

According to CASA's advice, a review has been undertaken and there are no other certified or registered aerodromes within 30 kilometres of the project area. The nearest aerodromes to the project area are the Dubbo and Mudgee Airports, which are both located at a distance of approximately 45 kilometres from the nearest wind turbine. It is not expected that the wind farm will have any effect to any aerodromes in the wider locality.

4.3.4 Utility Infrastructure

Existing Infrastructure

TransGrid own and operate substantial electrical transmission infrastructure throughout New South Wales, including the major transmission lines at Bodangora and the Wellington substation.

Electrical transmission equipment within the project area includes the 132kV transmission line between Wellington and Beryl, and a 330kV transmission line between Wellington and Wollar. Both transmission lines transect the south-eastern portion of the project area.

Infigen Energy will continue to work with TransGrid in determining the most efficient design in consideration of those technical requirements under the National Electricity Rules, for the security of the electricity network, and for a considered design with the appropriate environmental aspects as recognised within this EA. The proposed connection arrangement is described in Chapter 3 of this EA.

A number of lower voltage lines also exist within the project area which serve rural properties. These lines will not be affected by the proposal, although it may be required that the substation be connected as a backup supply at times when the wind farm is not operating.

In addition, the existing Wellington Correctional Centre is located along Goolma Road towards Wellington. The proposed is not expected to any cause impact or be affected by the Bodangora Wind Farm in terms of land use.

Proposed Infrastructure

Other proposed and approved developments in the locality include the following:

- the proposed Uungula Wind Farm, comprising up to 330 wind turbines and located a minimum of 12 kilometres to the south-east of the Bodangora Wind Farm. An application for the wind farm was submitted to the Department of Planning and the Director-General's requirements for the project issued in April 2011;
- the approved Wellington Gas-Fired Power Station, located nearby to the existing Wellington Substation, located along Goolma Road towards Wellington; and
- one gas pipeline connecting Young and Wellington (approved), and between Narrabri and Wellington (Director-Generals requirements issued).

A cumulative visual impact assessment of all proposed and approved infrastructure has been undertaken in Chapter 8. There is no proposed or approved infrastructure in the immediate proximity of the Bodangora Wind Farm; and no specific land use issues are expected as a result of the construction and development of other projects.

4.3.5 Trigonometrical Stations

One trigonometrical (trig) station is located at the peak of Mount Bodangora ('Lincoln', TS5116). In addition, a number of survey marks are located along Goolma Road.

The Land and Property Management Authority (LPMA) have been consulted as part of the project, and correspondence received from a representative of the Surveyor-General, enclosed at **Attachment E**. The correspondence indicates that since the proposed turbines will be located at some distance from 'Lincoln' and Goolma Road, and since no turbines are located within trig connections or 'sight lines', the Surveyor-General has no objection to the proposal.

Further consultation with the LPMA will be undertaken in conjunction with the development of the final wind turbine locations and micro-siting undertaken if necessary.

4.3.6 Telecommunications

A range of telecommunications operate throughout the region, including television, FM and MF sound broadcasting, point to point radio such as Ultra High Frequency/Very High Frequency/one Gigahertz, point to multipoint radio, and mobile communications. Telecommunications equipment is located at the peak of Mount Bodangora, as shown in Plate 4.7 and includes UHF/VHF/one GHz.



PLATE 4.7 – TELECOMMUNICATIONS EQUIPMENT AT MOUNT BODANGORA

A Desktop Assessment has been undertaken by Lawrence Derrick and Associates, summarised within Chapter 13 of this EA and provided in **Attachment L**. This assessment has identified that the proposal will not disrupt either Mount Bodangora or other telecommunication services in the region. Whilst there may be some effect to analogue television to individual houses, as television is being converted to digital prior to wind farm commissioning, any effects can be mitigated as identified.

4.3.7 Mineral Exploration

Mineral exploration titles exist across a portion of the project area, as identified in Figure 4.3. The detail of these titles is provided in Table 4.3. Mineral exploration titles also exist over much of the wider region, and the area is likely to be of high mineral prospectivity.

Infigen Energy has consulted with the Department of Industry and Investment, the Department of Primary Industries and has attempted to consult with all mineral title holders within the project area in relation to mineral exploration, and any potential impacts of the proposed wind farm on exploration.

Windora Exploration Pty Ltd is understood to be a subsidiary of Gullewa Limited, which hold a number of licences nearby to Dubbo, including at Narromine and Nyngan. Clancy Exploration Ltd hold over 3,000 square kilometres of mineral exploration titles across NSW, and five exploration licences at Wellington North. Alkane Resources Ltd has an interest in the land at Bodangora for gold and copper, with a buy back option over the land with Rio Tinto Exploration Limited.

Table 4.3 – Mineral Exploration Titles

TITLE NUMBER	GRANT DATE	EXPIRY DATE	COMPANY	TURBINES
7780	15 June 2011	15 June 2013	Windora Exploration Pty Ltd	12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 25, 29, 30, 34, and 35.
7781	15 June 2011	15 June 2013	Windora Exploration Pty Ltd	15, 26, 27, 29, 31, 33, 32, 6, 37, 38, and 41.
6178	19 January 2004	18 January 2012	Clancy Exploration Ltd	-
7440	8 January 2010	8 January 2012	Goldfields Australasia Pty Ltd	-
6209	11 March 2004	11 March 2012	Somerset Minerals Pty Ltd	44 and 45.
4022	14 August 1991	13 August 2012	Alkane Resources Ltd	10, 42, 43 and 46.

Documentation was posted to Somerset Minerals Pty Ltd, Clancy Exploration Ltd, Windora Exploration Pty Ltd for comment, as enclosed in **Attachment E**. Goldfields Australasia Pty Ltd have not been consulted as only a small area of Title 7440 intersects the project area and there is no proposed infrastructure at this location.

As a recommendation from consultation with the Department of Industry and Investment and the Department of Primary Industries, Alkane Resources were identified as the most active company investigating prospects within the project area. Consultation with Alkane Resources has confirmed that the project will have little impact on their investigations or prospects.

The Office of Trade and Investment identified high prospectivity surrounding the historic Kaiser mine, being EL 6209. The proposal seeks to establish WTG 44 and 45 in this area of high mineral prospectivity, however these turbines are sited away from the historic Kaiser mine shaft entrance.

The turbines have a relatively small footprint, and are unlikely to inhibit further prospecting across the project area. Other than WTG 44 and 45, the majority of wind turbines do not need to be modified as mineral resource companies did not identify any major issues and accordingly land use conflicts were not deemed significant.

Mineral exploration can still occur across all of the mineral exploration titles. Exploration typically consists of drilling with a core sampler of up to 100 millimetres in diameter, with drilling undertaken on an angle due to the nature of the mineral deposits.

Consultation has determined that the construction and operation of the wind farm is unlikely to present any limitation to the future potential of mineral exploration activities within the project area. No issues have been identified by any exploration company that was consulted. The construction and the operation of the wind farm will have no effect on the underlying mineral resources. Any prospecting in or around the turbines can be managed without impact on the siting of the turbines. Grid pattern exploration can be micro sited to avoid impact from the turbines and accordingly will avoid future land use conflict with mineral resources.

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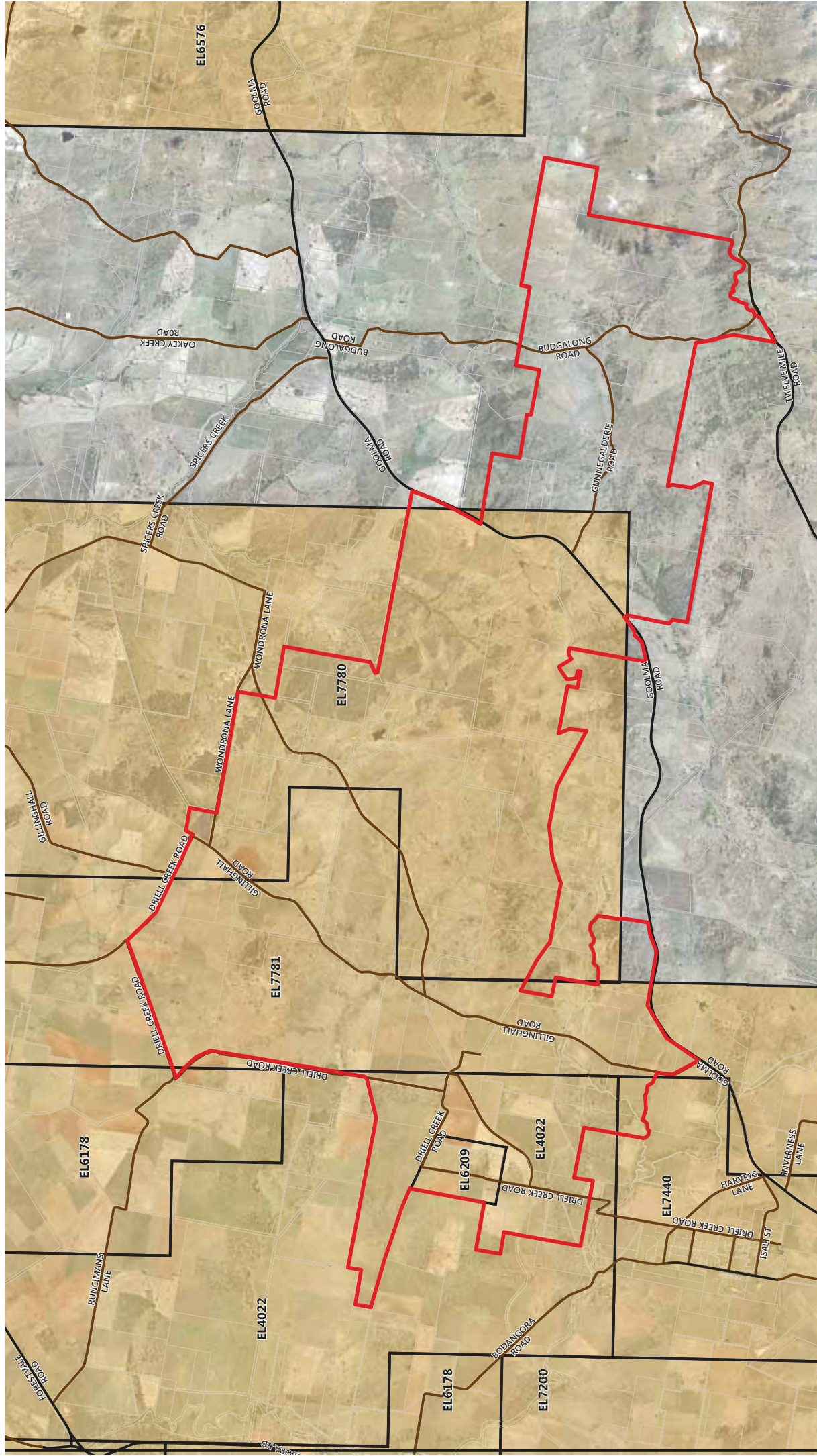


Figure 4.3
Mineral Titles

BODANGORA WIND FARM

- Project Area
- Major road
- Minor or unsealed road
- Mineral Title
- EL6576** Mineral Title Number



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