

White Rock Wind Farm

MP10_160

Modification Application No.4

Proponents Response to Submissions



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For: White Rock Wind Farm Pty Ltd



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Executive Summary

This report provides the response of White Rock Wind Farm Pty Ltd (WRWFPL) to submissions received by Department of Planning and Environment (DPE) following the public exhibition and referral of a Modification Application No. 4 (MOD 4) and the associated Environmental Assessment Report (EA, 2016) for the White Rock Wind Farm (WRWF) Alternative Grid Connection at 330kV. WRWFPL is the proponent for WRWF that involves development of an approved wind farm comprising up to 119 wind turbines.

WRWF Stage 1 involving 70 wind turbines is under construction during 2016 and 2017. Approval for MOD 4 is being sought to enable development of Stage 2 and more efficient performance of Stage 1. Subject to gaining approval for the modification, the alternative grid connection could be constructed from late 2017 and through 2018 and be available for the Stage 2 commissioning and operation in 2018/2019.

DPE arranged a public exhibition of the WRWF MOD 4 Application from 24 January 2017 to 21 February 2017 and also referred the Modification Application to relevant government agencies. Following the exhibition and referral process, 10 submissions were received by DPE from government agencies. No submissions were received from non-government sectors of the community. Summary details of the 10 submissions are provided in Table ES 1 below.

Table ES 1 – Submissions Received

Source of submission	Key Issues raised in submission
Civil Aviation Safety Authority	No objection to proposed modification.
Airservices Australia	No expected impact from the proposed transmission line.
Inverell Council	Confident that review process is appropriate. Seek extension of conditions for traffic and dilapidation to the Modification.
NSW Rural Fire Service	No objection – Referred to previous recommendations.
DRE Hunter Region	Sought further consultation with holder of ML 1505 and to provide DRE with record of consultation and any agreement reached.
RMS, Northern Region	Required Traffic Impact Assessment and determination of any upgrades to mitigate impacts. Proponent to seek in-principle agreement to concept design for all works deemed necessary. RMS also requested update for the WRWF CTAMP.
DPI	Sought further details identifying location of the transmission lines and location of infrastructure on Crown public roads, waterways and reserves within the project area. Confirm water demands and water sources. Identifies requirements for inclusion in Approval Conditions

EPA, Northern Region, NSW	Requested CNVMP and CSWQMP to be updated for MOD 4 facilities.
OEHL, Northern Region, NSW	Recommended proponent retire 251 Biodiversity Credits. Two recommendations regarding Aboriginal heritage protection.
Glen Innes Severn Council	GISC has not sought any additional conditions as it indicates that the consolidated approval manages the impacts created by the proposed development.

DPE provided copies of the received submissions to WRWFPL and, on 23 February 2017, sought the proponent's comments and further information relating to the submissions.

In addition, the Department of Planning and Environment (DPE) had sought further information on various aspects of the proposed modifications to support its assessment of the Modification Application. These were supplied directly to DPE and are not repeated in this document.

In preparing the responses requested by DPE, WRWFPL undertook further consultation with agencies, landowners and the project team and, as necessary, gained advice from specialists. The proponent's response has been delayed during further consultation with stakeholders.

The assessments and further information provided in this report address matters raised during the exhibition and referral processes and further consultation between WRWFPL, DPE and relevant stakeholders.

The project design aims to minimize the impact on environmental and heritage values at the site. Constraints for parts of the site, e.g. steeper terrain and practicalities for construction as well as the landowner requirements have limited the capacity to avoid all native vegetation and habitat features. Nevertheless, the line route selected is the least impacting of the route options considered and has sought to minimize impacts. While the native vegetation will be kept low along the transmission easement, complete clearing of the easement is not required, allowing regrowth should the line be decommissioned in future. OEHL has recommended that 251 credits be retired to offset impacts of the MOD 4 facilities. Of these, 42 are considered as not arising from the MOD 4 impacts and 209 credits is considered the more appropriate amount for the offset. An appropriate offset for the WRWF impacts including MOD 4 has been identified and the appropriate amount can be incorporated in the WRWF Biodiversity Offset Package that has been submitted to DPE.

A further 0.53 hectare vegetation clearing allowance (clearing limit defined under Condition C1) is sought to address impact of MOD 4 on Ribbon Gum – Mountain Gum EEC.

A supplementary submission to MOD 4 has also been prepared in respect of vegetation clearing for Stage 1 seeking an increase in the clearing limit beyond that needed for the alternative grid infrastructure. That submission has been separately lodged with DPE.

In respect of cultural heritage, the site assessment has identified Aboriginal sites in the area that are now avoided by the project footprint and the potential for 'chance finds' is considered low.

The WRWF Aboriginal Cultural Heritage Management Plan (ACHMP), will be updated prior to construction of MOD 4 commencing, and the ACHMP includes a 'chance finds' procedure.

Fire risk has been considered as part of this review and can be satisfactorily managed in accordance with a revised WRWF Bushfire Risk Management Plan that will be updated from the Stage 1 version to address MOD 4, in consultation with RFS.

There are shallow watercourses located within the line route that will be spanned by the line and any crossings for access tracks will be designed with reference to DPI Water's *'Guidelines for Controlled Activities on Waterfront Land'*.

Water supply for construction is low and estimated at 1 to 2ML. A number of options are available for its supply, including use of involved or neighbouring landowner dams and local water courses.

Management of traffic and transport has been subject to consultation with RMS and Inverell Council during preparation of this response. Further consultation will involve development and submission of design plans as necessary, establishment of a dilapidation agreement with Inverell Council and, update to the WRWF Construction Traffic and Access Management Plan. Minor upgrade works to the existing property track, from the Gwydir Highway to the 330kV substation, are required but do not appear to require any changes to the Highway itself. Nevertheless the details can be confirmed post approval as part of the normal works approval processes. The existing conditions of project approval are generally suitable for application to transport and traffic aspects of the alternative grid connection works.

Conclusion

This submissions report responds to the matters raised in the 10 government agency submissions received following the referral of the WRWF Modification Application Number 4.

The collective assessments in the EA and this Submissions Report confirm that the alternative grid connection can be developed with acceptable impacts and that appropriate management of the impacts has been identified.

Approval of the modification would be followed by further pre-construction planning, design work and as applicable gaining of required approvals.

The implementation of MOD 4 will allow for the development of WRWF Stage 2, more efficient performance of Stage 1 and avoid the potential constraints on export of power from one or both of the Glen Innes and White Rock Wind Farms were they both to be connected to the Glen Innes to Inverell 132kV line. The Modification Application warrants positive determination. As indicated in separate submission, variation to Condition C1 has been sought to increase the vegetation clearing limit for Ribbon Gum – Mountain Gum EEC as defined by the MOD 4 EA, 2016 and, to address the additional Stage 1 impact as described in the supplementary submission.

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ABBREVIATIONS

AHIMS	Aboriginal Heritage Information Management System
BOP	Biodiversity Offset Package
CEMP	Construction Environmental Management Plan
CCC	Community Consultative Committee
CTAMP	Construction Traffic Access Management Plan
DALP	Design and Landscape Plan
DPE	Department of Planning and Environment
EA	Environmental Assessment
EEC	Endangered Ecological Community (under NSW TSC Act)
EPA	Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act
EP&A Act	Environmental Planning and Assessment Act
EPL	Environment Protection Licence
ER	Environmental Representative
ESD	Ecologically Sustainable Development
EWMS	Environmental Work Method Statement
GISC	Glen Innes Severn Council
GIWF	Glen Innes Wind Farm
GWA	Goldwind Australia Pty Ltd
Ha	Hectare
IC	Inverell Council
ILEP	Inverell Local Environmental Plan
kV	kilovolt
kV/m	Kilovolt/meter (units of electric field)
LGA	Local Government Area
mG	milliGaus (units of magnetic field)
ML	Mining Lease
MP	Major Project
MW	megawatt
OEH	Office of Environment and Heritage
O&M	Operations and Maintenance
PA	Project Approval
POEO Act	Protection of the Environment Operations Act
RG-MG EEC	Ribbon Gum – Mountain Gum Endangered Ecological Community
RFS	Rural Fire Service
RMS	Roads and Maritime Services
ROTAP	Rare or Threatened Australian Plants
SEPP	State Environmental Planning Policy (NSW)
TEC	Threatened Ecological Community (under EPBC Act)
TL	Transmission Line

TSC Act	Threatened Species Conservation Act
VIA	Visual Impact Assessment
WRSF	White Rock Solar Farm
WRWF	White Rock Wind Farm
WRWFPL	White Rock Wind Farm Pty Ltd

1 INTRODUCTION

1.1 Purpose of this document

This document provides the proponent's response to the submissions received by Department of Planning and Environment (DPE) in respect of the WRWF Modification No. 4 Application for WRWF MP10_160 and the associated Environmental Assessment (EA) for the White Rock Wind Farm (WRWF) Alternative Grid Connection. This document addresses DPE requests and comprises the following aspects:

- review of matters raised in ten (10) agency submissions;
- provides the proponent's response to submissions;
- addresses matters raised by DPE and provides the proponent's response to these matters;
- updates the status of the project design;
- updates details of access to the property required for the project; and
- provides clarifications and further information to support determination of the modification application.

This Report has been prepared by Goldwind Australia Pty Ltd (GWA) on behalf of the proponent, White Rock Wind Farm Pty Ltd (WRWFPL) for submission to the Secretary, Department of Planning and Environment (DPE) to assist the DPE's review process for the WRWF MOD 4 Application.

1.2 Background to WRWF Modification Application No. 4

The WRWF Modification Application process has involved the following stages:

- The MOD 4 Application accompanied by a detailed Environmental Assessment (EA) was lodged with DPE, on 16 December 2016. The EA included appendices containing assessments of specific issues;
- DPE arranged a public exhibition of the MOD 4 Application and EA 2016, from 24 January 2017 to 21 February 2017. DPE also referred the application to relevant government agencies;
- DPE sought additional information from WRWFPL during January to March 2017;
- On 23 February 2017, DPE requested WRWFPL to respond to the submissions provided to WRWFPL by 15 March 2017.

This report provides the proponent's response to the DPE request of 23 February 2017. The report represents one component of the material to be considered by DPE in preparing its assessment report that will be referenced in determination of the MOD 4 Application.

1.3 Proponent's progress of WRWF planning since submission of the MOD 4 Application.

Since submission of the Modification Application on 16 December 2016, WRWFPL has progressed planning of the alternative grid connection design and updated arrangements for land access. Changes have arisen through the following avenues:

- Progression of engineering design development;
- Consideration of potential variations to the 330kV substation and line route to further reduce environmental impacts;

- Landowner negotiations for WRWF alternate grid connection facilities between WRWF substation and the point of connection to the 330kV line;
- Consultation with DPE, RMS, OEH and DPI;
- Specialist advice to clarify aspects of the project and potential impacts; and
- review of management controls to ensure a viable and compliant project.

1.4 WRWF Project Design Development

Key considerations for varying the Grid Connection Facilities design and proposed mitigation measures have included:

- Minimising environmental impact
 - o Avoidance of impact on native vegetation particularly, EEC;
 - o Positioning to minimise visual impact;
 - o Minimising impact on ephemeral watercourses crossed by the transmission line;
 - o Providing measures to manage any 'chance finds' of Aboriginal artefacts; and
 - o Integrating weed management risk management strategies.
- Constructability considerations
 - o the slope of the terrain is suitable for installation of the facilities;
 - o the site has suitable geotechnical characteristics for foundations;
 - o the site is accessible for delivery of the required equipment; and
 - o the site does not impact water flows and is not subject to flooding.
- Consideration of landowner requirements
 - o Consideration of the landowners agricultural regime and reducing impact on that;
 - o Consideration of Mineral Resource Holdings; and
 - o Obtaining DPI – Lands approvals for impact on Crown Lands.
- Ensuring that adequate water supply options are available during construction for dust control; and
- Review and progression of traffic and transport management matters.

1.4.1 Project indicative layout

Figure 1.1 shows the current form of the proposed alternative grid connection components on which assessments in EA 2016 and this report are based. While a suitable contractor has been selected, the final details of the design are still to be confirmed and WRWFPL recognizes that some adjustments to the layout may still be needed to achieve a practical and compliant layout. The project approval does include a micro-siting allowance of 100 metres. WRWFPL also believes that there is potential to adjust minor details of the design, if necessary, without significantly changing the environmental outcomes. WRWFPL seeks a modified approval that allows some flexibility in layout and design while ensuring environmental objectives are met.

The indicative layout in Figure 1.1 also assumes that access is obtained from DPI-Lands for crossing of Crown lands. This relates to crossings by access routes and the 132kV line which are understood to be consistent uses of Crown Lands.

Overall, the extent of the final design footprint is expected to be very limited and not require any significant change to existing pastoral activities.

The Modification does not require widespread clearing of the land where the facilities will be located as much of the land has already been cleared. Where the Transmission Line easement is

pasture that has been already cleared of trees, then the agricultural use will continue relatively unimpacted.

Figures 3-1 and 3-2 of the EA, 2016 show the alternative 132kV line route. Figure 3.2 shows points where the 132kV route changes direction and the points are numbered 1 to 16. Points 9 and 9A near Spring Mountain Road are alternative options for pole placement. The western point (9A) closer to Spring Mountain Road gives rise to marginally lower vegetation impact. This is the WRWFPL proposed pole location. The original pole location (9) would not be used unless requested by the landowner and Lease Holder for ML 1505 (see Section 3.7). Either pole is considered suitable but Pole 9A does slightly reduce vegetation impact.

1.5 Site suitability

The following factors are relevant for the suitability of the WRWF alternative grid location:

- The site is suitable for construction (slope, ground conditions, etc.);
- the site is within the lands where access has been agreed with the landowner;
- the line route is relatively direct between the WRWF 132kV substation and the 330kV connection point;
- the modification is considered to have acceptable biodiversity impacts that can be offset through the WRWF Biodiversity Offset Package, required by Condition C7;
- an offset area has been identified, assessed and credits confirmed as available;
- the modification has low potential for impact on Aboriginal heritage items. Those items identified have been avoided by amending the line route;
- the modification can be developed without altering surface water flows;
- the construction of the alternate grid connection facilities has low requirements for water supply, in the order of up to 2ML;
- the infrastructure will have low visual impact for neighbouring residences;
- the infrastructure will have low noise impact for neighbouring residences;
- the infrastructure has good access from a State Highway and local roads;
- the infrastructure benefits two large wind farm projects within the locality; and
- the affected land can be returned to former agricultural use at the end of project life.

LEGEND

- WRWF Project area
- Extended site perimeter
- WRWF Stage 1
- WRWF approved
- WRWF 132/33kV
- proposed 330kV/132kV
- Temporary Construction
- Operation & Maintenance
- Facility
- Compound
- Proposed upgraded
- Transmission access track
- Calatrava
- Swan Brooke Rest Area
- Residence / Ref code
- Plant
- Concrete batching
- Local roads
- Transfused powerline
- Transfused 330kV
- Existing 330kV
- WRWF Stage 1 33kV
- WRWF Stage 1 132kV
- WRWF connection
- Transmission Route
- Proposed 132kV

Note: Grid used to reference residence locations.

2 SUBMISSIONS RECEIVED AND DPE REQUEST FOR INFORMATION

2.1 Submissions Received from Government Agencies

The public exhibition and referral of the WRWF MOD 4 Application and EA has resulted in DPE receiving 10 submissions from government agencies as listed in Table 2.1 below. The submissions are all from government agencies, two from Inverell and Glen Innes Severn Councils, 6 from NSW government agencies, one from the Civil Aviation Safety Authority (CASA) and one from Airservices Australia. No submissions were received from the local community. The details of the 10 submissions, the source of each submission and key issues raised in respective submissions are provided in Table 2.1 below together with reference section for this report.

Table 2.1 Submissions Received from Government agency referrals

Date	Source of submission	Key issues raised in submission	Ref. Section
25/01/17	Civil Aviation Safety Authority (CASA)	- No increased risk from modification. - No objection to the modification.	3.8
None shown	Airservices Australia	No expected impact from the proposed transmission line	3.8
10/2/17	Inverell Council	- Council is satisfied that the process of referrals and DPE review provides a comprehensive assessment. - Requests that Approval Conditions (particularly relating to traffic and road dilapidation) be extended to the Modification.	3.5
20/2/17	NSW RFS	- No objections subject to the following: - Previous correspondence 1/8/2011 and 11/2/2013. - New Bushfire Risk Management Plan developed for the Modification	3.6
20/2/17	Dept. of Industry, Resources and Energy Hunter Region	- Consult with Leaseholder for ML 1505 - Provide Resources and Energy with record of consultation and any agreement reached - Consult with Inverell and Glen Innes regarding other quarries referenced in DoI Letter	3.7
20/2/17	RMS Grafton NSW	- Prepare Traffic Impact Assessment - Seek in-principle agreement from RMS to concept designs for State Road Network Gwydir Highway) - Austrorads Guidelines, Australian Standards and RMS supplements to be adopted. - Enter into WAD with RMS for any works on Gwydir Highway for the modification	3.5

		Update CEMP – Annex D, Construction Traffic and Access Management Plan to reflect modification	
21/2/17	DPI	Provide further details to DoI Lands by way of GIS Shape Files re locations in relation to impacts on Crown Roads, waterways and reserves.	3.8
		- Confirm water demands and resources before approval - Update CSWQMP in consultation with DPI - Water crossing designs (roads and cable installations and any instream works to be in accordance with Guidelines for Controlled Activities on Waterfront Land. - Obtain regulatory licensing under Water Management Act 2000 before commencing any works which intercept or extract groundwater or surface water - If rock anchoring for power pole foundations, proponent should undertake groundwater assessment and consult with DPI Water	3.3
24/2/17	OEI – North East Region	Retire 251 Credits (as per Table 2 Eco Logical, 2/12/16, to satisfaction of OEI).	3.2
24/2/17	OEI – North East Region	- Implement recommendations of Indigenous Heritage Assessment - CHMP be updated in consultation with Aboriginal Stakeholders and OEI	3.4
02/03/17	EPA, Armidale	Update CNVMP for MOD 4 infrastructure	3.3
		Update CSWQMP for MOD 4 infrastructure	3.10
28/02/17	Glen Innes Severn Council	GISC has not sought any additional conditions as the consolidated approval manages the impacts created by the proposed development	NA

In correspondence of 23 February 2017, DPE sought the proponent's response to submissions by 15 March 2017. The proponent's review of the submissions and respective responses are provided in Section 3 of this report.

In addition to DPE's review of the agency submissions, it sought additional information to assist completion of its assessment report. The information sought is shown below.

2.2 DPE requests for additional information

In parallel with the public exhibition and referral processes, DPE, sought the following information as part of its review and assessment of the modification application and preparation of the Department's Assessment Report.

- Details of notifications of the modification application and consultation with the closest neighbours to the modification infrastructure;
- Clarification of the height of structures and potential for aviation safety risks;
- Confirmation of the WRWFPL ownership structure;
- Clarification of the reasons and justification for the alternative grid connection at 330kV relative to the approved grid connection at 132kV; and
- Clarification of potential generation for WRWF including estimates for Stage 2.

The above matters have been addressed directly with DPE at the time of the request.

2.3 Response to the Agency Submissions as per DPE request of 23 February 2017.

The matters raised in the 10 submissions received and, the further information requested by DPE are addressed in Section 3 of this Submissions Report.

3 ASSESSMENT AND RESPONSE TO MATTERS RAISED

3.1 Overview of responses provided

This section of the Submissions report provides relevant information responding to the following:

- DPE requests for further information; and
- Matters raised in submissions received from relevant government agencies (Appendix A).

The responses have been prepared, based on the matters described in Section 2 and are structured as shown in Table 3.1. The agency that raised the issue is also indicated and, in some cases, the matter reviewed addresses submissions from two organisations. The section of the report containing the response is also shown.

Table 3.1 – Responses provided in this report

Topic of submission and proponent response	Source of issue to which proponent is responding	Report section
Biodiversity impacts and offset arrangements	OEH	3.2 #
# - A separate submission with supplementary information has been submitted in respect of vegetation clearing and seeking an increase in the clearing limit specified in Condition C1.		
Water sourcing and supply arrangements	DPI Water	3.3
Water course management during construction	DPI Water and EPA	3.3
Aboriginal heritage impacts and management	OEH	3.4
Traffic and transport assessment and management	RMS and Inverell Council	3.5 Appendix B
Bushfire Risk Management	NSW Rural Fire Service	3.6
Conflict with mineral resource potential	NSW Resources and Energy	3.7 Appendix C, D
Use of Crown Lands	DPI – Lands	3.8
Aviation Safety	CASA and Airservices	3.9
Noise impacts	EPA	3.10
Landscape and Visual Impacts	No submissions	3.11
Community Consultation	No submissions	3.12

This Submissions Report has been prepared by GWA on behalf of WRWFPL. The preparation included consultation with respective agencies and, where necessary, it utilizes input from relevant specialists.

Responses including where necessary additional assessments for each of the topics listed above are provided in the following sections.

3.2 Biodiversity Impacts

Ecological assessments for the MOD 4 facilities were undertaken by Environmental Assessments Pty Ltd including the following:

- Initial assessment in 2012 and provided in MOD 1 Application, January 2013;
- Further response for MOD 1 Submissions Report, in Epuron, July 2013; and
- Update of Biodiversity Assessment Report, November 2016 (part of MOD 4 application).

Eco Logical Australia was also engaged to undertake assessments for offsetting the impacts of WRWF Stage 1 construction and the MOD 4 Application. The consideration of offsets for MOD 4 has been undertaken in conjunction with offset planning for WRWF Stage 1 and Stage 2 developments.

The EA 2016 and Biodiversity assessments have described the process of selection of the infrastructure footprint to minimise impacts, mechanisms to offset the impacts and for implementing mitigation measures through update of the CEMP and CFFMP (Conditions E21 and E22) and preparation of a Biodiversity Offset Package and submission to DPE in compliance with Condition C7.

3.2.1 Assessment of impact on native vegetation and Quantification of Offsets.

Following review of the MOD 1 Application by DPE and OEHL, the MOD 1 Submissions report incorporated information to address OEHL additional requirements for the Mod 1 Application. The MOD 4 application incorporates the previous material in a compilation of information from the MOD 1 Application and MOD 1 Submissions Report together with additional recent material.

The MOD 4 Application also includes the ELA offset assessment (2016) that was prepared in consultation with OEHL to fulfil requirements for the WRWF Biodiversity Offset Package (Condition C7). The OEHL submission is understood to have accepted the MOD 4 items and is supportive of an offset. In regards to offsets, OEHL recommended that:

“The applicant retires 251 credits as described in Table 2 of Eco Logical Australia letter dated 2 December (Appendix E) to the satisfaction of OEHL prior to the impacts occurring.” (Appendix E from EA, 2016)

WRWFPL notes that the requirement for 251 credits includes 42 credits relating to vegetation zones 2 and 5 being Derived Native Grasslands (DNG) areas. OEHL notes that there will be no direct impact on DNG areas as a result of the MOD 4 works and suggests that MOD 4 will limit the ability of these areas to naturally improve or be rehabilitated.

WRWFPL believes that the requirement for inclusion of the 42 credits in respect of Derived Native Grasslands is tenuous as this is not an impact of the project and WRWFPL is not aware of any intention by the landowner to vary the use of the land from cleared grazing land. Accordingly, MOD 4 is not considered as limiting regeneration as that was unlikely to occur with continued grazing regime. WRWFPL asks that DPE not unreasonably impose offset credits on renewable energy projects where the credits are not due to the impact of the project. Such action would unfairly lead to increased cost of renewable energy projects.

Prior to implementation of MOD 4, WRWFPL would update the CEMP and sub-plans including the Construction Flora and Fauna Management Plan (CFFMP) to address the MOD 4 infrastructure and relevant mitigation measures. It would address minimizing the impacts of MOD 4 and controls to be applied in the context of project environmental management elements.

This would include, limits to clearing, handling of cleared vegetation, weed management, site rehabilitation, etc.

The existing approval conditions relating to biodiversity are generally suitable for the MOD 4 development however, an additional 0.53 ha of impact for Ribbon Gum has been identified and Condition C1(b) would need to be increased potentially by 1 ha to 23 ha to address this additional impact. WRWFPL has also prepared supplementary information for MOD 4 that seeks an increase in the limit under Condition C1(b) to allow for realistic impacts of Stage 1 based on the detailed design and allows for the 0.53 ha identified above.

The Weed Management and Site Rehabilitation components of the Project environmental management documents would also be updated to include the MOD 4 infrastructure.

3.3 Water Supply, Water Resources and Soil and Water Management

NSW Department of Primary Industries (DPI) responded to DPE on 21 February 2017 and raised matters associated with water sourcing, supply and soil and water management. The following issues and recommendations have been extracted from the DPI letter:

- *“The EA has not indicated the water demands or water sources for the proposed construction works. It is recommended this be confirmed prior to project approval to enable consideration of potential impacts of accessing the water supply and whether additional licensing is required.*
- *The following requirements should be included as Conditions of Consent in any determination for the modification:*
 - *The proponent should update the Construction Soil and Water Management*
 - *Sub-Plan in consultation with DPI Water prior to commencement of activities.*
 - *The design of waterway crossings for access roads and cable installations, and any associated instream works should be prepared in accordance with DPI Water’s [‘Guidelines for Controlled Activities on Waterfront Land \(2012\)’](#).*
 - *The proponent must obtain relevant licensing under the Water Management Act 2000 before commencing any works which intercept or extract groundwater or surface water.*
 - *If rock anchoring is selected for power pole foundations the proponent should undertake a groundwater assessment and consult with [DPI Water \(water.referrals@dpi.nsw.gov.au\)](mailto:water.referrals@dpi.nsw.gov.au) prior to construction. The assessment is to assess the potential for intercepting groundwater and dewatering requirements, the risk of impact on existing licensed groundwater users and groundwater dependent ecosystems and to provide suitable mitigation measures.*

The EPA also recommended that DPE condition the modification approval such that the Construction Soil and Water Quality Management Plan (CSWQMP) incorporate the modifications. WRWFPL would be required, under the existing conditions of approval, to update the CEMP and CSWQMP to address the Alternative Grid Connection works. Additionally, DPE approval for the updated CEMP is expected to be required.

The proponent’s response to the above matters is provided below.

3.3.1 Water demand and Water Supply

The construction of the alternate grid connection facilities will involve earthworks for the substation site (up to 2ha), upgrade of the access track to the substation site, localised earthworks at pole sites and minor works for access tracks to pole sites. The earthworks will require water supply for dust control but this is likely to be substantially less than has been required for the wind farm earthworks.

Existing Condition E16 of the Project Approval requires that:

Where available, and of appropriate chemical and biological quality, stormwater, recycled water or other water sources shall be used in preference to potable water for construction activities, including concrete mixing and dust control.

The estimated water volume during the construction period of up to 12 months is estimated as 1 to 2 ML. The quantity is a relatively small part of the local water resource and a temporary requirement only. It is unlikely to adversely impact the locality or agricultural activities.

The sources of supply have not been confirmed yet but could involve:

- Surface water from the properties on which the work occurs, subject to access arrangements being confirmed;
- Surface water delivered from nearby sources, if required in accordance with Water Transfer Licences where required;
- Groundwater subject to suitable sources being identified and legal access being secured; and/or
- WRWFPL's contractor has also previously consulted with Glen Innes Severn Council and obtained pricing for supply of treated effluent that is non-potable but suitable for construction works;

The contractor, when appointed, would identify suitable sources and make the necessary administrative arrangements for access to water resources and temporary supply to the construction works.

Host and neighbouring landowners for WRWF have arranged Water Licences and WRWFPL obtained allocation and temporary transfers to address the WRWF construction water supply requirements. The same sources may also be available options for WRWF Alternative Grid Connection works.

WRPFPL is confident that the required water can be sourced either by, obtaining relevant water supply licences or, purchases from Glen Innes Severn Council. WRWFPL expects that with the low water requirement and a number of options being available, that the arrangements can be confirmed in a timely manner to enable temporary water supply availability for the construction of alternative grid connection works to proceed in late 2017 and through 2018.

3.3.2 Watercourse management during construction

The project will have little impact on watercourses at the locality. The substation site is set back from watercourses and the transmission line will span watercourses with pole placement set back from the watercourses. Temporary access tracks for the 132kV transmission line construction will need to cross watercourses and the installed line will span the watercourses.

It is understood that developments such as WRWF are exempt from the requirement to obtain a 'Controlled Activity Approval' under the Water Management Act 2000.

However, Condition C9 of the Project Approval states the following:

Waterway crossings shall be designed and constructed in consultation with NOW and DPE (Fisheries) and consistent with DPI (Fisheries) guidelines, Policy and Guidelines for Fish Friendly Waterway Crossings (2004) and Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (2004).

Additionally, DPI in its letter of 21 February 2017, has recommended to DPE that it include a Condition of Approval requiring the design of waterway crossings for access roads and cable

installations, and any associated instream works should be prepared in accordance with DPI Water's *Guidelines for Controlled Activities on Waterfront Land* (2012).

For a modified approval, WRWFPL seeks clarity on the relevant guidelines and considers that, for the modification of the Project Approval, DPE could give consideration to varying Condition C9 to reference the DPI Water *Guidelines for Controlled Activities on Waterfront Land* (2012).

The construction works involve bulk earthworks at the substation site and minor earthworks for access tracks. The construction of any access tracks crossing watercourses will facilitate the normal flow of water across the access track in accordance with the DPI Water, Guidelines.

Prior to commencement of construction, the contractor will prepare and implement Progressive Erosion and Sediment Control Plans (PESCPs) including controls such as sediment fencing downslope of the works to ensure any sediment is captured and contained. The PESCPs will identify the type of controls to be applied and the location of the controls to be used. The PESCPs will be reviewed and updated if necessary during the works. Additional mitigation measures relating to soil erosion will be adopted through construction methodologies to reduce the risk of soil loss and degradation of downslope assets and waterways.

Condition E15 of the Project Approval requires:

Soil and water management measures consistent with Managing Urban Stormwater – Soils and Construction Vols 1 and 2, 4th Edition (Landcom 2004) shall be employed during the construction of the project to minimize soil erosion and the discharge of sediment and other pollutants to land and/or waters.

The WRWF Construction Soil and Water Quality Management Plan (CSWQMP) addresses the requirements of Condition E15. The CSWQMP will be updated to also apply to the MOD 4 works.

Progressive rehabilitation of disturbed areas, consistent with requirements of existing Conditions F4 and F5 will minimize the period of erosion and sediment risks.

DPI also suggested that for any rock anchoring of power pole foundations the proponent should undertake a groundwater assessment and consult with DPI Water. The actual locations for any rock anchors have not yet been confirmed but would involve relatively shallow depth stays and associated grouting that would limit for potential impacts on groundwater (Appendix E). This issue is expected to be addressed during the pre-construction period when designs and any locations for pole stays are more advanced.

3.4 Cultural Heritage management

A cultural heritage assessment for the MOD 4 infrastructure was undertaken by Environmental Assessments Pty Ltd and documented in the EA Report, Dec 2017. Indigenous heritage assessments for WRWF have been conducted as follows:

- Assessment of WRWF by RPS dated 2010;
- Assessment of WRWF Mod 3 by ERM in 2015;
- Assessment of WRSF by NGH Environmental in early 2016; and
- Assessments of MOD 4 infrastructure by Environmental Assessments and Anaiwan LALC in 2012 and 2016.

Two scar trees have been identified for the 132kV line and these have been avoided by the alternative grid connection facilities.

The review of Modification No. 4 by OEH, letter of 24 February 2017, recommended that:

- The recommendations of the EA relating to Indigenous heritage are implemented; and

- The proposed update of the CHMP be developed in consultation with Aboriginal stakeholders and OEH.

WRWFPL commits to implementation of the OEH recommendations for the alternative grid connection facilities.

Existing Conditions of Project Approval, E2 to E4 and E22 are applicable for management of Heritage and are able to be applied for the MOD 4 Facilities without further conditions of Approval.

3.5 Traffic Management

This section provides a response to the submission received from Roads and Maritime Services (RMS), dated 20 February 2017 and outcomes of further consultation following receipt of the submission.

3.5.1 Details of RMS submission

The RMS submission required the following from the developer:

- To prepare a Traffic Impact Assessment (TIA) to identify likely traffic impacts of the proposal and determine and road infrastructure upgrades required to mitigate these impacts;
- The TIA would need to address the following:
 - o The total impact of existing and proposed development on the road network with consideration for a 10 year horizon.
 - o The volume and distribution of traffic generated by the proposed development during construction and operation.
 - o Sight distance measurements at proposed access locations and affected intersections.
 - o Details of existing and proposed access treatments including concept designs for any works proposed on the classified (State) road network (Gwydir Highway).
 - o Details of proposed improvements to any affected intersections, including concept designs for any proposed improvements to the classified (State) road network.
 - o Details of improvements required to accommodate an increase in right turning movements from the Gwydir Highway into the existing (eastern) access for White Rock Wind Farm (WRWF).
 - o Details of servicing and parking arrangements.
 - o Impact on public transport (public and school bus routes).
 - o Connectivity for active transport modes such as walking and cycling.
- The developer seek in-principle agreement from RMS to the concept designs for all works deemed necessary on the classified (State) road network (Gwydir Highway). This should be sought prior to the approval of the modification to enable the works to be included in the Conditions of Approval.
- The current Austroads Guidelines, Australian Standards and RMS Supplements are to be adopted for any proposed works on classified (State) road (Gwydir Highway).
- Developer will be required to enter into a WAD with RMS for any works deemed necessary on the classified (state) road (Gwydir Highway). This should be sought prior to the

approval of the modification to enable the works to be included in the conditions of approval. (WRWFPL does not agree that the timing proposed by RMS is necessary as the conditions already provide for gaining necessary approvals for road upgrades).

- Developer to update the approved CEMP Annexure D Traffic and Access Management Plan to reflect MOD 4. WRWFPL would update the CTAMP for the MOD 4 works.

3.5.2 Proponent's further consultation and response to RMS submission

WRWFPL has responded to the RMS submission through the following initiatives:

- Further consultation with Transgrid to establish a realistic traffic inventory for the construction phase of the alternative grid connection project;
- Further consultation with RMS regarding clarification of project details including provision of a preliminary traffic analysis including a realistic traffic inventory and issues for the intersection locations with Gwydir Highway (Appendix B);
- Obtained review of intersection locations by a transport contractor that has been involved with transport to the wind farm site; and
- Obtained details of vehicle for the over-dimensional (overmass/oversize) vehicle to transport the 132kV/330kV substation transformer.

The main traffic impacts will occur during the construction phase for the 330kV substation and alternate 132kV transmission line that may continue over about 12 months at varying levels. The 330kV substation will be a focus of construction activity over about 12 months and will result in vehicles using the western entry from Gwydir Highway. Lesser volumes of traffic will use the Spring Mountain and WRWF main entry routes to undertake construction of the alternate 132kV line.

There will be low levels of traffic to the substation and 132kV line once these facilities are operational. Access will still be needed for periodic inspections and maintenance. The operational facilities do not require staff to be permanently stationed at the locations. Indicative estimates of traffic volumes for construction based on advice from TransGrid and GWA engineers are shown in Appendix B.

The distribution of construction traffic flows is anticipated to be predominantly via the western entrance involving access to the substation and western section of the 132kV line. Construction staff for the alternative grid connection works are most likely to utilize a temporary construction facility at the substation site. Lesser volumes of construction traffic flow will be to the middle and eastern site access routes. A schematic illustration of traffic flows is provided in Figure 3.1.

Both the western entry and Spring Mountain intersections with Gwydir Highway are well located with good visibility in either direction of approach on Gwydir Highway. However, the main entry to the WRWF site does have limited visibility on the western side of the entrance. RMS has raised a concern regarding the right hand turn to the main WRWF entrance in respect of road safety and crossings of the west bound Gwydir Highway traffic. While it is considered that such traffic movements will be a low proportion of traffic flows, WRWFPL acknowledges the potential risk and will consult further with RMS regarding the need to provide a right turn lane for the east bound traffic entering the wind farm site.

The largest vehicle to gain access to the MOD 4 site is for the 330kV transformer that will be delivered via the western entry from Gwydir Highway. The typical transport vehicle arrangement for an over-mass load such as a 330kV transformer is shown in Appendix B, Figures 9 and 10 and also in Figure 3.2. This vehicle arrangement (approximately 56 m long) will only be

needed for a single delivery to the substation site and requires upgrade of the property access route, adjacent the Gwydir Highway. It does not appear necessary for any works to upgrade the Gwydir Highway at this entry, other than sealing of the area between the highway and the property entrance, but further review will occur post approval of the modification.

3.5.3 Applicability of existing conditions

Existing conditions of Approval relevant to traffic and transport include:

- B9 Statutory requirements (licences, permits and approvals);
- E17 Road Dilapidation;
- E21 CEMP, E22(c) CTAMP; and
- G11 Decommissioning Road Dilapidation and G12 Decommissioning EMP.

The existing conditions are appropriate and can be applied for the construction and operations of the MOD 4 facilities.

The following agreements will be obtained, as required:

- As per Condition E17, a dilapidation assessment and agreement will be needed with Inverell Council for use of local roads within Inverell Local Government Area.
- If any works are required to Gwydir Highway then a Works Authorisation Deed (WAD) may be needed as required by RMS. This process would include development and approval of designs for any required upgrades involving the Gwydir Highway.
- Transport approval for the 330kV transformer

The WRWF CTAMP will be updated to address the MOD 4 works.

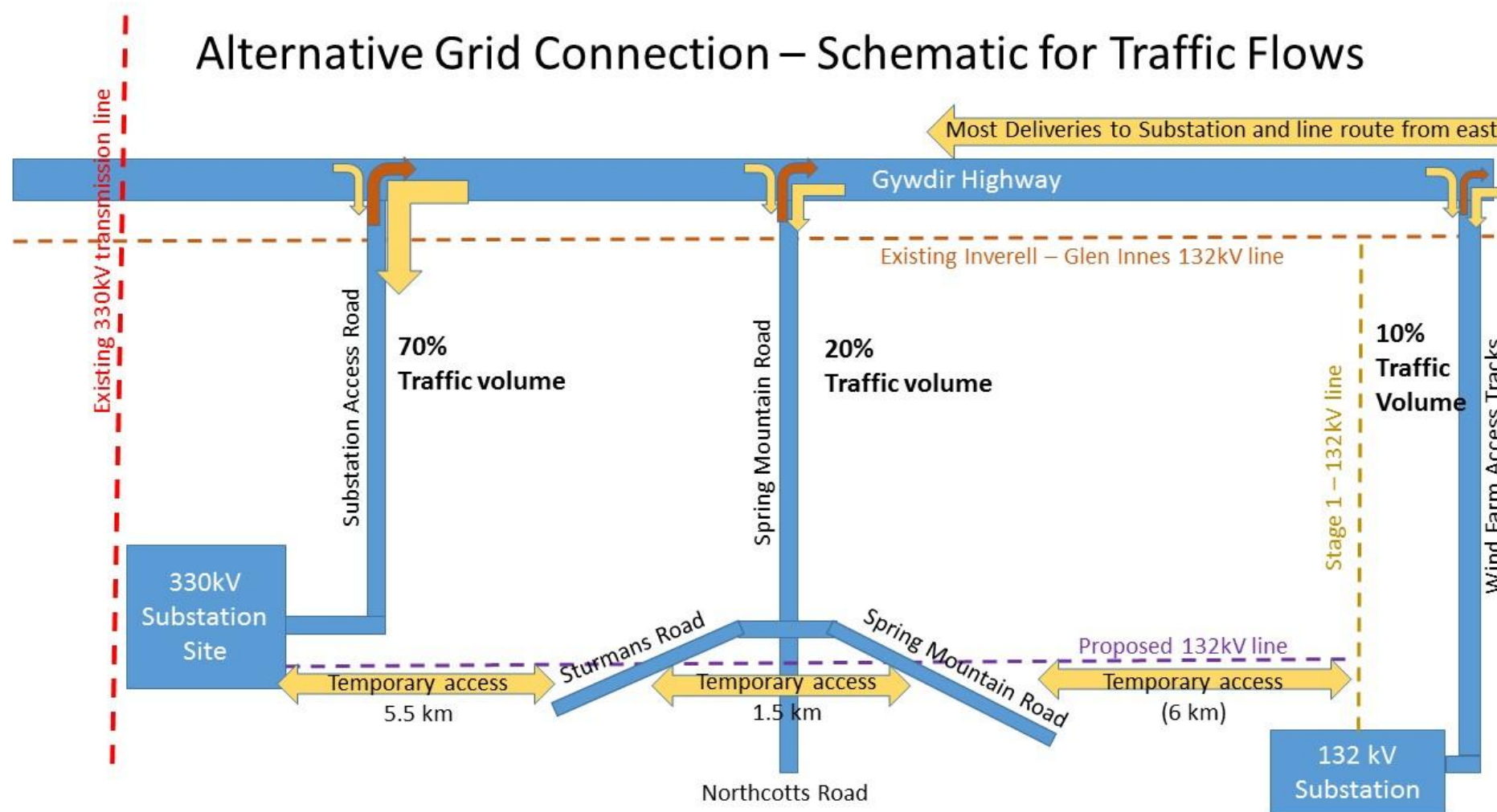


Figure 3.1 – Schematic Traffic Flows for WRWF Alternative Grid Construction Project

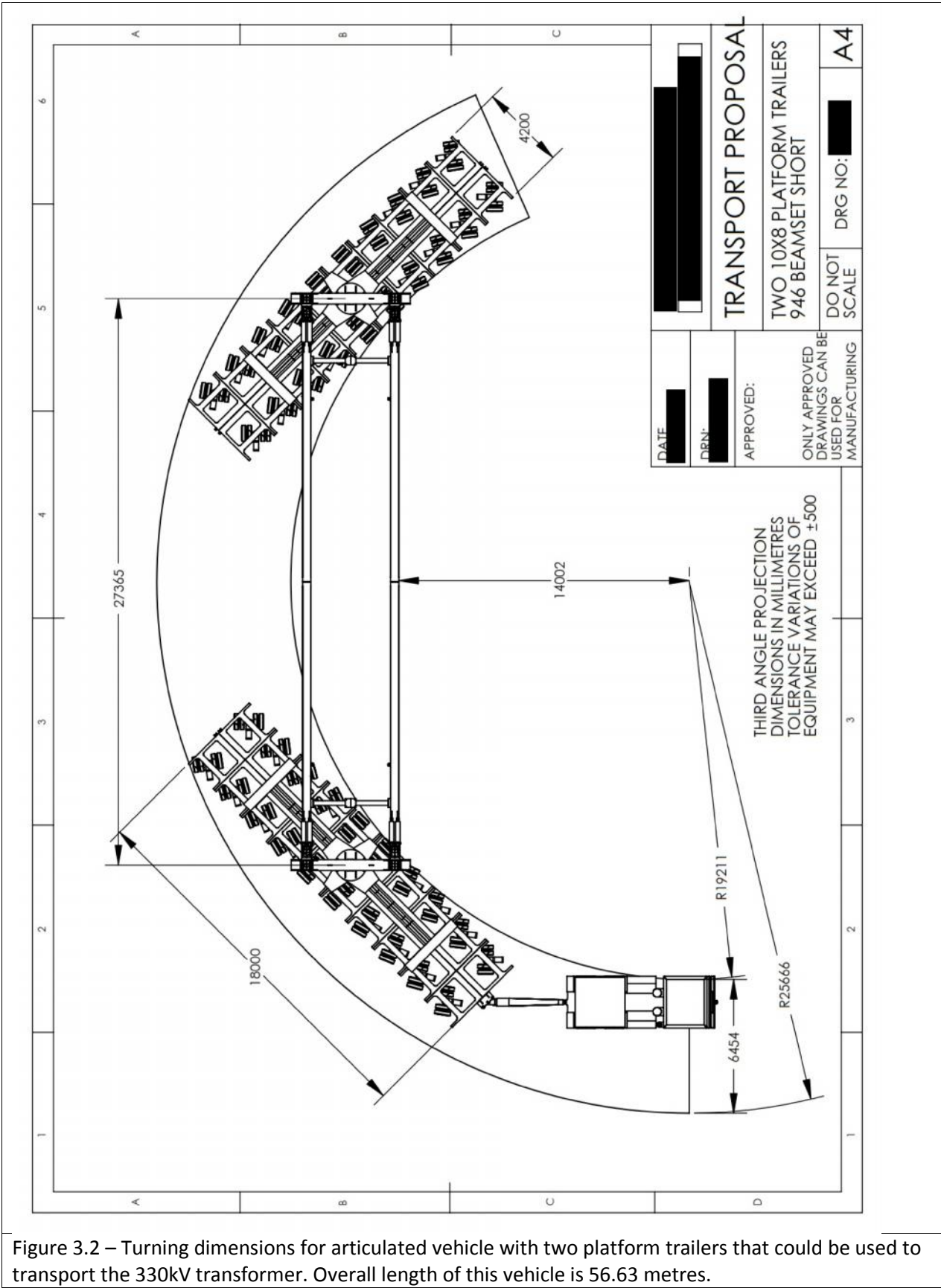


Figure 3.2 – Turning dimensions for articulated vehicle with two platform trailers that could be used to transport the 330kV transformer. Overall length of this vehicle is 56.63 metres.

3.6 Bush Fire Risk Management

3.6.1 Details of RFS submission

An extract from the NSW Rural Fire Services response of 20 February 2017 is provided below:

The NSW RFS does not raise any objection to the proposed modification, subject to the following.

It is noted that the NSW RFS provided recommended conditions for the development on 1 August 2011 and again on 11 February 2013. These recommendations remain valid and should be applied to the proposed modification.

It is also noted that the applicant has prepared a Bushfire Risk Management Plan for the project. A new bushfire risk management plan should be prepared for the works proposed under MP10_1060 (Mod 4) or the existing Plan modified to include the proposed works. The Bushfire Risk Management Plan should also address ongoing management of bushfire risk and be incorporated into the Operation Environmental Management Plan for the overall development.

For clarity, the recommendations referred to above for correspondence of 01 August 2011 and 11 February 2013, are shown below:

1. Recommendation in RFS Letter of 01 August 2011, responding to the original WRWF Project Application:

- 1. Minimising the impact of radiant heat and direct flame contact by separating structures from bush fire hazards by identifying adequate asset protection zones in accordance with Planning for Bush Fire Protection 2006;*
- 2. Providing adequate egress/access to the proposed development as outlined within 4.1.3 of Planning for Bush Fire Protection 2006;*
- 3. The ability to site and provide for adequate water supplies for bush fire suppression operations;*
- 4. Emergency evacuation measures in accordance with section 4.2.7 of Planning for Bush Fire Protection 2006; and*
- 5. Development of operational procedures related to the mitigation and suppression of bush fire relevant to the proposed development.*

2. RFS Letter of 11 February 2013, responding to MOD 1 Application:

- 1. A 20 metre Asset Protection Zone shall be provided from the proposed switchyard/substation and maintained in accordance with the requirements of Planning for Bush Fire Protection 2006;*
- 2. Adequate egress/access to the proposed development shall be provided as outlined within 4.1.3 of Planning for Bush Fire Protection 2006;*
- 3. Adequate water supplies for bush fire suppression operations shall be provided to the development;*

4. *Emergency evacuation measures in accordance with section 4.2.7 of Planning for Bush Fire Protection 2006; and*
5. *Development of operational procedures related to the mitigation and suppression of bush fire relevant to the proposed development.*

3.6.2 Proponent Response

The NSW Rural Fire Service (RFS) must be able to implement effective and appropriate risk control measures when managing an emergency incident at the proposed site. Aspects of the Modification which contribute to a reduced bushfire risk outcome include the following:

- The Substation and Transmission Line will each have vegetation clearance around the footprint to provide suitable electrical safety clearances and these clearances will be maintained during the life of the facility.
- The construction works will also provide for improved access to the infrastructure locations and facilitate access by RFS to the locality if required. This will include upgraded farm access track from Gwydir Highway to the new 330kV Substation and temporary tracks to pole locations for the purposes of 132kV line installation and ongoing inspection and maintenance of the line or easement.
- At least one watercart will be maintained at the 330kV substation site during construction works.
- It is expected that once designs and work activity arrangements are better defined and prior to construction and operations commencing, these would be appropriate times to consult with RFS and, as relevant, FRNSW to confirm emergency management planning for the specific construction and operations phases of the alternate grid connection facility project.
- The WRWFPL Emergency Response Plan (ERP) will be updated in respect of MOD 4 facilities prior to commencement of construction. The update will include consultation with relevant emergency services. The ERP includes Emergency Evacuation Procedures.

As per the second paragraph of the RFS letter of 20 February 2017, the WRWF Stage 1 Bushfire Risk Management Plan (BFRMP) will be updated, prior to construction of the MOD 4 facilities commencing, to address the risks presented and their management. A further update will occur prior to commencement of operation of the MOD 4 facilities. The process for the preparation and update of the BFRMP will therefore involve several stages of review and consultation with RFS and be additional to consultation in respect of WRWF Stage 1 and the anticipated future WRWF Stage 2.

3.7 Integration of MOD 4 with Mineral Resource interests

The NSW Department of Industry, Division of Resources and Energy (DRE) provided comment on the Modification Proposal in its letter of 20 February 2017.

DRE considered four mineral resource locations in its letter, as follows (and shown in Figure 3.3):

- Mining Lease (ML) 1505 (Fraziers Sapphire Mine) (Lot 142/DP 753305);
- The Fraziers Quarry – Inverell Council DA 190/2010/A for increased extraction (Lot 141/DP 753305);
- White Rock Pit Proposal – Glen Innes Severn DA 58/16-16; and
- Hugans Pit – Glen Innes Severn Council DA 52/15-16.

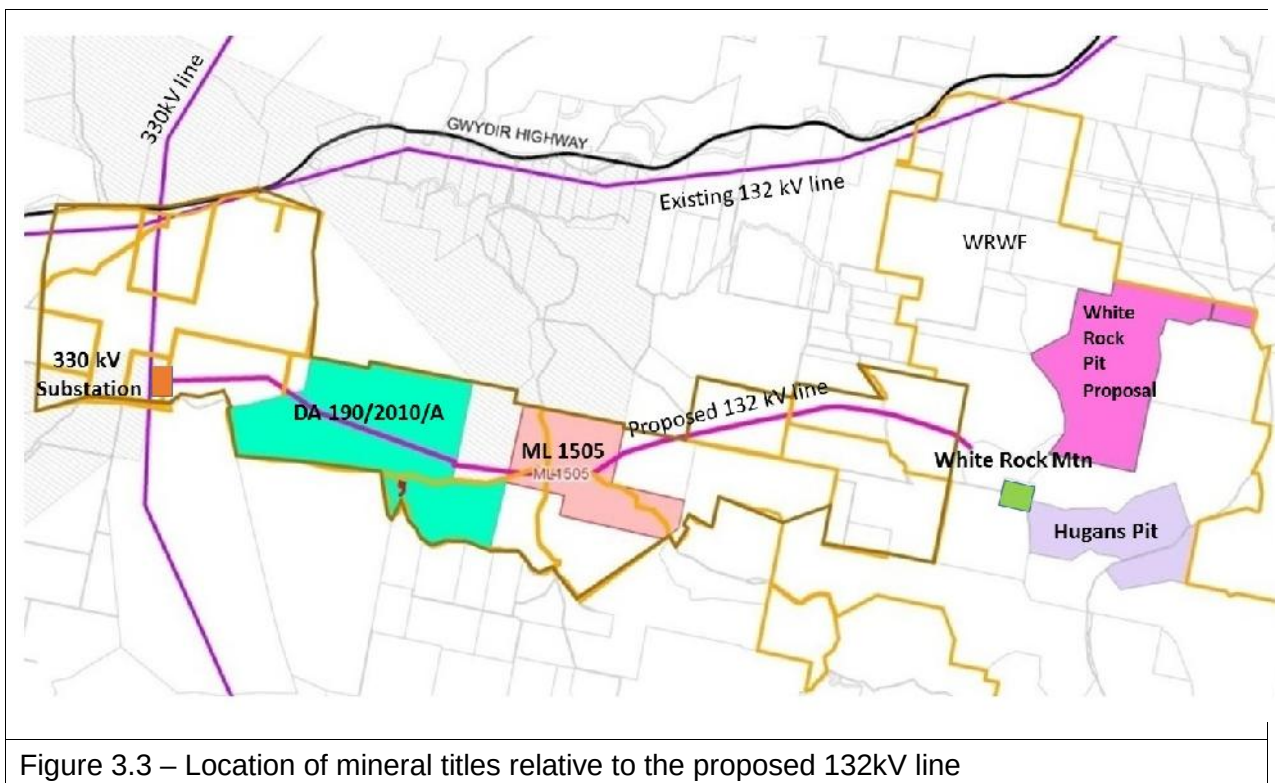


Figure 3.3 – Location of mineral titles relative to the proposed 132kV line

WRWFPL is aware of these mineral resource ventures and notes that latter two (White Rock Pit Proposal and Hugans Pit) are to the east of White Rock Mountain and are not impacted by the MOD 4 proposal. In the case of the ventures on the Frazier property, these are in close proximity to the proposed 132kV transmission line.

For the MOD 4 project to proceed as outlined in the MOD 4 Application, WRWFPL needs the agreement of the landowner who is also the lease holder for ML 1505 and proponent for DA 190/2010/A. Previous correspondence was obtained, dated 10 October 2013 stating the landowner's consents to the transmission line passing through ML 1505 as shown in the figure accompanying the letter (Appendix C). An Option for an Easement to form a transmission line corridor across the subject property (Lots 141 and 142 / DP 753305) (including the areas of ML1505 and DA 190/2010/A) has also been entered into between WRWFPL and the landowner.

The landowner has been more recently consulted during 2016/2017 in regards to their support for the proposed 132kV line easement and in relation to the landowner's Mining Lease 1505 and the "Spring Valley" Quarry DA 190/2010/A. There has been limited recent opportunities to meet with the landowner due to their work commitments and instead they have provided an email

(dated 8 April 2017 – Appendix D) confirming the proposed power line easement across their property.

WRWFPL considers that:

- the status of negotiations with the landowner/Lease holder demonstrate acceptance of the proposed transmission line infrastructure.
- Implementation of the project cannot proceed without the necessary landholder and leaseholder agreement to implement the approved project.

Accordingly, WRWFPL does not believe that there is any aspect of this issue to prevent positive determination of the application. Following approval it will be incumbent on WRWFPL to finalise the necessary landholder agreements for the easement to be able to implement the approved project.

3.8 Crown Land – Crossing of paper roads, local roads and Swan Brook

The MOD 4 facilities are located predominantly on privately owned land but have minor impacts on small areas of Crown Land, specifically 10 locations involving paper roads, local roads and crossing of Swan Brook as listed below. The 10 locations are identified in Plates 3.1 to 3.3 (using Six Maps base), and referenced in the list below.

- the access to 330kV Substation from the Gwydir Highway (Location 1, Plate 3.1);
- the crossing of paper roads by the access track to the 330kV substation (Locations 2 and 3);
- crossing of paper roads by the 132kV line (Locations 3, 4, 8 and 9 – Plates 3.1 to 3.3));
- crossing of local roads (Spring Mountain Road, Sturmans Road and Northcott Road within Inverell Shire) by the 132kV transmission line (Locations 5, 6 and 7 – Plate 3.2);
- crossing of Swan Brook by the 132kV line (Location 10, Plate 3.3); and
- Access to the eastern end of the 132kV line from the WRWF Stage 1 access tracks involves crossing of Lot 7001/DP93978 that is subject of Subject to Crown Land Licence R1 523495 (Figure 3.4).

DPI requested GIS data Shape files in dotpoint 1 of its letter of 21 February 2017. The requested data was sent to email address 'lands.ministerials@industry.nsw.gov.au' on 10 March 2017 and enables DPI to undertake its own review of the project relationship to areas of Crown Land. Applications for licences or agreements relating to crossings of the Crown Lands would be sought once the MOD 4 approval has been obtained and subject to the MOD 4 components proceeding.

3.8.1 Access from Gwydir Highway to the 330kV Substation

The access to the 330kV substation at the western end of the development area is from the Gwydir Highway and involves crossing of crown land identified as 1, 2 and 3 in Plate 3.1. Two crossings of paper roads by the proposed 132kV line are shown for locations 3 and 4 (Plate 3.1).

3.8.2 Mid-section of 132kV line and crossings of paper roads and local roads

The middle section of the 132kV transmission line can be accessed from Spring Mountain, Sturmans and Northcotts Roads (Locations 5, 6 and 7 in Plate 3.2). A temporary, low impact access track will be needed along the line easement to enable access for installing poles and stringing conductors. This track will in places, cross paper roads where Crown Lands will need to be consulted and as applicable, licences obtained.

3.8.3 Eastern end of the 132kV transmission line

The Eastern end of the 132kV transmission line crosses two paper roads, Locations 8 and 9 and Swan Brook (Location 10) in Plate 3.3

3.8.4 Access to WRWF and the eastern end of the 132kV transmission line

The access to WRWF is across a Crown Reserve. A Licence has been issued to WRWFPL by DPI-Lands for provision of access to the site as indicated in the section of the figure extracted from the Licence and shown in Figure 3.4. DPI-Lands has indicated this access may also be used for White Rock Solar Farm (WRSF).



Figure 3.4

Lot 7001/DP93978 – Subject to Crown Land Licence R1 523495

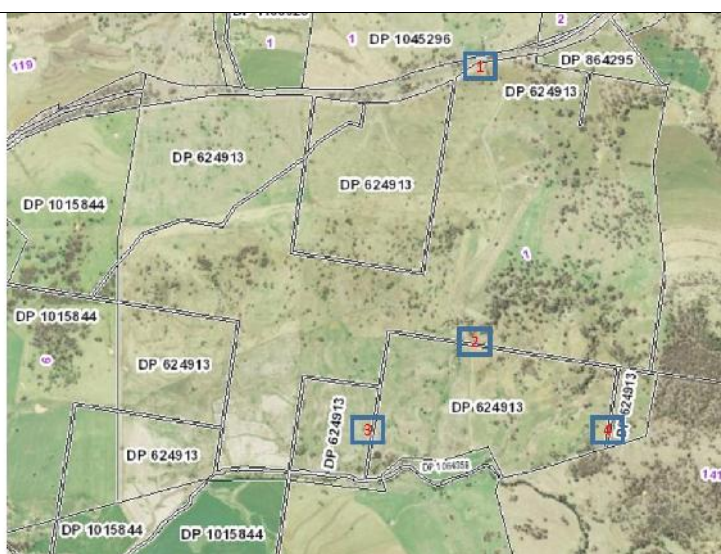


Plate 3.1

Western Section

Crown Land Crossings 1 – 4

1 – Exit Hwy
2 & 3 – access track
4 – 132kV line

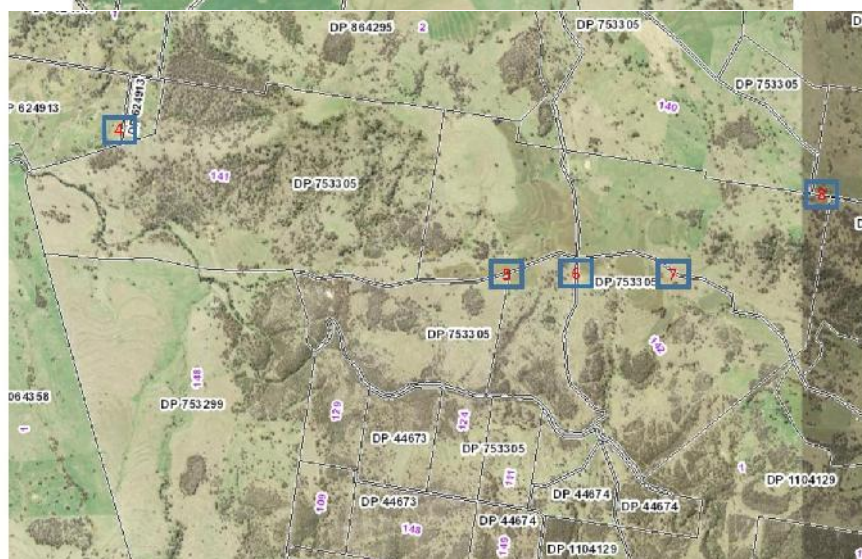


Plate 3.2

Mid Section

Crown Land Crossings 4 – 8

4 – 132kV line
5, 6 & 7 – 132kV line crosses roads
8 – 132kV line



3.9 Aviation Safety issues

Submissions were received from Civil Aviation Safety Authority (CASA) on 25 January 2017 and Air Services Australia (undated).

CASA had no objection to the proposed modification stating that the modifications: *“do not pose any increased risk to aviation safety above that already assessed by CASA.”*

Airservices Australia responded as follows: “Given the height of the transmission line is over 100m lower than the wind farm’s blade tip height, and since the wind farm development did not impact Airservices airspace procedures or CNS facilities (see attached), an assessment is not required due to no expected impact from the proposed transmission line.”

The approval includes conditions relating to air safety notifications and no change to conditions in respect of air safety issues is anticipated to be necessary.

3.10 Noise Impact

The assessment of construction and operational noise impacts was based on the layout provided in Figure 4.1 of the WRWF MOD 4 EA. Potential noise impacts are briefly discussed below.

Construction – The construction noise impacts have been described in the MOD 4 EA and are compliant at all sensitive receivers. Consistent with the EPA recommendation, the CNVMP will be updated for MOD 4 prior to commencement of construction.

Operations – The 132kV/330kV substation represents the main noise source during the operational phase. The location has been selected to minimize visual impact and noise for the scattered rural residences within the area. The assessment by Sonus indicates acceptable noise impact at non-associated residences for MOD 4 infrastructure.

Existing Conditions of Approval are considered appropriate and applicable for MOD 4 construction and Operations. Relevant conditions are: E5, E9 and E10, E21/E22(b), F6 (background noise) and E23 or F8. Numbering of conditions is confusing and may be corrected by DPE in a modified Approval.

On the basis of the above, WRWFPL believes that alternative grid connection will not result in any significant increase in noise levels at any of the relevant receivers.

3.11 Landscape and visual amenity.

The assessment of landscape and visual amenity was provided in the WRWF MOD 4 EA and showed that the impact of the modifications was low.

Due to topographic and vegetation screening no further landscaping is considered necessary for the Modifications. However, existing approval conditions relating to landscape and visual issues will need to be considered for the MOD 4 implementation. The Design and Landscape Plan (DALP) required by Condition C30 will be updated for the project including MOD 4.

No submissions raised the issue of visual impact.

3.12 WRWF Community Consultation generally and for MOD 4

Community consultation for the WRWF project occurs through the following mechanisms:

- Direct consultation with host landowners and neighbours;
- Discussion as part of the WRWF Community Consultative Committee meetings that are held quarterly. Minutes are available on the project website;
- Community information events, as required to assist community understanding of the project;
- Public exhibition of the WRWF MOD 4 Application has provided an opportunity for the community to submit comments on the proposal. No community submissions were received;
- A staffed shop front venue has been established in Glen Innes in respect of the White Rock Wind Farm. Information on the MOD 4 infrastructure is available at the shop front; and
- A website has been established for the WRWF project and provides status of the project.

The two closest neighbours to the MOD 4 facilities are associated (R125 and R126 at 0.3 km and 0.8 km) and, on lands that are leased for the project. There are also two non-associated residences R123 and R124 that are at 0.9 km and 1.7 km respectively. Both non-associated neighbours have been consulted in respect of the WRWF. Further consultation is also proposed as the development progresses.

The WRWF alternative grid connection was included as an agenda item at a meeting of the WRWF Community Consultative Committee in 2016 and has been covered at each meeting since as part of the consideration for Stage 2 impacts.

Information has also been provided to the community through regular newsletter distribution, delivered to all residents within 10km of WRWF.

No responses were received from the community as a result of the public exhibition of the WRWF MOD 4 Application. This is consistent with broad community support received for WRWF and apparent low level of community objection to the project.

The WRWF shop front is located at 303c Grey Street, Glen Innes and, is open Monday to Thursday from 10am to 3.30pm. Information on MOD 4 is available for viewing by members of the public.

The WRWF website can be accessed by following the link below.

<http://www.whiterockwindfarm.com/>

Overall, the WRWF development appears to be well accepted by the community and WRWFPL is not aware of any community objections to the MOD 4 proposal. The approval conditions relevant to community engagement and potential impacts remain appropriate and applicable for MOD 4 infrastructure.

WRWFPL aims to maintain harmonious relations with its neighbours and has dedicated staff to engage with the local community and work through any issues as they arise.

4 SUMMARY OF RESPONSES AND CONCLUSIONS

4.1 Overview of Proponent's responses

The 10 agency submissions received by DPE address a range of issues where the alternative grid connection may have potential impacts and where more detail or clarification is sought either for the project or its mitigation measures.

WRWFPL has provided responses to the matters raised and to the extent reasonably and practically possible, WRWFPL has adjusted the project or made commitments to address the respective matters while positioning the project to be viable in a competitive renewable energy supply context. Some of the matters in submissions are more relevant to post-approval actions.

On the basis of responses provided and additional information in this Submissions Report, the WRWFPL proposal is considered to have improved environmental outcomes of the WRWF project and provided greater surety for outcomes of project implementation.

4.2 Summary of responses

Table 4.1 summarises responses to the 10 agency submissions.

Table 4.1 – Summary of proponent's response to submissions

Source of submission	Key Issues raised in submission	Summary of proponent response
Civil Aviation Safety Authority	No objection to proposed modification.	No response needed. Noted that existing conditions are suitable.
Airservices Australia	No expected impact from the proposed transmission line.	No response needed. Noted that existing conditions are suitable.
Inverell Council	Confident that review process is appropriate. Seek extension of conditions (relating to traffic and dilapidation) to the Modification.	Existing conditions adequate for the Modification. Further consultation needed with IC pre-construction and dilapidation agreement for local roads.
NSW Rural Fire Service	No objection – Referred to previous recommendations.	Bushfire risk management plan and Emergency Response Management Plan will be updated in consultation with RFS. MOD 4 will incorporate safe clearances from high voltage electrical equipment. MOD 4 will improve access to the facility locations.
DRE Hunter Region	Sought further consultation with Lease Holder of ML 1505 and to provide DRE with record of consultation and any agreement reached.	Details are provided in this Report. It is noted that the Lease Holder and landowner are the same and as such the Option for an easement to form a transmission line is with the Lease Holder.

RMS, Northern Region	Required Traffic Impact Assessment and determination of any upgrades to mitigate impacts. Proponent to seek in-principle agreement to concept design for all works deemed necessary. RMS also requested update for the WRWF CTAMP.	Further consultation and details of Traffic Impact analysis have occurred with RMS. This has outlined the access requirements. Further details of design for any upgrade works would be provided post approval in accordance with existing conditions of approval and once the contractor has been engaged. The WRWF CTAMP would be updated for MOD 4.
DPI	Sought further details identifying location of the transmission lines and location of infrastructure on Crown public roads, waterways and reserves within the project area. Confirm water demands and water sources. Identifies requirements for inclusion in Approval Conditions	GIS Shape files of MOD 4 infrastructure were provided to DPI. Advice on Water requirements has been provided. Suggest that relevant guideline be addressed by Conditions. CSWQMP to be updated for MOD 4. Diagram of pole stay inserted, details to be confirmed pre-construction.
EPA, Northern Region, NSW	Requested CNVMP and CSWQMP to be updated for MOD 4 facilities.	Both the CNVMP and CSWQMP will be updated for MOD 4 works.
OEH, Northern Region, NSW	Recommended proponent retire 251 Biodiversity Credits.	The 251 credits includes 42 that are not directly attributable to the MOD 4 facilities. Retirement of 209 credits would be more appropriate. The existing Biodiversity Offset Package provides for the offset.
	Two recommendations regarding Aboriginal heritage protection.	The OEH recommendations will be implemented by WRWFPL.
Glen Innes Severn Council	GISC has not sought any additional conditions as it indicates that the consolidated approval manages the impacts created by the proposed development.	No response required.

4.3 Conclusions

The WRWF MOD 4 EA, 2016 described:

- the WRWF project as a large wind farm project dependent on approval of MOD 4 to allow the full development to proceed;
- the benefits of enabling WRWF Stage 2 project to proceed;
- methodology and reasons for the line route and substation site selection including involving least impact locations;
- assessment of potential impacts; and
- mitigation measures for the potential impacts.

The WRWF MOD 4 EA concluded that:

“The impacts and risks identified are considered manageable with the effective implementation of the measures stipulated in the EA. Impacts are considered justifiable and acceptable.”

The additional information provided in this Submissions Report

- provides further information responding to agency submissions and recommendations;
- confirms to the extent possible at this stage, the project design options;
- clarifies areas where additional detail was sought by agencies; and
- strengthens mitigation measures; and
- identifies applicability of existing approval conditions.

WRWFPL believes that the WRWF alternative grid connection project addressed by the MOD 4 application:

- provides a beneficial project which can supply increased renewable energy that addresses State and National programs to reduce the carbon emissions intensity of future electricity supplies;
- will have economic and job creation benefits for the local region;
- has acceptable environmental impacts; and
- warrants positive determination.

WRWFPL also asks that DPE give consideration to renumbering of some approval conditions. An error appears to have occurred following MOD 3 approval that has disrupted the numbering.

5 REFERENCES

Eco Logical Australia	FBA Assessment of White Rock Wind Farm Alternative Grid Connection at 330kV, 2 December 2016
Goldwind Australia	White Rock Wind Farm Modification Application No. 4 – Environmental Assessment Report, Dec 2016
Government agencies	Submissions responding to MOD 4 referral (Compiled in Appendix A)

6 APPENDICES

Appendix A – Submissions Received from referral of WRWF MOD 4 Application

Appendix B – WRWF EPC Project MOD 4 – Update for Traffic Management Plan

Appendix C – Letter from Lease Holder, ML 1505, dated 10 October 2013

Appendix D – Email from Lease Holder, ML 1505, dated 8 April 2017

Appendix E – TransGrid - - Technical Diagram for typical Pole Stay

Appendix A

Submissions Received from referral of WRWF MOD 4 Application



Australian Government
Civil Aviation Safety Authority

AIRSPACE AND AERODROME REGULATION

File Ref: EF11/1146-13

25 January 2017

Mr Tim Stuckey
Planning Officer
Resource Assessments / Planning Services
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Stuckey,

WHITE ROCK WIND FARM - MODIFICATION

CASA has reviewed the White Rock Wind Farm Modification (MP 10_0160) as emailed to CASA on 23 January 2017.

The proposal is to change the transmission line route and to provide an alternative grid connection facility.

The proposed changes to the alignment of the transmission line and changes to the grid connection facility do not pose any increased risk to aviation safety above that already assessed by CASA.

Therefore CASA has no objection to the proposed modification.

CASA would be pleased to answer any questions regarding this advice on 131 757.

Yours sincerely

A handwritten signature in black ink, appearing to read 'M. Windebank'.

Matthew Windebank
Aerodrome Engineer

Airservices Australia Submission – White Rock Wind Farm MOD 4 (2017)

Hi Tim,

Given the height of the transmission line is over 100m lower than the wind farm's blade tip height, and since the wind farm development did not impact Airservices airspace procedures or CNS facilities (see attached), an assessment is not required due to no expected impact from the proposed transmission line.

Regards,

Tony Aiezza
Senior Advisor Airport Development
Airservices Australia
Tower Road, Melbourne Airport
Tullamarine VIC 3043
t 02 6268 4331 | m 0409 143 120

Airservices Australia Submission – White Rock Wind Farm MOD 1 (2015)

Hi Luke,

I refer to your request for Airservices assessment of the White Rock Wind Farm which is in the process of micro-siting in preparation for construction.

Airspace Procedures

With respect to procedures designed by Airservices in accordance with ICAO PANS OPS and Document 9905, in the revised micro-sited location and at a maximum height of 1556m (5105ft) AHD, the proposed wind farm development will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Glen Innes Airport.

Note: procedures not designed by Airservices at Glen Innes Airport were not considered in this assessment.

CNS Facilities

This proposal for the micro-siting of the wind turbines within 100m of the original assessment locations will not adversely impact the performance of any Airservices Precision/Non-Precision Nav Aids, Anemometers, HF/VHF/UHF Comms, A-SMGCS, Radar, PRM, ADS-B, WAM or Satellite/Links.

Kind regards

Carly

Carly Fiumara
Airport Development Assistant
Corporate & Industry Affairs
☎ +61 02 6268 4725
✉ carly.fiumara@airservicesaustralia.com

From: Luke Hodgson [mailto:lhodgson@aviationprojects.com.au]
Sent: Friday, 16 October 2015 4:55 PM

To: Airport Developments <Airport.Developments@AirservicesAustralia.com>
Cc: Keith Tonkin <ktonkin@aviationprojects.com.au>; jeffbembrick@goldwindaustralia.com
Subject: 100305-03 White Rock Wind Farm - Request for consideration of potential aviation impacts

Dear Airport Developments

Aviation Projects is preparing an Aeronautical Impact Assessment in relation to the proposed amendment to the approved White Rock Wind Farm (the Project) in New South Wales.

The purpose of this assessment is to consider the net impact of the amendment on aviation in order to determine the need for obstacle lighting.

White Rock Wind Farm

On 10 July 2012, project application number MP 10_0160 was approved by the Minister for Planning and Infrastructure (now Minister for Planning) to develop the Project in the general area from Maybole Road to the Gwydir Highway, approximately 20 km south west of Glen Innes in the Glen Innes Severn and Inverell local government areas, NSW. The Project is approved to comprise not more than 119 wind turbines and associated infrastructure. The maximum height of the wind turbines is proposed to be 150 m above ground level (AGL).

Goldwind Australia Pty Ltd (the Proponent) and Airservices Australia have previously been in correspondence, the details of which are below:

- 16 October 2014, From the Proponent, To Airservices Australia, Subject: Proposed White Rock Wind Farm - Request for amendment of Glen Innes arrival procedure
- 1 December 2014, From Airservices Australia, To the Proponent, Subject: AIRSERVICES RESPONSE: White Rock Wind Farm, Amendment Glen Innes Arrival Procedure (NSW-WF-001 P2)

An extract of the replying email on 1 December 2014 is copied below (note the maximum height used for the assessment was 1556 m (5105 ft) AHD, which may have changed based on the updated data provided by the Proponent).

...

I refer to your request for Airservices assessment of the White Rock Wind Farm at Glenn Innes.

With respect to procedures designed by Airservices in accordance with ICAO PANS OPS and Document 9905, at a maximum height of 1556m (5105ft) AHD, the proposed wind farm development will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Glen Innes Airport nor will it adversely impact the performance of any Airservices Precision/Non-Precision Nav Aids, HF/VHF Comms, A-SMGCS, Radar, PRM, ADS-B, WAM or Satellite/Links.

Note: procedures not designed by Airservices at Glen Innes Airport were not considered in this assessment.

The Proponent is now finalising pre-construction documentation for the Project.

Stage 1 of the Project includes the construction of 70 wind turbines. 36 sites are at the approved locations and 34 have been micro-sited within the allowance of 100 m that is permitted by the Project approval, subject to the requirements of Condition C4. Condition C4 is copied below:
C4. Where micro-siting is proposed, the Proponent shall identify the proposed turbine locations in the CEMP [construction environmental management plan], and demonstrate how those locations

will not give rise to 'increased landscape, vegetation, cultural heritage, visual amenity, shadow flicker, noise, fire risk or aviation impacts when compared with the approved locations.

Attached are the following files:

- WRK_GW_Location_of_Turbines_240815 - a plan of the wind turbine layout approved for the project and distinguishes the Stage 1 turbines (yellow or red) with those shown in red being those that are subject to micro-siting; and
- 20150930_BaseHeightComparison – a spreadsheet showing wind turbine generator numbers, original and new X, Y and Z UTM coordinates of the wind turbines, and descriptions of the changes for each wind turbine.

The Proponent engaged Aviation Projects to assess the net aviation impact in accordance with condition C4.

Would you please provide advice regarding the aviation impact of the Project, in particular impacts that may result on Glen Innes Airport?

Is any additional analysis required to determine the potential impact of the Project? If only Airservices Australia can perform this additional analysis, please advise the anticipated scope of work, time and cost involved.

In the interests of keeping our client informed, I would appreciate an indication of when we should expect a response to this request at your earliest convenience.

Kind regards,

Luke Hodgson (BAvn)

Consultant

Mobile +61 411 517 382

Phone +61 7 3117 9608

Fax +61 7 3374 3562

Street 2/43 Upper Brookfield Rd, Brookfield Qld 4069

Our Ref: s18.6.52/02
Your ref: MP 10_0160 MOD 4
Contact: Anthony Alliston

10 February 2017

Department of Planning and Environment
tim.stuckey@planning.nsw.gov.au

Dear Mr Stuckey

MP 10_0160 MOD 4 – WHITE ROCK WIND FARM

Reference is made to the proposed modification to White Rock Wind Farm (MP 10_0160 MOD 4) and the Departments email dated 18 January 2017.

Overall, Council is satisfied that combined, the referral of the application to various specialised departments and the Department internal assessment, will result in a comprehensive assessment of potential impacts.

Council notes that the current Project Approval for White Rock Wind Farm contains a number of conditions of consent, particularly those relating to traffic and road dilapidation. These conditions should be extended to the modification.

Should you have any further queries or require further clarification please contact me on 0425 271 633.

Yours faithfully



ANTHONY ALLISTON
MANAGER DEVELOPMENT SERVICES



NSW RURAL FIRE SERVICE



The Secretary
NSW Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Your reference: MP10_0160 Mod 4
Our reference: S10/0027

Attention: Tim Stuckey

20 February 2017

Dear Mr Stuckey,

MP10_0160 Mod 4 – White Rock Wind Farm

I refer to your email dated 23 January 2017 seeking comments and recommended conditions from the NSW Rural Fire Service (RFS) with respect to the proposed modification (Mod 4) of Project Approval MP10_0160.

The NSW RFS has reviewed the plans and documents available on the Department's website and understands that the modification proposes:

- an alternative 132kV transmission line from the wind farm to an existing 330kV transmission line approximately 13km west of the wind farm site; and
- an alternative grid connection facility involving a switchyard and substation where the 132kV transmission line meets the 330kV transmission line.

The NSW RFS does not raise any objection to the proposed modification, subject to the following.

It is noted that the NSW RFS provided recommended conditions for the development on 1 August 2011 and again on 11 February 2013. These recommendations remain valid and should be applied to the proposed modification.

It is also noted that the applicant has prepared a Bushfire Risk Management Plan for the project. A new bushfire risk management plan should be prepared for the works proposed under MP10_1060 (Mod 4) or the existing Plan modified to include the proposed works. The Bushfire Risk Management Plan should also address ongoing management of bushfire risk and be incorporated into the Operation Environmental Management Plan for the overall development.

Postal address

NSW Rural Fire Service
Locked Bag 17
GRANVILLE NSW 2142

Street address

NSW Rural Fire Service
Planning & Environment Services
Suite 1, 129 West High Street
COFFS HARBOUR NSW 2450

T (02) 6691 0400
F (02) 6691 0499
www.rfs.nsw.gov.au
csc@rfs.nsw.gov.au

For any queries regarding this correspondence please contact Paul Creenaune on 6691 0400.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'John Ball', written in a cursive style.

John Ball
Manager - Planning & Environment Services (North)

The RFS has made getting information easier. For general information on 'Planning for Bush Fire Protection, 2006', visit the RFS web page at www.rfs.nsw.gov.au and search under 'Planning for Bush Fire Protection, 2006'.

Tim Stuckey
Planning Officer
Resource Assessments & Planning Services
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Tim.Stuckey@planning.nsw.gov.au

Dear Tim

White Rock Wind Farm - Modification Proposal

I refer to your email dated 23 January 2017 inviting the Division of Resources & Energy (DRE) to provide comments on the White Rock Wind Farm - Modification Proposal.

DRE has reviewed and assessed the adequacy of information in the Environmental Assessment (EA) for the White Rock Wind Farm - Modification Proposal and provides the following advice:

The proposed modification involves amending the transmission route to allow other wind farms in the area to connect to the transmission grid.

The White Rock Wind Farm project is expected to inject considerable funds into the local community of Glen Innes and aligns with Government policy to increase renewable energy generation, jobs and investment in the State.

DRE acknowledges that Epuron consulted with the holder of ML1505 prior to the acquisition of White Rock Wind Farm Pty Ltd by Goldwind Capitol Australia (the Proponent) in 2014. The EA notes that "further consultation is required with the lease and land holder and the Resource and Energy Branch". DRE has contacted the holder of ML1505 who advised that there has been no subsequent consultation undertaken since Goldwind acquired the project.

DRE requires that the Proponent continue consultation with the holder of ML1505 and provide DRE with a record of the consultation and any agreement reached.

The holder of ML1505 advised that the following contact detail can be used for consultation purposes:

ML1505: Fraziers Sapphire Deposit
Contacts: Roslyn Frazier & Ronald Allen Frazier
Contact Number: (02) 6723 2272

DRE is aware of three quarry development applications within the greater project area in 2016 (Refer to **Figure 1**).

- The Fraziers Quarry (distinct from the Fraziers Sapphire Mine - ML1505) modification (Inverell Council DA-190/2010/A - for increased extraction) is located within the Mod. 4 area.
- White Rock Pit Proposal - Glen Innes Severn Council DA58/16-16 - proposal to extract basalt at an annual extraction rate of 29500m³ from an estimated 250,000m³ resource.
- Hugans Pit - Glenn Innes Severn Council DA No. 52/15-16 - modification to an approved extractive industry.

DRE recommends consultation with the relevant consent authorities for these proposals (Glenn Innes-Severn and Inverell councils) and that consideration should also be given to utilising locally sourced construction materials for the wind farm project.

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Royalty & Advisory Services on 9842 8573.

| Yours sincerely

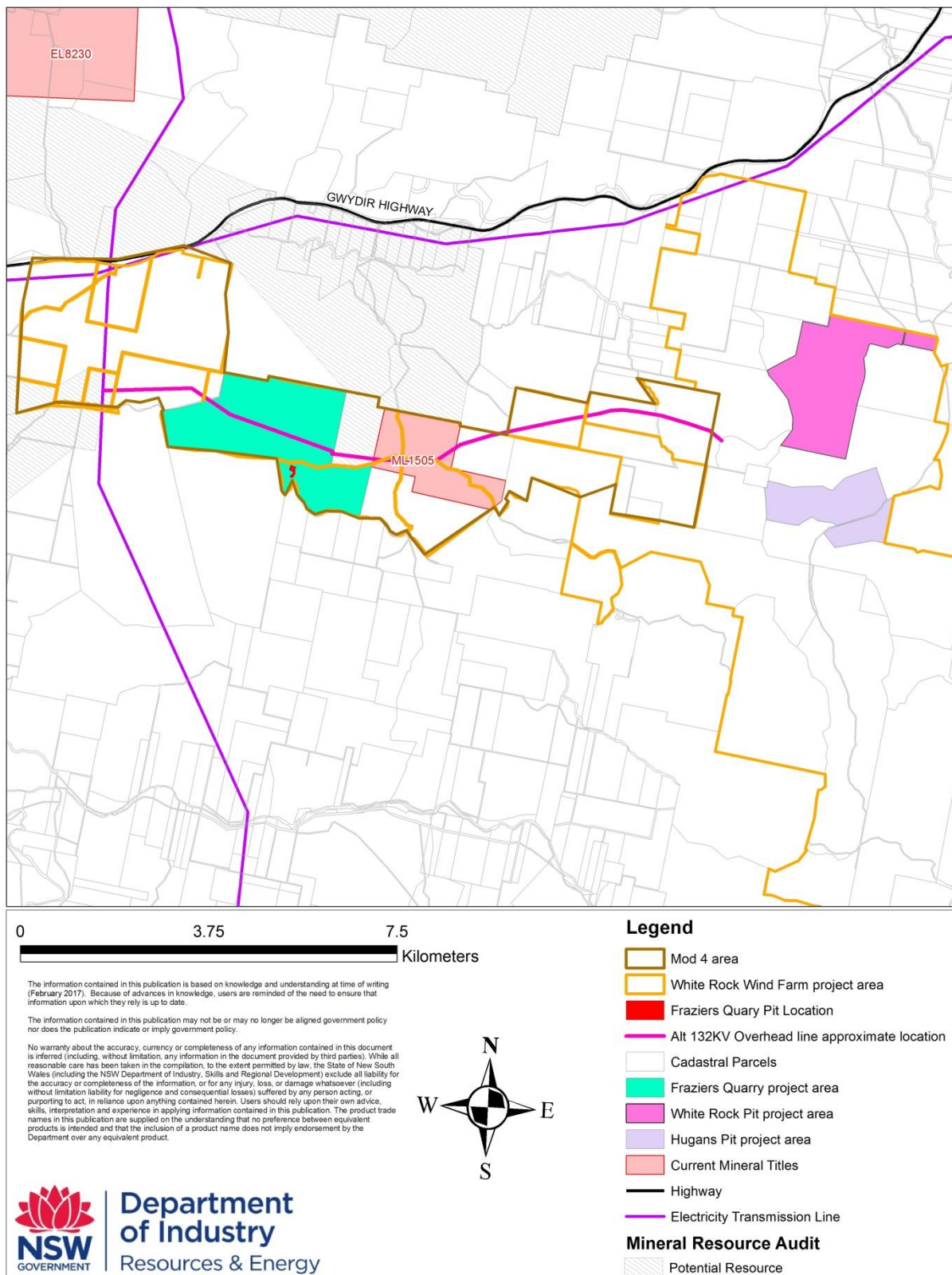


Zane West

Manager Royalties & Advisory Services

20 February 2017

Figure 1- Quarry DA's and current titles within the White Rock Wind Farm Mod 4 area.





File No: NTH15/00009
Your Ref: MP10_0160

The Secretary
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Tim Stuckey – Planning Officer

Dear Sir / Madam,

MP 10_0160 Modification 4: White Rock Wind Farm Project - Alternative Transmission Line and Connections

I refer to your email of 23 January 2017 requesting comment from Roads and Maritime Services in relation to the abovementioned modification.

Roles and Responsibilities

The key interests for Roads and Maritime are the safety and efficiency of the road network, traffic management, the integrity of infrastructure assets and the integration of land use and transport.

Gwydir Highway (HW12) is a classified (State) road. In accordance with Section 7 of the *Roads Act 1993* (the Act) Glen Innes Severn Council and Inverell Shire Council are the Roads Authorities for this road and all other public roads in the subject area. Roads and Maritime is the Roads Authority for freeways and has responsibilities for freeways and classified roads in accordance with the Act.

In accordance with Clause 101 of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) the Consent Authority is to have consideration for the safety, efficiency and ongoing operation of the classified road as the development has frontage to a classified road.

Roads and Maritime Response

Roads and Maritime has reviewed the information provided and requires the developer to prepare a Traffic Impact Assessment (TIA) to identify likely traffic impacts of the proposal and determine any road infrastructure upgrades required to mitigate these impacts.

The TIA should be prepared by suitably qualified person/s in accordance with the current Austroads Guide to Traffic Management Part 12, the complementary Roads and Maritime Supplement and the RTA Guide to Traffic Generating Developments. The TIA will need to address the following;

- The total impact of existing and proposed development on the road network with consideration for a 10 year horizon.
- The volume and distribution of traffic generated by the proposed development during construction and operation.
- Sight distance measurements at proposed access locations and affected intersections.

- Details of existing and proposed access treatments including concept designs for any works proposed on the classified (State) road network (Gwydir Highway).
- Details of proposed improvements to any affected intersections, including concept designs for any proposed improvements to the classified (State) road network.
- Details of improvements required to accommodate an increase in right turning movements from the Gwydir Highway into the existing (eastern) access for White Rock Wind Farm (WRWF).
- Details of servicing and parking arrangements.
- Impact on public transport (public and school bus routes).
- Connectivity for active transport modes such as walking and cycling.

It is recommended that the developer seek in-principle agreement from Roads and Maritime to the concept designs for all works deemed necessary on the classified (State) road network (Gwydir Highway). This should be sought prior to approval of the modification to enable the works to be included in the conditions of approval.

The current Austroads Guidelines, Australian Standards and Roads and Maritime Supplements are to be adopted for any proposed works on the classified (State) road (Gwydir Highway).

The developer will be required to enter into a Works Authorisation Deed (WAD) with Roads and Maritime for any works deemed necessary on the classified (State) road (Gwydir Highway). The developer will be responsible for all costs associated with the works and administration for the WAD. Further information on undertaking private developments adjacent to classified roads can be accessed at:

<http://www.rms.nsw.gov.au/projects/planning-principles/index.html>

The developer must update the approved Construction Environmental Management Plan Annexure D – Traffic and Access Management Plan to reflect the proposed modification.

If you have any further enquiries regarding the above comments please do not hesitate to contact Liz Smith, Manager Land Use Assessment on (02) 6640 1362 or via email at: development.northern@rms.nsw.gov.au

Yours faithfully



For Monica Sirol
Network & Safety Manager, Northern Region
20 February 2017



Department of Primary Industries

OUT17/8273

Mr Tim Stuckey
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Tim.stuckey@planning.nsw.gov.au

Dear Mr Stuckey

White Rock Wind Farm (MP 10_0160 MOD 4) Comment on the Environmental Assessment (EA)

I refer to your email of 23 January 2017 to the Department of Primary Industries (DPI) in respect to the above matter. Comment has been sought from relevant divisions of DPI. Views were also sought from NSW Department of Industry - Lands that are now a division of the broader Department and no longer within NSW DPI. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

DPI has reviewed the modification application and accompanying EA and provides the following comments and recommendations:

- The proponent should provide further details to [Department of Industry - Lands \(lands.ministerials@industry.nsw.gov.au\)](mailto:lands.ministerials@industry.nsw.gov.au), by way of GIS data shape files, identifying the location of the transmission lines and location of infrastructure to allow for detailed assessment on the impact of the project on Crown public roads, waterways and reserves within the project area.
- The EA has not indicated the water demands or water sources for the proposed construction works. It is recommended this be confirmed prior to project approval to enable consideration of potential impacts of accessing the water supply and whether additional licensing is required.
- The following requirements should be included as Conditions of Consent in any determination for the modification:
 - o The proponent should update the Construction Soil and Water Management Sub-Plan in consultation with DPI Water prior to commencement of activities.
 - o The design of waterway crossings for access roads and cable installations, and any associated instream works should be prepared in accordance with DPI Water's [Guidelines for Controlled Activities on Waterfront Land \(2012\)](#).
 - o The proponent must obtain relevant licensing under the *Water Management Act 2000* before commencing any works which intercept or extract groundwater or surface water.
 - o If rock anchoring is selected for power pole foundations the proponent should undertake a groundwater assessment and consult with [DPI Water](#)

(water.referrals@dpi.nsw.gov.au) prior to construction. The assessment is to assess the potential for intercepting groundwater and dewatering requirements, the risk of impact on existing licensed groundwater users and groundwater dependent ecosystems and to provide suitable mitigation measures.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'M. Isaacs', with a stylized, cursive script.

Mitchell Isaacs

Director, Planning Policy & Assessment Advice

21 February 2017

DPI appreciates your help to improve our advice to you. Please complete this three minute survey about the advice we have provided to you, here:

<https://goo.gl/o8TXWz>



Office of
Environment
& Heritage

Our Ref: DOC17/82932
Your Ref: MP 10_0160 MOD4

Mr Tim Stuckey
Planning Officer
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Dear Mr Stuckey

Re: Modification of the White Rock Wind Farm Project (MP 10_0160) – MOD 4

Thank you for your e-mail dated 23 January 2017 about the proposed modification of the White Rock Wind Farm Project requesting comments from the Office of Environment and Heritage (OEH). I appreciate the opportunity to provide input.

The modification relates to a proposed alternative grid connection comprising approximately 13km of 132kV double circuit transmission line from the White Rock Wind Farm (WRWF) to TransGrid's existing 330kV transmission line near Swan Vale.

The OEH has reviewed the Environmental Assessment Report prepared by Goldwind Australia dated December 2016, and particularly Appendix E which summarises the offset requirements and Appendix F which is the heritage Assessment. Our review has identified a number of issues which are discussed in detail in **Attachment 1** to this letter.

In summary the OEH recommends that:

1. The applicant retires the required 251 credits as described in Table 2 of the Eco Logical Australia letter dated 2 December 2016 (Appendix E) to the satisfaction of OEH prior to the impacts occurring.
2. The recommendations of the Environmental Assessment report relating to Indigenous heritage are implemented.
3. The proposed update of the Cultural Heritage Management Plan be developed in consultation with the Aboriginal stakeholders for the project and the OEH.

If you have any further questions about this issue, Mr Krister Waern, Senior Operations Officer, Regional Operations, OEH, can be contacted on 6640 2503 or at krister.waern@environment.nsw.gov.au.

Yours sincerely

 24 February 2017

DIMITRI YOUNG
Senior Team Leader Planning, North East Region
Regional Operations

Contact officer: KRISTER WAERN
6640 2503

Enclosure: Attachment 1: Detailed OEH comments – White Rock Wind Farm MOD 4

Attachment 1: Detailed OEH Comments - White Rock Wind Farm MOD 4

Biodiversity matters

The Office of Environment and Heritage (OEH) has reviewed the Environmental Assessment Report prepared by Goldwind Australia dated December 2016, and particularly Appendix E which summarises the offset requirements for the modification.

The modification proposes new biodiversity impacts in addition to those already assessed for the project approval. As such the OEH was anticipating that the Framework for Biodiversity Assessment (FBA) would have been followed and a Biodiversity Assessment Report (BAR) provided. Although this hasn't occurred, the Environmental Assessment and the further information provided by ELA has provided most of the information required to enable the OEH to assess the proposal.

Further, the vegetation mapping for the site which was originally undertaken by Environmental Assessment Pty Ltd and then reviewed by Eco Logical Australia (ELA) is not of a standard that the OEH would expect for the vegetation communities identified. The OEH has discussed the limitations of the current vegetation mapping with ELA. On this occasion the OEH will accept the current mapping due to a number of reasons including the level of vegetation impact factored into the impact credit calculations, the degraded state of the majority of the vegetation along the alignment, and the existing rural uses of the properties involved.

The OEH has considered the impact credit calculations as detailed in Table 2 of the ELA letter dated 2 December 2016 which forms Appendix E of the Environmental Assessment. The OEH agrees with the impact and credit calculations for the modification as stated in Table 2 for vegetation zones 1, 3 and 4, being:

- **42 credits** of BR271 Blakely's Red Gum – Yellow Box tall woodland in the Brigalow Belt South and Nandewar bioregions,
- **140 credits** of BR391 White Box grassy woodland on the Inverell basalts mainly in the Nandewar bioregion, and
- **27 credits** of BR330 Ribbon Gum – Rough-barked Apple – Yellow Box grassy woodlands of the New England Tablelands bioregion.

Further to the above impacts, the ELA letter has calculated the potential impacts to vegetation zones 2 and 5 being the Derived Native Grasslands (DNG) areas. The letter suggests that these areas will not be impacted. The impact credit calculations for the DNG areas in Table 2 are:

- **14 credits** of BR271 Blakely's Red Gum – Yellow Box tall woodland in the Brigalow Belt South and Nandewar bioregions, and
- **28 credits** of BR391 White Box grassy woodland on the Inverell basalts mainly in the Nandewar bioregion

Although there will be no direct impact on the DNG areas initially, the approval of the transmission line will require the ongoing removal of any large trees or shrubs along the alignment. As such these areas will not have an opportunity to naturally improve over time or be rehabilitated, which is deemed to be an indirect impact to these areas if the modification is approved.

Accordingly, the OEH recommends that the 42 credits generated for vegetation zones 2 and 5 should also be offset in addition to the 209 credits calculated for vegetation zones 1, 3 and 4. In total, the modification would be required to offset 251 credits for the vegetation communities identified in the impact area.

The OEH understands that the Construction Environment Management Plan (CEMP) will apply to the modification and that the CEMP will be updated to reflect both the proposed changes and the need for weed control works to be carried out along the transmission alignment as per condition E.22 (f) of the Project Approval. The OEH supports the requirement for weed control works to be undertaken for the modification area.

Recommendations

- That the applicant retires the required 251 credits as described in Table 2 of the Eco Logical Australia letter dated 2 December 2016 (Appendix E) to the satisfaction of OEH prior to the impacts occurring.

Aboriginal Cultural Heritage matters

An important component of the environmental assessment process undertaken in support of development proposals is the consideration of Aboriginal cultural heritage values. The OEH has reviewed the proposed modification and supports the actioning of the four (4) recommendations listed under *Indigenous Heritage*.

The OEH notes the footprint of the proposed modification has been re-positioned to avoid the two (2) Aboriginal objects identified during the Aboriginal cultural heritage assessment undertaken to support the modification application. The OEH supports the commitment to avoid harm to all known Aboriginal objects as the best management and conservation outcome.

The OEH further notes and supports the intention to update to the White Rock Farm Wind Farm Stage 1 Construction Heritage Management Plan (CHMP) to manage the implementation of the recommendations relating to the procedures to follow relating to the identification and management of unexpected finds within the footprint of the proposed modification. The proposed update of the CHMP should be developed in consultation with the Aboriginal stakeholders for the project and the OEH.

Recommendations:

- That the recommendations of the Environmental Assessment report relating to Indigenous heritage are implemented, and
- The proposed update of the CHMP be developed in consultation with the Aboriginal stakeholders for the project and the OEH.



Our reference: : SF15/53259 DOC17/139862
Contact: : Jessica Creed, 02 6773 7000, armidale@epa.nsw.gov.au
Date : 2 March 2017

Mr Tim Stuckey
Planning Officer
Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

tim.stuckey@planning.nsw.gov.au

BY EMAIL

Dear Mr Stuckey

Exhibition of Environmental Assessment for White Rock Wind Farm Modification (MOD 4)

I refer to your email dated 23 January 2017 inviting the Environment Protection Authority (EPA) to make a written submission on the proposed White Rock Wind Farm modification (MOD 4). The EPA apologises for the delay in responding.

The EPA has reviewed the information provided and understands that the modification includes the following:

- an alternative 132kV transmission line route from the wind farm to TransGrid's 330kV (Qld-NSW Interconnector) transmission line located approximately 13km west of the wind farm site; and
- an alternative grid connection facility involving a 330kV switchyard and 132kV/330kV substation at a location approximately 13km west of WRWF, adjacent the 330kV transmission line.

The EPA notes that there are predicted noise impacts at two residences during the construction of the transmission line however these impacts are predicted to be below the upper limit of 75dB, as identified in the *Interim Noise Construction Guidelines*. The EPA also notes that these residences are associated with the project and that the project commits to implementing all feasible and reasonable work practices where goal noise levels are exceeded during construction.

The EPA recommends that the Department of Planning and Environment condition the modification approval to ensure that the existing Construction Noise and Vibration Management Plan, Construction Environmental Management Plan and the Construction Soil and Water Quality Management Plan incorporate the proposed modifications.

If you wish to discuss this matter further please contact Jessica Creed on 02 6773 7000 or by email to armidale@epa.nsw.gov.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Robert O'Hern'.

ROBERT O'HERN
Head Regional Operations Unit
Environment Protection Authority

Council Ref: ECM 462682



28 February 2017

The Director General
NSW Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Sir,

RE: White Rock Wind Farm Modification 4 – (MP 10_0160)

Council would like to acknowledge the opportunity to provide comment on the above modification.

It is understood that the modification consists of the following:

- an alternative 132kV transmission line route from the wind farm to TransGrid's 330kV (Qld-NSW Interconnector) transmission line located approximately 13km west of the wind farm site; and
- an alternative grid connection facility involving a 330kV switchyard and 132kV/330kV substation at a location approximately 13km west of WRWF, adjacent the 330kV transmission line.

It is considered that these proposed modifications will have a minimal impact in relation to the project as a whole.

As such, Council requests that all requirements requested by the relevant State Agencies be incorporated within the conditions of consent for the Modification.

Council itself have no conditions to be included, as the current White Rock Wind Farm Consolidated Consent manages the impacts created by the management of the proposed development.

Yours faithfully

Graham Price
Director of Development, Planning
& Regulatory Services



Appendix B

WRWF EPC Project MOD 4 – Update for Traffic Management Plan

White Rock Wind Farm



EPC Project MOD 4

Updating WRWF Traffic Management Plan

Prepared by:





Updating the Traffic Management Plan

Goldwind Australia Pty Ltd
Level 23 – 201 Elizabeth Street,
Sydney NSW 2000

Updating WRWF Traffic Management Plan

9th March 2017

Revision Details

Document Information

	Information
Document No.	Updating WRWF Traffic Management Plan - 01
Document Owner	John Campbell
Issue Date	13/03/2017
Last Saved Date	13/03/2017
File Name	Updating WRWF Traffic Management Plan

Document History

Version.	Issue Date	Changes
1	13/03/2017	Issued for Review

Document Approvals

The signatures of the people below indicate an understanding in the purpose and content of this document by those signing it. By signing this document, you agree to this as the Project Management Plan for the Project.

Role	Name	Signature	Date
Creator:	John Campbell		
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1. Introduction

1.1. Purpose

The alternative grid connection facilities are located to the west of the WRWF Stage 1 development in rural land within Inverell Shire. The proposed 330kV/132kV substation is located adjacent to an existing 330kV line at the western end of the proposed 13km double circuit 132kV transmission line and approximately 2km south of the Gwydir Highway. The 132kV transmission line route crosses existing unsealed local roads within Inverell LGA near the middle of the 13km section of the line route. Roads and Maritime Services (RMS) and the Inverell and Glen Innes Severn Councils have been previously consulted about the WRWF Stage 1 development and the Development Application (DA) for WRSF. Based on RMS advice of 21 April 2016 relating to the WRSF DA:

“The Gwydir Highway (HW12) is a classified (state) road. Glen Innes Severn Council and Inverell Shire Council are the Roads Authorities for all public roads in the subject area in accordance with Section 7 of the Roads Act 1993. Roads and Maritime has responsibilities for classified roads in accordance with the Act.”

1.2. The Project

The WRWF is in the New England Tablelands approximately 20 kilometres west of Glen Innes and about 700 kilometres north of Sydney. Statutory approvals are in place. Project approval was granted by the Department of Planning and Infrastructure on 10 July 2012 for the construction and operation of up to 119 wind turbines in addition to related infrastructure.

The project will be staged with 70 turbines to be built in the first stage with further turbines to possibly be installed later. The project will involve the construction and operation of wind turbines, together with the control and maintenance buildings, associated civil works and electrical infrastructure required to connect into the existing transmission network. Stage 1 of WRWF would produce enough clean renewable energy for 75,000 homes¹ and save 1.9 million tons of greenhouse gas emissions by 2020.

This project area involves 15 landowners that are currently used for agriculture and grazing purposes. These existing uses would continue with minimal interruption from the project's construction and operation. The wind turbines would have a maximum tip height (tower plus blades) of 150 metres above ground level and would be located on a series of ridgelines running north to south between the Gwydir Highway and Maybole Road.

The wind turbines would be connected by a series of underground and overhead power lines, joining each wind turbine to the substation. Minor upgrades to local roads would be required for the installation and maintenance of wind turbines and the related facilities.

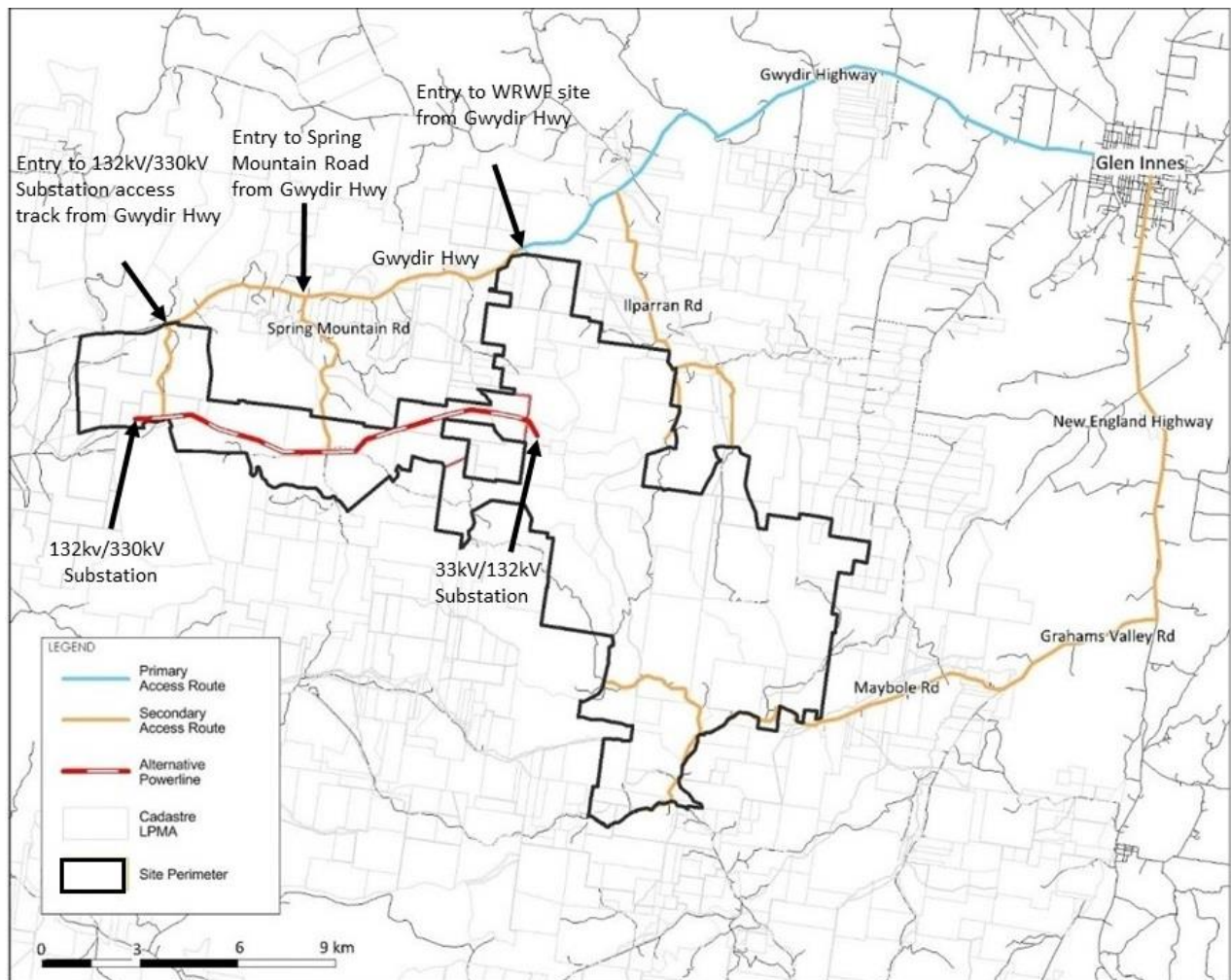
¹

2. Scope of Work

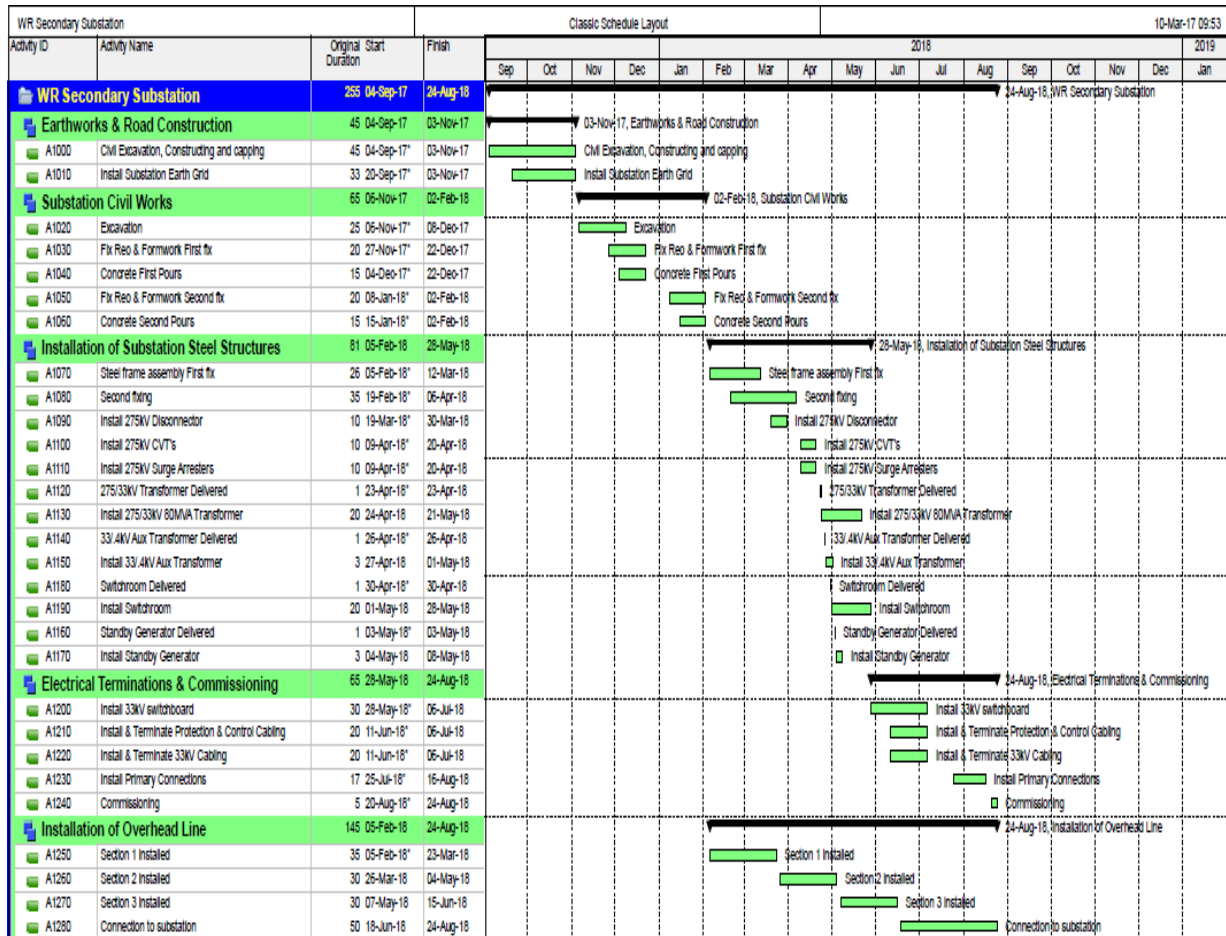
2.1. Scope of Work

Transgrid will Design and Construct this new addition to stage I, on completion of the works Transgrid will take full ownership of this asset. The works themselves will consist of a 13 km 132kV transmission line connecting to the new 330kV substation. The substation will then be connected to the existing 330kV Main Transmission line.

Figure 1. Site Access Routes



2.2 Schedule (Is only an indication of the different work fronts and timescale)



Substation; Earthworks and Road construction = 6 weeks

18 Employees + 8 Vehicles

04.Sep.17 -03.Nov.17

Substation; Civil, Trenching and Concrete Foundations = 10 Weeks

14 Employees + 7 Vehicles

06.Nov.17 -02.Feb.18

Substation; Steel Fixing and Installation = 15 Weeks

20 Employees + 10 Vehicles

05.Feb.18 -25.May.18

Substation; Electrical Termination and Commissioning = 12 Weeks

12 employees + 6 vehicles

29.May.18 -24.Aug.18

Work Areas; Overhead Line Installation = 28 Weeks

16 employees + 8 vehicles

06.Feb.18 -24.Aug.18

Substation Construction Complete

6 Employees + 3 Vehicles 27.08.18

ENERGISATION 27.Aug.18 - 30.Aug.18

3. Traffic Flow

3.1. Traffic Flow

The construction and operation of the alternative grid connection will require additional site access points, as shown on map Figure 1 Site Access Routes;

- **Western Entry:** From the Gwydir Highway to the new 330kV/132kV substation site will use an existing farm track, which will be upgraded to deal with the additional traffic and oversized components (transformer) 70% of the actual work will be through this entry. The entrance off the highway is constructed in such a way that it can manage normal construction traffic without any upgrade, the only alterations is to redesign the gates and fences leading off the highway to create more space for turning and parking of normal construction traffic, while waiting to gain entry to the access track to the substation. The entrance off the highway is also deemed to be wide enough to take a one-off delivery of a transformer as indicated in the swept path designed below (Platform Trailer – 10 Axle by 8 Tyre configuration) This access would be used for construction of the substation and western sections of the 132kV line. It would also be needed for operations and maintenance of the substation and inspection and maintenance of the western section of the 132kV line.
- **Mid route entry:** Spring Mountain Road off the Gwydir Highway enables access to the mid-section of the line during its construction, will be the least used entrance, as only 10% of the overall work will be needed for this entry. It is envisaged that there will be no upgrade to the entry off the highway or the dirt track leading to the overhead lines. Access after construction would only take place every two or three years for line inspection and maintenance.
- **Eastern Entry:** Access route to the eastern end of the 132kV line from the WRWF project area using the main northern site entrance from Gwydir Highway that was upgraded under a WAD process arranged between RMS and WRWFPL. As this entry is designed for the complete works of stage I no additional works will be required for the overhead line construction which will account for 20% of the work scope using this entry.

3.2. Traffic Volume

WRWF MOD 4 330kV Substation and Line - Predicted Traffic Management Volumes

Construction Activities	Tonnage per Vehicle (tonne)	Total No of Trips	Max No of Trips/Day	Approx. Duration (months)	Vehicle Type
Construction staff x 2	2	660	4	11	LV
Construction workers	2	1,980	18	11	LV
Site Inspections and Surveys	2	40	2	14	LV
Site establishment	30	5	2	1	HV
Earthmoving equipment x 16 for on-site works	30	32	One delivery on and off-site	1.5	HV
Earthworks and Road construction (Gravel) = 6 weeks	30	230	5 to 10	1.5	HV

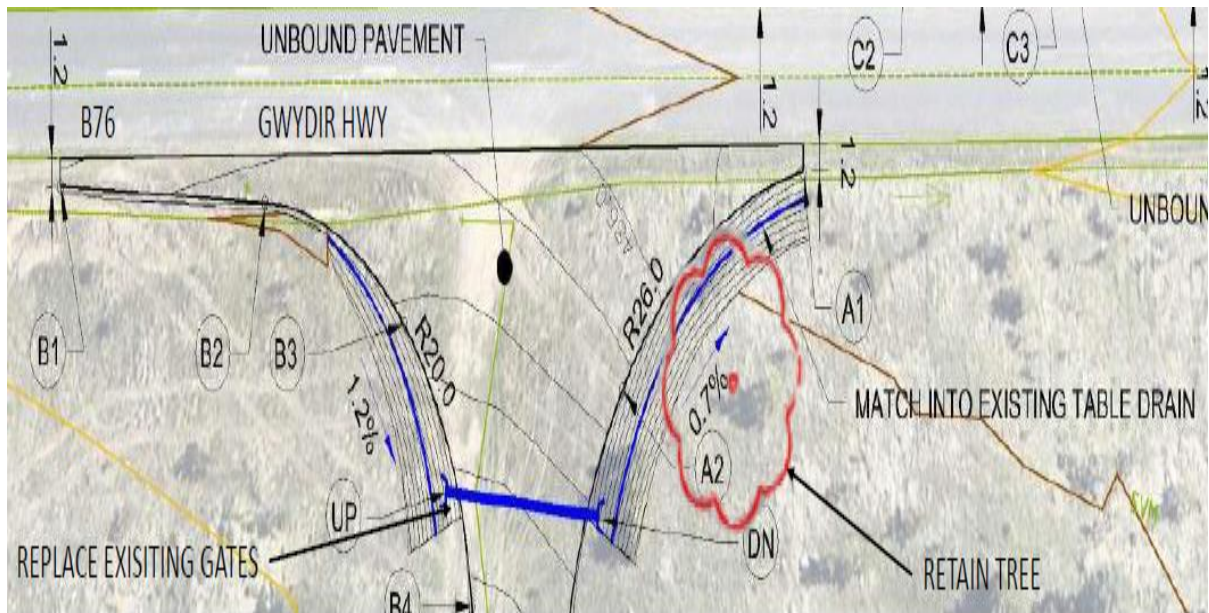
Construction Activities	Tonnage per Vehicle (tonne)	Total No of Trips	Max No of Trips/Day	Approx. Duration (months)	Vehicle Type
Substation; Civil, Trenching and Concrete Foundations = 10 Weeks (excavator)	1	2	One delivery on and off-site	2.2	HV
Steel (Foundations)	20	8	1	2.2	HV
Gravel/Aggregate (substation surface layer)	25	6	2	3 days	HV
Water (potable water)	22	12	1 per month	11	HV
Concrete truck on public road	30	30	4	1	HV
Dust suppression	20	20	2	6	HV
Steel Gantry's infrastructure substation	OD/OM Permit 30	20	2	1.5	HV
Deliver Control room/Auxiliary building	OD/OM Permit 40	2	1	1 Day	OD HV
Deliver Temporary Office buildings	20	3	One delivery on and off-site	1	HV
Deliver 132kV Conductors	30	24	6	6	HV
Deliver 132kV Insulators	30	5	1	3	HV
Deliver Main transformer 132kV/330kV	OD/OM Permit 160	1	1	1 Day	OD HV
Deliver Transformer accessories	80	2	1	1 week	HV
Deliver 132kV Transmission pole sections	60	20	2	3	HV
Main crane for the transformer	OD/OM Permit 140	2	One delivery on and off-site	2 Days	HV
Main crane support trucks	60	8	One delivery on and off-site	1 Days	HV
Deliver Cranes	30	1	2	4	HV

3.3. Traffic impact

- Traffic impact; is reduced due to the different work areas between substation and overhead installation, the main impacts will be between 6.30AM and 7AM as the construction teams arrive for the pre-start meetings. The evening impact will be reduced by teams leaving site between the hours of 5PM and 6 PM, making it a staggered exit from the project.
- School bus; There is one school bus run from Inverell to Glen Innes at approximately 8 AM and returning at 4:30 PM, going past the site entrances at these times. The chart above demonstrates a volume of traffic that is easily managed from the construction point of view, as to ensure that there is no real interface between construction traffic and school bus runs at these times (by identifying these times in the traffic management plan).
- Water; Water for dust suppression and road construction will be obtained locally in keeping with the CEMP, which will reduce the impact to local roads.

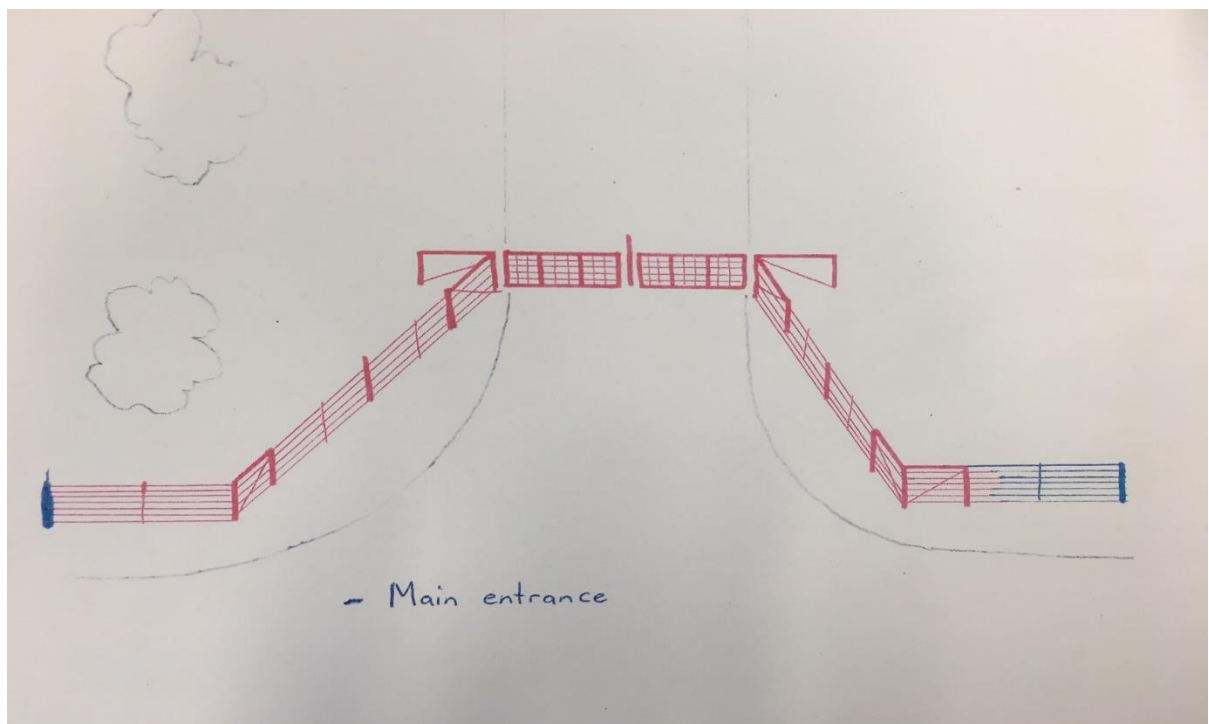
4. CONCEPT DESIGN

Figure 2



Substation Entrance, with 90% of the traffic for the substation coming from Glen Innes, turning right into the new entrance.

Figure 3



New aligned fence and gate configuration, to allow vehicles to pull off the highway without interfering with oncoming traffic.

5. SAFETY; LINE OF SIGHT

Figure 4; 100m visual safety mark towards Inverell



Figure 5; 100m visual safety mark going to Glen Innes



Figure 6



Entrance to the main gate to the substation; as can be seen from the picture the entrance has been previously spray sealed, which may need one additional coat of spray seal to ensure of a clean exit without leaving access material from the dirt track Road. The fence and gate will go back a further 5 to 10 m to enable delivery trucks to pull off the highway without interfering with oncoming traffic.

Figure 7



View looking back towards Inverell from the substation entrance.

Figure 8



View looking back towards Glen Innes from the substation entrance.

6. CONCEPT TRAILER DESIGN

Figure 9

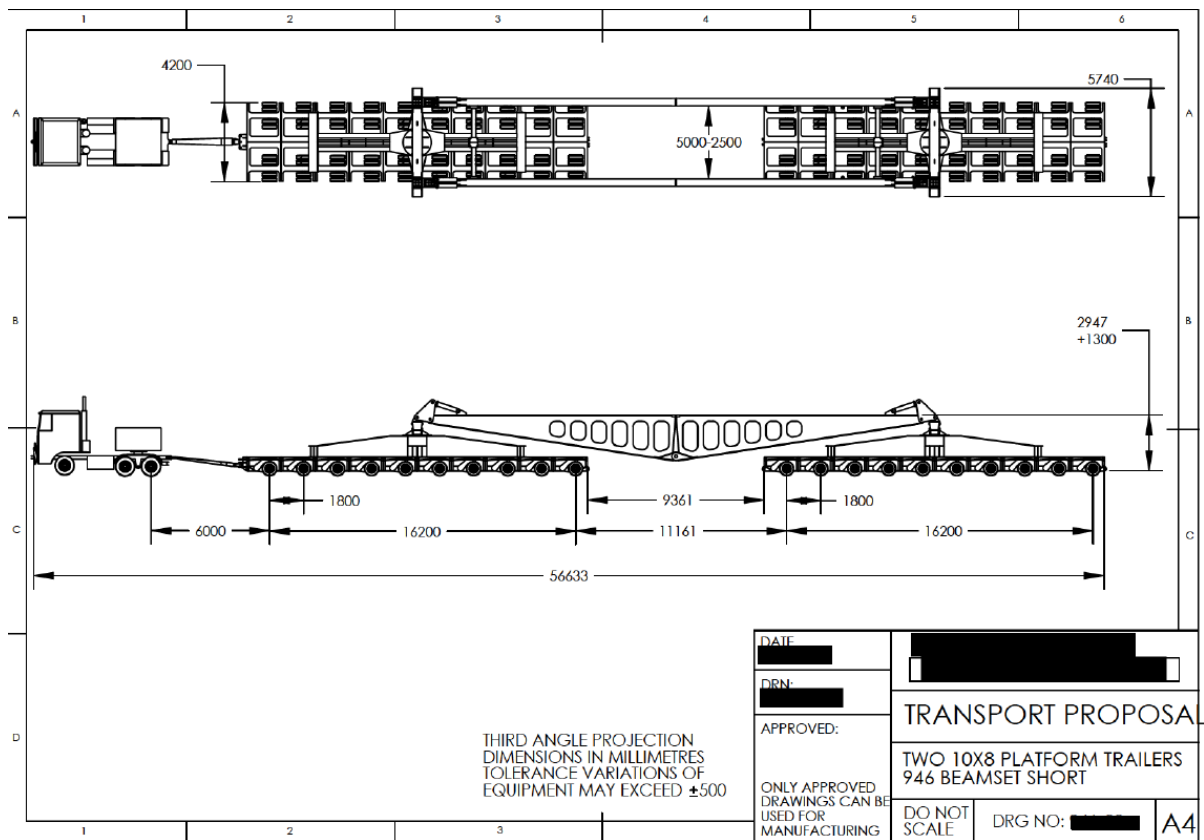
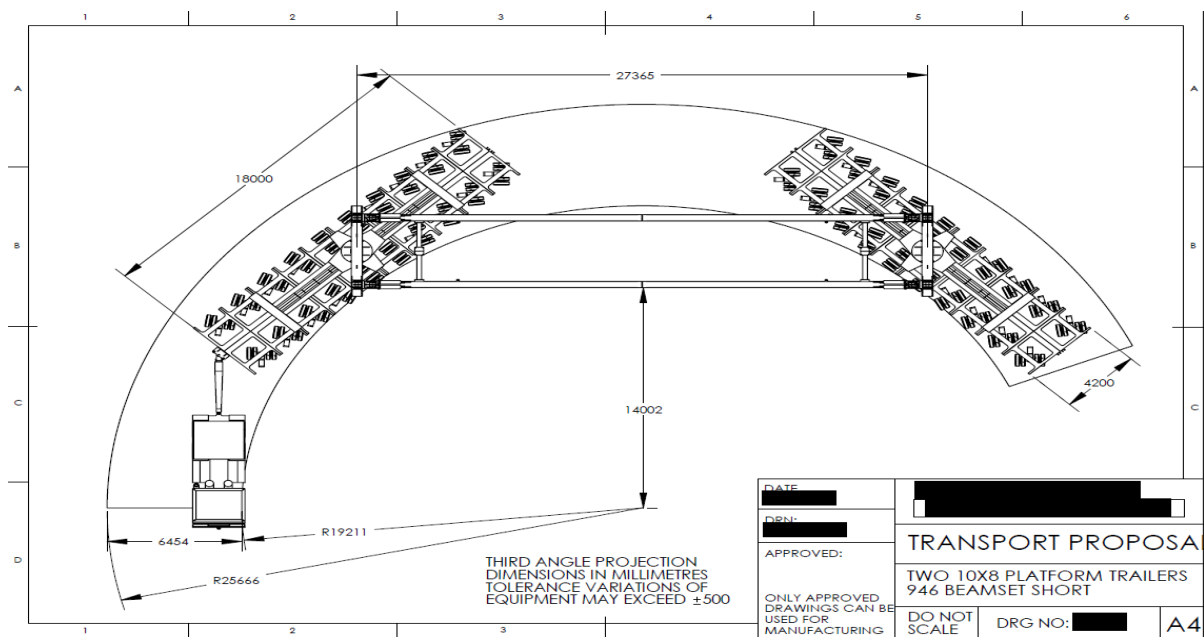


Figure 10



Appendix C

Letter from Lease Holder, ML 1505, dated 10 October 2013

R.A. Frazier
"Menari"
489 Spring Mountain Road
Swan Vale NSW 2360

Trade & Investment
Resources & Energy Division
PO Box 344
HUNTER REGION MAIL CENTRE NSW 2310

I, Ronald Allen Frazier being the holder of Mining Lease 1505 consent to the route of White Rock Wind Farm Powerline passing through the said Mining Lease as indicated in the attached plan.

Dated this 10th day of October 2013.


R.A. Frazier

Appendix D

Email from Lease Holder, ML 1505, dated 8 April 2017

Adrian Maddocks

From: John Frazier <jfrazier.springvalley@gmail.com>
Sent: Saturday, 8 April 2017 11:49 AM
To: Adrian Maddocks
Cc: Roslyn and Ron Frazier
Subject: RA & RJ Frazier JA & AM Frazier Swan Vale Mining Lease and Quarry Lease Contact

Hello Adrian

To confirm acknowledgement that we JA & AM Frazier and RA & RJ Frazier have been contacted about the proposed power line easement that is for details as follows

- RA & RJ Frazier " Menari " Mining Lease 1505, DP 753305 Lot 14
- JA & AM Frazier " Spring Valley" Quarry DA - 190/2010/A, DP 753305 Lot 141

If there is any additional requirements by the government agencies to achieve a easement through the mining lease or quarry we would ask that the project owners accept responsibility and any costs associated with that and also a fair compensation to business disruption if this is encountered in the first instance.

Regards

John Frazier

Appendix E

TransGrid – Technical Diagram for Typical Pole Stay.

