations, such as Mount Bryan, but the Project is not considered to significantly conflict with existing landscape characteristics.

1.4 Visual effects

Views toward the Project from the Burra and Mount Bryan townships (from dwellings and public spaces) would be largely screened by either landform and/or vegetation and result in moderate low visual effects where visible. Views from elevated sections of the Burra township would extend toward a small number of wind turbines within the south west portion of the Project site (around 10 wind turbines in total). The assessment of visual effects determined that most uninvolved dwellings are unlikely to have significant views toward ancillary electrical infrastructure including substations, battery energy storage systems (BESS) and the overhead transmission line (OTL). Views toward the Project site from other view locations including lookouts, Burra Mine site, heritage localities and road corridors would not result in significant visual effects.

1.5 Electrical infrastructure

An assessment of the proposed substations, BESS and the OTL determined that existing landscape characteristics, including tree cover and a low undulating landform along most of the proposed OTL easement, would have some capability to absorb smaller scale ancillary electrical infrastructure. Electrical infrastructure would not result in significant visual effects.

1.6 Nighttime obstacle lighting

An Aviation Impact Assessment (AIA) determined that wind monitoring towers be appropriately marked in accordance with applicable guidelines (excluding strobe lighting) noted in the AIA. The AIA further determined that the Project is a low risk to aviation activity and does not require night time obstacle lighting with no further mitigation required.

1.7 Cumulative visual effects

A cumulative assessment identified several operating wind farms within a 30 kilometre (km) sub-regional locality of the Project. This Visual Assessment determined that there would be some opportunities for direct and indirect visibility between the Project site and other wind farms (e.g. Goyder South and the Hallett Wind Farm group) within a broader landscape context; however, this would not result in significant cumulative visual effects due to distances between wind farm developments.

1.8 Mitigation

This Visual Assessment considered several strategies to mitigate potential visual effects from sensitive receiver locations. These include applying uniformity in wind turbine design and colour, as well as operational outcomes that have all wind turbines rotating in the same direction in accordance with the Planning and Design Code requirements. Visual mitigation would be largely achieved through distance between wind turbines and ancillary Project elements and sensitive receiver locations, as well as undulating landforms within and beyond the Project site.

1.9 Acceptability of landscape and visual effects

This Visual Assessment has assessed the potential landscape and visual effect of the Project against relevant policies and guidelines and has determined that, in our professional opinion, the Project is compliant with the requirements and objectives of the Planning and Design Code as applicable to ‘landscape’ and ‘scenic amenity’ and that the level of landscape and visual effects are acceptable.

Section 2. Introduction

2.1 Introduction

This Visual Assessment has been prepared to accompany an application to seek Development Authorisation for the Goyder North Renewable Energy Facility pursuant to the *Planning Development and Infrastructure Act*, 2016. Neoen is developing the Project as a part of its wider Goyder Renewable Zone concept. As a part of this concept, the Goyder South Hybrid Renewable Energy Facility (Goyder South) was granted Development Approval in 2021.

This report informs the assessment of the Project site for suitability for a wind farm development within the landscape surrounding the Project, as well as considering the potential extent and degree of visual effects on people living in and travelling through, the surrounding landscape and those visiting places around the Project site for recreation and tourism.

This Visual Assessment has been prepared by Andrew Homewood, Director and Principal Landscape Architect at Green Bean Design Pty Ltd (GBD). Andrew has over 30 years' experience in landscape architectural consulting, and over 18 years' experience in the preparation of Visual Assessment reports for wind farm projects, as well as other state significant projects including high voltage transmission lines, substations, and battery energy storage systems. Andrew has been commissioned to undertake visual assessment studies for over 60 large scale renewable energy projects across South Australia, Victoria, New South Wales, Queensland, and Tasmania.

This Visual Assessment has been prepared with reference to the Planning and Design Code Version 2023.5 (Date of Adoption: 30 March 2023).

In addition, this Visual Assessment has also considered landscape and visual assessment guidance set out in:

- Guidelines for Landscape and Visual Impact Assessment, Third Edition, Landscape Institute, and Institute of Environmental Management & Assessment, 2013
- Siting and Designing Wind Farms in the Landscape, Version 3a, NatureScot, August 2017 and
- Visual Representation of Wind Farms, Version 2.2, Scottish Natural Heritage, March 2017.

2.2 Previous studies

GBD prepared the Goyder South Hybrid Renewable Energy Facility Landscape and Visual Impact Assessment Report in June 2020 which included site inspections around the Goyder North Project site.

Section 3. The Planning and Design Code

3.1 Introduction

The Planning and Design Code is the single document that outlines planning requirements for all types of land use and planning impacts in South Australia. The Code is the basis for decision making for all forms of Code assessed development lodged under the PDI Act. The Code includes specific guidance based on overlays, zones, subzones and general policies. A 'renewable energy facility' is separately defined, with associated code policies relating to these developments contained in the Infrastructure and Renewable Energy Facilities module. For example, these policies detail performance measures in respect to the scale of development and setbacks from project boundaries, non-host dwellings and townships / more sensitive zones.

3.2 Code Assessed Development

Development types can be categorised as 'accepted', 'deemed-to-satisfy' or 'restricted' under the Planning and Design Code. If development does not fall within these three classifications, it will be 'performance assessed'. Generally, large-scale renewable energy facilities will be performance assessed in most areas. In certain zones or overlays, such facilities may be restricted and subject to a more rigorous level of assessment. More limited forms of development are sought in these areas due to their environmental sensitivity or landscape character (which includes the Hills Face Zone, Coastal Zone, Conservation Zone, Significant Landscape Protection Overlay, RAMSAR Wetlands Overlay and Barossa / McLaren Vale Protection Districts, amongst others). Restricted developments are generally not envisaged, unless accompanied by detailed justification, and are subject to an 'early no' decision with limited (internal) appeal rights.

3.3 Zones

Zones are the primary organising spatial layer in the Code. Zones provide guidance on what can happen in an area by setting out the policies and rules for certain classes of development. The Project site is predominantly located within the Rural Zone, with the southern connection to the grid at Bundey being in the Rural Intensive Enterprise Zone.

Rural Zone outcome:

The Rural Zone covers most of the incorporated areas of the state. It supports a wide range of primary production activities and provides opportunities for value-adding and the use of renewable energy sources, including wind/solar farms. The zone applies to vast areas of land between rural towns.

Rural Intensive Enterprise Zone outcome:

This Zone is a specialised economic and employment focussed zone that aims to facilitate and promote intensive agricultural production, processing facilities and supporting ancillary industries. The policy also supports the development of complimentary infrastructure projects.

3.4 Overlays

Planning and Design Code (P&D Code) Overlays are layers in the P&D Code under the Planning, Development and Infrastructure Act 2016 (PDI Act 2016). P&D Code Overlays identify areas where specific P&D Code policies are applicable or where an area may be subject to referrals.

Overlays are the primary mechanism to spatially express State Planning Policies as they pick up location-specific planning issues of state interest. Overlays can span multiple zones and subzones and more than one overlay can apply to the same area. Overlay policies take precedence over other Code policies. Overlay policies are only relevant as set out in the zone classification tables. Overlays contain Assessment Provisions and a Procedural Matters table that sets out statutory referrals that apply in the Overlay area.

3.4.1 Significant Landscape Protection Overlay

Overlay outcome

The Significant Landscape Protection Overlay seeks to conserve the natural and rural character and scenic and cultural qualities of significant landscapes.

The Significant Landscape Protection Overlay applies to significant landscapes of high value scenic or cultural qualities, such as the Flinders Ranges and Kangaroo Island coast.

3.4.2 Scenic Quality Overlay

Overlay outcome

The Scenic Quality Overlay seeks to ensure development complements natural and rural character, and areas of scenic value.

This Overlay typically applies in rural locations, such as the Productive Rural Landscape Zone. It applies to untouched/unspoilt scenic type landscapes that are considered scenically valuable, such as the Mount Lofty Ranges.

There are no Landscape Protection or Scenic Quality Overlays that occur within or surrounding the Project site. The nearest Landscape Protection Overlays are between 80km and 100km to the north west and south of the Project site. The nearest Scenic Quality Overlay is around 155km south west of the Project site.

3.5 General Development Policies

Development policies broadly relate to how a development should occur. These polices address the functional requirements for a development type or class, such as minimisation of overshadowing for a multi-storey building.

General development policies contain Assessment Provisions and are linked to specific development types as listed in a zone's Classification Table. The General Development Policies considered relevant to this Visual Assessment include:

- Design
- Infrastructure and Renewable Energy Facilities
- Interface between Land Uses

The Visual Assessment response to the Planning and Design Code is presented in **Section 10**.

Section 4. Methodology and report structure

4.1 Methodology

The Visual Assessment methodology adopts existing guidelines identified in this Visual Assessment introduction, and also on the assessment of a significant number of wind farms undertaken by GBD across South Australia, Victoria, New South Wales, Queensland and Tasmania.

Key principles of visual assessment consider a combination of:

- Receiver sensitivity (landscape or people) and
- Potential magnitude of visual effects.

For wind farm projects the magnitude of visual effects is primarily determined through:

- Distance between wind turbines and receiver locations
- Horizontal field of view occupied by wind turbine structures and
- Vertical field of view occupied by wind turbines.

The magnitude of horizontal and vertical fields of view are difficult to quantify against set criteria for potential visual effect and are often considered against the parameters of standard human eyesight. Whilst human eyesight can be objectified against horizontal and vertical field of view, it does not allow for the almost continual movement of receivers in a landscape setting as well as a natural inclination to scan distant horizons. Nevertheless, formulating a professional judgement on the visual scale of a wind turbine within a particular vista is necessary step in the visual assessment process.

It is important to understand the difference between visual assessment and landscape assessment and why both types of assessments are appropriate to include in this Visual Assessment. Visual assessments assess effects on viewers (people) caused by developments from selected viewpoints. Examples include a view of the development from a residential area where it will be seen by residents, a view from areas where it will be seen by people engaged in recreational activities or tourists visiting places or landscape features.

A visual assessment will determine the change to the view itself caused by the Project. It also determines how change will affect the experience of people who may be at a viewpoint, and how they might respond to the change. The effect of seeing a development on viewer experience depends in part on what the viewers are doing when viewing a particular landscape scene, and their response depends in part on who they are and how much they value the view. Enjoyment of a particular view is dependent on viewers, and in visual assessment, receptors are people, not the landscape.

Landscape assessment considers effects on physical elements and features that make up a landscape and the aesthetic, perceptual, and experiential aspects of that landscape that make it distinctive. These effects affect the “feel,” “character,” or “sense of place” of an area of landscape, rather than the composition of a view from a particular place. Landscape effects, in essence, are a measure of the degree of compatibility of the character of the development, which might be, for example, “industrial,” with the character of the landscape it is in or is visible from, say, “wilderness” or “tranquil.” The impact receptor is the potentially affected landscape.

The final assessment of potential landscape and visual effects combines sensitivity and magnitude of visual effects and is ultimately a process of professional judgement. Professional judgement applies knowledge, assessment skills and relevant experience within the context of existing guidelines and technical supplements. Professional judgements applied in this Visual Assessment are based on reasonable and defined criteria.

4.2 Site inspections

Site inspection works and photography were undertaken in August 2023.

4.3 Report structure

This Visual Assessment report been structured into 16 parts as follows:

Table 2 Report structure

Report Section	Description
1 Executive summary	This section provides an overview of the main findings of the Visual Assessment.
2 Introduction	This section provides an introductory section that describes the intent and purpose of the Visual Assessment in the context of planning requirements.
3 The Planning and Design Code	This section outlines the Planning and Design Code as relevant to this Visual Assessment.
4 Methodology and report structure	This section sets out the structure and methodology employed in the Visual Assessment preparation.
5 Project location and description	This section describes the regional and local position of the wind farm development relative to existing landscape features and places and describes the key visible components of the project.
6 Viewshed	This section identifies the area of land surrounding the wind farm Project site subject to detailed assessment in this Visual Assessment.
7 Panoramic photographs	This section illustrates the Visual Assessment with panorama photographs taken during the site inspection. The photographs are provided to illustrate the general appearance of typical landscape characteristics that surround the proposed wind turbines.
8 Landscape character assessment	This section describes the physical characteristics of the landscape surrounding the Project site and determines the overall sensitivity of the landscape to the wind farm development.
9 Zone of theoretical visibility and visual factors	This section identifies a theoretical area of the landscape from which the wind turbines may be visible within the

Table 2 Report structure

	viewshed and describes a range of factors which may influence the wind farm visibility within the viewshed.
10 Planning and Design Code, Zones and General Development Guidelines	This section addresses the Planning and Design Code as applicable to the Visual Assessment.
11 Key views, visual effect and mitigation	This section describes and determines the potential visual effect of the wind turbines on key public viewpoints within the project viewshed.
12 Night lighting	This section describes the potential effect of night lighting associated with the Project.
13 Cumulative assessment	This section describes the potential effect of alternate existing and/or known wind farm developments within proximity to the Project.
14 Pre-construction and construction	This section describes the activities associated with pre-construction and during construction which may create visual effects.
15 Mitigation	This section outlines potential mitigation measures to minimise visual effects arising from the proposed wind farm development.
16 Summary	Conclusions are drawn on the overall visual effect of the proposed project.

Section 5 Project location and description

5.1 Project location

The Project site is in the eastern portion of the Mount Lofty Ranges and wholly located within the Regional Council of Goyder and within the Mid North Region and the SA Murray-Darling Basin Natural Resource Management (NRM) Area.

From a transport and access perspective, the region is serviced by the Barrier highway and the Burra-Morgan Highway (Goyder Highway). This area is generally described as a transitional zone between cropping and pastoral country. It is noted that the Project is not located within a prescribed water resources area.

The southern Project boundary is approximately 5.5km north-east of the centre of Burra. It extends approximately 22km to the north, with the northern tip being approximately 10.2km north-west of the centre of Hallett. Its western-most boundary is also positioned approximately 4.4km east of the centre of the Mount Bryan township. It is approximately 14.5km east to west at its greatest width at the south of the site, tapering to its narrowest width of 3km in the northern portion. The land within the development site is generally privately owned and comprises predominantly dryland cropping and grazing. The Project locality is illustrated in **Figure 1**.

5.2 General Project description

The Project would comprise of the following key elements:

- A multi-stage wind farm of up to 135 turbines with a capacity of approximately 1000MW, a maximum hub height of 160m, a maximum blade length of 90m, and an overall maximum height (tip height) of 240m
- BESS facilities comprising a total of 900MW/3,600MWh within three fenced compounds, two of approximately 9.8ha and one of approximately 17.2ha
- Associated infrastructure for connection to the electricity grid including substations, access tracks, underground connection cabling and transmission lines
- Temporary construction compounds for wind components, including concrete batching plants; and
- Several meteorological masts (in addition to those already on site) to record wind speed and other meteorological data, both pre- and post- construction.

5.3 Temporary construction facilities

Temporary construction facilities would include:

- Up to three wind construction compounds (200m x 200m)
- Up to three battery construction compounds (150m x 150m)
- The construction compounds will include office, staff amenities, and carparking facilities
- Temporary batching plant facilities (150m x 150m)
- Temporary overhead transmission line construction compounds (150m x 150m)

- Temporary civil contractor compounds
- Other temporary construction areas including storage and laydown areas (150m x 150m); and
- Laydown areas will also be required at the base of each turbine.

5.4 Wind turbines

The specific elements of the wind turbines typically comprise:

- Concrete foundations
- A hybrid tubular tapering concrete and steel tower (with the same external colour finish)
- Nacelles at the top of the tower housing the gearbox and electrical generator
- Rotors comprising a hub (attached to the nacelle at around 160m above ground level) with three blades and
- Three composite material blades attached to each hub with a swept area around 25,434m^2.

Diagram 1 illustrates a typical wind turbine structure and names the key components most relevant to this Visual Assessment. **Diagram 1** is schematic only and is not drawn to scale or representative of the proposed Project wind turbine.

Diagram 1 – Typical wind turbine components and terminology (Image: ©GBD Pty Ltd 2022)

Not to scale

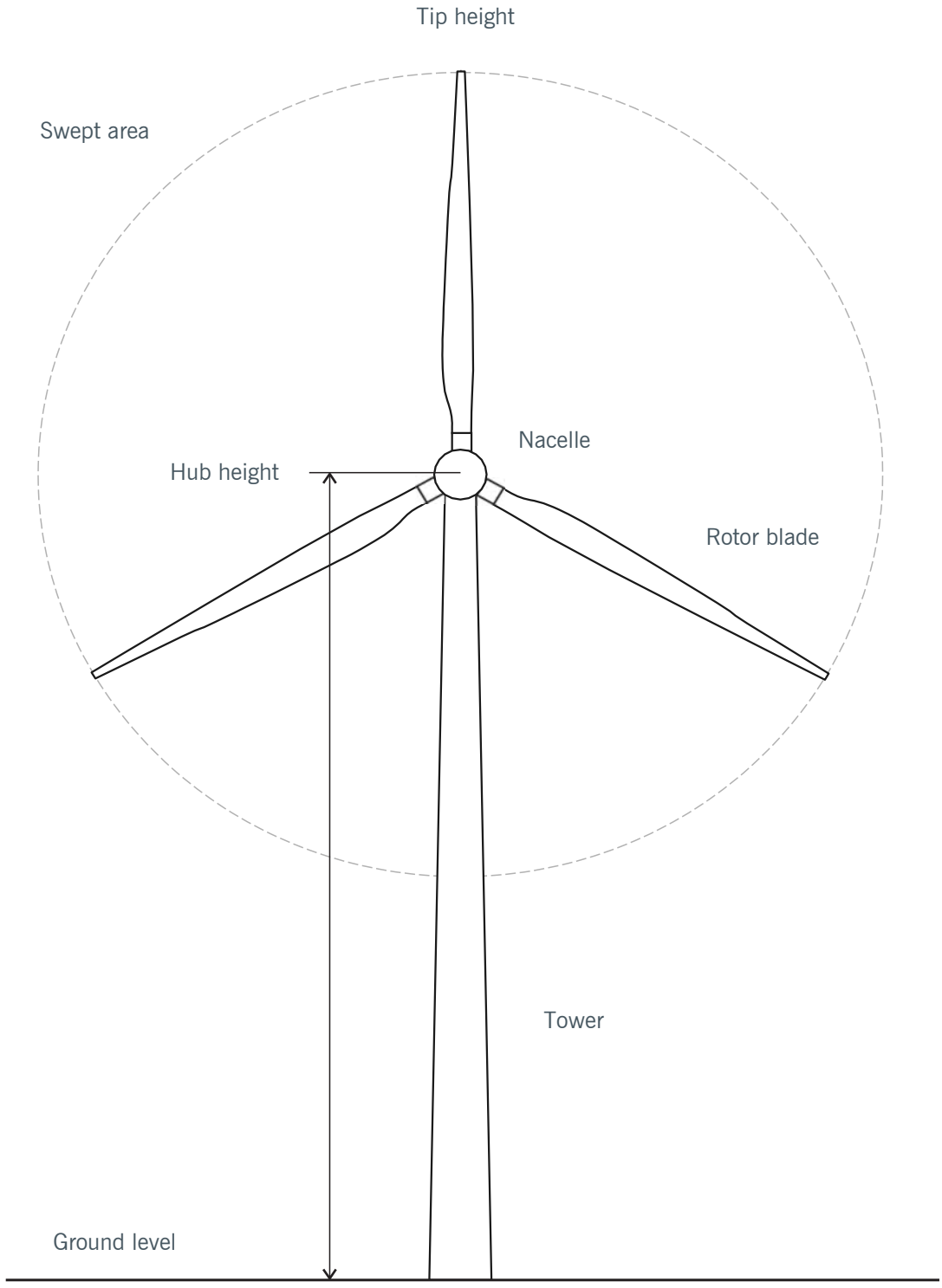

Figure 1
Project locality

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Landscape architecture

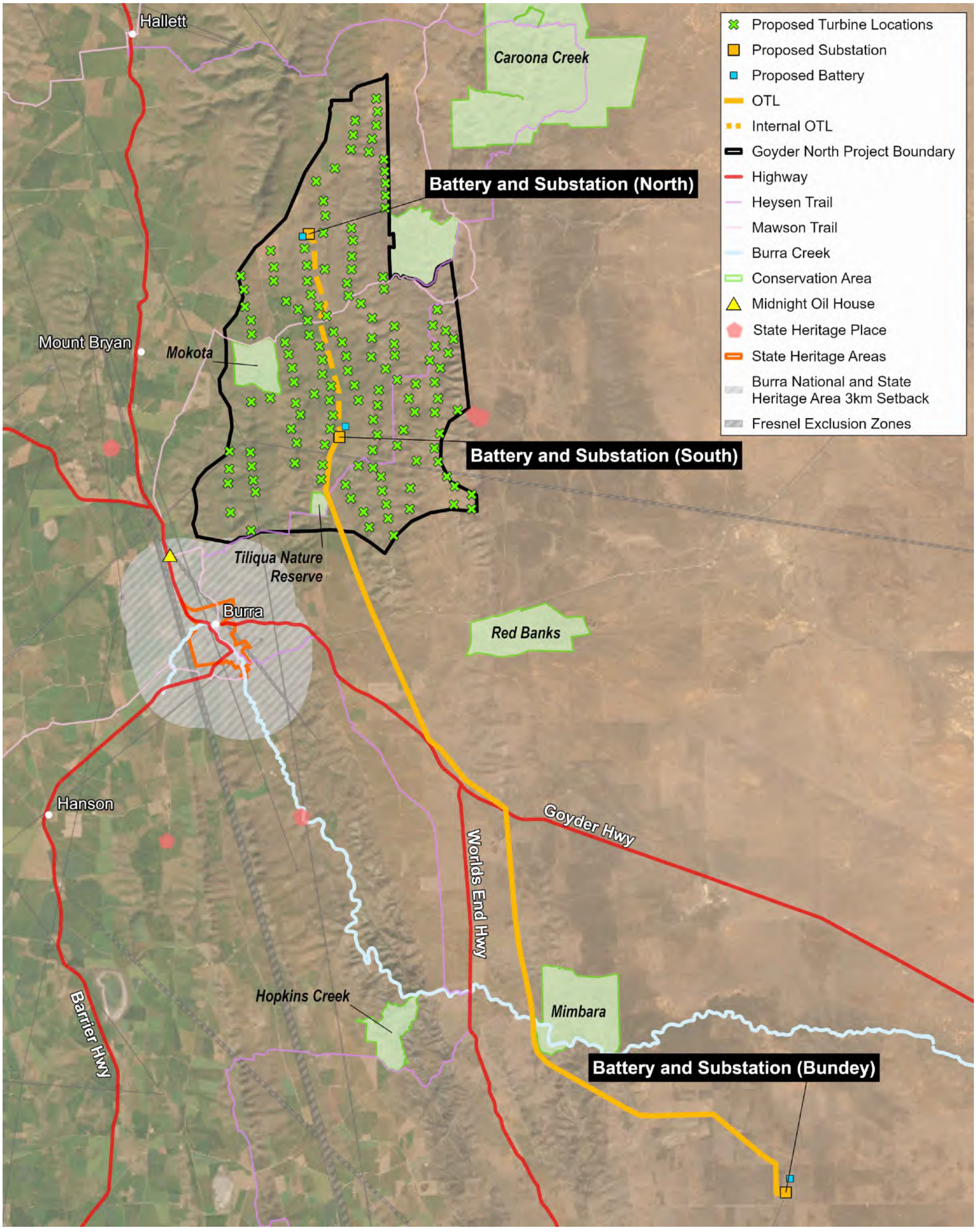


Figure prepared by GHD Australia Pty Ltd, Sourced Neoen Australia Pty Ltd 2024

5.5 Wind monitoring masts

Up to ten wind monitoring masts, to around 160m in height, would be installed on-site in addition to the existing 3 installed for the prior Mount Cone project. The permanent wind monitoring masts are expected to be of a guyed, narrow lattice or tubular steel design like the example as shown in **Plate 1**.

Plate 1 – Typical wind monitoring mast (Image: ©GBD 2021)

5.6 On-site access tracks

New on-site access tracks would be constructed to around 10m in width where existing access tracks are not present or not suitable for use and to provide access to wind turbine locations within the Project site during construction and operation. The on-site access tracks would be reduced to a minimum 6m width for the Project operational stage, or rehabilitated where no longer required.

Final road design would be subject to the detailed design of the wind farm and will be developed in consideration of site constraints, including minimising the potential for visual effect by considering the:

- Use of existing farm access tracks
- Overall length and extent
- Need for vegetation clearing
- Potential for erosion
- Extent of cut and fill and
- Potential to maximise rehabilitation at the completion of the construction phase.

5.7 Aviation Obstacle Lighting

The Proponent commissioned an Aviation Impact Assessment which was completed by Chiron Aviation Consultants Pty Ltd (December 2023). The AIA included a detailed consideration regarding obstacle lighting needs and requirements for the installation and operation of obstacle lighting. The AIA concluded that there will be a low level of aviation safety risk associated with the potential for an aircraft collision without obstacle lighting on the wind turbines. The AIA concluded that no obstacle lighting is required for wind turbines.

5.8 Electrical reticulation

The Project would require new electrical reticulation that involves the construction of underground and overhead cabling throughout the wind farm site and electrical substations. A new OTL to connect the Project to the existing transmission network is also proposed.

5.8.1 Substations and Operations & Maintenance Facilities

The proposed Project would include two Substation and Operation and Maintenance (O&M) facilities. The Project would also seek approval for the expansion of the new Bundey substation off Powerline Road which is owned and operated by ElectraNet.

The O&M facility would be used on an on-going basis to support maintenance and repair activities for the relevant portions of the Project. This includes an office with staff amenities (kitchenette, toilets, shower), car park, workshop/shed and laydown/temporary storage. Each proposed wind O&M facility has been co-located with the north and south substations to minimise footprint impacts. The O&M facility would be designed in detail to suit the requirements of the maintenance contractors.

5.8.2 Substation North

The Substation North site would be in the north-west sector of the Project site. It has been sited to avoid visual impact and native vegetation to minimise unnecessary ecological impact. The substation is also sited more than 50m from watercourses. The substation location is illustrated in **Figure 3**.

5.8.3 Substation South

The Substation South site would be in the central sector of the Project site. It has been sited to avoid visual impact and native vegetation to minimise unnecessary ecological impact. The substation is also sited more than 50m from watercourses. The substation location is illustrated in **Figure 3**.

5.8.4 Bundey Substation Expansion

This substation expansion has been sited in accordance with ElectraNet's plans to expand the Bundey Substation to allow for the connection of any future energy assets. Neoen are seeking development approval for the expansion of this site with the agreement of ElectraNet. The substation location is illustrated in **Figure 3**.

Plate 2 – Typical substation facility, Hornsdale SA (Image: GBD 2018)

5.8.5 BESS Facilities

Up to 3 BESS facilities would be in proximity to the two project substations and the grid connection infrastructure located adjacent to the ElectraNet substation at Bundey. These batteries have each been sited away from watercourses and located to minimise potential visual impacts.

The BESS would be located directly adjacent to the Bundey substation to reduce the likelihood of physical disruptions to the transmission line 'islanding' the batteries from the grid. Neoen has also proposed that some battery storage may be included at the Project substation sites should this better support the technical project and grid support outcomes.

The BESS facilities would incorporate a compound between approximately 10ha and 18ha with a 3m high security fence, containing BESS, switchyard and associated equipment, underground cabling and OTL connection, together with security CCTV cameras and lighting. Each BESS facility will also include operation and maintenance facilities.

Plate 3 – Typical battery storage facility, Hornsdale SA (Image supplied: Neoen Australia Pty Ltd 2017)

5.8.6 Overhead transmission line

The Project would include a double-circuit 275kV or 330kV OTL connecting the two substations and then extending from the southern substation to the grid substation at Bundey for a distance of approximately 57km.

The OTL would be similar to those that form the national grid network of transmission lines and would have an estimated total length of approximately 57km. The OTL would be supported by standard lattice or pole type towers around 65m in height and at intervals of 200-400m depending on terrain and elevation. The micro-siting approach will be applied to the location of the towers to minimise impacts.

Plate 4 – Main substation and operations centre, Murra Warra Wind Farm, Murra Warra VIC (Image: ©GBD 2022)

5.9 Construction

There are potential visual effects that could occur during the project construction phase. The wind farm construction phase is likely to occur over an extended period, although the extent and nature of pre-construction and construction activities will vary at different locations within the project area. An indicative time frame would include:

- 3 years to substantially commence Stage 1 (from the date of approval)
- 6 years to complete Stage 1 (from the date of approval)
- 9 years to substantially commence Stage 2 (from the date of approval)
- 12 years to complete Stage 2 (from the date of approval).

The key pre-construction and construction activities that will be visible from areas surrounding the proposed wind farm include:

- Various civil works to upgrade local roads and access points
- Construction compound buildings and facilities
- Construction facilities, including portable structures and laydown areas
- Various construction and directional signage

- Mobilisation of rock crushing equipment and concrete batching plants (if required)
- Excavation and earthworks and
- Various construction activities including erection of wind turbines, monitoring masts and terminal substation with associated electrical infrastructure works.

Construction activities, some of which will result in physical changes to the landscape, are generally temporary in nature and for the most part restricted to various discrete areas within or beyond the immediate wind farm Project site.

Plate 5 – Typical wind farm under construction (Image: ©GBD 2017)

Plate 6 – Site entry signage, Sapphire Wind Farm NSW (Image: ©GBD 2018)

5.10 Decommissioning

The proposed technology is expected to have an economic life of approximately 25-30 years. At the end of the lease term, a decision would be made whether to:

- decommission the project permanently or
- to remove the old infrastructure and seek to replace it with new, upgraded technology.

If the Project is to be upgraded, then a new development application would be lodged at that time. If the Project is permanently decommissioned, Neoen would take full responsibility for decommissioning and rehabilitation works. A decommissioning plan would be prepared and submitted to the relevant authority for approval.

Decommissioning would include the following:

- De-energising plant and equipment
- Dismantling and removal wind turbines, battery energy storage units and transmission lines, as well as all other aboveground buildings, foundations and equipment
- Rehabilitation of disturbed land; and
- Recycling of recyclable materials (including batteries).

Decommissioning of some elements may be subject to the landowner's discretion (such as access tracks).

The Project site and ancillary infrastructure locations are illustrated in **Figures 2** and **3**.

Figure 2
Project site and panorama locations

GBD
Landscape architecture

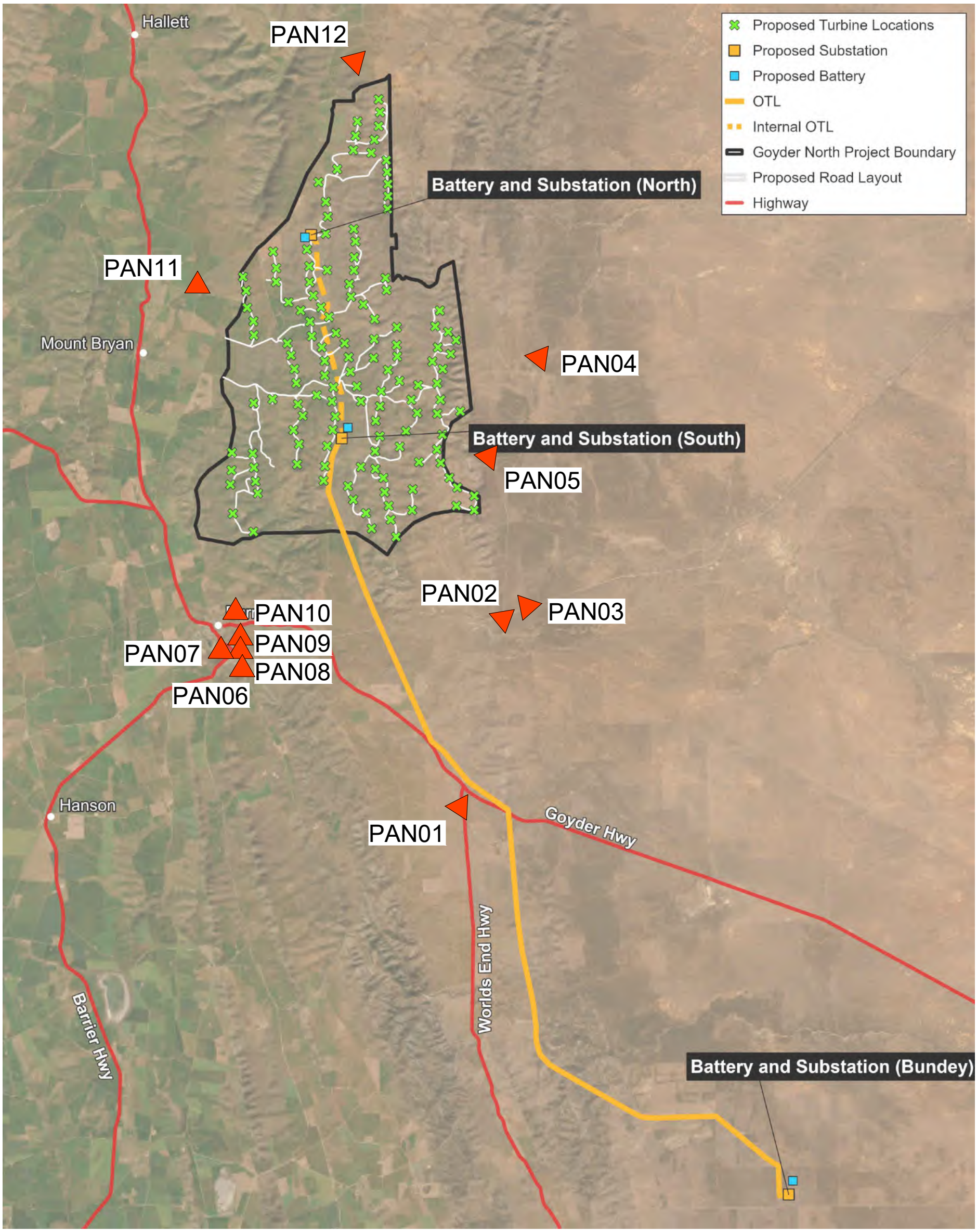


Figure prepared by GHD Australia Pty Ltd, Sourced Neoen Australia Pty Ltd 2024

Paper Size ISO A4
0 1.5 3 4.5 6
Kilometers

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 54

N

PAN04 Panorama photo location

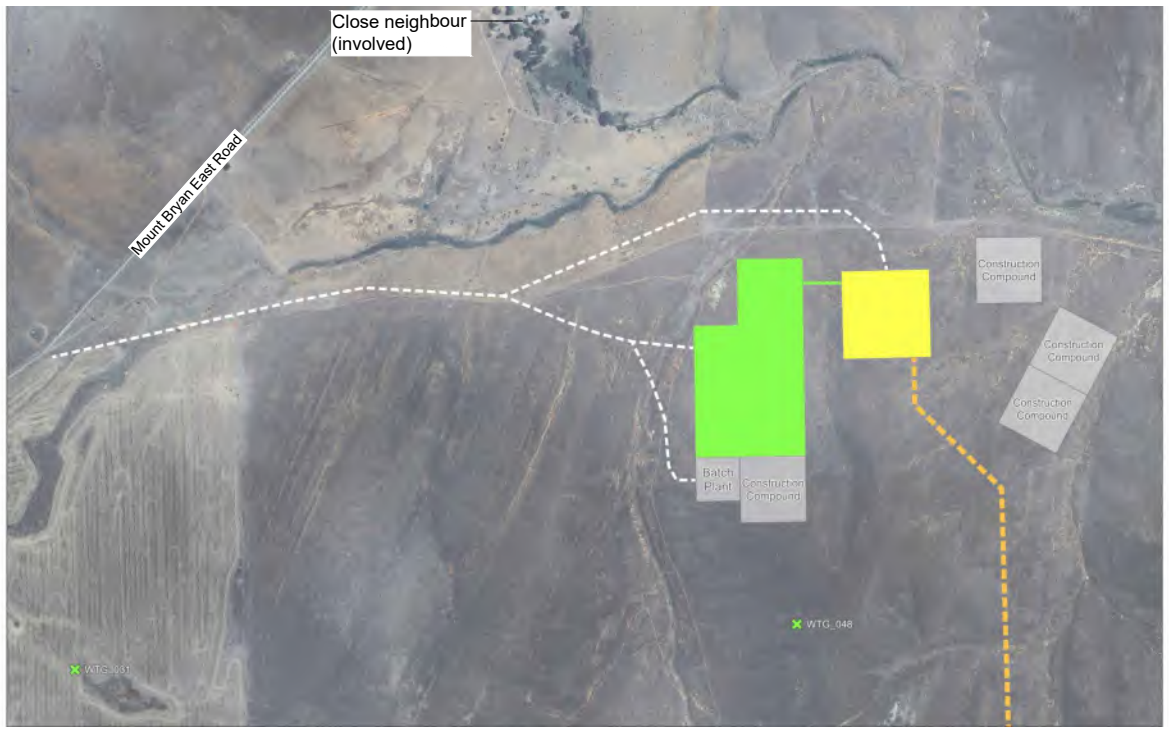


Figure source: Neoen Australia Pty Ltd

Proposed north substation, battery and temporary facilities

Figure source: Neoen Australia Pty Ltd

Proposed south substation, battery and temporary facilities

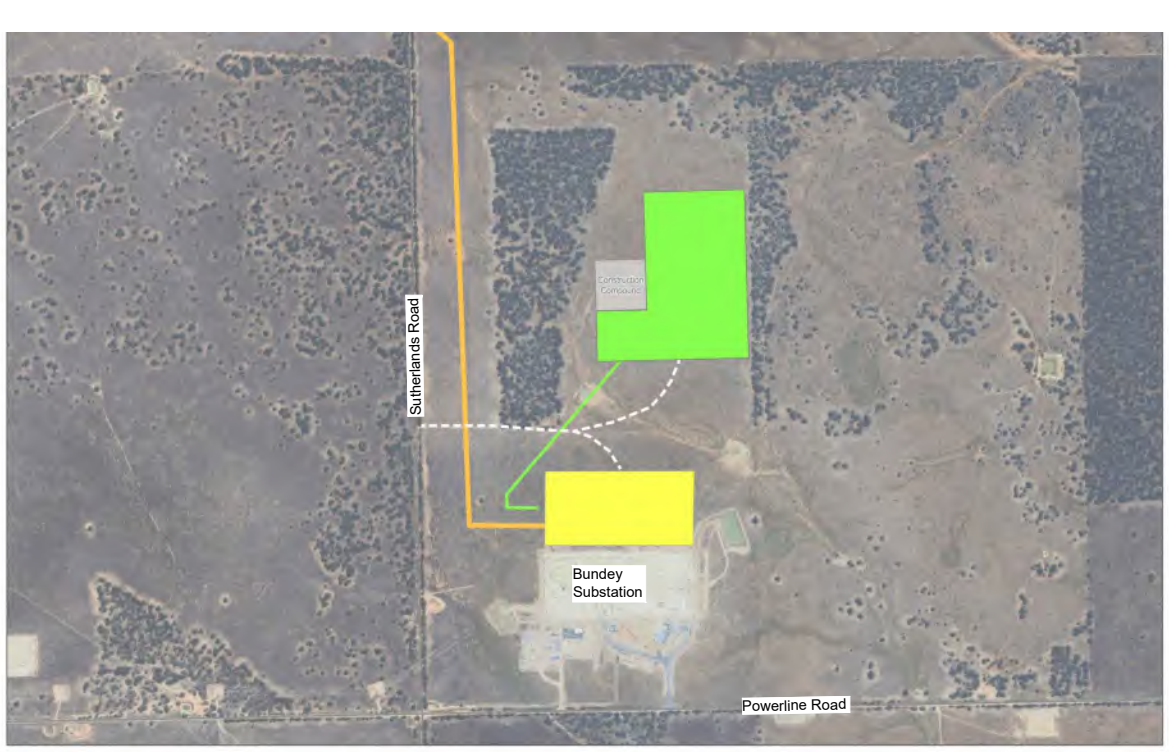
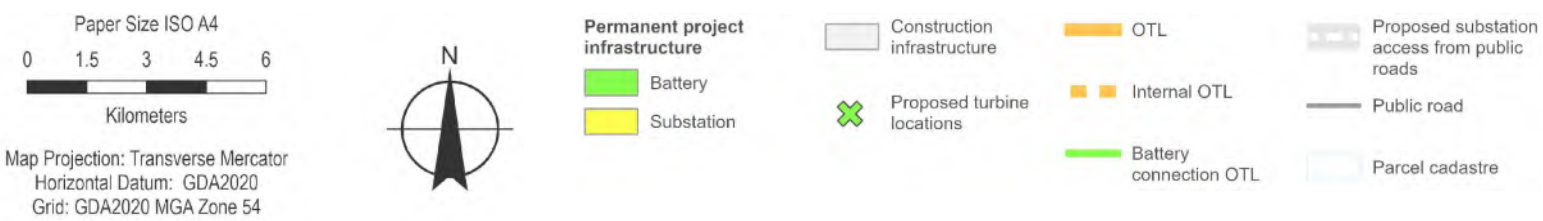


Figure source: Neoen Australia Pty Ltd

Bundy substation, proposed substation extension, battery and temporary facilities



Section 6. Viewshed

6.1 Viewshed

This Visual Assessment defines the viewshed as a geographic area surrounding the Project site where key project elements such as wind turbines, OTL, BESS and substations may be visible. Viewsheds can extend for long distances beyond wind farm sites, across mixed use areas including large tracts of unoccupied agricultural or natural landscapes. Viewsheds may include a range of key view locations subject to high, moderate or low visual effects.

The extent of viewshed will vary between wind farm projects and are influenced and informed by several criteria including the height of the wind turbines together with the nature, location and height of landform or vegetation that may limit and influence the extent of wind farm visibility.

The landform surrounding the project offers some variability in height (offering various degrees of screening) as illustrated in the ZTV diagrams. When combined with areas of tree cover, the potential for significant visual effects to occur beyond 8km is considered low.

It is important to note that wind turbines may be visible from landscape areas far beyond 8km and potentially up to 50km in ideal and extreme viewing conditions (Wind Turbine Visibility and Visual Impact Threshold Distances in Western Landscapes, Sullivan and Richmond May 2012). However, within the general parameters of normal human vision, a wind turbine at a maximum height of 240m to tip of rotor blade would occupy a relatively small proportion of a person's field of view from distances more than 8km and result in a relatively lower level of perceived visual effects, and more so when tree cover is located within foreground to middle ground locations between a viewer and wind turbines.

Section 7. Panoramic photographs

7.1 Panoramic photographs

A series of individual and panorama digital photographs were taken during the site inspection to illustrate existing views near the Project and to give a sense of the overall site in its broader landscape setting and characteristics. Photo locations were selected to illustrate the variety of landforms and vegetation types found within the viewshed. The panorama photographs were digitally stitched together forming a segmented panorama image to provide a visual illustration of the existing view from each photo location. Photographs presented in this section are informative only and do not illustrate the appearance of the Project wind turbines; however, the general extent of potential wind turbine visibility has been illustrated on each of the panorama photographs.

The panorama photographs were taken with a Nikon D850 digital SLR camera with a full frame sensor and a prime 50mm focal length lens. The photographs were taken as a combination of hand held and tripod mounted images.

The panoramic photographs presented in this Visual Assessment have been annotated to identify local features within and beyond the Project site. The panorama photograph locations are illustrated in **Figure 2** and the photographs illustrated in **Figures 4** to **7**.

Panorama Location PAN01 - View north west to north east from the Worlds End Highway corridor

Panorama Location PAN02- View north west to north east from the Eastern Road corridor

Panorama Location PAN03- View south to south west from the Eastern Road corridor

Figure 4
Photo sheet 1

GBD
Landscape architecture

Caroona Road

Views would extend toward wind turbines along the eastern range of hills within the Project site

Views toward ancillary infrastructure including substations, BESS and OTL would be screened by landform.

Panorama Location PAN04 - View north to south west from the Caroona Road corridor

Mongolata Road

Views would extend toward wind turbines along the eastern range of hills within the Project site with some partial screening provided by rising landform

Views toward ancillary infrastructure including substations, BESS and OTL would be screened by landform.

Panorama Location PAN05 - View south west to north west from the Mongolata Road corridor

Views from the Cemetery and more general areas with lower sections of the Burra township would be screened by a combination of landform and tree cover within the township

Panorama Location PAN06 - View north from the Burra General Cemetery

Figure 5
Photo sheet 2

GBD
Landscape architecture

Barrier Highway

Generally, views from within the Burra township toward the Project site are screened by buildings and tree cover.

Market Square

Panorama Location PAN07 - View north west to north from Burra market square opposite Visitor Information Centre

Generally, views from within the Burra township toward the Project site are screened by buildings and tree cover including vegetation alongside the Burra Creek corridor

Panorama Location PAN08 - View north west to north east from Barrier Highway outside St Joseph's Church

Town Lookout

Whilst views toward surrounding hills extend from open areas within the Township, this panorama illustrates the extent of vegetation and tree cover within the township which screens views from,or proximate to dwelling locations

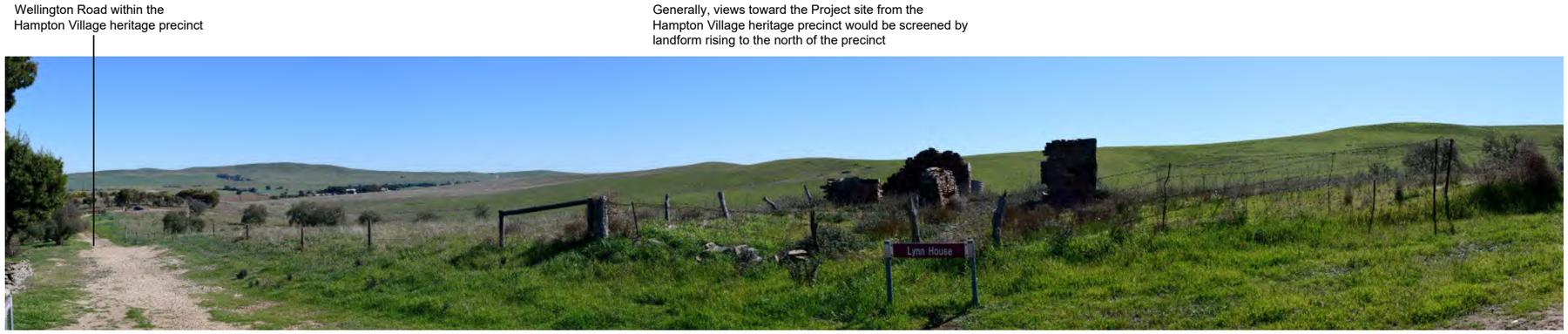
Views would extend across the open smelting works heritage site toward a small number of wind turbines within the south west portion of the Project site.

Smelts Road

Panorama Location PAN09 - View north west to north east from the Burra Smelting Works (west of Smelts Road)

Figure 6
Photo sheet 3

GBD
Landscape architecture



Panorama Location PAN10 - View north west to north east from Wellington Road (Hampton Village)

Panorama Location PAN11 - View north east to south east from Mount Bryan E Road

Panorama Location PAN12 - View east to south east from Dare Road

Figure 6
Photo sheet 3

GBD
Landscape architecture

Section 8. Landscape Character Assessment

8.1 Landscape Character Area

As part of the Visual Assessment process it is important to understand the nature and sensitivity of different components of landscape character, and to identify them in a clear and consistent process. For this Visual Assessment, landscape character is defined as '*the distinct and recognisable pattern of elements that occur consistently in a particular type of landscape'* (The Countryside Agency and Scottish Natural Heritage 2002). The pattern of elements includes characteristics such as landform, vegetation, land use and settlement.

This Visual Assessment has identified a singular Landscape Character Area (LCA), which generally occurs within the Project viewshed. The LCA represents an area that is relatively consistent and recognisable in terms of its key landscape elements and physical attributes, which includes a combination of topography/landform, vegetation/landcover, land use and built structures (including settlements and local road corridors).

The LCA is not defined as a discrete area, and characteristics within one section of the LCA may well occur within adjoining landscape surrounding the Project site.

8.2 Landscape character assessment

Understanding a particular landscape's key characteristics and principle visual features is important in defining regional distinctiveness and sense of place and to determine a region's sensitivity to change. The criteria applied in the determination of landscape character assessment and the ability of a landscape to accommodate change are outlined in **Table 3**. These criteria are based on established industry practice employed in the assessment of wind farm developments and have been adopted for numerous wind farm assessments across Australia and within South Australia.

The criteria are broadly outlined in the National Wind Farm Development Guidelines (Draft v2.4), Section 6.1 Landscape Character Units, and covered in more detail within the Guidelines for Landscape and Visual Impact Assessment, Third Edition, Landscape Institute and Institute of Environmental Management & Assessment, 2013 – Chapter 5 Assessment of landscape effects.

Whilst landscape character assessment is largely based on a systematic description and analysis of landscape characteristics, this Visual Assessment acknowledges that some individuals and other members of the local community may place different values on the local landscape.

Table 3 Criteria for the assessment of landscape character

Landscape Character Assessment Criteria

Characteristic	Aspects indicating lower sensitivity to the wind farm development	↔	Aspects indicating higher sensitivity to the wind farm development
Landform and scale: patterns, complexity and consistency	Large scale landform Simple Featureless Absence of strong topographical variety	↔	Small scale landform Distinctive and complex Human scale indicators Presence of strong topographical variety
Landcover: patterns, complexity and consistency	Simple Predictable Smooth, regular and uniform	↔	Complex Unpredictable Rugged and irregular
Settlement and human influence	Concentrated settlement pattern Presence of contemporary structures (e.g. utility, infrastructure or industrial elements)	↔	Dispersed settlement pattern Absence of modern development, presence of small scale, historic or vernacular settlement
Movement	Prominent movement, busy	↔	No evident movement, still
Rarity	Common or widely distributed example of landscape character area within a regional context	↔	Unique or limited example of landscape character area within a regional context
Intervisibility with adjacent landscapes	Limited views into or out of landscape Neighbouring landscapes of low sensitivity Weak connections, self-contained area and views Simple large-scale backdrops	↔	Prospects into and out from high ground or open landscape Neighbouring landscapes of high sensitivity Contributes to wider landscape Complex or distinctive backdrops

8.3 Landscape sensitivity

The scale of sensitivity for the landscape character area is described below and considered against each characteristic identified in **Table 3**.

The overall sensitivity for the landscape character area has been determined against the following ratings of Negligible through to High:

Negligible – where the characteristics of the landscape character area will not be impacted or visibly altered by the proposed Project.

Low – where most of the landscape character area characteristics are generally robust and will be less affected by the proposed Project. The degree to which the landscape may accommodate the Project will not significantly alter existing landscape character.

Moderate – where distinguishable characteristics of the landscape character area may be altered by the proposed Project, although the landscape character area may have the capability to absorb some change. The degree to which the landscape character area may accommodate the proposed Project will potentially result in the introduction of prominent elements to the landscape character area, which may be accommodated to some degree.

High – where key characteristics of the landscape may be impacted by the Project and could result in major and visually dominant alterations to perceived characteristics of the landscape character area, which may not be fully mitigated by existing landscape elements and features. The degree to which the landscape may accommodate the proposed Project will result in several perceived uncharacteristic and significant changes.

8.4 Landscape sensitivity assessment

The following section of this Visual Assessment provides an analysis of landscape sensitivity within the viewshed.

Table 4 – Landscape Sensitivity

	Lower Sensitivity		↔		**Higher Sensitivity**
	Low	**Low to Mod**	**Moderate**	**Mod to High**	**High**
Landform and Scale			■		
	The landform and morphology of the landscape within and immediately surrounding the Project site is relatively consistent with areas of gentle to moderately inclined landform extending around the Project site. There is an overall large scale to the broader landscape defined by patterns being more moderate in scale. Landscape features and stronger topographical elements beyond the Project site create a greater degree of complexity and more visually compartmentalised areas because of tree covered hills and gullies.				
Landcover		■			
	Landcover within the Project site is relatively simple and predictable, together with that of the immediate and surrounding landscape. Tree cover is generally limited within the viewshed, occurring within steeper gullies across the Project site or along drainage lines and intermittently along road corridors. European settlement established an agricultural presence which defines some of the contemporary farming areas within and beyond the Project site.				
Settlement and human influence		■			
	Settlement is generally dispersed within the rural landscape immediately beyond the Project site incorporating farmsteads and individual rural dwellings. There are small to moderate scale, historic or vernacular structures within the landscape including those associated with both the Burra and Mount Bryan townships and the historic Burra Mine site. Most historic built elements or features resultant from human interactions are visually contained by the proximate landform surrounding and screening the Burra township from extensive and distant views.				
Movement		■			
	Movement occurs within the townships and along local roads within urban areas and main roads leading to and away from Burra and Mount Bryan. Low to moderate frequency vehicular movements occur along sections of the Goyder and Barrier highways. Movement within the Project site is limited to occasional vehicles and farm traffic along local access tracks.				
Rarity		■			
	The Project site and adjoining landscape are a relatively common landscape type (Rural Zone) within a regional context and do not tend to exhibit landscape features or elements which would only occur within the Project site.				

	Lower Sensitivity		↔		Higher Sensitivity
	Low	**Low to Mod**	**Moderate**	**Mod to High**	**High**
Intervisibility					
	Areas of landscape surrounding the Project Site can allow for far distant and regional scale views. Whilst views can, depending on prevailing climatic conditions, extend toward portions of landscapes with a moderate to high visual sensitivity, the level of distant visibility is generally restricted to landform silhouettes. Whilst the wind turbines would be visible from some elevated areas, the distance between wind farm and distant elevated receiver locations would tend to render the Project wind turbines as generally noticeable, but not dominant features which occupy a relatively small portion of the overall available view.				
Overall Sensitivity Rating	Moderate Low				

8.5 Landscape sensitivity summary

As a landscape with a Moderate Low sensitivity the landscape character area characteristics are generally robust and will be less affected by the proposed Project. The degree to which the landscape may accommodate the Project will not significantly alter existing landscape character.

However, where distinguishable characteristics of the landscape character area may be altered by the proposed Project, although the landscape character area may have the capability to absorb some change. The degree to which the landscape character area may accommodate the proposed Project will potentially result in the introduction of prominent elements to the landscape character area, which may be accommodated to some degree.

Section 9. Zone of Theoretical Visibility

9.1 Zone of Theoretical Visibility (ZTV)

The ZTV diagrams are used to identify theoretical areas of the landscape from which wind turbines, or portions of turbines, may be visible from areas within and surrounding the Project site. They are useful for providing an overview as to the extent to which the Project wind turbines may be visible from surrounding areas.

9.2 ZTV Methodology

The ZTV methodology is a purely geometric assessment where the visibility of the wind turbines is determined from carrying out calculations based on a digital terrain model of the Project site and the surrounding terrain.

Calculations have been made to determine the visibility of the wind turbines from:

- blade tips (essentially a view toward any part of the wind turbine rotor, including views toward the tips) and
- hub height (view between the nacelle and tip of blade).

The ZTV assessment methodology is very conservative as:

- the screening effects of any structures and vegetation above ground level are not considered in any way. Therefore, the Project may not be visible at many locations indicated on the ZTV diagrams due to the local presence of trees, buildings or other screening materials.
- additionally, the number of turbines visible from any location is also influenced by prevailing weather conditions. Inclement or cloudy weather would tend to mask the visibility of the wind turbines.

Accordingly, while a ZTV diagram is a useful visualisation tool, it is very conservative in nature and the level of visibility as illustrated in the ZTV diagram is unlikely to occur from all view locations within the viewshed.

A diagram illustrating the tip of blade and hub height visibility is illustrated in **Figure 8** and the ZTV diagrams are shown in **Figures 9** and **10**.

The tip of blade and hub height ZTV illustrate the extent of similar areas of potential visibility and highlight the extent and influence of landform surrounding the Project site; however, the ZTV do not illustrate screening provided by tree cover.

9.3 Visibility

The level of wind turbine visibility of the Project would result from several factors including, but not limited to:

- Distance between view location and wind turbine
- Directional movement (travelling toward or away from wind turbines)
- Relative position and backdrops and
- Climatic and atmospheric conditions.

9.3.1 Distance

With an increase in distance, the proportion of a person's horizontal and vertical view cone occupied by a visible turbine structure, or group of turbine structures, would decline. **Figure 11** illustrates the effect increasing view distance on the scale and visibility of wind turbines.

As the view distance increases so do the atmospheric effects resulting from dust particles and moisture in the atmosphere, which makes the turbines appear to be grey thus potentially reducing the contrast between the wind turbines and the background against which they are viewed.

9.3.2 Movement

The visibility of the wind turbines would vary between the categories of static and dynamic view locations. In the case of static views, the relationship between a wind turbine and the landscape would not tend to vary greatly. The extent of vision may be relatively wide as a person would tend to scan back and forth across the landscape where panoramic views are available.

In contrast, views from a moving vehicle are dynamic as the visual relationship between wind turbines is constantly changing as well as the visual relationship between the wind turbines and the landscape in which they are seen. The extent of vision available from a vehicle can be partially constrained by the vehicle interior at proximate distances.

9.3.3 Relative position

In situations where the view location is at a lower elevation than the wind turbine structure most of it would be viewed against the sky. The degree of visual contrast between a white coloured turbine and the sky would depend on the presence of background clouds and their colour. Dark grey clouds would contrast more strongly with white turbines than a background of white clouds.

The level of contrast is also influenced by the position of the sun relative to the individual wind turbines and the view location. Where the sun is in front of the viewer, the visible portion of the wind turbine would be seen in shadow. Where the background to the wind turbine is dark toned the visual contrast would be reduced.

Where the sun is located behind the view location then the visible portion of the wind turbine would be in full sun. If the background is also light toned, such as white clouds, then the contrast is less when compared to a dark background.

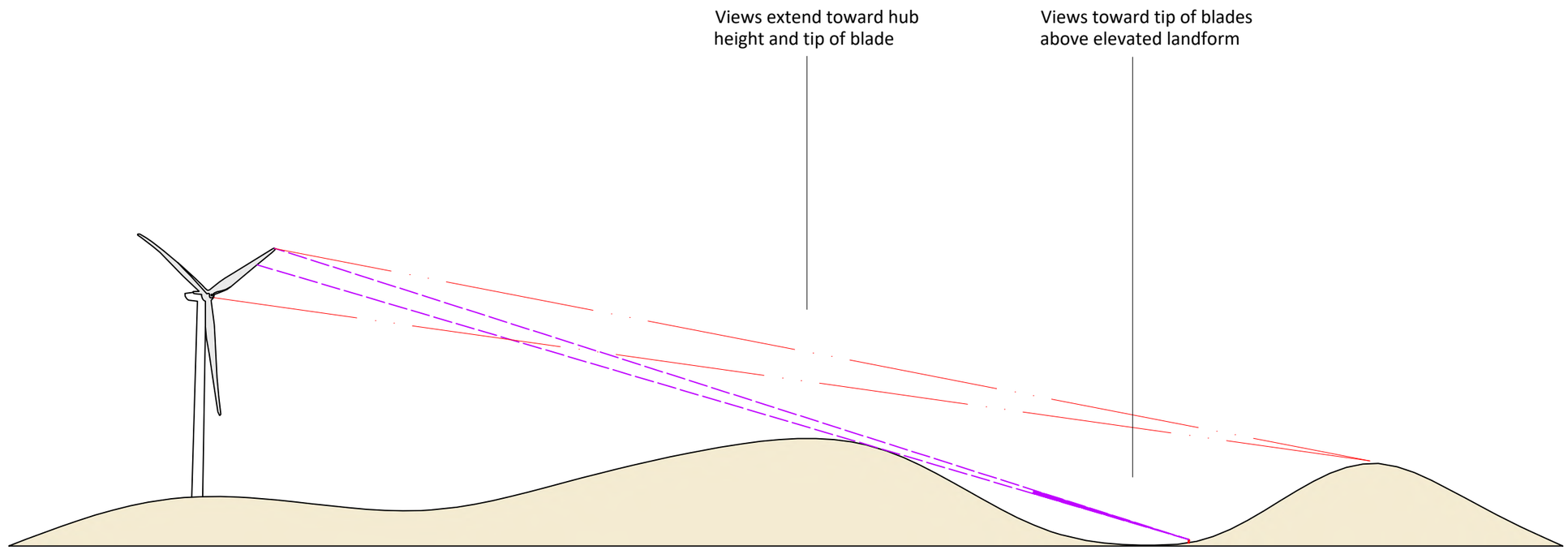
9.3.4 Climatic and Atmospheric Conditions

Local climatic and atmospheric conditions have the potential to influence the visibility of the Project from surrounding view locations, and more significantly, from middle ground and distant view locations.

Rainfall would tend to reduce the level of visibility toward the Project from several surrounding view locations, with the degree of visibility tending to decrease over distance. Rain periods may also reduce the number of visitors travelling through the areas from which the Project may be visible, and potentially decrease the duration of time spent at a particular public view location with a view toward the Project.

Cloud cover would also tend to reduce the level of visibility of the Project and lessen the degree of contrast between the wind turbine structures and the background against which the wind turbines may be visible.

On clear or partly cloudy days, the position of the sun would also influence the degree of visibility of the Project. The degree of effect would be largely dependent on the relationship between the position and angle of the sun relative to the view location. Late afternoon and early evening views toward the west would result in the wind turbines silhouetted above the horizon line, and with increasing distance would tend to reduce the contrast between the wind turbine structures and the surrounding landform.



'Tip of blade'

View toward 'tip of blade' - where views extend toward any part of the turbine including views toward the tip of blades above elevated landform and ridgelines.

'Hub height'

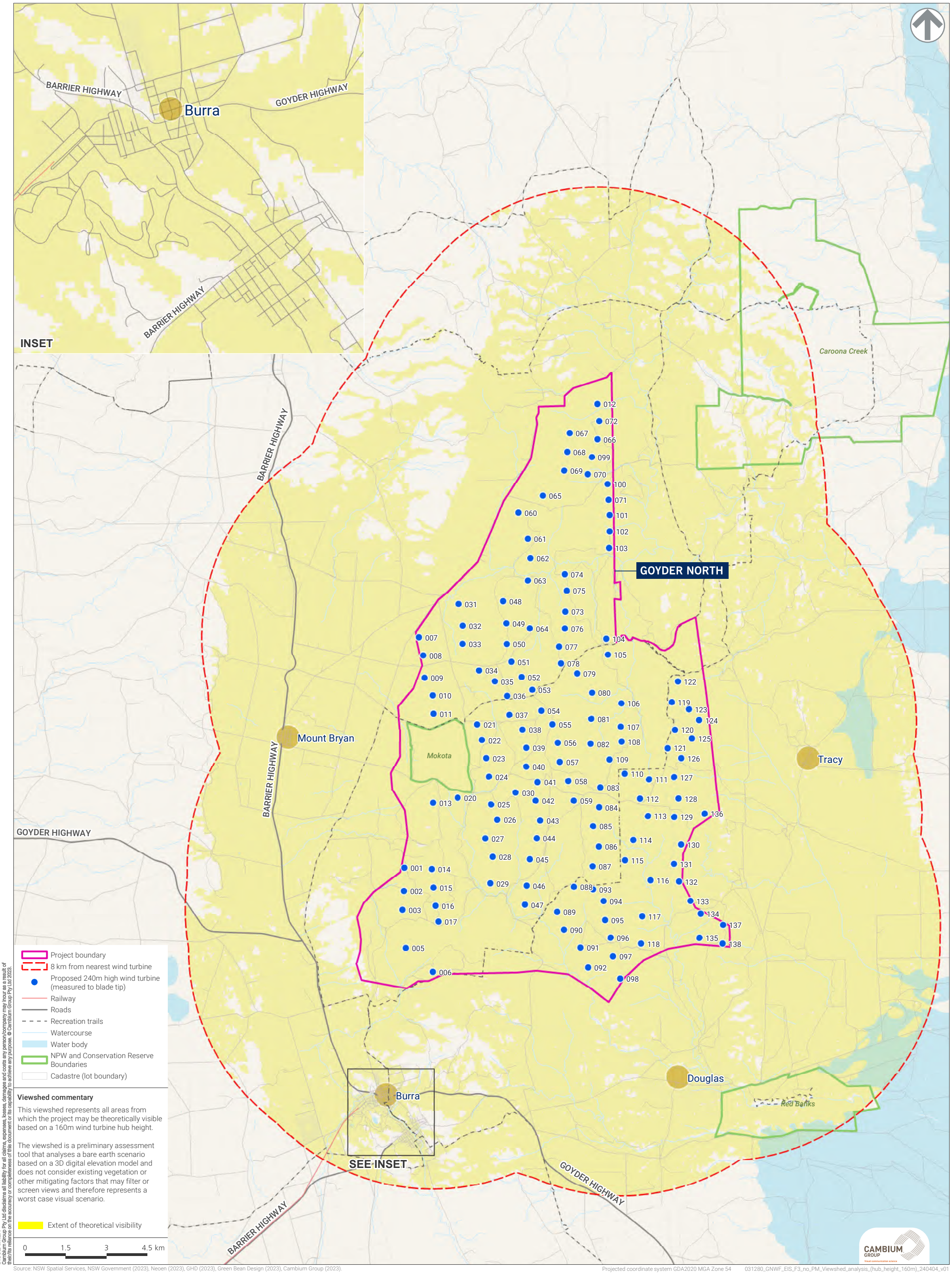
View toward 'hub height' - where views extend toward the wind turbine hub blades swept path above hub.

Figure 8
Zone of theoretical visibility

Figure 9

Zone of Theoretical Visibility (hub height 160m)

GBD Landscape architecture



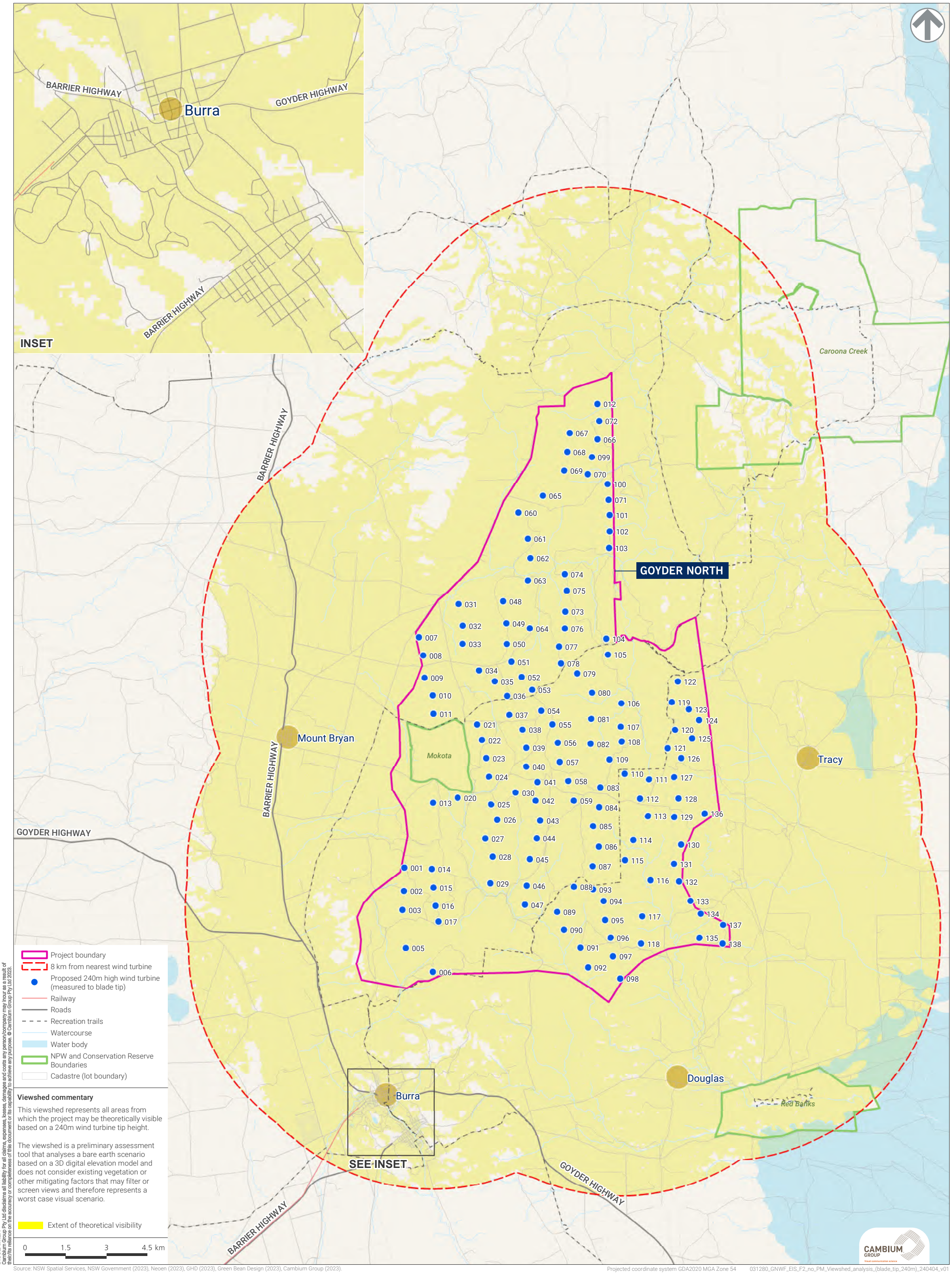
Source: NSW Spatial Services, NSW Government (2023), Neoen (2023), GHD (2023), Green Bean Design (2023), Cambium Group (2023).

Projected coordinate system GDA2020 MGA Zone 54

Figure 10

Zone of Theoretical Visibility (blade tip 240m)

GBD Landscape architecture



Source: NSW Spatial Services, NSW Government (2023), Neoen (2023), GHD (2023), Green Bean Design (2023), Cambium Group (2023).

Projected coordinate system GDA2020 MGA Zone 54 031280_GNWF_EIS_F2_no_PM_Viewshed_analysis_(blade_tip_240m)_240404_v01

Image 1 Modelled wind turbine 240 metre tip height - view distance 2 km

Image 2 Modelled wind turbine 240 metre tip height - view distance 3 km

Image 3 Modelled wind turbine 240 metre tip height- view distance 4 km

Image 4 Modelled wind turbine 240 metre tip height - view distance 5 km

Camera: Nikon D700, 50mm prime lens

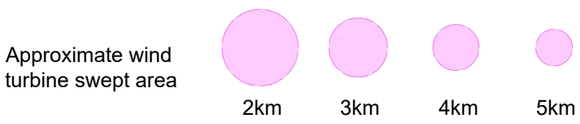


Figure 11
Wind turbine visibility

Section 10. Response to Planning and Design Code – Zones and General Development Policies

10.1 Introduction

General development policies broadly relate to how a development should occur. These polices address the functional requirements for a development type or class, such as minimisation of overshadowing for a multi-storey building.

General development policies contain Assessment Provisions and are linked to specific development types as listed in a zone's Classification Table.

10.2 Assessment Provisions

Each of the Code modules – zones, subzones, overlays, and general development policies – contain four different types of Assessment Provisions:

Desired outcomes set the overarching vision/objectives for a particular zone, subzone, overlay or general development policies and aid in the interpretation of performance outcomes.

Where a relevant authority is uncertain as to whether or how a performance outcome applies to a development, desired outcomes may inform its consideration or may assist in assessing the merits of the development against the applicable performance outcomes collectively.

Performance outcomes (POs) are policies designed to facilitate assessment of certain matters, such as land use and intensity, site dimensions and land division, built form and character, and hazard risk minimisation.

The Assessment Provisions for Zones and General Development Policies (as relevant to the Project) include consideration of the policies contained in the following modules of the Code:

- *Rural Zone*
- *Rural Intensive Enterprise Zone*
- *Design*
- *Infrastructure and Renewable Energy Facilities and*
- *Interface between Land Uses*

The following identifies those policies considered most relevant to the Project.

Table 5 Rural Zone

Assessment Provisions
Desired Outcome
DO.1 *A zone supporting the economic prosperity of South Australia primarily through the production, processing, storage and distribution of primary produce, forestry and the generation of energy from renewable sources.*
DO.2

Table 5 Rural Zone

A zone supporting diversification of existing businesses that promote value-adding such as industry, storage and warehousing activities, the sale and consumption of primary produce, tourist development and accommodation.		
Performance Outcome	**Designated Performance Feature**	**Visual Assessment response:**
PO 2.2 *Buildings are generally located on flat land to minimise cut and fill and the associated visual impacts.*	*DPF 2.2 Buildings:* *(a) are located on sites with a slope not greater than 10% (1-in-10)* *(b) do not result in excavation and/or filling of land greater than 1.5m from natural ground level.*	The principal Project buildings including control rooms, maintenance sheds, substations and batteries sites have been located on relatively flat land to accommodate the nature of the development and to avoid excessive amounts of cut and fill. Whilst the final location and design of the principal buildings is subject to detailed design, it is unlikely that buildings would be elevated more than 1.5m above the natural ground level.
PO 4.3 *Industry, storage, warehousing, transport distribution or similar activities are sited, designed and of a scale that maintains rural character and function and respects landscape amenity.*	*DPF 4.2* *Buildings and associated activities:* *(a) are set back at least 100m from all road and allotment boundaries* *(b) are not sited within 200m of a sensitive receiver in other ownership* *(c) have a building height not greater than 10m above natural ground level* *(d) incorporate the loading and unloading of vehicles within the confines of the allotment*	The principal Project buildings, including the Operations and Maintenance facilities, would be sited at distances exceeding Code requirements and set back at a distance from which the scale and design would not dominate or appear incongruous with the surrounding rural character of the Project site.
PO 10.1		Large buildings would be sited to reduce impacts on scenic and rural vistas and are not proposed to be

Table 5 Rural Zone

Large buildings are designed and sited to reduce impacts on scenic and rural vistas by: *(a) having substantial setbacks from boundaries and adjacent public roads* *(b) using low-reflective materials and finishes that blend with the surrounding landscape* *(c) being located below ridgelines.*		located on ridgelines. Whilst subject to final design, buildings would adopt low reflective materials to blend with the landscape

Table 6 Rural Intensive Enterprise Zone

Assessment Provisions		
Desired Outcome		
DO.1 Multi-purpose intensive agricultural production, processing facilities and supporting ancillary industries that are important economic and employment assets to the state.		
Performance Outcome	**Designated Performance Feature**	**Visual Assessment response:**
PO 7.1 *Freestanding advertisements that identify the associated business without creating a visually dominant element within the locality.*	*DPF 7.1* *Freestanding advertisements* *(a) do not exceed 2m in height* *(b) do not have a sign face that exceeds 2m2 per side.*	A range of signage may be incorporated into the Project during construction and operation; however Project signage will be mostly directional or safety related as opposed to advertising. Any signage related to advertising will be installed in accordance with the Code criteria. All other signage will be installed to avoid creating visually dominant elements within the locality.
PO 9.1 *Industry, storage, warehousing, transport distribution or similar activities are sited, designed and of a scale that minimises the potential*		Above ground Project infrastructure, including substation extension, BESS and ancillary items, will be sited and suitably designed to avoid adverse impacts on adjoining activities.

Table 6 Rural Intensive Enterprise Zone

for adverse impact on adjoining activities.		

Table 7 Design

Assessment Provisions		
Desired Outcome		
DO.1 Development is: *(a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributes to the character of the immediate area* *(b) durable - fit for purpose, adaptable and long lasting* *(c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access, and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors* *(d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.*		
Performance Outcome	**Designated Performance Feature**	**Visual Assessment response:**
PO 1.4 Plant, exhaust and intake vents and other technical equipment is integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by: *(a) positioning plant and equipment in unobtrusive locations viewed from public roads and spaces* *(b) screening rooftop plant and equipment from view* *(c) when located on the roof of non-residential development, locating the plant and equipment as far as practicable from adjacent sensitive land uses.*		Technical equipment would be incorporated into building design where possible; however, the distance between technical equipment within the Project site and the public realm/dwellings would result in largely negligible visual effects.

Table 7 Design

PO1.5 *The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form) taking into account the form of development contemplated in the relevant zone.*		Undulating landscape characteristics and distances between storage areas within the Project site and the public realm/dwellings would result in largely negligible visual effects.
PO3.1 Soft landscaping and tree planting is incorporated to: *(a) minimise heat absorption and reflection* *(b) maximise shade and shelter* *(c) maximise stormwater infiltration* *(d) enhance the appearance of land and streetscapes* *(e) contribute to biodiversity.*		Soft landscape and tree planting may be incorporated into the Project site to mitigate potential significant visual effects from surrounding sensitive receiver locations; however, the requirement for soft landscape and tree planting is not considered likely to be required given the degree of inherent screening characteristics of the existing landscape.
PO 3.2 *Soft landscaping and tree planting maximises the use of locally indigenous plant species, incorporates plant species best suited to current and future climate conditions and avoids pest plant and weed species.*		Soft landscape and tree planting may be incorporated into the Project site to mitigate potential significant visual effects from surrounding sensitive receiver locations; however, the requirement for soft landscape and tree planting is not considered likely to be required given the degree of inherent screening characteristics of the existing landscape.

Table 8 Infrastructure and Renewable Energy Facilities

Assessment Provisions		
Desired Outcome		
DO.1 *Efficient provision of infrastructure networks and services, renewable energy facilities and ancillary development in a manner that minimises hazard, is environmentally and culturally sensitive and manages adverse visual impacts on natural and rural landscapes and residential amenity.*		
Performance Outcome	**Designated Performance Feature**	**Visual Assessment response:**
PO2.1 *The visual impact of above-ground infrastructure networks and services (excluding high voltage transmission lines), renewable energy facilities (excluding wind farms), energy storage facilities and ancillary development is minimised from townships, scenic routes and public roads by:* *(a) utilising features of the natural landscape to obscure views where practicable* *(b) siting development below ridgelines where practicable* *(c) avoiding visually sensitive and significant landscapes* *(d) using materials and finishes with low-reflectivity and colours that complement the surroundings* *(e) using existing vegetation to screen buildings* *(f) incorporating landscaping or landscaped mounding around the perimeter of a site and between adjacent allotments accommodating or zoned to*		Above ground infrastructure within the Project site (excluding high voltage transmission lines and wind farms) would utilise existing undulating landforms, and tree cover within the south battery and substation, to minimise the potential for significant visual effects from sensitive receiver locations. Infrastructure (excluding high voltage transmission lines and wind turbines) would avoid ridgeline locations and would not be located within visually sensitive or significant landscapes as designated within relevant Overlays. Subject to final detailed design, above ground infrastructure cladding would adopt low reflectivity materials with colour finishes to complement the surrounding landscape. Existing vegetation would be retained where possible to assist in screening above ground infrastructure. Soft landscape works, or mounding incorporating landscape screening treatment, are not considered viable options to the perimeter of the

Table 8 Infrastructure and Renewable Energy Facilities

primarily accommodate sensitive receivers.		Project site, given the extent of the site boundary and the distance between above ground infrastructure and surrounding sensitive receivers.
PO2.2 *Pumping stations, battery storage facilities, maintenance sheds and other ancillary structures incorporate vegetation buffers to reduce adverse visual impacts on adjacent land.*		Soft landscape works are not considered viable options to screen battery storage facilities or other ancillary structures, given the proposed distance between ancillary infrastructure and surrounding sensitive receivers.
PO2.3 *Surfaces exposed by earthworks associated with the installation of storage facilities, pipework, penstock, substations and other ancillary plant are reinstated and revegetated to reduce adverse visual impacts on adjacent land.*		Any existing surfaces exposed by earthworks for storage facilities, substations and ancillary plant will be reinstated and revegetated to reduce visual impacts on adjacent land.
PO3.1 *Progressive rehabilitation (incorporating revegetation) of disturbed areas, ahead of or upon decommissioning of areas used for renewable energy facilities and transmission corridors.*		Progressive rehabilitation (incorporating revegetation) of disturbed areas, would be undertaken ahead of or upon decommissioning of areas used for renewable energy facilities and transmission corridors.
PO5.1 *Electricity infrastructure is located to minimise visual impacts through techniques including:* *(a) siting utilities and services:* *(i) on areas already cleared of native vegetation* *(ii) where there is minimal interference or disturbance to*		The siting of electricity infrastructure has sought to minimise visual impacts where possible by avoiding areas of native vegetation or limiting development to areas where minimal interference or disturbance to existing native vegetation may be required. Grouping built structures, such as substations and BESS has been

Table 8 Infrastructure and Renewable Energy Facilities

existing native vegetation or biodiversity *(b) grouping utility buildings and structures with non-residential development, where practicable.*		proposed to minimise the extent of buildings through the Project site.
PO5.3 *Battery storage facilities are co-located with substation infrastructure where practicable to minimise the development footprint and reduce environmental impacts.*		The three battery storage facilities have been co-located with proposed and existing substation infrastructure to minimise landscape and visual effects.
PO7.1 *Renewable energy facilities are located as close as practicable to existing transmission infrastructure to facilitate connections and minimise environmental impacts as a result of extending transmission infrastructure.*	*DPF 7.1* *Wind turbine generators are:* *(a) set back at least 2000m from the base of a turbine to any of the following zones:* *(i) Rural Settlement Zone* *(ii) Township Zone* *(iii) Rural Living Zone* *(iv) Rural Neighbourhood Zone* *with an additional 10m setback per additional metre over 150m overall turbine height (measured from the base of the turbine).* *set back at least 1500m from the base of the turbine to non-associated (non-stakeholder) dwellings and tourist accommodation.*	The wind turbines have been set back from inhabited zones and dwellings within rural areas in accordance with the Planning and Design Code requirements.
PO8.2		All wind turbines will be based on a similar model being uniform in colour, size and shape.

Table 8 Infrastructure and Renewable Energy Facilities

The visual impact of wind turbine generators on natural landscapes is managed by: *(a) designing wind turbine generators to be uniform in colour, size and shape* *(b) coordinating blade rotation and direction* *(c) mounting wind turbine generators on tubular towers as opposed to lattice towers.*		All wind turbine blades will rotate in a clockwise direction and will face the prevailing wind direction under normal operating conditions. The wind turbines will not be mounted on lattice towers.
PO8.4 *Wind turbine generators incorporate recognition systems or physical markers to minimise the risk to aircraft operations.*		Given their scale, wind turbines are inherently physical markers in the landscape and are coloured white to increase their contrast with the ground when viewed from aircraft. An Aviation Impact Assessment concluded that there would be no impact on aviation operations.
PO13.2 *Temporary facilities to support the establishment of renewable energy facilities (including borrow pits, concrete batching plants, laydown, storage, access roads and worker amenity areas) are sited and operated to minimise environmental impact.*		Temporary facilities within the Project site would be located at distance from sensitive receiver locations and largely screened through undulating landforms within and surrounding the Project site.

Table 9 Interface between Land Uses

Assessment Provisions		
Desired Outcome		
DO.1 *Development is located and designed to mitigate adverse effects on or from neighbouring and proximate land uses.*		
Performance Outcome	**Designated Performance Feature**	**Visual Assessment response:**
PO3.4 *Development that incorporates moving parts, including windmills and wind farms, are located and operated to not cause unreasonable nuisance to nearby dwellings and tourist accommodation caused by shadow flicker.*		A shadow flicker assessment has been prepared separately to this Visual Assessment and demonstrates that shadow flicker would not cause an unreasonable nuisance to nearby dwellings and tourist accommodation.
PO6.1 *External lighting is positioned and designed to not cause unreasonable light spill impact on adjacent sensitive receivers (or lawfully approved sensitive receivers).*		The location of external lighting at principal buildings within the Project site would not cause any light spill impact on surrounding sensitive receivers and would be located at a distance where light spill would not occur.
PO6.2 *External lighting is not hazardous to motorists and cyclists.*		The location of external lighting would not present a hazard to motorists or cyclists and would be located at a distance where light spill would not occur.

Section 11. Key views and visual effects

11.1 Introduction

The overall determination of visual effects resulting from the Project would result primarily from a combination of receptor sensitivity and the magnitude of visual effects.

A determination of visual effects from the combination of receptor sensitivity and the magnitude of visual effect is a well-established methodology and has been applied extensively on proposed wind farms in South Australia and across Australia. The standard methodology is set out in industry and best practice guidelines including the Guidelines for Landscape and Visual Impact Assessment, Third Edition, Landscape Institute, and Institute of Environmental Management & Assessment, 2013 – Chapter 6 Assessment of visual effects.

11.2 Sensitivity of visual receivers

Judging the sensitivity of visual receivers needs to consider the occupation or activity of people experiencing the view at particular locations and the extent to which their attention or interest is focussed on views toward the wind turbines or electrical infrastructure within and surrounding the Project site.

11.3 Magnitude of visual effects

Judging the magnitude of visual effects has considered the:

- Distance and resultant scale of the change in the view with respect to the loss or addition of features in the view
- Changes in landscape composition, including the proportion of the view occupied by the Project
- Degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line height, colour, and texture
- Nature of the view of the proposed development, in terms of the relative amount of time over which it would be experienced and
- Whether views from receiver locations would be screened to any degree by existing vegetation or other above ground structures.

View distance and the resultant change in wind turbine scale are illustrated in **Figure 11.** Wind turbines at around a 6km view distance are clearly visible; however, the overall wind turbine scale presents a less dominant visual element within the available field of view. As the overall scale of wind turbine structures diminish with distance the greater the potential for screening where trees are located between the receiver and the wind turbine. The overall height of planting required to screen wind turbines decreases as it moves nearer to the receiver. The consideration of distance magnitude criteria has determined that wind turbines occupying around 2% or less of a person's vertical field of view are unlikely to result in a significant visual effect.

The combination of sensitivity and magnitude would provide the rating of visual effect for viewpoints. **Table 10** sets out the relative visual impact grading values which combines issues of sensitivity and magnitude for the Project.

An overall determination of potential visual effect at each key view location has been assessed and determined against the visual impact grading matrix in **Table 10** below. The levels of sensitivity and magnitude of visual effects outlined in **Table 10** are **used as a guide** to determine levels of visual effect and are not absolute. For example, views may extend toward the Project from 'high' sensitive view locations; however, a 'medium' magnitude may be adjusted to 'low' as a result of restricted views or existing screening, resulting in 'moderate' visual effects rather than 'high moderate' visual effects.

Key view locations up to 6km from the wind turbines are illustrated in **Figure 12**. Non-dwelling structures, such as agricultural sheds, within 6km of the proposed wind turbines have not been assessed.

Figure 12
Key View Locations

GBD
Landscape architecture

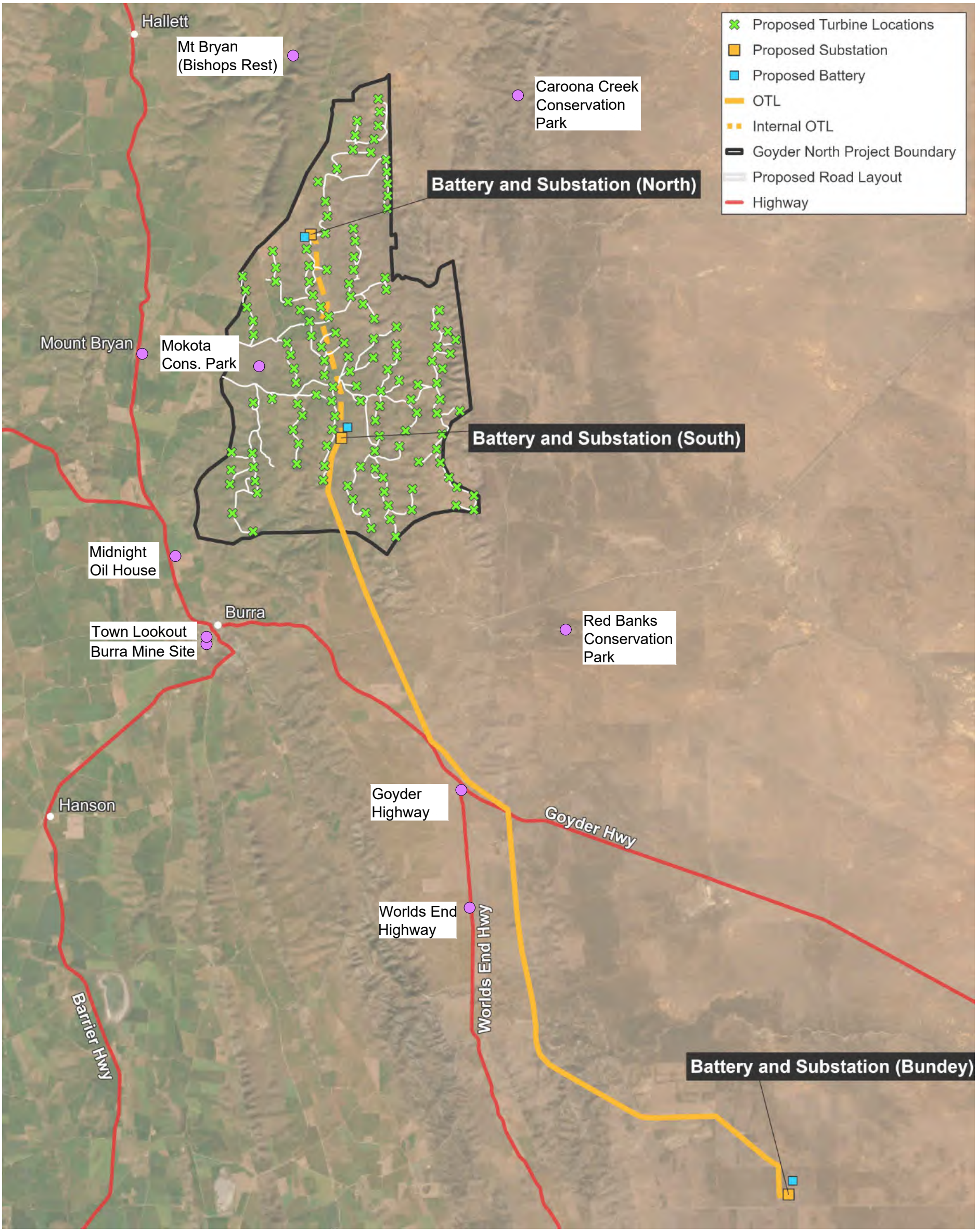


Figure prepared by GHD Australia Pty Ltd, Sourced Neoen Australia Pty Ltd 2024

Table 10 Visual effect grading matrix

			Scale or magnitude of visual effects			
			High	Moderate	Low	Negligible
			Very short distance view over a long duration of time. A high extent of wind turbine visibility would tend to dominate the available skyline view and significantly disrupt existing views or vistas. Total loss or major change to pre-development view or introduction of elements which are uncharacteristic to the existing landscape features.	Short to moderate distance views over a moderate duration of time. A moderate extent of wind turbine visibility would have the potential to dominate available views with visibility recessing over increasing distance. Partial alteration to pre-development view or introduction of elements that may be prominent but not uncharacteristic with the existing landscape.	Moderate to long distance views over a low to moderate duration of time. Wind turbines in views, at long distances or visible for a short duration not expected to be significantly distinct in the existing view. Minor alteration to pre-development view or introduction of elements that may not be uncharacteristic with the existing landscape.	Visible change perceptible at a very long distance, or visible for a very short duration, and/or is expected to be less distinct within the existing view. Very minor loss or alteration to pre-development view or introduction of elements which are not uncharacteristic with the existing landscape features.
Sensitivity of visual receptor		**Indicator**				
	High	People with a proprietary interest and prolonged viewing opportunities such as those in dwellings or visitors to attractive and/or well-used recreational facilities. Views from a regionally important location whose interest is specifically focussed on the landscape e.g., from lookouts or areas/campgrounds within National Parks.	High	High-moderate	Moderate	Negligible
	Moderate	People with an interest in their environment e.g., visitors to environmental areas, bush walkers, and horse riders etc…those travelling with an interest in their surroundings	High-moderate	Moderate	Moderate-low	Negligible
	Low	People with a passing interest in their surroundings e.g., those travelling along local roads between townships, or people whose interest is not specifically focussed on the wider landscape e.g., service providers or commuters.	Moderate	Moderate-low	Low	Negligible
	Negligible	People with no specific interest in their surroundings or those with occasional and transient views travelling at speed along highways or from a place of work where attention may not be focussed on surrounding views.	Negligible	Negligible	Negligible	Negligible

11.4 Key viewpoints

This Visual Assessment acknowledges that the practicalities of preparing an assessment does not extend to assessing every public viewpoint in the landscape from which the Project may be visible. However, every effort has been made to include significant and key viewpoints where wind turbines, or other Project infrastructure visibility, may result in a change to scenic amenity from sensitive or established viewpoints where people are likely to visit. This assessment, based on the current project layout, has determined the potential visual effect on views from:

- Burra township/public spaces
- Burra dwellings
- Mount Bryan township and dwellings
- Rural dwellings
- Burra Mine site (heritage locations)
- Heritage/tourist locations (beyond the Burra Mine site)
- Conservation areas
- Midnight Oil House
- Lookouts
- Highways (Barrier and Goyder)
- Local road corridors and
- Agricultural land.

11.5 Key Viewpoint Assessment

An assessment of potential visual effects has been prepared against the methodology and criteria outlined above and as described in the following sections.

11.6 Burra township public spaces

Views toward the proposed wind turbines from most public spaces within the Burra township would be largely screened by buildings and/or vegetation and tree cover within surrounding streetscapes, located within parks and gardens or following the Burra Creek corridor. Views from public spaces within the north section of the Burra township would also be subject to screening through undulating landform north of the township that rises toward the Project site.

Ancillary electrical infrastructure, including substations, the OTL and BESS facilities, would not be visible from public spaces within the Burra township.

This Visual Assessment notes that the offset between the wind turbines and the Burra township is in accordance with the relevant Design and Planning Code requirements, and that the overall extent of wind turbine visibility would be restricted to a small number of wind turbines within the south west portion of the Project site.

Table 11

Visual effect grading – Burra township public spaces

Sensitivity of visual receiver	High
Magnitude of visual effects	Low
Visual Effect	Moderate Low where wind turbines are visible

11.7 Burra dwellings

Most private dwellings within the Burra township are generally located within discrete clusters to the north and south of the Burra Mine site. Dwellings within the township are largely visually contained by the broader surrounding landscape of low hills and ridgelines extending north to south within the State Mid North region. The township is comfortably nestled within local landforms extending along and beyond the Burra Creek corridor. The township's urban scale is intimate with minimal contemporary development within the historical timeframe. Views toward the Project site from most dwellings within the township would be screened by combinations of built form, vegetation, tree cover and landform rising toward the Project site.

This Visual Assessment identified several areas including dwellings and their immediate curtilage within the township from which around 10 wind turbines would be visible within the south west portion of the Project site. These areas would tend to include elevated locations within the south west portion of the township (around Kangaroo Street), a small number of dwellings to the west of Mount Pleasant Road, and dwellings within the north west portion of the township, around Butterworth Street, Packard Street. Views from dwellings would not tend to be extensive, with shrub and tree planting occurring within gardens and streetscapes.

Ancillary electrical infrastructure, including substations, the OTL and BESS facilities, would not be visible from dwellings within the Burra township.

This Visual Assessment notes that the offset between the wind turbines and the Burra township is in accordance with the relevant Design and Planning Code requirements, and that the overall extent of wind turbine visibility would be restricted to a small number of wind turbines within the south west portion of the Project site.

Table 12

Visual effect grading – Burra dwellings

Sensitivity of visual receiver	High
Magnitude of visual effects	Moderate Low
Visual Effect	Moderate Low where wind turbines are visible

11.8 Mount Bryan township

Whilst wind turbines will be visible over distances beyond 5km, most views toward wind turbines within the Project site would be partially restricted by development, built structures and tree planting within the Mount Bryan township area. Potential views toward the wind turbines would also tend to be disrupted by discrete areas of vegetation both within and beyond the township. It is unlikely that the proposed wind turbines would have a significant visual impact on most people within the Mount Bryan township and other township localities beyond the Project site.

Ancillary electrical infrastructure, including substations, the OTL and BESS facilities, would not be visible from public spaces within the Mount Bryan township.

This Visual Assessment notes that the offset between the wind turbines and the Mount Bryan township is in accordance with the relevant Design and Planning Code requirements, and that the overall extent of wind turbine visibility would be restricted to a small number of wind turbines within the western portion of the Project site.

Table 13

Visual effect grading – Mount Bryan township

Sensitivity of visual receiver	High
Magnitude of visual effects	Low
Visual Effect	Moderate Low

11.9 Rural dwellings (non-involved)

Most rural dwellings located within 5km of the wind turbines are unlikely to be significantly impacted by the Project. Rural dwellings include varying extents of tree screen/shelter planting within proximity to dwellings which has the potential to offer a greater degree of screening significance as the viewing distance from the wind turbines increases and visual scale of the wind turbines decreases.

The substations associated buildings and electrical infrastructure would not be out of character with other moderate to large scale agricultural and existing electrical infrastructure located within the broader landscape beyond the Project site. Most ancillary electrical infrastructure would be located away from non-involved dwellings and would not result in significant visual effects.

Table 14

Visual effect grading – Rural dwellings (non-involved)

Sensitivity of visual receiver	High
Magnitude of visual effects	Moderate Low
Visual Effect	Moderate

11.10 Burra Mine Site

Views toward wind turbines would occur from several locations within the Burra Mine site including areas around heritage structures such as Morphet's Enginehouse, the Windinghouse, Powder Magazine and standing chimney locations. Views toward wind turbines would also extend from walking/access tracks surrounding the mine. Views from most areas within the Burra Mine site would be limited to around 10 wind turbines within the south west portion of the Project site.

Ancillary electrical infrastructure, including substations, the OTL and BESS facilities, would not be visible from the Burra Mine site.

Table 15

Visual effect grading – Burra Mine site

Sensitivity of visual receiver	High
Magnitude of visual effects	Low
Visual Effect	Moderate Low

11.11 Heritage/tourist sites (beyond the Burra Mine site)

There are numerous heritage locations within the Burra township comprising administrative, religious, commercial and dwelling structures. Most heritage sites are located within the broader urban setting and afforded screening toward the Project site by other buildings and structures, or tree cover within the township.

Ancillary electrical infrastructure, including substations, transmission lines and BESS facilities, would not be visible from heritage and tourist visitation locations within the Burra township.

Table 16

Visual effect grading – Heritage/tourist sites (beyond the Burra Mine site)

Sensitivity of visual receiver	High
Magnitude of visual effects	Low where visible
Visual Effect	Moderate where visible

11.12 Conservation areas

The Mokota Conservation Park covers an area around 445 hectares in size and is located to the west of the Project site boundary with wind turbines to the north, south and east of the Conservation Park. The Park is bounded by White Hill Road to the north. The Park is noted for its role in protecting native grassland, associated plant and animal species. Wind turbines would be prominent within surrounding views from the Park; however, the presence of wind

turbines beyond the Park is not considered to detract from the noted qualities and purpose of the Park. Ancillary electrical infrastructure would be largely screened by low undulating hills and ridgelines within and beyond the Park.

The Caroona Creek Conservation Park is described by National Parks and Wildlife Service South Australia as being *'situated on the western edge of the Olary Plain, this park contains a range of landforms from steep rocky ridges and calcrete hills extending to alluvial plains. The park conserves a representative sample of the transitional zone between the rounded hills of the Mid North to the beginning of the rocky gorge country of the Flinders Ranges. The northern area contains the beautiful Tourilie Gorge and its surrounding rugged hilly terrain'.* The Park includes a section of the Heysen Trail as well as other bushwalking areas and camping facilities.

The Park, located to the east and north east of the Project site, covers around 5,422 hectares of land. Wind turbine visibility would be largely disrupted by landform as well as vegetation and tree cover occurring within the Park. Ancillary electrical infrastructure would be largely screened by low undulating hills and ridgelines within and beyond the Park.

The Red Banks Conservation Park is located to the south of the Project site, covering an area of around 1,030 hectares. It is noted for containing remains of extinct megafauna as well as numerous plant communities and associated fauna. The Park contains walking tracks and camping facilities. Located in excess of 5km from the Project wind turbines, the Park would not be subject to significant visual effects, including some bushwalking areas and the campground which would be partially screened by tree cover. Ancillary electrical infrastructure would be largely screened by low undulating hills and ridgelines within and beyond the Park.

Table 17

Visual effect grading – Conservation areas

Sensitivity of visual receiver	High
Magnitude of visual effects	Low
Visual Effect	Moderate

11.13 Midnight Oil House

The Midnight Oil House is an abandoned farmhouse located around 3km north of Burra beside the Barrier Highway. Originally photographed by Australian landscape photographer Ken Duncan, the abandoned farmhouse became an iconic image after appearing on the Midnight Oil 'Diesel and Dust' album cover released in 1987. A preliminary review of previously proposed wind turbine layouts recommended the removal of wind turbines sited on hills directly behind the Midnight Oil House to minimise potential visual effects. This recommendation was implemented by the Proponent and results in around 7 wind turbines occurring within background views and are not considered to dominate existing views toward the Midnight Oil House from the constructed lookout to the west of the abandoned farmhouse.

Ancillary electrical infrastructure, including substations, transmission lines and BESS facilities, would not be visible from the lookout at the Midnight Oil House.

Table 18

Visual effect grading – Midnight Oil House

Sensitivity of visual receiver	High
Magnitude of visual effects	Low
Visual Effect	Moderate

11.14 Highways

View toward wind turbines would occur from sections of the Barrier Highway. Views would be partially restricted to upper portions of the wind turbine structures where screened by undulating landform, with greater extent of wind turbine visibility blocked by low hills to the east of the Barrier Highway corridor. The dynamic and constantly changing nature of views (through direction and distance) from vehicles travelling along local roads will tend to be transitory in nature and generally short term.

Ancillary electrical infrastructure, including substations, transmission lines and BESS facilities, would not be visible from the Barrier Highway. The proposed transmission line route would extend south, from the main Project site toward and then extend/follow to the north of the Goyder Highway for around 5km before spanning the highway around 900m west of the Satchell Road intersection. The transmission line would then extend south parallel to the Worlds End Highway offset by around 2km. The transmission line would not form a dominant visual element at a 2km view distance and would not result in any significant visual effects, or cumulative visual effects, on people driving along the Worlds End Highway.

Views toward the proposed transmission line from around 5km of the Goyder Highway would provide some opportunities for short distance views with some partial screening provided by landform rising to the north of the highway corridor. as well as passing beneath the transmission line as it spans the highway south toward the ENet Bundey substation connection north of Powerline Road.

Table 19

Visual effect grading – Highways

Sensitivity of visual receiver	Low
Magnitude of visual effects	Moderate
Visual Effect	Moderate Low

11.15 Local Road corridors

Views toward wind turbines and ancillary infrastructure would occur from sections of several local road corridors, either proximate to, or passing within the Project site. Views would be partially restricted to upper portions of the wind turbine structures where screened by undulating landform, with greater extent of wind turbine visibility blocked by low

hills beyond local road corridors. The dynamic and constantly changing nature of views (through direction and distance) from vehicles travelling along local roads will tend to be transitory in nature and generally short term.

Table 20

Visual effect grading – local road corridors

Sensitivity of visual receiver	Low
Magnitude of visual effects	Moderate
Visual Effect	Moderate Low

11.16 Agricultural land

The Project site, wind turbines and ancillary infrastructure would be visible to people engaged in predominantly farming activities surrounding the Project site. Ultimately the level of visual effect would depend on the type of activities engaged in as well as the location of the activities together with the degree of screening provided by local vegetation within the landscape.

Table 21

Visual effect grading – agricultural land

Sensitivity of visual receiver	Low
Magnitude of visual effects	Moderate
Visual Effect	Moderate Low

Section 12 Night lighting – ancillary structures

12.1 Existing light sources

Some existing night time light sources occur within the Project viewshed and include residential, general amenity and road lighting associated within township areas; however, most of the wind farm Project site has no illumination and presents a dark sky environment.

Local and domestic lighting is associated with rural dwellings within 6km of the wind turbines, but lighting is unlikely to be visually prominent and does not emit any significant illumination beyond immediate areas surrounding residential and agricultural buildings.

Vehicle headlights and tail lights visible along local roads and highways provide dynamic and temporary sources of light.

12.2 Potential light sources – ancillary structures

Potential light sources associated with the wind farm ancillary structures would include low intensity night lights for the BESS facilities, substations, control room and auxiliary buildings. Most lighting would be temporary and in use for emergency maintenance, safety, and security purposes. Lighting associated with the Project would not include flood or broad area lighting installations.

12.3 Potential receiver locations and impact

Potential receiver locations that may be impacted by night time lighting include residents and motorists. Night time lighting would not be visible from sensitive visual locations surrounding the Project.

Night time lighting associated with the wind farm is unlikely to have a significant visual impact on public receiver locations.

Irrespective of the total number of visible lights, lighting is more likely to be noticeable from exterior areas surrounding dwellings rather than from rooms within dwellings, where internal lighting tends to reflect and mirror views in windows, or where exterior views would be obscured when curtains and blinds are closed.

12.4 Night lighting mitigation

Impacts of ancillary lighting may be mitigated by ensuring that installed lighting meets the requirements of Australian Standard AS 4282:2019: Control of the obtrusive effects of outdoor lighting. To assist in the mitigation of night lighting associated with ancillary structures the following should be considered:

- Security lighting throughout the wind farm, switching station and the substation should be minimised to decrease the contrast between the wind farm and the surrounding night time environment
- Motion detectors should be used to activate night time security lighting when required
- Ancillary lighting is to be designed to ensure it does not spill onto nearby roads or dwellings

An AIA lighting review determined that the Project is a low risk to aviation activity and therefore does not require wind turbine obstacle lighting with no further mitigation required.

Section 13 Cumulative assessment

13.1 What is Cumulative Assessment?

A cumulative effect may result from a wind farm being constructed in conjunction with other existing or proposed wind farm developments or other large-scale infrastructure projects and may be either associated or separate to it.

Separate wind farm or other developments may occur within the viewshed of the proposed wind farm or may be located within a regional context where visibility is dependent on a journey between different wind farms.

'Direct' cumulative visual effects may occur where two or more winds farms, or other infrastructure developments have been constructed within the same locality and may be viewed from the same view location simultaneously.

'Indirect' cumulative visual effects may occur where two or more wind farms or other infrastructure developments have been constructed within the same locality and may be viewed from the same view location but not within the same field of view (i.e., the viewer must turn their head in order to view both wind farms).

'Sequential' cumulative visual effects may arise because of multiple wind farms or other infrastructure developments being observed at different locations during a journey (e.g., from a vehicle travelling along a highway or from a network of local roads), which may form an impression of greater magnitude within the construct of short term memory.

13.2 Other wind farm developments (regional locality)

An assessment of cumulative visual effect identified several wind farm developments within the Project broader viewshed, or regional locality. These include the Goyder South Hybrid Renewable Energy Facility (under construction), the operational Waterloo Wind Farm, Willogoleche Wind Farm, the Hornsdale Wind Farm and Hallet group of Wind Farms to the north north west the Project site.

Table 22 – Other Wind Farm Developments

Other Wind Farms	Turbine tip height	Status	Number of turbines	Approximate distance from Project site
Goyder South Hybrid Renewable Energy Facility	150-270m	Construction	75	10km
Hallett 1 Brown Hill	124m	Operating	45	22km to 28km
Hallett 2 Hallett Hill	124m	Operating	34	22km to 28km
Hallett 4 Brown Hill North	124m	Operating	63	22km to 28km

Table 22 – Other Wind Farm Developments

Other Wind Farms	Turbine tip height	Status	Number of turbines	Approximate distance from Project site
Hallett 5 The Bluff	124m	Operating	25	22km to 28km
Hornsdale (1,2 and 3)	150m	Operating	99	55km
Willogoleche	150m	Operating	32	14.5km
Waterloo	124m	Operating	43	35km

Overall, the Project would not significantly increase the magnitude of cumulative visual effect for most dwelling locations surrounding the Project site. The potential for the occurrence of 'direct' and 'indirect' cumulative visual effect is partially mitigated by the screening or filtering of views toward approved and existing wind farms.

Sequential views from local roads would be mitigated to some extent by undulating landform and tree cover alongside road corridors and the transitory nature of short-term dynamic views, and the fact that most wind farm developments are not located along a single highway or thoroughfare.

Section 14 Pre-construction and construction

14.1 Potential visual effect

There are potential visual effects that could occur during both pre-construction and construction phases of the Project. The Project construction phase is likely to occur over several years and will be rolled out in Stages, although the extent and nature of pre-construction and construction activities would vary at different locations within the Project area.

The key pre-construction and construction activities that would be visible from areas surrounding the proposed wind farm include:

- Ongoing detailed site assessment including sub surface geotechnical investigations
- Various civil works to upgrade local roads and access point
- Temporary construction compound buildings and facilities
- Temporary construction facilities, including portable structures and laydown areas
- Various temporary construction and directional signage
- Mobilisation of rock crushing equipment and concrete batching plant (if required)
- Excavation and earthworks and
- Various construction activities including erection of wind turbines, monitoring mast and electrical infrastructure works.

Most pre-construction and construction activities, some of which would result in physical changes to the landscape (which have been assessed in this Visual Assessment report), are generally temporary in nature and for the most part restricted to various discrete areas within or beyond the immediate wind farm Project area. Most of the pre-construction and construction activities would be unlikely to result in an unacceptable level of visual effect for their duration and temporary nature.

Plates 7 to **11** illustrate typical construction activities during preparation and installation of wind turbines:

Plate 7 Cable laying equipment (Image: ©GBD 2023)

Plate 8 Typical crane plant utilised in wind turbine construction (Image: ©GBD 2023)

Plate 9 Typical storage and laydown area (Image: ©GBD 2023)

Plate 10 Typical contractors site office and amenities compound (Image: ©GBD 2023)

Plate 11 Typical view toward wind turbines under construction (Image: ©GBD 2023)

Section 15 Mitigation

15.1 Introduction

The application of mitigation measures are a standard approach to minimise visual effects for proposed wind farm developments. The British Landscape Institute states 'the purpose of mitigation is to avoid, reduce, or where possible remedy or offset any significant negative (adverse) effects on the environment arising from the proposed development' (2012).

15.2 Mitigation limitations

There are several limitations to mitigation strategies applicable to wind energy facilities and this Visual Assessment recognises that large scale wind energy facilities are likely to result in unavoidable visual impacts in the current landscape and Project context. Wind turbines are large scale constructed elements with a form and line that will contrast with the relatively simple landscape forms and lines that adjoin and extend beyond the Project site.

The efficiency of the Project is dependent on a range of technical factors, and the potential for visual impacts must be balanced against other requirements. A level of acceptance for unavoidable low to moderate visual impacts should be considered appropriate without the need for mitigation as has been applied to several preceding wind farm developments including the Goyder South Project.

15.3 Mitigation strategies

Mitigation strategies considered applicable to wind farm projects include:

- *using turbine colour to reduce visual impacts from key public viewpoints*

  Wind turbines are commonly installed in a white to off white colour across Australia as well as most other countries around the world. This industry standardised colour has likely been adopted for several reasons. White is a neutral colour and whilst visible against blue sky backdrops it will tend to blend readily on cloudy or partly cloudy days. The white colour also assists with protecting wind turbine infrastructure by reflecting ultraviolet rays rather than absorbing them which helps to protect the generator from overheating. Wind turbines are also painted white to provide contrast between the wind turbine structures and the ground when viewed from aircraft flying above the wind farm.

Plate 12 illustrates 'white' wind turbines with apparent colour differences (grey and white). This demonstrates the effect of partial cloud cover and shading on visible wind turbine colour. **Plate 13** illustrates wind turbines at the Windy Hill Wind Farm in Far North Queensland. The wind turbines have been painted with concentric bands of green paint, from dark green at the base to light green for approximately one third of the tower height. The success of painting the wind turbine tower is dependent on the viewpoint location, elevation and backdrop against which the wind turbine is visible.

Plate 12 – Wind turbines at Crookwell 2 Wind Farm NSW (Image: ©GBD 2018)

Plate 13 – Wind turbines with coloured base Windy Hill Wind Farm QLD (Image: ©GBD 2017)

- *selecting turbines that are consistent in height, appearance and rotate the same way*

  Selected wind turbines would be consistent in visual form and design, comprising similar basic components of towers, hubs and blades. Most current wind turbines rotate in a clockwise direction. Adopting wind turbines that rotate in different directions would result in engineering challenges with the creation of turbulent airflow.

- *spacing turbines to respond to landscape characteristics*

  The wind farm design and wind turbine layout responds to a range of technical and environmental requirements, as well as landuse/farming operations and regulatory requirements. Where possible, wind turbine spacing, and the overall layout, has considered strategies to minimise impacts on the characteristics of the landscape surrounding the Project site including establishing offsets from sensitive locations as nominated in the Planning and Design Code.

- *minimising removal of vegetation*

  The Project will minimise the removal of vegetation from the Project site where possible; however, vegetation within the Project site does not offer significant screening potential toward the wind turbines.

- *avoiding additional clutter on turbines, such as unrelated advertising and telecommunications apparatus*

  The wind turbines would not include unrelated advertising and/or telecommunications apparatus.

The landscape plan mitigation measures generally involve reducing the extent of visual contrast between the visible portions of the proposed structures and the surrounding landscape and are discussed below.

15.4 Detail design

Mitigation measures during the detail design process should consider:

- further refinement in the design and layout where possible, which may assist in the mitigation of bulk and height of proposed structures and
- a review of materials and colour finishes for selected components including the use of non-reflective finishes to structures where possible.

15.5 Construction

Mitigation measures during the construction period should consider actions to:

- minimise tree removal where possible
- avoidance of temporary light spill beyond the construction site where temporary lighting is required
- progressively rehabilitate disturbed areas and
- protect mature trees within the Project site where possible.

15.6 Operation

Mitigation measures during the operational period should consider:

- ongoing maintenance and repair of constructed elements
- replacement of damaged or missing constructed elements and

- long term maintenance (and replacement as necessary) of vegetation within the Project site to maintain visual filtering and screening of external views where appropriate.

Section 16. Summary

The following key findings have been determined from the Visual Assessment addressing the Planning and Design Code requirements and more general guidelines applicable to wind farm visual assessment.

16.1 Planning and Design Code

This Visual Assessment has considered and responded to relevant sections of the Planning and Design Code. This Visual Assessment has determined that the Project is compliant with the Planning and Design Code where relevant to potential landscape and visual effects that may occur at various view locations surrounding the Project site.

16.2 Key view locations

The Project and proposed wind turbines would not have a significant visual effect on the character of surrounding townships and localities, where views toward the wind turbines from most view locations would be screened by adjoining structures, and a combination of tree cover and low undulations and ridgelines in local landforms. Where wind turbines would be visible from areas within townships, the overall number of visible wind turbines, and distance between wind turbines and the view location would generally result in Moderate Low visual effects.

Views from most non-involved dwellings located within 6km of a wind turbine would not result in significant levels of visual effect with most dwellings likely experience no more than a Moderate level of visual effect.

Views toward the Project from the Barrier Highway and local roads would offer a range of transitory views which would be subject to direction of travel and potential screening influence of vegetation alongside road corridors. Views from transport corridors would not result in a significant level of visual effect.

16.3 Electrical infrastructure

Proposed electrical infrastructure including substations and BESS, as well as some sections of overhead transmission lines, would be screened from most view locations surrounding the Project site by hills and ridgelines.

The proposed transmission line extending south from the main Project site toward and beyond the Goyder Highway, would be visible from vehicles for a short duration of time which would limit the overall potential for significant visual effects. The potential for significant cumulative visual effects to occur between the existing Goyder South transmission line and proposed transmission line would be largely mitigated by the distance separating both transmission line corridors. Where running parallel, transmission line cumulative visual effects would be mitigated by the 2km offset from the Worlds End Highway and/or distance from non-involved dwellings within the surrounding landscape.

16.4 Lighting

Temporary and safety night lighting associated with Project electrical infrastructure and office/maintenance buildings would be largely filtered or screened from most surrounding view locations and not considered significant enough to directly impact upon the dark sky night time experience within or beyond the Project site.

An obstacle lighting review determined that wind monitoring towers be appropriately marked in accordance with applicable guidelines (excluding strobe lighting) noted in the lighting review. The lighting review further determined that the Project is a low risk to aviation activity and therefore does not require obstacle lighting with no further mitigation required.

The overall visual effect on views from temporary and safety night lighting would be **Low**.

16.5 Cumulative

The Project would not result in a significant increase in cumulative visual effect for many non-involved dwelling locations surrounding the Project site. The potential for the occurrence of 'direct' and 'indirect' cumulative visual effect is partially mitigated by screening between approved and existing wind farms.

Sequential views from local roads and highways would be mitigated to some extent by undulating landform and tree cover alongside road corridors and the transitory nature of short-term dynamic views, and the fact that most wind farm developments are not located along a single highway or thoroughfare.

16.6 Mitigation

This Visual Assessment has considered a range of mitigation measures which may be adopted to minimise potential visual effects associated with the Project. Overall, the extent and level of potential visual effect is moderate to low at most view locations resulting in minimal application of mitigation measures to screen views. Screening views may also be detrimental to various locations where foreshortening or restricting existing views may not be desirable. The mitigation strategies outlined in **Section 15** are considered to provide some level of mitigation to potential visual effects.

16.7 Conclusion

In conclusion, the proposed development of a wind farm project requires a responsible authority to determine whether the visual effects of a wind energy facility in the landscape is acceptable. This Visual Assessment has assessed the potential visual effect of the Project against relevant policies and guidelines, and has determined that, in our professional opinion, the level of landscape and visual effects are acceptable.

Appendix A – Photomontages/wireframes

Photomontages/wireframes have been prepared to illustrate the general location of the Project wind turbines following construction. The photomontages/wireframes have been located to illustrate views from areas close to non-host dwellings/heritage locations or to illustrate cumulative impacts where possible.

The photomontage/wireframe locations were selected following a review of ZTV maps, together with the site inspection to identify potential representative viewpoints. The photomontages/wireframe locations were selected at a range of distances between viewpoints and wind turbines to illustrate the potential influence of distance on visibility. The photomontage locations are illustrated in **Figure 13** and photomontages/wireframes presented in **Figures 14** to **47**.

Each photomontage/wireframe was generated through the following steps:

- A digital terrain model (DTM) of the Project site was created from a terrain model of the surrounding area using digital contours
- The site DTM was loaded in the modelling software package
- The layout of the wind farm and 3-dimensional representation of the wind turbine was configured in the modelling software
- The wind turbine dimensions assumed are a tip height of 240m with a hub height of 160m and blade length of 80m
- The location of each viewpoint (photo location) was configured in the modelling software for sun position for each viewpoint by using the time and date of the photographs from that viewpoint
- The view from each photomontage location was then assessed in the modelling software package. This process requires accurate mapping of the terrain as modelled, with that as seen in the photographs. The photographs, taken from each photomontage location were loaded into the modelling software and the visible turbines superimposed on the photographs
- The photomontages were adjusted using Photoshop CS3 to compensate for fogging due to haze or distance, as well as screening by vegetation or obstacles and
- The final image was converted to JPG format and imported and annotated as the final figure.

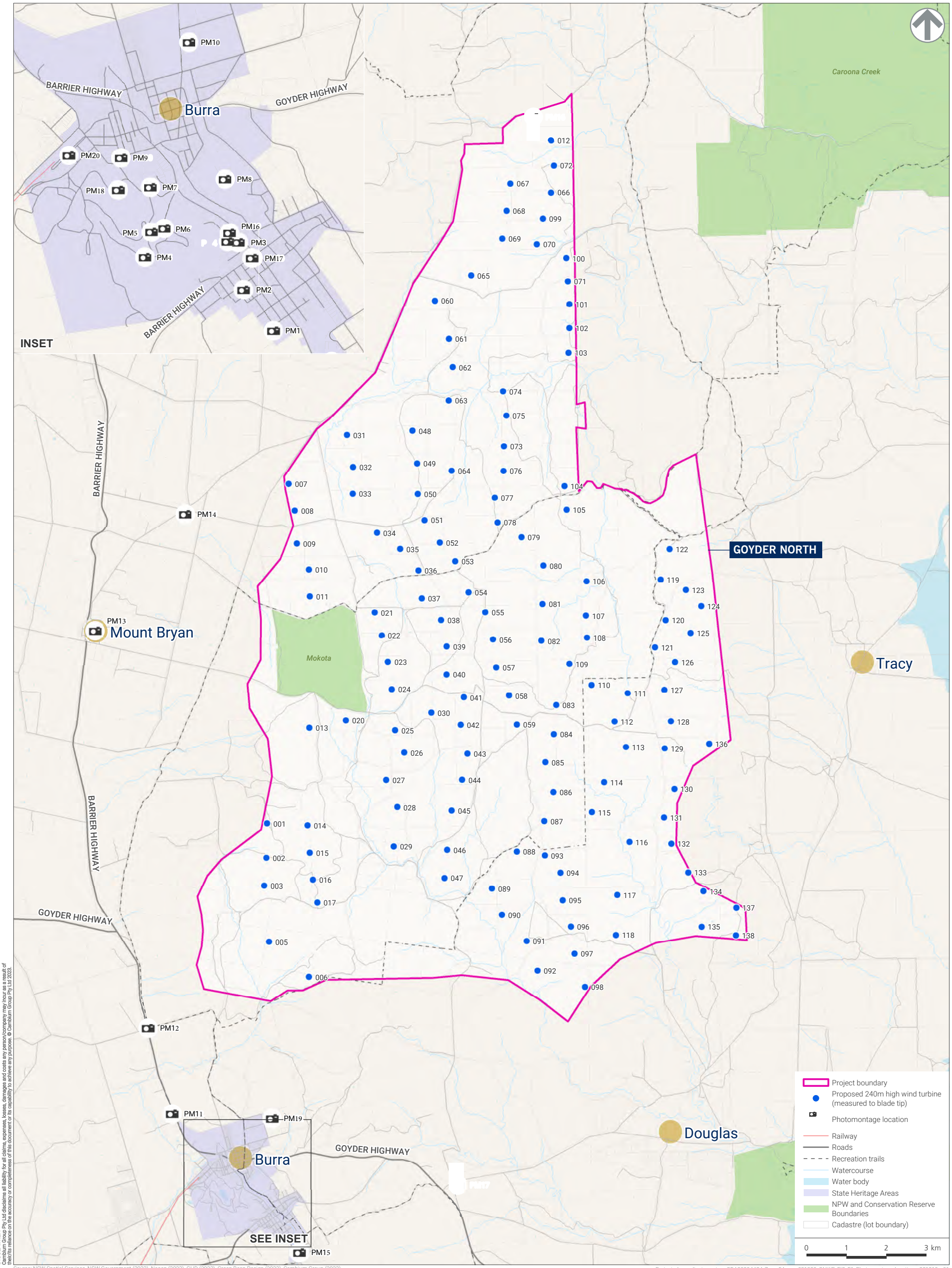
Whilst a photomontage can provide an image that illustrates a very accurate representation of a wind turbine in relation to its proposed location and scale relative to the surrounding landscape, this Visual Assessment acknowledges that large scale objects in the landscape can appear smaller in photomontage than in real life and is partly due to the fact that a flat image does not allow the viewer to perceive any information relating to depth or distance.

The horizontal and vertical field of view within most of the photomontages exceeds the parameters of normal human vision. However, the eyes, head and body can all move and under normal conditions a person would sample a broad area of landscape within a panorama view. The photomontages have been prepared as extended panorama for broader visual context (**Figures 14** to **27**) and detailed single photo frame photomontages (**Figures 28** to **41**) providing greater detail. The wireframe images (**Figures 42** to **47**) illustrate wind turbines (as yellow) where screened from the photo location by vegetation or landform.

Figure 13

Photomontage locations

GOYDER NORTH | VISUAL IMPACT ASSESSMENT



Source: NSW Spatial Services, NSW Government (2023), Neoen (2023), GHD (2023), Green Bean Design (2023), Cambium Group (2023).

Projected coordinate system GDA2020 MGA Zone 54

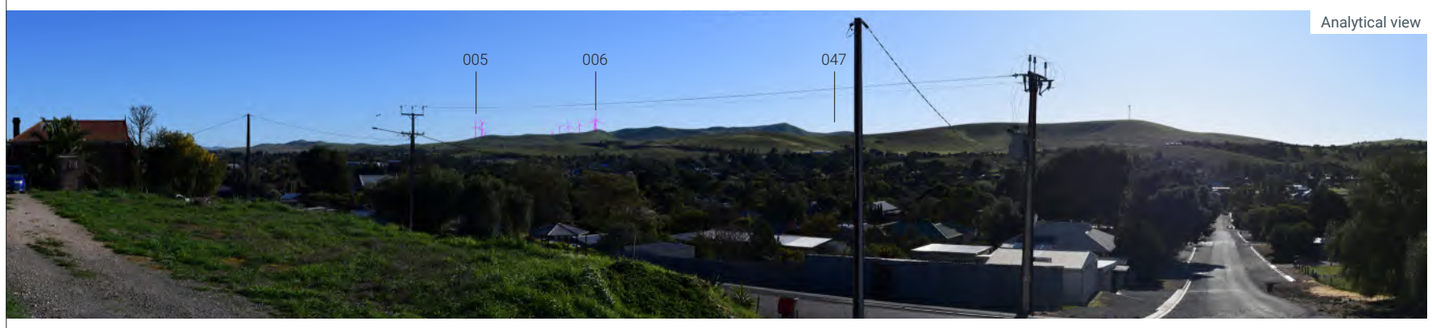
031280_GNWF_EIS_F1_Photomontage_locations_231219_v01

Figure 14

PM1 | Kangaroo Street, Burra

GBD Landscape architecture

Existing view



Analytical view

Photomontage

Date	15/08/2023
Time	10:37
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	309115m E, 6270537m S
Camera level	487.8 mAHD
Camera bearing	27°
Vertical field of view	27°
Project horizontal field of view	59°
Distance to nearest turbine	6.57 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

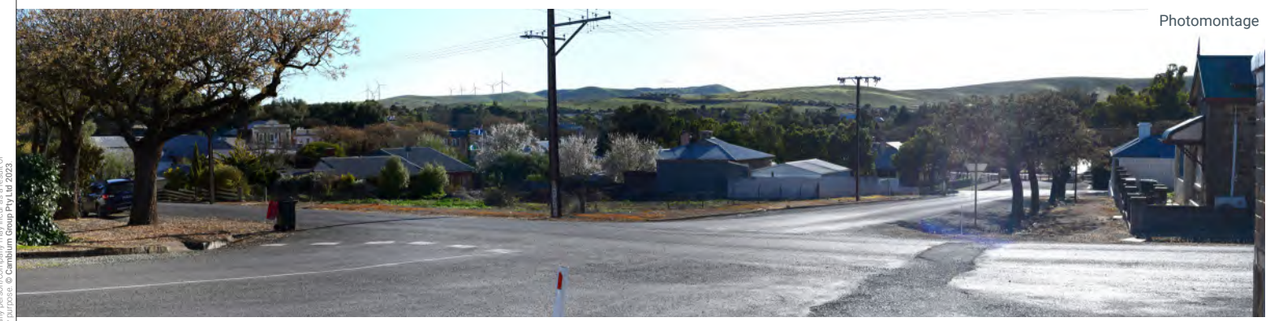
Figure 15

PM2 | Kangaroo and Church Street

GBD Landscape architecture

Existing view

Analytical view



Photomontage

Date	15/08/2023
Time	10:21
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308850m E, 6270908m S
Camera level	478.1 mAHD
Camera bearing	29°
Vertical field of view	27°
Project horizontal field of view	59°
Distance to nearest turbine	6.22 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

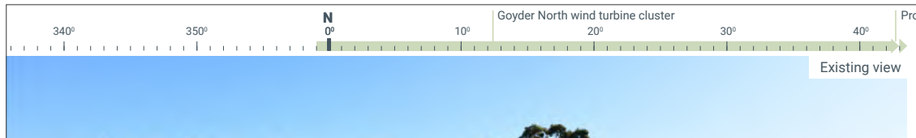
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 16

PM3 | Town Hall steps, Burra

GBD Landscape architecture



Existing view

Analytical view

Photomontage

Date	15/08/2023
Time	10:33
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308804m E, 6271337m S
Camera level	472.17 mAHD
Camera bearing	30°
Vertical field of view	27°
Project horizontal field of view	60°
Distance to nearest turbine	5.83 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

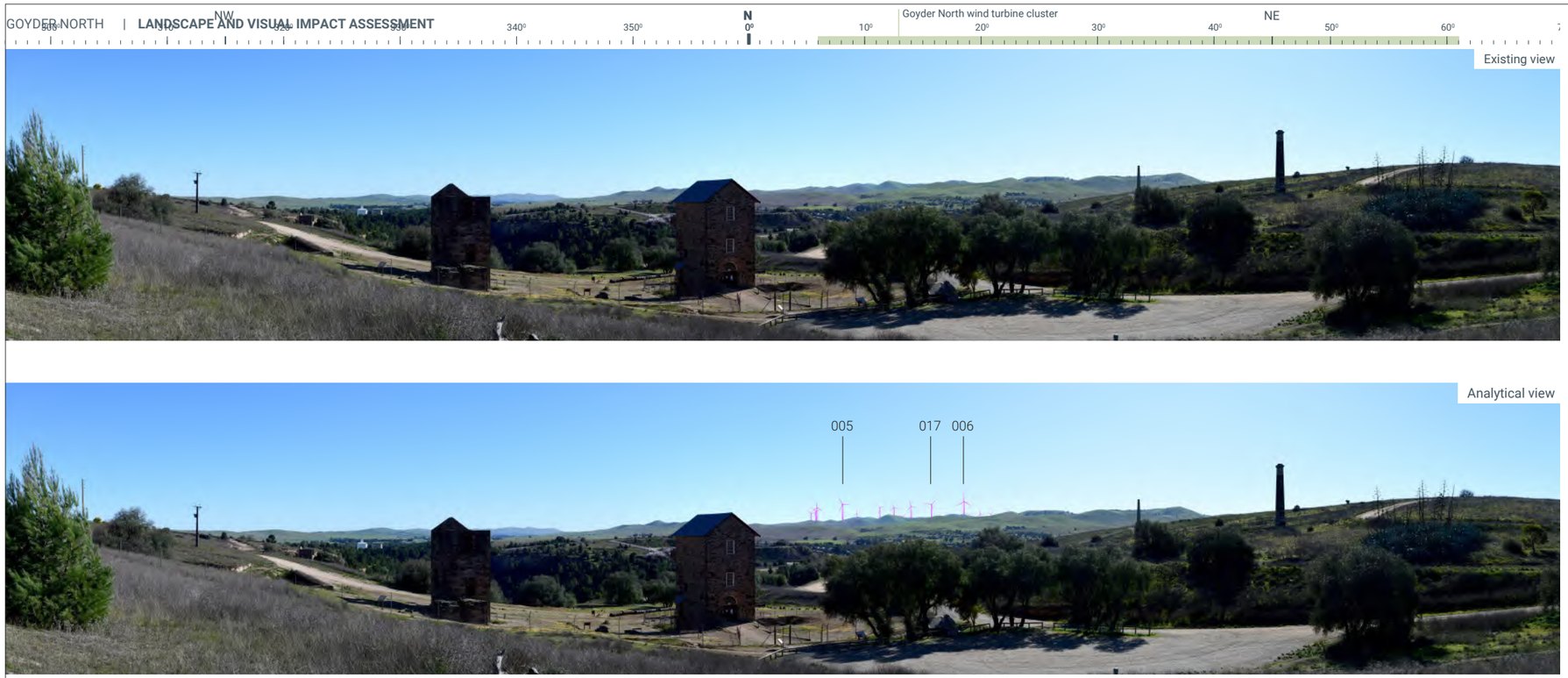
Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 17

PM4 | Burra Mine (toward Morphett's Enginehouse and Windinghouse)

GBD Landscape architecture

GOYDER NORTH | LANDSCAPE AND VISUAL IMPACT ASSESSMENT



Date	15/08/2023
Time	11:19
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	307945m E, 6271203m S
Camera level	518.41 mAHD
Camera bearing	34°
Vertical field of view	27°
Project horizontal field of view	56°
Distance to nearest turbine	6.17 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 18
PM5 | Dressing Tower

GBD
Landscape architecture

Date	15/08/2023
Time	11:39
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308003m E, 6271432m S
Camera level	507.33 mAHD
Camera bearing	33°
Vertical field of view	27°
Project horizontal field of view	58°
Distance to nearest turbine	5.94 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

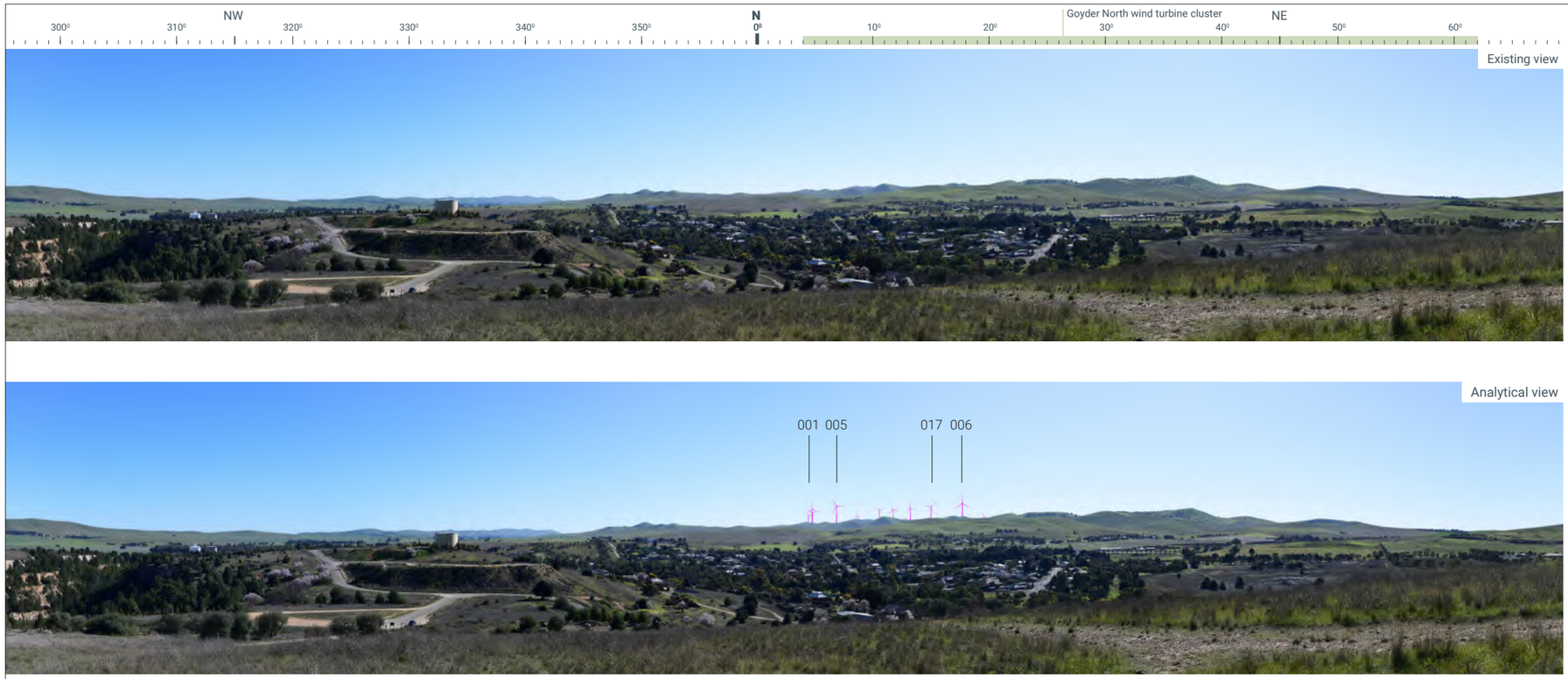
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 19

PM6 | Haulage Enginehouse Chimney

GBD Landscape architecture



Existing view

Analytical view

Photomontage

Date	15/08/2023
Time	11:31
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308121m E, 6271464m S
Camera level	522.57 mAHD
Camera bearing	33º
Vertical field of view	27º
Project horizontal field of view	58º
Distance to nearest turbine	5.87 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

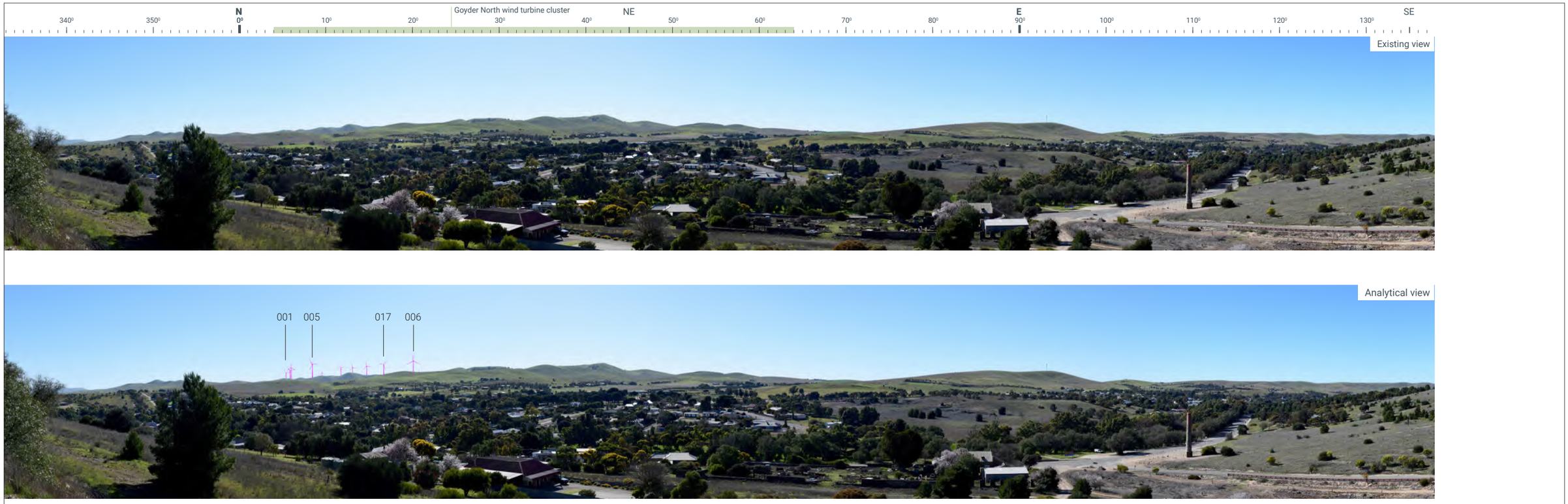
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 20

PM7 | Town Lookout

GBD Landscape architecture



Date	15/08/2023
Time	11:48
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	307996m E, 6271840m S
Camera level	503.9 mAHD
Camera bearing	34º
Vertical field of view	27º
Project horizontal field of view	59º
Distance to nearest turbine	5.56 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

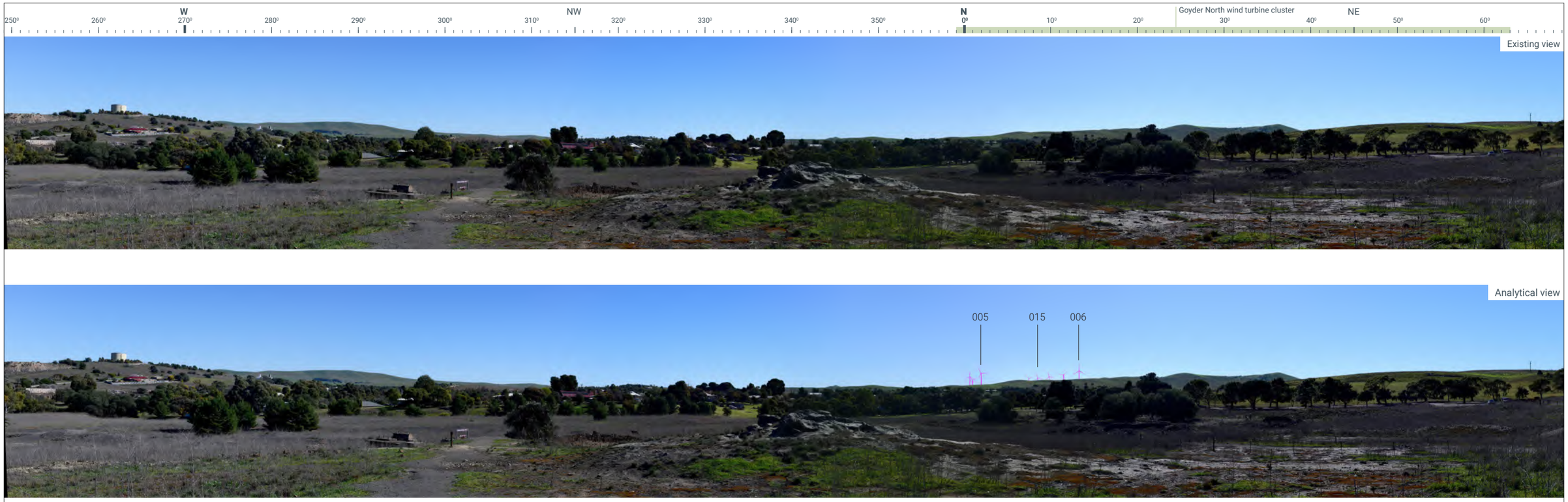
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 21

PM8 | Smelting Works Site

GBD Landscape architecture



Date	15/08/2023
Time	12:20
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308675m E, 6271914m S
Camera level	487.23 mAHD
Camera bearing	32°
Vertical field of view	27°
Project horizontal field of view	62°
Distance to nearest turbine	5.29 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

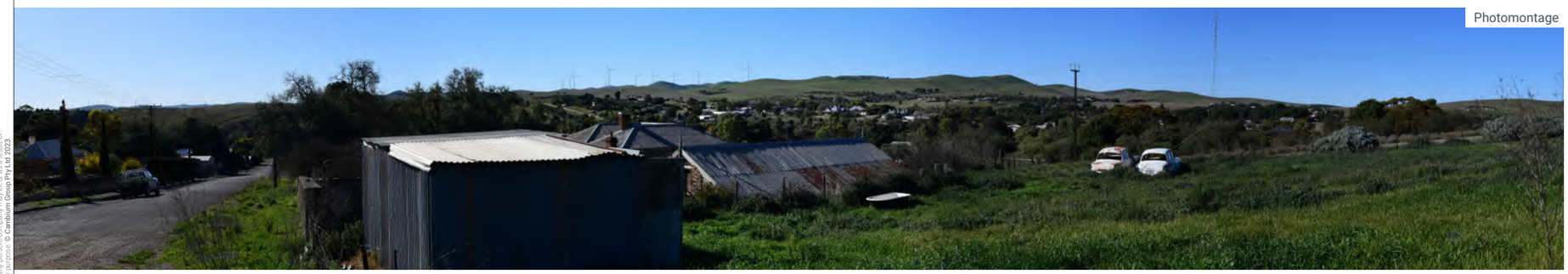
Figure 22

PM9 | Butterworth Street, Burra

GBD Landscape architecture

Existing view

Analytical view



Photomontage

Date	15/08/2023
Time	16:16
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	307728m E, 6272109m S
Camera level	496.48 mAHD
Camera bearing	35°
Vertical field of view	27°
Project horizontal field of view	60°
Distance to nearest turbine	5.41 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 23
PM10 | Redruth Gaol

GBD
Landscape architecture

Date	15/08/2023
Time	12:34
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308346m E, 6273158m S
Camera level	495.5 mAHD
Camera bearing	36°
Vertical field of view	27°
Project horizontal field of view	64°
Distance to nearest turbine	4.21 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

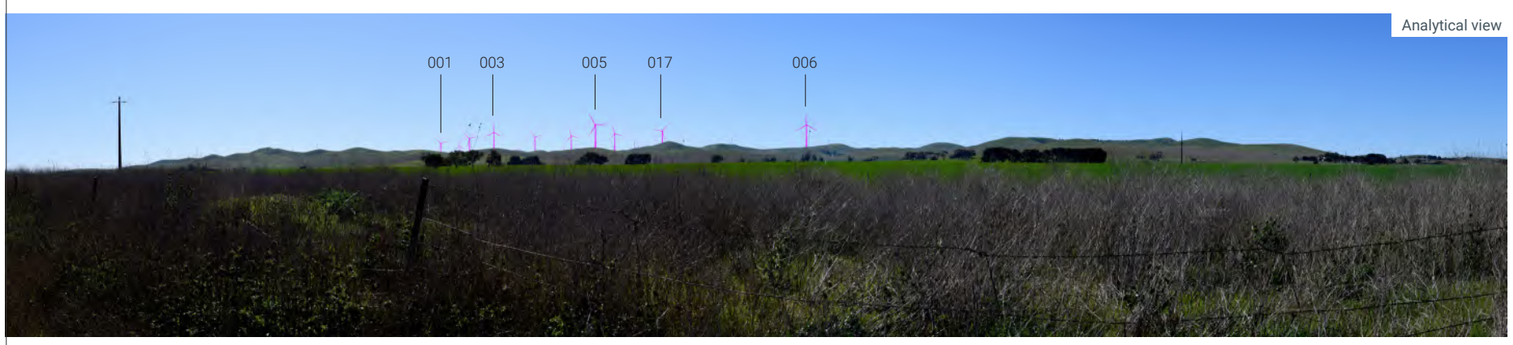
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 24
PM11 | Barrier Highway

GBD
Landscape architecture

Existing view



Analytical view

Photomontage

Date	15/08/2023
Time	13:08
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	306461m E, 6273728m S
Camera level	485.4 mAHD
Camera bearing	42°
Vertical field of view	27°
Project horizontal field of view	63°
Distance to nearest turbine	4.83 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

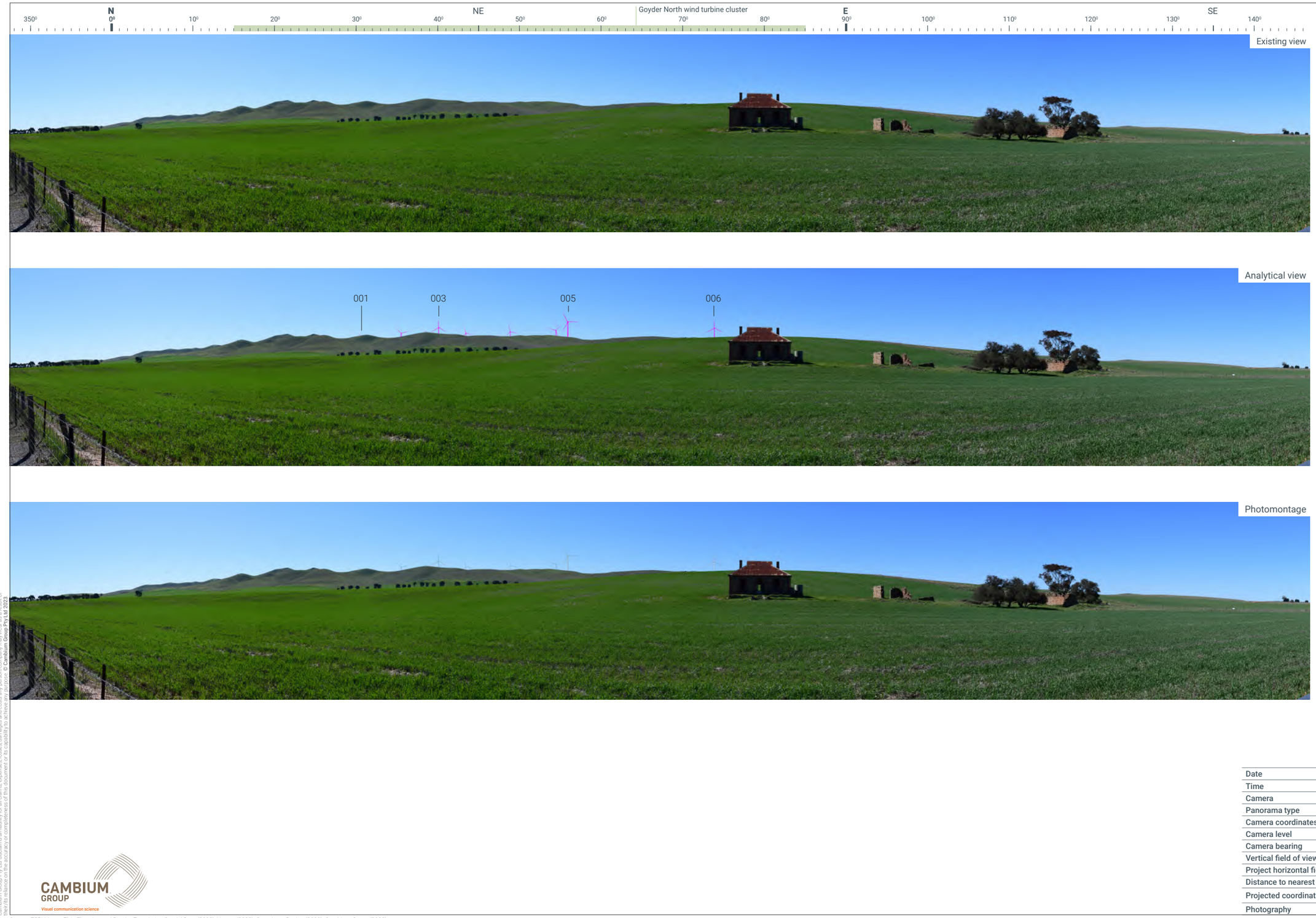
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 25

PM12 | Midnight Oil House

GBD Landscape architecture



Date	15/08/2023
Time	13:16
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	305862m E, 6275877m S
Camera level	484.59 mAHD
Camera bearing	50°
Vertical field of view	27°
Project horizontal field of view	71°
Distance to nearest turbine	3.67 km (005)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

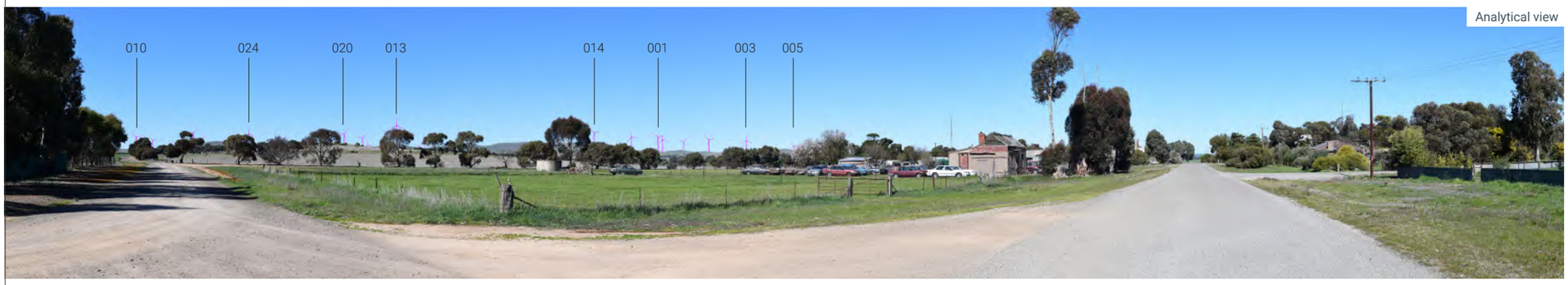
Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 26

PM13 | East Terrace, Mount Bryan

GBD Landscape architecture

Existing view



Analytical view

Photomontage

Date	15/08/2023
Time	13:33
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	304534m E, 6285818m S
Camera level	523.92 mAHD
Camera bearing	97°
Vertical field of view	27°
Project horizontal field of view	108°
Distance to nearest turbine	5.44 km (011)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

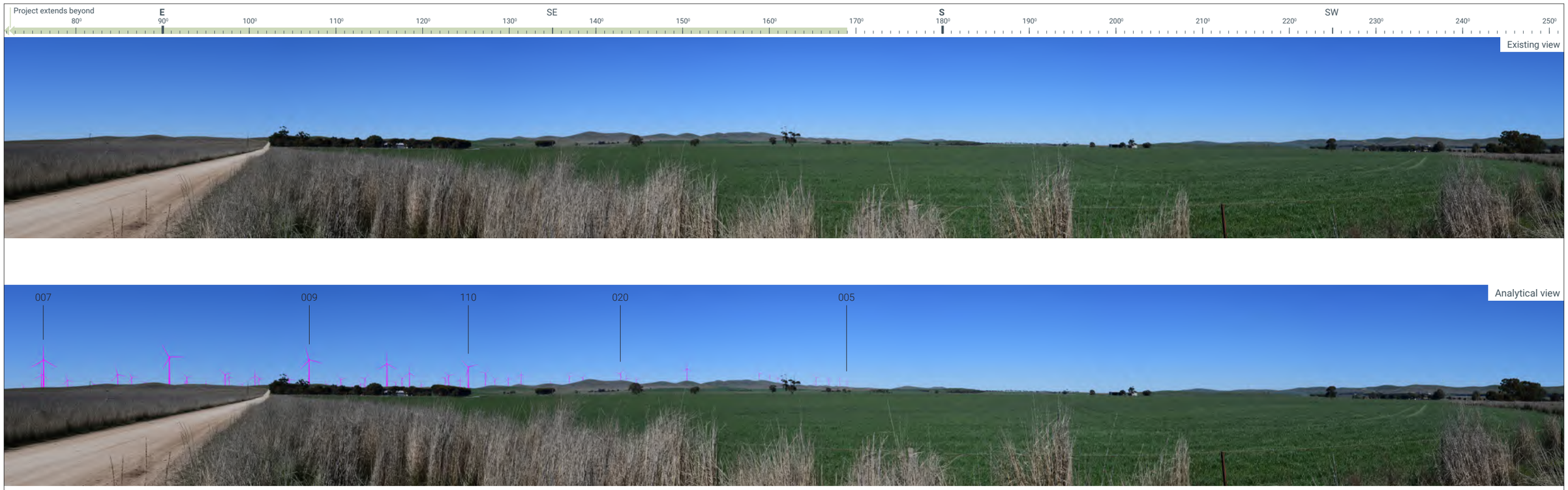
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 27

PM14 | Old Belcunda Road

GBD Landscape architecture



Date	15/08/2023
Time	13:44
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	306794m E, 6288738m S
Camera level	540.7 mAHD
Camera bearing	107°
Vertical field of view	27°
Project horizontal field of view	124°
Distance to nearest turbine	2.66 km (007)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Photo location PM1 - Proposed view north north west to north north east from Kangaroo Street, Burra.

General Notes:

Coordinates:
Easting 309115, Northing 6270537

Photo date:
15th August 2023, 10.37am

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM1 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 28
Photomontage PM1 Kangaroo Street, Burra - 40 degree field of view

GBD
Landscape architecture

Photo location PM2 - Proposed view north to north north east from Kangaroo and Church Street intersection, Burra

General Notes:

Coordinates:
Easting 308850, Northing 6270908

Photo date:
15th August 2023, 10.21am

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM2 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 29
Photomontage PM2 Kangaroo and Church Street, Burra - 40 degree field of view

GBD
Landscape architecture

Photo location PM3 - Proposed view north north west to north north east from Town Hall Steps, Burra.

General Notes:

Coordinates:
Easting 308804, Northing 62711337

Photo date:
15th August 2023, 10.33am

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM3 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 30
Photomontage PM3 Town Hall Steps, Burra - 40 degree field of view

GBD
Landscape architecture

Photo location PM4 - Proposed view north to north north east from Burra Mine toward Morphett's Enginehouse.

General Notes:

Coordinates:
Easting 307945, Northing 6271203

Photo date:
15th August 2023, 11.19am

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM4 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 31
Photomontage PM4 Burra Mine toward Morphett's Enginehouse - 40 degree field of view

GBD
Landscape architecture

Photo location PM14 - Proposed view north to north north east from Old Belcunda Road

General Notes:

Coordinates:
Easting 306795, Northing 6288737

Photo date:
15th August 2023, 1.54pm

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM14 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 31
Photomontage PM14 Old Belcunda Road - 40 degree field of view

GBD
Landscape architecture

Photo location PM5 - Proposed view north north west to north north east from Burra Mine Dressing Tower

General Notes:

Coordinates:
Easting 308003, Northing 6271432

Photo date:
15th August 2023, 11.39pm

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM5 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 32
Photomontage PM5 Burra Mine Dressing Tower - 40 degree field of view

GBD
Landscape architecture

Photo location PM7 - Proposed view north to north east from Burra Mine Town Lookout

General Notes:

Coordinates:
Easting 307996, Northing 6271840

Photo date:
15th August 2023, 11.48am

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM7 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 34
Photomontage PM7 Burra Mine Town Lookout - 40 degree field of view

GBD
Landscape architecture

Photo location PM8 - Proposed view north to north east from Smelting Works Site

General Notes:

Coordinates:
Easting 308675, Northing 6271914

Photo date:
15th August 2023, 12.20pm

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM8 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 35
Photomontage PM8 Smelting Works Site - 40 degree field of view

GBD
Landscape architecture

Photo location PM9 - Proposed view north to north north east from Butterworth Street, Burra

General Notes:

Coordinates:
Easting 307728, Northing 6272109

Photo date:
15th August 2023, 4.16pm

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM9 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 36
Photomontage PM9 Butterworth Street, Burra - 40 degree field of view

GBD
Landscape architecture

Photo location PM10 - Proposed view north to north east from Redruth Goal

General Notes:

Coordinates:
Easting 308346, Northing 6273158

Photo date:
15th August 2023, 12.34pm

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM10 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 37
Photomontage PM10 Redruth Goal - 40 degree field of view

GBD
Landscape architecture

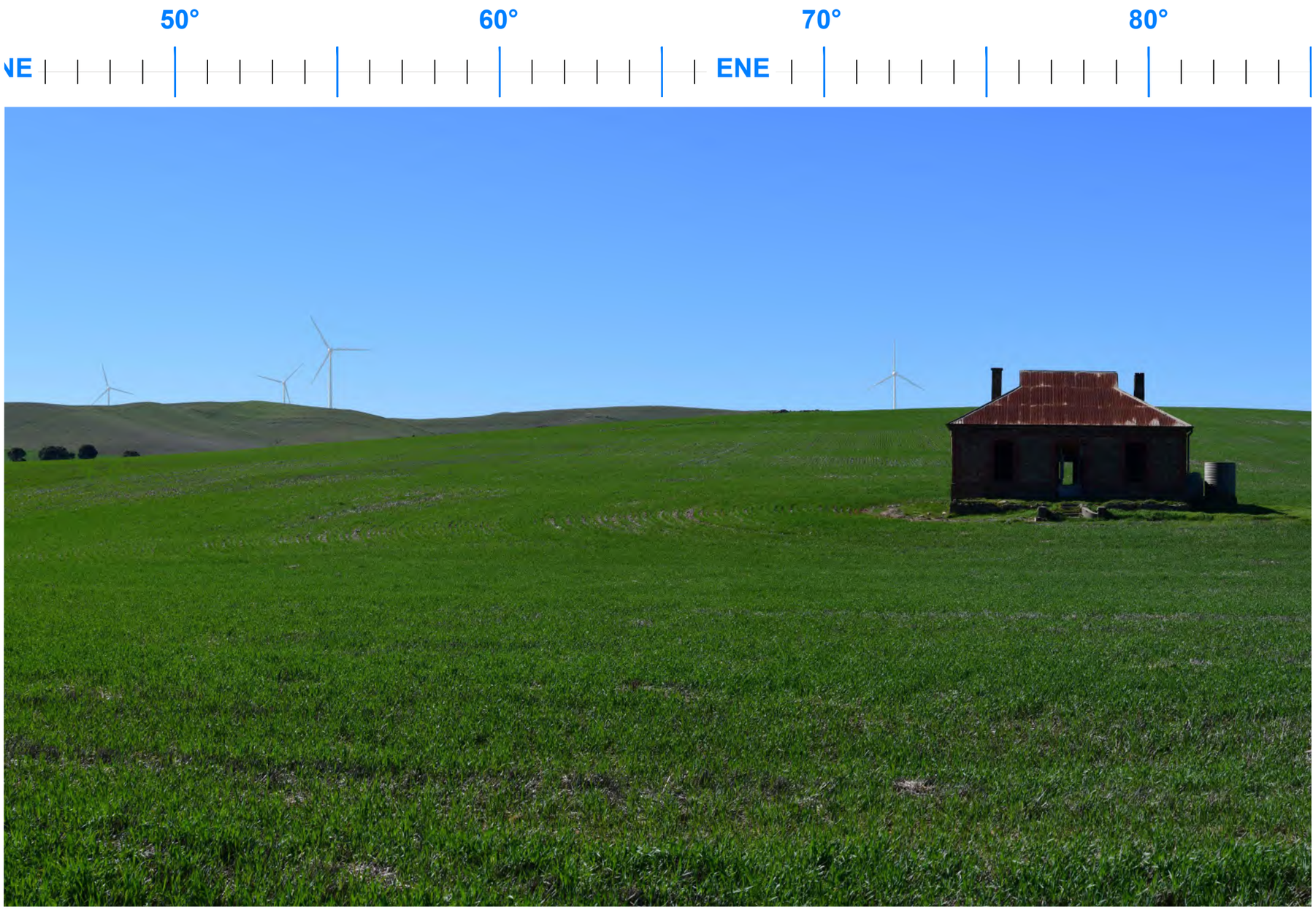


Photo location PM12 - Proposed view north east to east north east from Midnight Oil House

General Notes:

Coordinates:
Easting 305862, Northing 6275877

Photo date:
15th August 2023, 1.16pm

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM12 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 39
Photomontage PM12 Midnight Oil House - 40 degree field of view

GBD
Landscape architecture

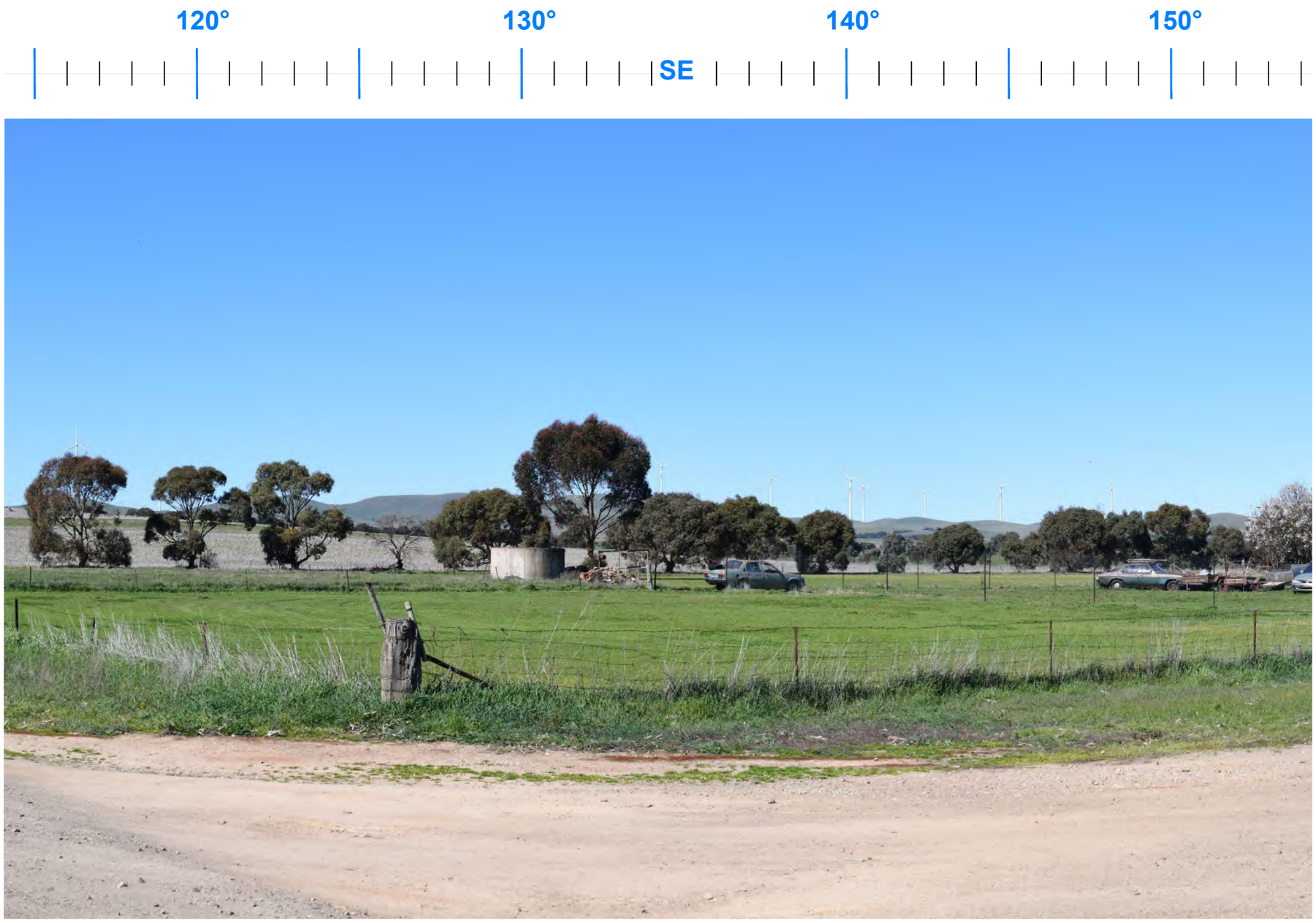


Photo location PM13 - Proposed view east south east to south east from Mount Bryan Township

General Notes:

Coordinates:
Easting 304534, Northing 6285818

Photo date:
15th August 2023, 1.33pm

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM13 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 40
Photomontage PM13 Mount Bryan Township - 40 degree field of view

GBD
Landscape architecture

Photo location PM14 - Proposed view east north east to east from Old Belcunda Road

General Notes:

Coordinates:
Easting 306794, Northing 6288738

Photo date:
15th August 2023, 1.44pm

Camera:
Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM14 is illustrated at a view angle of around 40 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 41
Photomontage PM14 Old Belcunda Road - 40 degree field of view

GBD
Landscape architecture

Figure 42

PM15 | Burra Cemetery

GBD Landscape architecture

Existing view

Analytical view

Date	15/08/2023
Time	10:05
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	309646m E, 6270259m S
Camera level	465.8 mAHD
Camera bearing	24°
Vertical field of view	27°
Project horizontal field of view	60°
Distance to nearest turbine	6.79 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

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Figure 43

PM16 | St Josephs Church

GBD Landscape architecture

Existing view

Analytical view

Date	15/08/2023
Time	10:37
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308724m E, 6271424m S
Camera level	477.8 mAHD
Camera bearing	31°
Vertical field of view	27°
Project horizontal field of view	61°
Distance to nearest turbine	5.74 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

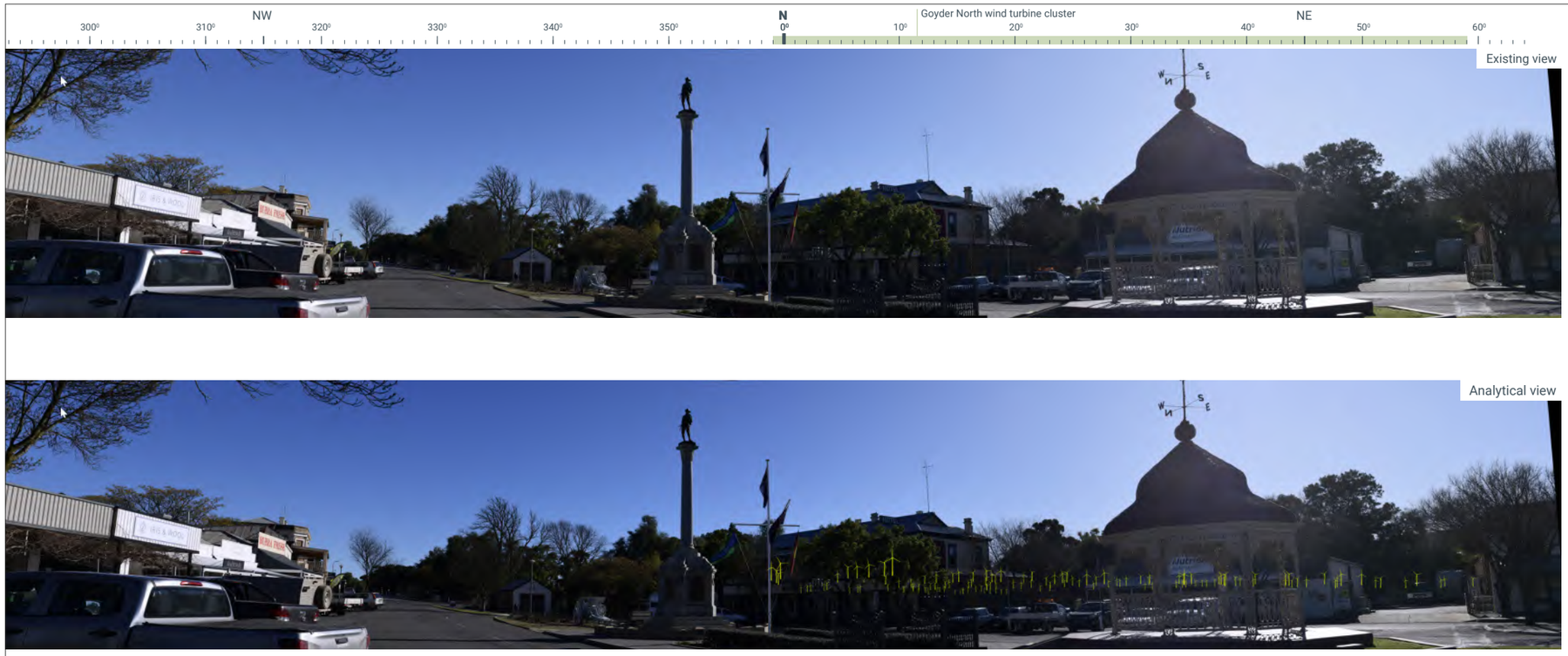
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 44

PM17 | Burra Square

GBD Landscape architecture



Date	15/08/2023
Time	10:48
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308927m E, 6271195m S
Camera level	469.6 mAHD
Camera bearing	30°
Vertical field of view	27°
Project horizontal field of view	60°
Distance to nearest turbine	5.9 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 45

PM18 | Burra Mine Lookout

GBD Landscape architecture

Date	15/08/2023
Time	11:59
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	307957m E, 6271799m S
Camera level	498.9 mAHD
Camera bearing	36°
Vertical field of view	27°
Project horizontal field of view	57°
Distance to nearest turbine	5.66 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 46

PM19 | Hamptons Village

GBD Landscape architecture

Date	15/08/2023
Time	12:49
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	308956m E, 6273615m S
Camera level	538 mAHD
Camera bearing	34°
Vertical field of view	27°
Project horizontal field of view	71°
Distance to nearest turbine	3.55 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

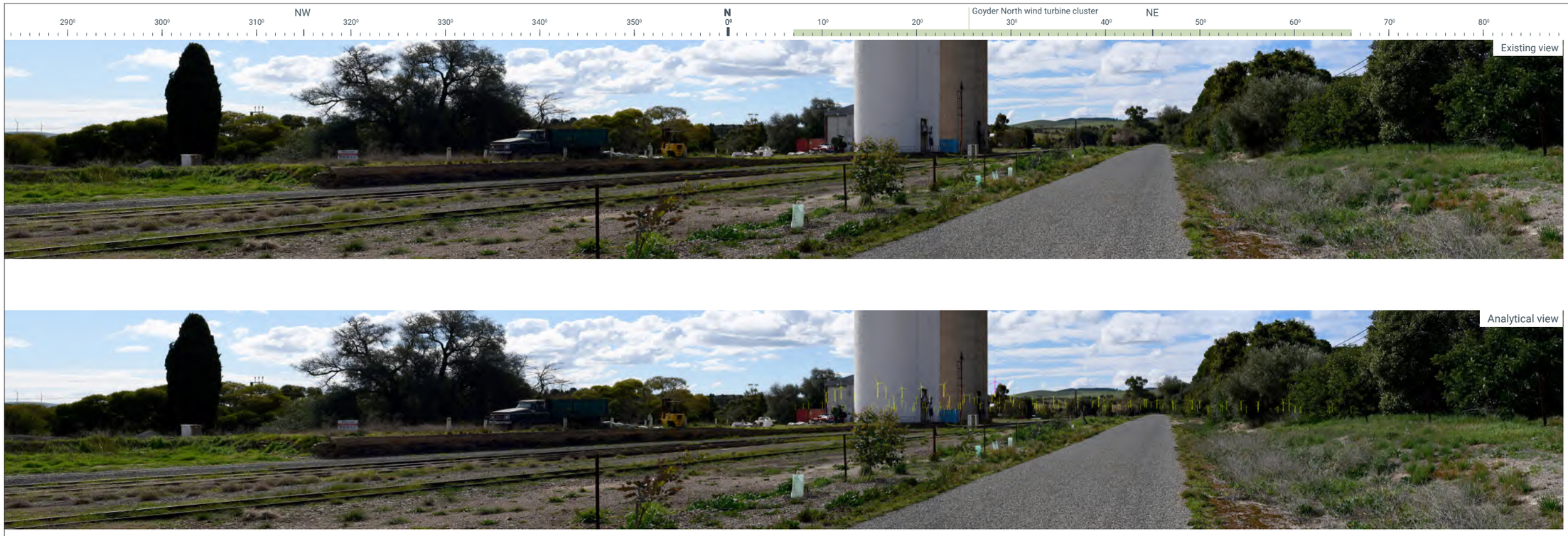
CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Figure 47

PM20 | Railway Terrace, Burra

GBD Landscape architecture



Date	16/08/2023
Time	14:53
Camera	Nikon D850 full frame DSLR
Panorama type	Landscape
Camera coordinates	307254m E, 6272130m S
Camera level	480.2 mAHD
Camera bearing	36°
Vertical field of view	27°
Project horizontal field of view	59°
Distance to nearest turbine	5.57 km (006)
Projected coordinate system	GDA2020 MGA Zone 54
Photography	Green Bean Design

CAMBIUM GROUP
Visual communication science

Source: ESRI Maxar, Elvis Elevation and Depth - Foundation Spatial Data (2023), Vestas (2023), Greenbean Design (2023), Cambium Group (2023).

Appendix B - Qualifications and experience

This Visual Assessment has been prepared by Andrew Homewood, Director and Principal Landscape Architect of Green Bean Design (GBD) Pty Ltd (ABN 866 035 75702). Andrew has held this position for the past 18 years. Andrew holds post graduate, graduate and tertiary qualifications:

- Graduate Diploma Landscape Management (Sheffield University 1995)
- Bachelor Science (Dual Honours) Landscape Design and Archaeology (Sheffield University 1991-1994)
- National Diploma Amenity Horticulture (Writtle University College 1986-1989)

Andrew is a Registered Landscape Architect (membership #001245) and a member of the Australian Institute of Landscape Architects and the Environmental Institute of Australia and New Zealand. Andrew has been directly employed or engaged in landscape related work/studies for the past 37 years in the United Kingdom and Australia.

Andrew has prepared numerous landscape and visual impact assessments across a range of state significant developments including renewable energy, mining, electricity transmission, waste management and transport. GBD has been commissioned to undertake Visual Assessment for over 60 wind farm projects across Australia. Our South Australian and Victorian wind farm project experience includes:

- Goyder South Renewable Energy Facility, SA
- Crystal Brook Wind Farm, SA
- Woolsthorpe Wind Farm Amendment, VIC
- Mumblin Wind Farm, VIC
- Brewster Wind Farm, VIC
- Kentbruck Green Energy Hub (referral), VIC
- Berrybank Wind Farm (micro siting review), VIC
- Hawkesdale Wind Farm amendments, VIC
- Ryan Corner Wind Farm amendments, VIC
- Jung and Wimmera Plains Wind Farm, VIC
- Alberton Wind Farm, VIC
- Moorabool Wind Farm (offsite landscape mitigation plan), VIC
- Kiata Wind Farm, VIC
- Murra Warra Wind Farm, VIC
- Ararat Wind Farm (terminal substation assessment), VIC
- Willatook Wind Farm, VIC

Professional History	Green Bean Design, Director/Principal Landscape Architect 2006 – to date
	URS Australia Pty Ltd, Practice Leader Landscape Architecture 2005 – 2006
	URS Australia Pty Ltd, Associate Landscape Architect 2003-2005
	URS Australia Pty Ltd, Senior Landscape Architect, 2002 – 2003
	URS Australia Pty Ltd, Landscape Planner, 2001-2002
	URS, Contract Landscape Architect, 2000-2001
	Blacktown City Council, Contract Landscape Planner, 2000-2001
	Knox & Partners Pty Ltd, Landscape Architect, 1996-2000
Relocated from United Kingdom to Australia 1996	Brown & Associates, Landscape Architect, 1995-1996
	University of Sheffield post graduate studies 1995-1996
	Philip Parker & Associates, Graduate Landscape Architect, 1994-1995
	University of Sheffield undergraduate studies 1991-1994
	Rendel & Branch, Landscape Assistant, 1989-1991
	Writtle University College, tertiary studies 1988-1989
	National Trust, Horticulturalist, 1987-1988
	Writtle University College, tertiary studies 1986-1987
	English Nature, Species Protection Warden, 1985-1986
	Essex Wildlife Trust, Botanist, 1984-1985
	Royal Society for the Protection of Birds, Voluntary Warden, 1983-1984

Limitations

This Visual Assessment has been prepared in accordance with the usual care and thoroughness of the consulting profession for the use of Neoen Australia Pty Ltd. It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report. It is prepared in accordance with the scope of work and for the purpose outlined in the GBD Proposal October 2022.

The methodology adopted and sources of information used are outlined in this report. GBD has made no independent verification of this information beyond the agreed scope of works and GBD assumes no responsibility for any inaccuracies or omissions. No indications were found during our investigations that information contained in this report as provided to GBD was false.

This Visual Assessment was completed between October 2022 and March 2024 and is based on the conditions encountered and information reviewed at the time of preparation. GBD disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

GBD

Landscape Architecture

gbdla.com.au

Green Bean Design Pty Ltd (GBD) is a highly experienced landscape architectural consultancy specialising in landscape and visual impact assessment. Established in 2006 as an independent consultancy, GBD provide professional advice to a range of commercial and government clients involved in large infrastructure project and policy development.

GBD Director Andrew Homewood is a Registered Landscape Architect, member of the Australian Institute of Landscape Architects and the Environmental Institute of Australia and New Zealand. Andrew has over 30 years' continuous employment in landscape consultancy and has completed numerous landscape and visual impact assessments for a range of state significant developments including wind energy, solar, mining, industrial and transport developments.

GBD has been commissioned for large scale renewable energy projects across New South Wales, Victoria, South Australia, Queensland and Tasmania.

GBD have prepared Expert Witness Statements and been engaged as a peer reviewer of renewable energy landscape and visual impact assessments in Victoria and New South Wales.

CONTACT

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