

Traffic

Transport routes have been a key focus throughout development of the Project.

Originally, the transport route for all Oversize Over Mass (**OSOM**) was proposed via Barry Road and Morrisons Gap Road, and included a bypass road of the existing Devils Elbow hairpin through Crown Land. In response to feedback from Tamworth Regional Council (**TRC**) and the community, the Project was amended during November 2022 to remove the proposed Devils Elbow Bypass, reduce the extent of upgrades required for Morrisons Gap Road, and to add a proposed Nundle Bypass route for OSOM delivery using Crawney Road.

1 Final OSOM Transport Route

The Proponent notes there remains confusion expressed by TRC and the community during the Public Meeting about the routes proposed for OSOM component delivery to the Project site.

- Rex Andrews is a leading transport contractor in the Australian market. The route survey has been revised several times in response to proposed OSOM route changes.
- The final report can be found here: [link](#)
- This report details the proposed transport routes from Port of Newcastle to the Project, including details for the swept path of vehicles and road modifications required.
- The report includes schematics of the transport configurations required for each of the OSOM components, with dimensions (see chapters 4.0 & 5.0).
- Final Traffic & Transport Impact Assessment (TTPP, November 2022):
 - (1) The final report can be found here: [link](#)
 - (2) This report was prepared for the Project's amendment, following the removal of the proposed Devils Elbow Bypass road, and inclusion of the primary OSOM access route to the west via Crawney Road.
 - (3) The table extracted below provides a breakdown of available routes by OSOM vehicle type.

Oversized Over Mass Volumes and Routes

The routes available by vehicle type are presented in Table 1.

Table 1: Estimated number of OSOM Trips

Component	Vehicle Type	Total Number of Trips	Route 1 Nundle Loop	Route 2 Nundle Bypass	Route 3 Barry Road	Return Trip Via Route 3
Blades (root section)	Prime Mover with extender Blade Trailer	192	✓	✓*	✗	✓
Blades (tip section)**	Prime Mover with Platform Trailer	64	✗	✓	✓	✓
Nacelles	Prime Mover with Platform Trailer	64	✗	✓	✗	✗
Drivetrain	Prime Mover with Platform Trailer	64	✗	✓	✗	✓
Hubs	Prime Mover with Platform Trailer	64	✗	✓	✓	✓
Tower Sections	Prime Mover Platform Trailer and Dolly Jinker	448	✗	✓	✗	✗
Other (40ft Container)	Prime Mover with Platform Trailer	128	✗	✓	✗	✓
Substation	Prime Mover with Platform Trailer	20	✗	✓	✗	✓
Switching Station	Prime Mover with Platform Trailer	20	✗	✓	✗	✓
Overhead Cabling	Prime Mover with Platform Trailer	120	✗	✓	✗	✓
Underground Cabling	Prime Mover with Platform Trailer	20	✗	✓	✗	✓
Battery System	Standard Semi-Trailer	158	✗	✓	✗	✓
Mobile Batch Plant	Standard Semi-Trailer	2	✗	✓	✗	✓
Transformer	Low Loader	2	✗	✓	✗	✗

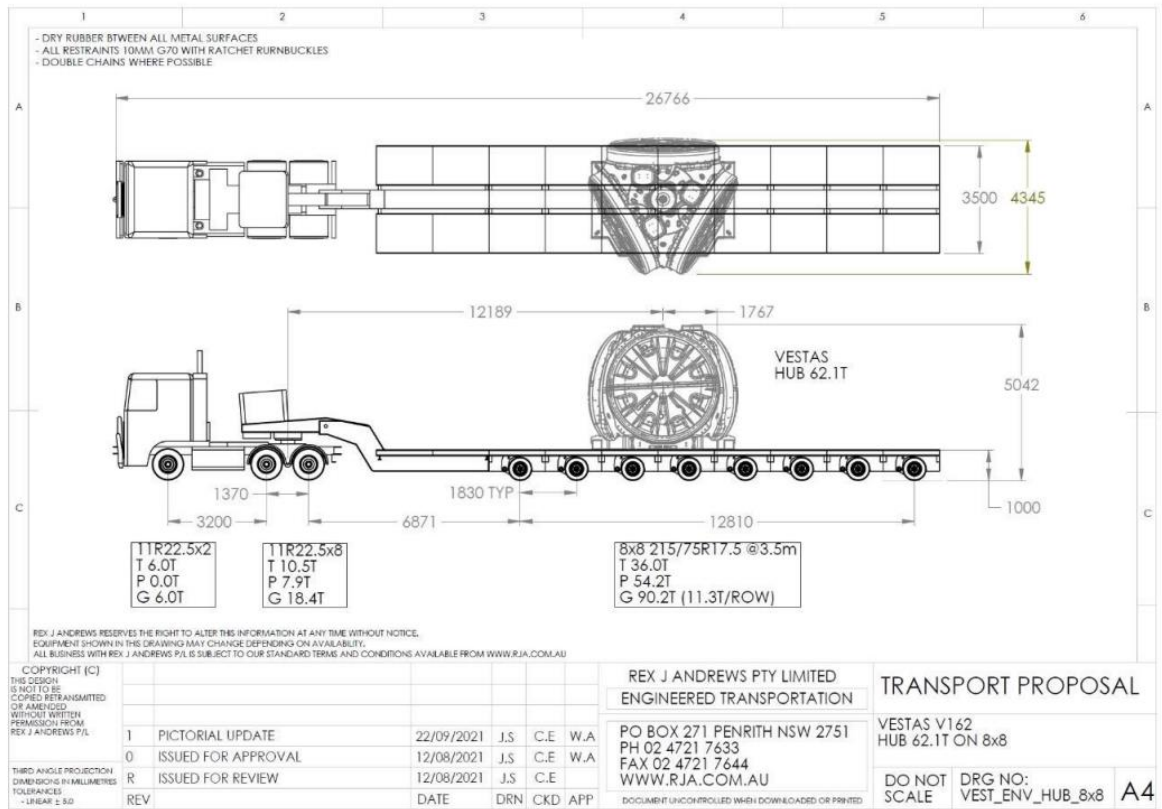
*Potential route requiring new hardstand

** Blade (tip section) - these movement would only occur if blades are split into two units. Note: Three tips can be transported on one truck

- (b) The loads to be delivered via the Barry Road (northern) route through existing Devils Elbow double hairpin is Route 3 in Table 1. We have committed to using this route for only the following loaded OSOM vehicles: Hubs and blade tips (noting this is only in the event of split blades being procured).
- (c) We have assessed that many of the OSOM transport vehicles can return back from site down Barry Road as the trailers can often pack down and are no longer carrying the large components. These vehicle configurations returning are standard heavy vehicles. This is Route 4 in Table 1.
- (d) All other OSOM vehicles will travel out Crawney Road via the western route. This is identified as Route 2 in Table 1.
- (e) It is estimated that there will be 6 OSOM trips per day over a 9 month turbine delivery period during construction.
- (f) Standard heavy vehicles for the project will be split between Route 3 (Barry Road, Morrisons Gap Road) and Route 2 (Crawney Road).
- (g) The timing of the OSOM trips would be determined following the Project procuring the turbine supply contractor, and the turbine transport and logistics contractor. Further, OSOM loads require permits and vehicle escorts (including

police) to be arranged, which involves consultation with the relevant road authority.

- (h) Prior to commencing construction, a Traffic Management Plan (**TMP**) must be prepared in consultation with TfNSW, WaterNSW and Council, to the satisfaction of the Planning Secretary (see *Recommended Condition of Consent B35*). The TMP must include details of measures to minimise traffic impacts including temporary traffic controls (B35(c)(iii)); community notification (B35(c)(iv)); minimising potential conflict with various road users including school buses as far as practicable (B35(c)(vii)); and a drivers' code of conduct that addresses specified criteria (B35(d)(i)-(iii)). We anticipate these measures will include a policy of avoiding school peaks in Nundle.
- (i) For reference, an example of a Hub delivery configuration is reproduced below:



2 Proposed upgrades of Morrisons Gap Road

Following the removal of Barry Road and Morrisons Gap Road (**MGR**) as an OSOM delivery route for the project (except for Hubs and split blades), the extent of the proposed upgrade for Morrisons Gap Road has been reduced.

Minor road widening is proposed along MGR for improved road user safety. This has been primarily in response to resident feedback regarding bends along the road with existing low visibility.

The impacts of this widening have been assessed in the BDAR and are conservatively based on two heavy vehicles passing in opposite directions along the majority of the road.

All upgrades for MGR would be entirely within the surveyed road corridor.

The TMP will further detail mitigations for management of vehicles along MGR and, as noted above, will be prepared in consultation with TfNSW, WaterNSW and Council, to the satisfaction of the Planning Secretary (see *Recommended Condition of Consent B35*).

Although it is not necessary for the Project's needs, ENGIE offered to seal MGR as part of the road upgrades to improve the surface for the community. Discussions have been held with TRC regarding sealing being post-construction in order to leave a new surface for the community after the Project is built, however ENGIE remain open to the timing of this subject to TRC feedback.

The Project remains committed to working with TRC to determine the final detailed design of the MGR road upgrades as part of the section 138 process.

3 Emergency access via Head of Peel Road

The Project has committed to not using Head of Peel Road as an access route for general project traffic.

Head of Peel Road will remain accessible for use during an emergency only. This includes emergency services personnel, project staff, and local residents as required.

Minor road upgrades of existing farm tracks within the Project area are proposed to ensure safe access and egress from Head of Peel Road to the development corridor. These minor upgrades have been assessed in the BDAR.

Hydrological studies

The Environmental Impact Statement (**EIS**) identifies that the Project will require 55 ML during the 24 month construction period, which represents a conservative assessment. Table 16-7 Water Demand by Activity (ML) identifies that 3.5ML will be required for concrete production, 41ML for dust control and wash down and 10.5ML for general use including earthworks compactions and potable water.

Pursuant to *Recommended Condition of Consent B21*, a Soil and Water Management Plan (**SWMP**) must be prepared during the secondary consents phase in consultation with the Water Group, WaterNSW and NSW DPI, to the satisfaction of the Planning Secretary. The SWMP will require monitoring of baseline data on surface water flows and quality in watercourses that could be impacted by the development (B21(b)) and will identify water quality monitoring locations.

Additionally, an Environment Protection Licence (**EPL**) will be required for the Project and there will be water monitoring requirements associated with the EPL.

The EIS identified four viable options for sourcing the water require for the Project construction (see EIS page 315; Appendix O), namely:

- (a) Council water supply, in agreement with the relevant Council(s);
- (b) Extraction of water collected from existing (or new) dam using landowner harvestable rights or from an existing nearby landowner bore, in agreement to use their allocation;
- (c) Extraction from a new groundwater bore, which will require a WAL in consultation with WaterNSW; or
- (d) Extraction from surface water location (e.g. Chaffey Dam), which will require a WAL in consultation with WaterNSW.

The Project area intersects with three catchment areas (Namoie, Hunter and Manning) and, overall, the Project area comprises less than 0.00123% of each catchment area (see EIS page 314, Table 16-4).

Annexure 3

Landowner consents

The Proponent has completed a transport route assessment from Port of Newcastle to the Project site taking a conservative approach on a blade length of 85m. After determination, the Proponent will finalise selection of a turbine and a final transport route assessment and swept path will be completed. Based on the conservative assessment, the Proponent identified all landowners required to secure land tenure for the access route. The Proponent remains in active discussions with all landowners required for Oversize and Over-mass (**OSOM**) traffic movements and has executed a number of the required agreements. Based on the status of current discussions, the Proponent is confident that all agreements will be executed.

Consultation process

1 Community consultation history

The Proponent has employed a range of consultation and engagement mechanisms to encourage active community and stakeholder participation in the development of the Project. The Proponent and its project partners Someva have engaged extensively with landowners, neighbours, First Nations peoples, local businesses and the wider community.

This long history of consultation and engagement since 2018 has been thoroughly recorded and documented, with details provided in the EIS, Amendment Report and Response to Submissions.

Over the years, the Proponent has hosted regular information sessions in Nundle, Hanging Rock, Crawney and Wallabadah, where residents were invited to meet with members of the Project team to discuss any matters relating to the Project. One-on-one meetings were held with residents; presentations and meetings were held with First Nations, Local Government and community groups; and a Community Information Hub shopfront (**Hub**) was opened in Nundle during 2022. The Hub is staffed by a local resident and includes a large-scale model of the Project, along with various visual and written information.

The Proponent has also conducted a number of surveys with local residents and businesses, provided site tours, issued regular newsletters, factsheets and Questions & Answers, and run advertising and media campaigns to communicate Project updates. A website, toll free phone number and email address were actively used and promoted to all residents, with any enquiries recorded and tracked through a stakeholder management database.

In 2022, the Proponent launched its annual Hills of Gold Wind Farm Sponsorship Program, awarding \$20,000 to community groups in 2022 and a further \$50,000 in the 2023 Program. These funds have been allocated to a range of local community groups, initiatives and events, including Nundle Sport and Recreation Club, Hanging Rock Community Hall Committee, All Saints Anglican Church Nundle, Nundle Christmas Market, Nundle Swimming Club, establishment of the Nundle Community Foodbank, NSW Rural Fire Service – Liverpool Range, Murrurundi Preschool, Nundle Craft Group, Wallabadah Community Assoc, King of the Ranges Stockman's Challenge and the Nundle Camp draft.

Consultation and engagement for the Project has been guided by strategic Community and Stakeholder Engagement Plans, the first of which was submitted in the EIS at *Appendix C.1: Stakeholder Engagement Strategy*, accompanied by a comprehensive register of engagement at *Appendix C.2: Register of Stakeholder Engagement*.

Further details of ongoing consultation and engagement were detailed in both the *Amendment Report No.2* at 5.2.3, and in the *Response to Submission Report* at 3.2.

2 Neighbour consultation

The Project has an extensive history of consulting with neighbours within 5km of a turbine, as well as neighbours out to 8km from a proposed turbine. The years of consultation has resulted in 16 neighbour agreements executed and those people now set to receive annual payments from the project. The interactions referenced in Table 1 include all emails, campaign emails, phone calls, in person meetings and any virtual meetings.

Table 1 - Non associated dwellings that made an oral submission during the Public Meeting

Dwelling Identifier	Distance from closest turbine (km)	Consultation History
NAD4 B & C NAD 8	B 2.73	<ul style="list-style-type: none"> 58 interactions with this landowner from March 2018 to December 2023
	C 2.52	<ul style="list-style-type: none"> 1 face to face meeting 6 phone calls Neighbour benefit sharing program offered
NAD12	1.38	<ul style="list-style-type: none"> 64 interactions with this landowner from January 2018 to December 2023 9 face to face meetings 11 phone calls Neighbour benefit sharing program offered
NAD22	4.41	<ul style="list-style-type: none"> 41 interactions with this landowner and associated family from May 2020 to November 2022 2 face to face meetings 4 phone calls Neighbour benefit sharing program offered
NAD34	6	<ul style="list-style-type: none"> 44 interactions recorded with this landowner from January 2018 to December 2023 2 face to face meetings 1 phone call Member of the Community Consultative Committee (CCC)
NAD21	3.38	<ul style="list-style-type: none"> 14 interactions with this landowner from May 2020 to August 2022 2 face to face meetings

		<ul style="list-style-type: none"> • 4 phone calls • Neighbour benefit sharing program offered
NAD69	3.62	<ul style="list-style-type: none"> • 28 Interactions with this landowner from August 2019 to June 2022 • 2 face to face meetings • Noise consultant visit to install background noise monitoring equipment; however, consultant left the property without installing the equipment due to personal safety concerns and advised the team not to visit the property. • Visual consultant and proponent had to leave property promptly during visual assessment in June 2020 due to personal safety concerns. • 6 phone calls • Neighbour benefit sharing program offered
NAD76	8.1	<ul style="list-style-type: none"> • 50 interactions with this landowner from February 2018 to 23 January 2024 • 2 face to face meetings • 1 phone call • Member of the Community Consultative Committee (CCC)
NAD18	2.68	<ul style="list-style-type: none"> • 14 interactions with this landowner from January 2018 to October 2021 • 2 face to face meetings • 7 phone calls • Neighbour benefit sharing program offered
NAD24 (Development Approved Dwelling)	2.06	<ul style="list-style-type: none"> • 31 interactions with this landowner from January 2018 to December 2023 • 2 face to face meetings • 3 phone calls • Neighbour benefit sharing program offered
DAD03, NAD77	DAD03 - 2.82 NAD77 - 8.32	<ul style="list-style-type: none"> • 42 interactions with this landowner from February 2018 to December 2023 • 7 face to face meetings • 7 phone calls • Neighbour benefit sharing program offered for DAD03

NAD33	5.5	<ul style="list-style-type: none"> • 83 interactions with this landowner from January 2018 to December 2023 • 19 face to face meetings • 14 phone calls • Neighbour benefit sharing program offered
NAD70	5.75	<ul style="list-style-type: none"> • 40 interactions with this landowner from March 2018 to December 2023 • 1 face to face meeting • 4 phone calls • Neighbour benefit sharing program offered
NAD72	3.39	<ul style="list-style-type: none"> • 10 interactions with the previous landowner from May 2020 to December 2021 • 1 face to face meeting • 1 phone call • Property was sold and 4 new interactions with new landowner
NAD47/NAD75	NAD47 - 7.55	<ul style="list-style-type: none"> • 39 interactions with the previous landowner of NAD47 from February 2018 to January 2024 • 2 face to face meetings • 5 phone calls
	NAD75 7.94	<ul style="list-style-type: none"> • 14 interactions with the previous landowner of NAD75 from Feb 2018 to September 2021 • 1 face to face meeting • 2 phone calls

Impact of turbine removal

The Proponent notes that wind resource is critical to the viability of a wind farm and hence the siting of projects is necessarily in areas that have an investible wind resource. The northern section of the Project area, where turbines 53 to 63 have been recommended for removal, has the highest wind resource across the entire Project area. Moreover, turbines 53 to 63 are some of the most productive turbines in the Project and are crucial for its viability.

Since DPHI's recommendation for the Project in December 2023, we have worked with suppliers, our energy management team and our finance team to update assumptions and determine the impact that the removal of the 17 turbines would have on project viability. The model indicates that the reduction in turbines would render the Project commercially unviable, and confirms that the 15 turbines requested for reinstatement are vital to ensure the viability of this Project.

From an investment perspective, the Australian Energy Market Operator (**AEMO**) suggests that the benchmark marginal project return on investment (**RoI**) is 7%, whereas the Proponent's recent modelling of the 47 turbine layout is below this threshold. This is significant as it confirms that no market participant would be able to execute on the Project in the form recommended by the Department. Conversely, the model confirms that the proposed 62 turbine layout would be above AEMO's RoI benchmark and meet the Proponent's internal return expectations.

In terms of the flow-on implications for energy pricing, our model indicates the reduction in turbines results would result in a 10.6% increase in the Levelised Cost of Energy (**LCOE**). This is a material increase to the cost for which it could generate electricity, and a price the current market will not carry. At an industry scale, it demonstrates how the reduction in turbines translates to the cost of the energy transition, which is ultimately passed onto electricity users and consumers.

Indeed, it is critical that projects achieve scale due to the high cost of fixed price infrastructure required for renewable energy projects, meaning even seemingly minor changes in the number of overall turbines can have a material impact on energy costs and commercial viability.

Given the result here is that the Project is simply unviable, the impact in terms of the NSW energy transition would be that up to 372 MW of renewable energy that is ready to connect into existing transmission infrastructure *will not proceed*. Accordingly, the implications for the wholesale energy market are that the lower cost of energy that could be delivered by the Project (based on a 62 turbine layout) will not contribute to lowering household electricity prices – in a time of immense pressure on cost of living.

Additionally, from a local economic perspective, the proposed host landowner payments, neighbour payments and wages from construction and operation of the Project worth \$227 million are at risk based on the current recommendation. These payments would have the potential to drought-proof regional areas and diversity income streams, providing a direct boost to the local economy as well as flow-on secondary benefits through enhanced spending.

Furthermore, the circa \$11 million total funding commitment over the life of the Project into benefit sharing through Voluntary Planning Agreements would not occur based on the reduced layout recommended by the Department. For these benefits to eventuate, the Proponent would need the turbines requested to be reinstated.

Biodiversity

1 Response to questions raised by the IPC

The Proponent's commitment to biodiversity conservation is reflected in the comprehensive biodiversity assessment conducted for the Project, as detailed in the original Biodiversity Assessment Report (**BDAR**, see EIS Appendix D) and revised BDAR contained in Appendix F of the Submissions Report (March 2023). For ease of reference, we have responded below to specific items raised during the Public Meeting and meeting transcripts with the IPC:

- (a) **Stewardship Sites Assessment (page 308-318):** Biosis completed a comprehensive assessment to identify areas suitable for stewardship sites on properties adjacent to the Project area. Properties selected for stewardship agreements were chosen based on their similarity to the project area in terms of elevated ridgelines, Primary Conservation Targets (**PCTs**), and fauna habitats.
- (b) **Ground Truth Surveys and Impact Assessment:** Ground truth surveys were conducted across four days in January 2021 to accurately assess the level of impact on biodiversity. It is important to note that the level of impact assessed in the BDAR is conservative, and that future layout optimizations are expected to further reduce the level of impact. Surveys have continued across 2021, 2022 and 2023 to collect data and prepare the sites for registration with the Credit Supply Taskforce (**CST**).
- (c) **Options for Securing Offsets:** Three options were initially considered for securing the offsets required for the Project: payment to a fund managed by the CST, purchase of credits from the open market, and establishment of Biodiversity Stewardship Sites.
- (d) **Securing Stewardship Sites:** Initially, nine properties were considered for stewardship sites, encompassing over 8500 hectares. Following field assessments, detailed discussions with landowners, and further biodiversity surveys, three sites have been secured to conserve up to 800 hectares across separate stewardship sites. These sites strategically enhance local habitat connectivity, contributing to the conservation efforts between Wallabadah Nature Reserve, Crawney Pass National Park, and Ben Halls Gap Nature Reserve.
- (e) **Comparison of biodiversity impacts of the Project with other NSW wind farms:** The design of the Project has been iterated through a series of layout changes and optimisations which are detailed within the BDAR (EIS, Appendix D) and Updated BDAR (Submissions Report March 2023, Appendix F). A number of submissions have raised the quantum of vegetation impacts associated with the Project, and suggested that this forms a basis for the Project not being in an appropriate location. For context we have provided the below comparison table of vegetation impacts for recently approved wind farms in NSW. Note that the Hills of Gold numbers are based on the 64 turbine proposal, and the data for comparison projects has been gathered from planning submissions.

Project	Native Vegetation Impacted		Threatened Ecological Communities		Endangered Ecological Communities	
	ha/MW	ha/WTG	ha/MW	ha/WTG	ha/MW	ha/WTG
Hills of Gold	0.50	2.98	0.09	0.55	0.09	0.55
Bowmans Creek	0.81	5.01	0.73	4.55	0.72	4.47
Rye Park	0.87	2.61	0.15	0.46	0.15	0.46
Uungula	1.57	6.45	0.07	0.30	0.07	0.30

In conclusion, we are committed to minimising the environmental impact of the Project and actively participating in biodiversity conservation efforts. The selection and securing of stewardship sites demonstrate our dedication to offsetting biodiversity loss and enhancing habitat connectivity in the region.

2 Proposed alternative offsets condition

Our proposed alternative offsets condition, instead of condition B24 contained in the recommended conditions of consent, is as follows:

Prior to commencing construction, unless the Planning Secretary agrees otherwise, the Applicant may:

- a. *update the baseline mapping of the vegetation and key habitat within the development corridor; and*
- b. *calculate the biodiversity offset credit liabilities for the final disturbance footprint in accordance with the Framework for Biodiversity Assessment under the NSW Biodiversity Offset Policy for Major Projects, in consultation with BCS, and to the satisfaction of the Planning Secretary.*

B22. Prior to commencing construction, the Applicant must retire the biodiversity credits unless the Planning Secretary agrees otherwise.

3 Proposed amended conditions – buffer from Ben Halls Gap Nature Reserve

Our proposed amendments to conditions A7 and A10 (d) are set out below:

Condition A7:

A7. No wind turbine blade tip may be located within ~~50~~ 130 metres from the surveyed boundary of Ben Halls Gap Nature Reserve

Condition A10(d):

(d) the revised location of the blade tip of a wind turbine is at least ~~50~~ 130 metres away from the ~~canopy of existing native vegetation within surveyed boundary of Ben Halls Gap Nature Reserve.~~

Decommissioning

1 When is the decommissioning plan proposed to be developed?

When a wind farm approaches the end of its operational life, there is a decision gate as to whether to seek to extend its operational life, repower or decommission. The former two options seek to leverage the existing wind resource and capitalise on technological improvements, whilst limiting the need for an expanded environmental footprint to deliver additional energy generation capacity.

The timing of this decision is driven by regulatory requirements, including advance notification requirements of intended decommissioning. In practice, the decision is typically made approximately 5 years prior to the end of operational life, after which a decommissioning plan is prepared.

The decommissioning plan would be developed in consultation with landholders to achieve the objectives set out in the conditions of Development Consent for the Project (see *Recommended Conditions of Consent B49 to B51*), including with respect to rehabilitation. It will also align with any contractual commitments made by the Proponent in lease agreements with host landholders.

Similarly, pursuant to *Recommended Condition of Consent B51*, any individual turbine(s) that cease operation for over 12 months would be dismantled and the area rehabilitated.

We note the Department's position as articulated during Day 1 of the Public Meeting that through the implementation of 'objective based conditions and monitoring requirements ... the project will be suitably decommissioned at the end of life of the project and the site would be appropriately rehabilitated' (transcript page 11, lines 30-34). The Proponent agrees that the objectives or 'end point' based conditions are an appropriate means of ensuring decommissioning activities achieve the desired rehabilitation outcomes.

2 How does the Applicant propose to ensure that sufficient funds are available to remediate the site?

The Project has developed robust decommissioning arrangements with host landholders through agreements to lease that include obligations to make good, remove turbines and ancillary infrastructure and comply with related statutory obligations and regulations. These arrangements also require the Proponent to provide security within the final 5 years of operational life that reflects the difference between the salvage value of the infrastructure and the cost of decommissioning. These arrangements strike an appropriate balance by providing landholders comfort that sufficient funds will be available for decommissioning, without imposing a disproportionate financial cost on the Project, which would ultimately be passed through to the end consumer by way of higher prices – at an aggregate level, increasing the cost of the energy transition.

We also agree with the Department's position as stated during the Public Meeting on 1 February 2024 that such financial assurances should be addressed in private commercial

arrangements, as has been the case for this Project (see Day 1 transcript, page 11, lines 35-39):

“Regarding decommissioning bonds it's NSW Government policy that financial assurances should not be required by conditions of consent and any financial assurances should be dealt with in commercial arrangements outside the planning system.”

Geotechnical and site constructability

Extensive geotechnical analyses within the Project area have been undertaken to date, marking a significant milestone for a development at this stage. As outlined below, these investigations have enabled a strong understanding of the geological profile and soil characteristics within the Project area, and on this basis the Proponent expects the western access route will align with established findings. Geotechnical studies along this route are scheduled for the detailed design phase.

During the initial phase of similar wind farm developments, high level geotechnical investigations are standard to acquire a fundamental understanding of the site. The Proponent has far surpassed this baseline with significant quantities of testing commissioned within the Project area: this conservative approach included conducting 51 test pits, 23 boreholes, installing 7 groundwater monitoring standpipes, and carrying out 17 electrical resistivity (ER) tests, 20 thermal resistivity (TR) tests, 4 land seismic refraction profiles, 2 multi-channel analysis of surface waves (MASW) profiles, and analysis of 181 laboratory samples. The comprehensive testing and on-site evaluations undertaken provide a high degree of confidence that there are no class 8 or other problematic soils present within the Project area.

The testing performed has revealed a consistent geological profile, indicating that the subsurface conditions of the site are well-characterised. It is therefore expected that the access route from the western side via Crawney Road will align with these established findings. Moreover, the accomplished work provides substantial confidence that pre-established requirements will be satisfied.

During the initial design phase, a sophisticated cross-sectional profile was created, incorporating conservative estimates that are set to be improved upon during the subsequent detailed design stage. A thorough geotechnical survey of the entire Project area, including the western access track mentioned, is scheduled for the detailed design phase.

In light of the comprehensive geotechnical investigations undertaken to date, which provide a high degree of confidence that all pre-established requirements will be met, additional geotechnical examination and elaborate design development are considered unnecessary at this stage.

In the event of unforeseen geotechnical issues, a range of engineering solutions, such as rock anchoring, shotcrete application, construction of earth-retaining structures, or hydro mulching, are available. These solutions are designed to stabilise embankments for the long term or to mitigate the risk of erosion. They can be implemented to meet the Project's needs, ensuring a safe and operational infrastructure, although the need for such interventions is anticipated to be minimal based on the detailed studies undertaken to date.

Preliminary hazards assessment

Queries were raised during Public Meetings regarding the preliminary hazards assessment undertaken for the Project.

- (a) Arriscar were engaged to undertake the Preliminary Hazards Assessment in accordance with DPHI's Guidelines: [Hazardous Industry Planning Advisory Paper No 4 - Risk Criteria for Land Use Safety Planning \(January 2011\)](#). Arriscar completed the PHA for the EIS (2021), and a subsequent PHA Amendment (2022).
- (b) DPHI's Guidelines require hazards assessment for risk to occupied buildings, such as nearby dwellings and operation & maintenance buildings.
- (c) The PHA concluded the following:
 - (1) The maximum cumulative risk of impact due to blade throw, tower collapse or nacelle collapse for WTG No. 60, 61, 62, 64, 65 and 66 is approximately 0.06 pmpy at the closest residence (AD_5) (refer to Section 5.1.1.3). This low frequency, combined with the low population density, ensures compliance with the 'Indicative Societal Risk Criteria'.
 - (2) The potential for ice formation on the wind turbines appears to be credible based on the available meteorological data for the Project Area (refer to Section 2.5.2); however, this is based on an approach that is very conservative and may lead to an over-estimation of the icing duration.
 - (3) The maximum ice throw hazard range (473 m) is significantly less than the distance to the closest residence (viz c. 765 m to AD_5).
 - (4) If sufficient icing were to occur, then ice throw may pose a hazard for personnel at the O&M building (refer to Section 5.1.3). It may also pose a potential hazard when driving along roads or accessing the WTGs, BESS and substation during icing conditions.
- (d) Alternative O&M Building locations were assessed to reduce this risk.
- (e) Mitigations for the assessed hazards include:
 - (1) Turbine components manufactured and certified in accordance with strict IEC standards.
 - (2) Turbines fitted with sensors that identify structural fatigue and enable early maintenance.
 - (3) Anti-icing technologies for the turbines and/or access control management, where necessary.

Annexure 10

Bushfire

As outlined in our Environmental Impact Statement (**EIS**), the Proponent has undertaken a comprehensive bushfire assessment, which included historical bushfire mapping, identification of bushfire risk factors, and proposed management measures to minimise bushfire risk. We would like to address the specific concerns raised during the Public Meeting below:

- (a) **Aviation Assessment for (EIS Nov 2020 Pg 52):** Email correspondence with the NSW Rural Fire Service (**RFS**) confirms that wind farms will be treated like any other potential hazard to aircraft operations. This approach will ensure that appropriate protocols and precautions are in place to maintain safety during aerial firefighting activities.
- (b) **Aviation Assessment (EIS Nov 2020 Pg 35):** Section 3.15 of the *Aviation Assessment* included in the EIS addresses Aerial firefighting operations and states that most operations have formal risk management programs to assess risks and implement applicable mitigations to ensure safety can be maintained. The Australasian Fire and Emergency Services Council (**AFAC**) has developed a national position on wind turbines released on 30 October 2014. The AFAC statement is extracted below:

“Aerial firefighting operations will treat turbine towers similar to other tall obstacles. Pilots and Air Operations Managers will assess these risks as part of routine procedures. Risks due to wake turbulence and the moving blades should also be considered. Wind turbines are not expected to pose unacceptable risks.”
- (c) **Consultation with Rural Fire Service** (Bushfire Assessment Nov 2020 Pg 16, Table 2.2): Our engagement with the Hanging Rock RFS, as documented in the EIS, demonstrates our commitment to consulting with relevant firefighting authorities to understand concerns and directly incorporate feedback into our Project planning. It also reflects our proactive and collaborative approach to risk management, with mitigation and management measures designed in consultation with industry experts and relevant agencies.
- (d) Furthermore, we note that *Recommended Condition of Consent B45* requires the preparation of a comprehensive Emergency Plan and detailed emergency procedures to be developed and implemented in consultation with agencies including RFS. The plan must be consistent with RFS’s *Planning for Bushfire Protection 2019*, and a copy of the plan must be provided to the local Fire Control Centre. Accordingly, there will be a further formal avenue for consultation with RFS during the development of this emergency plan.
- (e) **Bushfire History Mapping and Risk Factors** (Bushfire Assessment Pg 44, Table 5.4): The bushfire history mapping and assessment of risk factors, as detailed in the EIS, provide valuable insights into potential challenges and opportunities to mitigate bushfire risks. We have taken into account factors such as aerial firefighting operations and have incorporated measures to ensure compatibility with wind farm operations.
- (f) **Engagement with Timor RFS:** The Project engaged with Timor RFS representatives when organising and hosting a community information session

and barbecue at the Timor RFS sheds with the brigade captain in attendance as well as a group captain.

- (g) **Sponsorship of NSW Rural Fire Service, Liverpool Range:** Our sponsorship grant of \$2,000 towards the Liverpool Range RFS demonstrates our support for local firefighting efforts and community resilience. By contributing to the completion of their mobile catering unit, we aim to enhance their capacity to respond to emergencies and support volunteer firefighters during critical operations.
- (h) **Analysis of Aerial Firefighting operations and Wind Farms:** Similar to the AFAC 2014 statement extracted above, the AFAC 2018 statement concludes that wind farms are not expected to adversely affect fire behaviour in their vicinity. As reported by AFAC (2018), the bushfire at Waterloo Wind Farm demonstrated that if conditions are clear and wind turbines are turned off, wind turbines are clearly visible from aircraft and are not likely to constraint aerial firefighting operations (Clean Energy Council, 2017).

In conclusion, the Proponent takes the safety of firefighting personnel and the community seriously, as demonstrated by the comprehensive bushfire and aviation assessments and history of engagement. We remain committed to working closely with firefighting agencies, developing and implementing appropriate mitigation measures, and to ensure that our operations are conducted in a manner that minimises any potential impact on aerial firefighting activities.

Annexure 11

Land clearing

We confirm that no clearing has been undertaken by the Proponent within the Project area and no clearing will be undertaken by the Proponent until all relevant approvals have been obtained. We are aware of investigations into unauthorised land clearing within the Project area, and understand that such investigations confirmed the Proponent was not involved in any unauthorised land clearing.

It should be acknowledged that minor locations within the Project area have been legally cleared by a landholder under approval from Local Land Services during the assessment phase of the Project. This clearing has taken place after the completion of data collection in accordance with the BAM, and the Project assessment has retained the 'precleared' state of the vegetation and habitats. This means that these areas have been included in the Project's offset obligation, and will form part of the requirements to ensure a net positive gain for native biodiversity under the BOS.

The response to the question of land clearing and project infrastructure has also been addressed in the Response to Submissions Table 5-20, page 89.

Aviation lighting

The Proponent engaged Aviation Projects to complete an aviation impact assessment (see *Environmental Impact Statement: Appendix H Aviation Assessment*). The assessment included a comprehensive risk assessment completed in accordance with *ISO 31000:2018 Risk Management Guidelines* (see section 9). Based on the risk assessment, Aviation Projects concluded that obstacle lighting is not required for turbines and wind monitoring masts to maintain an acceptable level of safety to aircraft, once proposed mitigation solution outlined in section 6.24 are implemented.

To the extent that obstacle lighting is required, Aviation Projects also identified impact reduction measures that can be implemented to reduce any amenity impacts on surrounding neighbours, including the use of low intensity lighting.

Following the recommendation from Civil Aviation Safety Authority (**CASA**) to consider night lighting, the Proponent engaged Aviation Projects to prepare an obstacle lighting plan, which can be found in the *Amendment Report Jan 2022: Appendix J Aviation Advice and Obstacle Lighting Plan* (see page 23 for figure of obstacle lighting plan).

We note that the *Recommended Conditions of Consent B3* does not mandate the use of night-time obstacle lighting. Rather, there will be a further consultation process with CASA and, *if required*, these are to be implemented in accordance with CASA's recommendations. Moreover, the recommended condition requires the implementation of measures to minimise visual impacts of aviation lighting such as partial shielding and limiting operation times.

We acknowledge that night-time obstacle lighting remains a concern for the community, as during the Public Meeting. Based on the *Aviation Impact Assessment* completed by Aviation Projects, the Proponent's position is that night lighting is not required for the Project. Nevertheless, if required during consultation with CASA post-determination, there are a range of mitigation options available to minimise any visual impacts to surrounding neighbours. These are consistent with the recommendations set out by Aviation Projects in the original *Aviation Impact Assessment*.

Annexure 13

Community enhancement

Over the course of the last 5 years and through different mechanisms such as information sessions, community surveys, Community Consultative Committee (**CCC**) and community interactions, the Proponent has heard feedback that benefit sharing programs should be prioritised for local communities.

After this extensive consultation, a Community Enhancement Fund (**CEF**) Charter was developed and submitted as Appendix C.4 the EIS in November 2020. The CEF Charter was built using feedback from CCC sessions on the approach to benefit sharing, with the overwhelming response that strong governance to ensure local communities benefit.

The CEF Charter under eligibility stated that applications for funding would only be considered within 20km of the Project. After discussion with Tamworth Regional Council (**TRC**) and Upper Hunter Shire Council (**UHSC**), it was agreed after 5 years that this would be extended to ensure regional communities can also benefit. The charter also identified that at least one member of the committee must be a local Indigenous representative.

The commitment to the CEF started at \$2,500 per turbine/p.a in 2020 and was extended to \$3,000 per turbine/p.a in 2021 after consultation with the community, TRC and UHSC. Following a further 2 years of consultation with TRC, UHSC and the local community the offer was increased to just over \$6,000 per turbine/p.a to align with TRC and UHSC expectations that total benefit sharing should equate to 1.5% of the Capital Investment Value (CIV) of the Project.

When discussing the benefit sharing framework, TRC and UHSC had strong preference that a Voluntary Planning Agreement (**VPA**) be used and that there should be a larger allocation towards regional communities. An updated VPA letter of intent was sent to both TRC and UHSC, which outlined a regional and local community split as well as governance and eligibility regarding distribution of the funds.

After significant community feedback during the Public Meeting and in discussions with local community members, the Proponent considers that a VPA with TRC and UHSC should have governance in place to ensure local communities within 20km of the Project are receiving significant benefits and have representation on committees established to administer the funds.

There was particular concern from the local community members regarding the condition in the *Recommendation instrument of consent: Community Enhancement: A.24*, which conditions the Project to pay TRC \$6,376,562 (for 64 turbines) if TRC do not enter into a VPA. This condition is not aligned with community sentiment and does not provide any framework or reassurance on the distribution of the funding.

The Proponent considers it is in the best interest of the community to ensure a VPA with TRC and UHSC has conditions to prioritise local communities within 20km of the Project for funding, as well as establish governance and representation requirements that adhere to best industry practice that prioritises local community funding.