

Liverpool Range Wind Farm

Fact Sheet

12

October
2021

Project Frequently Asked Questions (FAQ) Fact Sheet



WHAT'S CHANGING – QUICK REFERENCE GUIDE

Project component	Approved Project	Proposed Modified Project	Change
Maximum number of wind turbines	Up to 267	Up to 223	-44
Height of turbines (maximum blade tip height above ground level (AGL))	Up to 165 m	Up to 250 m	+85 m
Operations and maintenance (O&M) buildings	Up to 1	Up to 3	+2
Collector substations	Up to 4	Up to 7	+3
Connection substations (Switch yard)	1 (at Ulan)	1 (at Ulan)	No change
Over-size/over-mass (OSOM) Haulage Route	1 x route from Port of Newcastle - assuming ~69 m long blade as longest load only. Potential impacts further from project site were not assessed.	1 x route from Port of Newcastle - assuming 90 m long blade and 5 m tower section as longest, tallest and widest loads. All impacts between Port of Newcastle and site have been assessed.	Minor changes to route to avoid Maitland urban area, low-clearance bridge at Denman, and conflicts with private property and State road infrastructure.
Battery Energy Storage System (BESS)	0	1	+1 (indicative capacity of 150 MW / 300 MWh)
330 kV Transmission Line Length	82,570 m	99,975 m	+17,405 m (mostly internal to the wind farm site)
Concrete Batch Plants	Up to 4	Up to 9 <i>Note: 24 potential locations identified - not all will be required</i>	+ 5
Construction Compounds and Laydown Areas	6	24 potential locations identified <i>Note: not all will be required (final number to be confirmed)</i>	+18 potential locations <i>(final number to be confirmed)</i>
Permanent Met Masts	Up to 10 at hub height	Up to 14 at hub height	+4
Development Corridor	12,391 ha	12,878 ha	+487 ha

OUTPUT BENEFITS

Project component	Approved Project	Modified Project	Change
Generation capacity MW	Approx. 962 MW (assumed 3.6 MW turbine)	Approx. 1,338 MW (assumed 6 MW turbine)	Potential increase of approx. 39%
GWh per year	Approximately 2,615 GWh	Approximately 3,670 GWh	Increase of approximately 1,055 GWh per year.
Average households powered per year	Approximately 477,000 households	Approximately 669,000 households	Increase of approximately 192,000 households
Greenhouse gas benefits	Approximately 2.1 million tonnes of CO ₂ savings per year	Approximately 2.9 million tonnes of CO ₂ savings per year	Increase of approximately 800,000 tonnes of CO ₂ savings per year
Equivalent number of cars taken off the road per year	Approximately 672,000 cars per year	Approximately 943,000 cars per year	Increase of approximately 271,000 cars per year

Who is the Applicant for the Liverpool Range Wind Farm modification application?

The Project is owned by Liverpool Range Wind Farm Pty Ltd, a wholly owned subsidiary of Tilt Renewables Limited. Liverpool Range Wind Farm Pty Ltd is the Applicant for the proposed Modification Application.

We are an owner, operator and developer of renewable energy projects in Australia and bring decades of experience with a demonstrated commitment to the communities where we operate, to ensure we continue to support regional Australia's prosperity through the energy transition.

Why are you modifying an already approved project?

The proposed modifications to the Development Consent are required to enable the Project to take advantage of recent improvements in wind energy technology that enable significantly more renewable energy to be produced from fewer, larger wind turbines. The proposed modifications also reflect the outcomes of substantial design optimisation work and constructability assessments that have been carried out over the last 18 months to progress the Project towards construction.

By using the more efficient turbine models the Project has the potential to generate more renewable electricity from a similar development footprint ultimately resulting in a lower cost of energy from the Project with clear benefits to the end user and energy consumer. Optimised cabling and transmission line infrastructure minimises electrical losses and maximises the generation capacity and efficiency of the Project. Subsequent benefits of this include:

- Minimisation of resource use and waste generation;
- Reduced project cost and timelines; and
- Reduced haulage requirements.

What's in it for me – why should I support this project?

The Liverpool Range Wind Farm project will bring local economic benefits, jobs and provide long-term financial support for the broader community.





The approximately \$2 billion Project investment will both directly and indirectly drive-up local employment and procurement through on and off-site work, providing opportunities to keep people and businesses in the community thriving.

Wind is an inexhaustible resource that is clean, reliable and affordable. It is the cheapest source of large-scale renewable energy and is a vital component to helping slow down the effects of climate change.

Wind farms help keep farming a viable land use and therefore reduce pressure for subdivision or land use changes, while also improving access for firefighting. The Project will deliver a formal Benefit Sharing Plan including but not limited to the Community Enhancement Funds, support education and training initiatives, tourism and local infrastructure upgrades. More broadly, it will contribute to the de-carbonisation and security of Australia's energy supply.

What modifications are being proposed?

The proposed modifications being sought in the Modification Application include:

Aspect / Component	Proposed Modification
Turbine parameters 	<ul style="list-style-type: none"> • Increase the maximum blade tip height to 250 m AGL (currently approved up to 165 m AGL) • Decrease the maximum number of turbines to 223 (currently approved up to 267)
Site layout, ancillary infrastructure, and connection works 	<ul style="list-style-type: none"> • Modify turbine locations and other permanent wind farm infrastructure such as on-site collector substations, access tracks, O&M facility, overhead power lines and underground cabling, and temporary infrastructure such as concrete batching plant, laydown areas, and construction compounds. • Include a Battery Energy Storage System (BESS) with an indicative capacity of approximately 150MW / 300 MWh, located either at the switchyard at Ulan or within the Wind Farm Site. • Include indicative locations for up to 14 x permanent Power Curve Validation (PCV) meteorological masts (referred to as permanent met masts) to the final hub height (currently approved for up to 10). • Include potential locations for up to 9 x temporary concrete batch plants operational at any given time (currently approved for up to 4). • Include potential locations for up to 9 x temporary construction compounds and material laydown areas (currently approved for up to 6). • Include potential locations for up to 3 Operations and Maintenance (O&M) facilities (currently approved for up to 1) • Include required upgrade works to TransGrid's transmission line infrastructure at the proposed point of connection at Ulan. • Include a preferred alternate transmission line alignment to avoid a portion of the Durrigere Conservation Area. • Update key project design metrics, such as infrastructure disturbance areas and access track and reticulation cabling lengths, to reflect the Modified Project layout. • Update native vegetation and habitat clearance limits, where required to reflect the Modified Project layout.
Haulage route and public road upgrades 	<ul style="list-style-type: none"> • Modify short sections of the Approved Over-size/over-mass (OSOM) Haulage Route to enable longer blades and larger wind farm components to be transported from the Port of Newcastle. • Modify slightly the Approved Over Dimensional (OD) and Heavy Vehicle Access Route to: <ul style="list-style-type: none"> i) remove the southern section of Rotherwood Road (no longer required). ii) include the eastern portion of Gundare Road that is located within the Site Boundary to be used for Light and Heavy vehicles. The western portion of Gundare Road outside of the Site Boundary is not proposed to be used. • Deletion of approved Site Access Point #9 off Vinegaroy Road as it is no longer required. • Include 92 potential site access points from nearby public roads (currently approved for 28 site access points). • Define the public road upgrades that are anticipated to be required, applicable road upgrade standards as agreed with the relevant Roads Authorities, include a mechanism to review the applicable road upgrade standards at highly constrained locations, and accurately estimate associated ground disturbance areas. • Include the potential for road upgrades to be delivered in a staged manner to reduce the overall construction period. Full completion of relevant road upgrades would occur prior to the delivery of large wind turbine components by OSOM vehicles. <p>Specify a maximum limit for native vegetation and habitat clearance required to construct required public road upgrades (currently there are none specified in Development Consent SSD 6696).</p>
Site Boundary and Development Corridor 	<ul style="list-style-type: none"> • Modify the Site Boundary and Development Corridor to reflect the modified layout and design of the Project
Development Consent Conditions	<ul style="list-style-type: none"> • Update existing conditions related to Aboriginal cultural heritage, biodiversity, noise, traffic and transport, and visual impact to reflect the Proposed Modifications, the Modified Project layout, and to incorporate key recommendations of the relevant technical assessments.

What are the benefits of using bigger turbines?

By using the more efficient turbine models the Project has the potential to generate more renewable electricity from a similar project footprint, ultimately resulting in a lower cost of energy from the Project with clear benefits to the end user and energy consumer.

Note: The Modified Project will result in approximately 35% increase in total generation capacity compared to the Approved Project, with a reduction of 16% in the number of wind turbines (from 267 down to 223).

What turbine model is selected to be used at the site?

A specific wind turbine make or model hasn't yet been selected, however all environmental assessments that have been prepared for the Modified Project have used indicative turbine dimensions or specifications to model very conservative, worst-case potential impact scenarios. For example one of the noisiest turbines currently on the market was used to assess potential noise impacts, an assumed 90 m long blade was used to assess potential transport impacts, and an assumed 210 m rotor diameter was used to assess potential bird and bat impacts. This is to ensure the final turbine selected will be within the parameters of what has been assessed as part of the regulatory approvals for the wind farm.

Are the taller turbines quieter / noisier?

The increase in blade tip height, power output and rotor diameter of contemporary turbines does not translate into an increase in noise output. Indeed, most contemporary turbines are quieter than their predecessors due to improvements in blade design and the more efficient conversion of wind power into electrical energy (as distinct to conversion into noise). Ultimately, the final arrangement of turbines must remain below the applicable noise limits set by the relevant legislation and guidelines throughout the entire operational life of the Project when assessed at each individual residence. The Predictive Noise Impact Assessment prepared for the Modified Project achieves this by considering the noise output of each turbine, the cumulative effect of multiple turbines, their location relative to residences and the topographical and meteorological conditions, to arrive at a layout which is compliant with the applicable noise limits.

Will there be increased environmental impacts with bigger turbines?

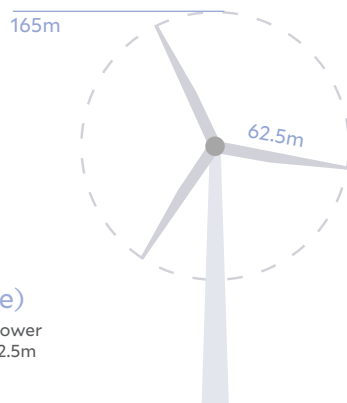
We have tried to minimise any additional impacts as much as possible by positioning infrastructure away from important vegetation and reducing the amount of ancillary infrastructure required on-site.

Changes proposed as part of the Modified Project will not result in significant increases in potential environmental impacts (e.g. visual, noise, shadow flicker) to nearby residences and the local community from what is currently allowed under the Development Consent.

The specialist ecological assessment has identified that the proposed increase in the height of the turbines and rotor swept area (due to longer blades likely to be used) will potentially increase the risk of blade strike or adverse impacts to bird and bat species listed under State and Commonwealth environmental protection legislation. Implementation of appropriate mitigation measures that will be detailed in the Bird and Bat Adaptive Management Plan (BBAMP) will reduce those risk to an acceptable level.

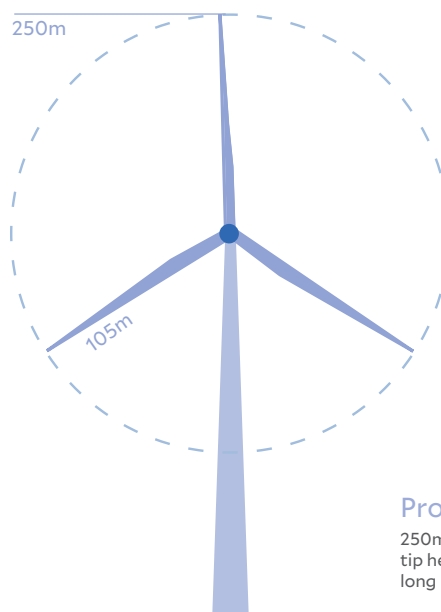
Consented (Indicative)

165m tip height / 40m ground to lower tip height / 102.5m hub height / 62.5m long blade / 125m rotor diameter



Proposed (Indicative)

250m tip height / 40m ground to lower tip height / 145m hub height / 105m long blade / 210m rotor diameter



What impact will the proposed modifications have on native vegetation removal and wildlife?

We are preparing a Biodiversity Development Assessment Report (BDAR) to assess the likely impacts of the Modified Project on biodiversity as a result of the modified development footprint of the wind farm and inclusion of the public road upgrades.

The BDAR is being informed by significant survey effort that was undertaken in 2014 and 2017 by NGH Pty Ltd for the Approved Project, and in 2020 and 2021 by Umwelt Pty Ltd for the Modified Project. The BDAR is currently being prepared and lodgement of the Modification Application will not occur until the BDAR has been finalised.

The potential impacts to native vegetation and habitat are expected to be greater than was estimated for the Approved Project. Preliminary results suggest that under a conservative worst-case scenario, the Modified Project will potentially result in the following impacts:

- approx. 950 ha of impact to 11 plant community types (PCTs) (increase of 549 ha).
- approx. 550 ha of impact to White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland under the *NSW Biodiversity Conservation Act 2016*.
- approx. 305 ha of impact to White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- approx. 1,187 ha of impact to various threatened species habitat, including habitat for squirrel glider, regent honeyeater and swift parrot.

The BDAR will also include a Bird and Bat Strike Risk Assessment. Preliminary results from the Risk Assessment suggest that due to the increase in maximum blade tip height and use of longer blades proposed by the Modified Project several high-flying bird and bat species are potentially at greater risk of blade strike than the risk associated with the Approved Project.

To manage the potential impacts to relevant bird and bat species, a Bird and Bat Adaptive Management Plan (BBAMP) will be prepared. The BBAMP will be updated periodically to ensure that the most effective adaptive management measures are implemented throughout the operational life of the Project.

To account for potential impacts to Matters of National Environmental Significance (MNES) a referral under the

EPBC Act is currently being prepared and will be lodged with the Commonwealth Department of Agriculture, Water and the Environment (DAWE) shortly after lodgment of the Modification Application with DPIE.

To offset impacts to the likely affected plant community types and threatened species resulting from the Modified Project, we'll secure the required biodiversity credits which could be through a mix of land-based offsets and payment into the NSW Biodiversity Conservation Fund. Furthermore, to ensure biodiversity impacts are managed and further minimised a Biodiversity Management Plan (BMP) will be prepared in accordance with the existing conditions of the Development Consent.

Who gives the final authorisation of which trees can be cleared?

The NSW State Government – Department of Planning, Industry and Environment (DPIE), in consultation with the Biodiversity, Conservation and Science Directorate (BCS). Tilt Renewables must comply at all times with any approved limits on vegetation removal.

What changes are you making to the access tracks?

Some access tracks internal to the wind farm site are being removed due to the reduction in turbines. Other internal access tracks either remain generally consistent with the Approved Project, or are newly proposed.

The changes to the Approved Project access tracks are required to reflect the revised turbine layout, avoid difficult terrain or significant environmental or heritage values, and assist with the constructibility of the Project.

How much wider will the access tracks be?

The extent of ground disturbance for access tracks internal to the wind farm was previously estimated for the Approved Project to be an average width of around 12m. Ground disturbance for access tracks includes the typical 5.5 metres wide trafficable area, as well as additional area for drainage channels and cut and fill batters.

Following extensive detailed 3D modelling for the Modified Project we estimate that temporary ground disturbance for access tracks internal to the wind farm will be on average around 37.5 m wide, which includes adjacent underground cabling. This increased estimate accounts for conservative cut and fill batter design and appropriate turning radii for Over-size / over-mass (OSOM) vehicles. The trafficable width for internal access tracks will still be generally 5.5 metres wide, with slightly wider sections around bends.

Which port will trucks be coming from?

The Approved Project proposed that Over-size / over-mass (OSOM) vehicles will transport large turbine components such as blades, tower sections, nacelles, generators and hubs from the Port of Newcastle. The Modified Project proposes to also use the Port of Newcastle and to generally follow the same route proposed by the Approved Project, along the Golden Highway. Some changes to the OSOM route are proposed to avoid constraints near the Port of Newcastle and Maitland, and low-clearance bridge at Denman.

Will there be an increase in shadow flicker with taller turbines?

With taller turbines there is the potential for shadow flicker effects to extend further from the wind turbines. The Development Consent has requirements for shadow flicker to not exceed 30 hours per annum at any Non-associated residence, unless there is an agreement in place. We are not proposing to modify this requirement. The Shadow Flicker Assessment prepared for the Modified Project concludes the Modified Project can comply with the Development Consent and that shadow flicker will not exceed 30 hours per year at any Non-associated residence.

Which Local roads will be upgraded?

The Development Consent lists all the Local and Regional roads that are likely to require upgrading prior to their use by Over-size / over-mass (OSOM) or Heavy vehicles.

All Local and Regional roads listed in the Development Consent will remain.

The Preliminary Road Upgrade Investigation prepared for the Modified Project concludes that all portions of Local roads proposed to be used will likely require upgrading. Specific portions of Vinegaroy Road (a Regional road) will likely require upgrading to accommodate the turning movements of large OSOM vehicles. Ulan Road is not anticipated to require upgrading as only a relatively small number of Heavy and Light vehicles are proposed to use Ulan Road (i.e. not OSOM vehicles). The Local and Regional roads anticipated to require upgrading to standards agreed with the relevant councils are:

- Coolah Creek Road
- Barragundy Road
- Pandora Road
- Pandora Pass Road
- State Forest Road
- Warung Road
- Rortherwood Road
- Oakdale Road
- Coolah Road
- Summerhill Road
- Clifffdale Road
- Unnamed Crown Road (within Mid-western LGA)
- Phelps Road
- Vinegaroy Road
- Ulan Road
- Gundare Road (eastern portion internal to the Site Boundary)*

* *Gundare Road external to the Site Boundary is not proposed to be used.*

The table below shows the estimated length of road upgrades to unsealed and sealed standards that are anticipated to be required:

Local government area (LGA)	Length of anticipated road upgrades
Warrumbungle LGA	Sealed standard: 59.44 kms
	Unsealed standard: 22.12 kms
Upper Hunter LGA	Sealed standard: 19.95 kms
	Unsealed standard: 6.29 kms
Mid-western LGA	Sealed standard: Not applicable
	Unsealed standard: 2.61 kms
TOTAL	Total sealed standard: 79.39 kms
	Total unsealed standard: 31.02 kms

We will work with the relevant councils, the turbine manufacturer and transport contractor to understand requirements for the OSOM and Heavy vehicle routes, the extent of road upgrades required and to identify pinch points where localised widening may be required. As we do this work, we will talk with nearby residents so that any concerns can be raised and considered.

Are you going to upgrade all the approved roads?

Only the public roads that we intend to use for Heavy and Over-size / over-mass (OSOM) vehicles will be upgraded to the standards agreed with the relevant councils.

Which roads will be used by Light vehicles such as workers utes and 4WD – will they be restricted to certain roads?

Predicting with certainty the origins and destinations for Light vehicles during the construction period is not possible at this early stage of development. However, given the location and layout of the Project it is anticipated that most Light vehicles will access the wind farm site via Vinegaroy Road and along Coolah Creek Road, Turee Vale Road, Rotherwood Road, and Coolah Road. Access to the external transmission line south of the Golden Highway will be via Ulan Road along existing public roads or proposed new access tracks.

In planning for construction, we will develop a Traffic Management Plan (TMP) which will consider the management of all traffic to and from the site, including company Light vehicles.

Will any construction traffic pass through Coolah and Cassilis townships?

OSOM and Heavy vehicles will not have to pass through the centre of Coolah or Cassilis townships to directly access the Project site. It is likely that construction workers will enter Coolah and Cassilis townships by Light vehicles to access local businesses and services.

Will the taller turbines look the same?

The appearance of the turbines would remain similar. An exact turbine model is yet to be selected. Each turbine will consist of 3 rotating blades, a nacelle and generator, hub mounted on multiple tower sections, and be finished in an off-white coloured non-reflective paint.

How does the proposed 250 metre blade tip height compare with other wind farms – is it higher?

The changes being proposed are consistent with other recently proposed wind farms such as the nearby Valley of the Winds project, proposed to be located approximately 10 kms west of Coolah township. The proposed 250 m blade tip height will be able to accommodate turbines with longer blades approaching 90 m in length that are becoming more common in the market.

Why weren't these changes covered in the original consent?

The existing Development Consent was granted in March 2018 and EPBC approval granted in June 2018.

When we acquired the Liverpool Range Wind Farm project, we commenced optimisation studies to enhance the overall design of the Project and assessed whether we could build it with the same energy yield with less turbines, whilst trying to minimise environmental impacts as much as possible.

The proposed modifications have been identified after these approvals were granted due to:

- **New information:** building on the knowledge gained from recent experience constructing wind farms, we have since undertaken a detailed layout review and design optimisation process, and completed technical studies and environmental impact assessments. Together, this has given us a clearer picture of how the wind farm can be constructed and how it could look and operate.
- **Advancements in turbine technology:** new and far more efficient turbines have come onto the market since the Project was approved.

Where will the Liverpool Range Wind Farm connect to the grid?

The wind farm would connect to the National Electricity Market via TransGrid's existing 330 kV Wellington-Wollar transmission line at Ulan. A new transmission line between the wind farm and point of connection at Ulan is required. The proposed transmission line will be approximately 100 km in length (50 km external to the wind farm) and follow a route generally adjacent to Ulan Road.

Do you have approval from AEMO to increase the MW output of the Liverpool Range Wind Farm? Can the transmission network cope with the extra output?

We have a Customer Processes Agreement (CPA) currently being undertaken by TransGrid to design the connection of the wind farm into the network, and further detailed modelling work is currently underway to understand network constraints and capacity. Submission of the Connection Agreement may occur prior to the Modification Application being approved and therefore may need to be updated during the detailed design phase for the wind farm. AEMO and TransGrid will assess the Connection Agreement and if acceptable, will provide an Offer to Connect for the wind farm.

Are you making any changes to the requirements or conditions under which you operate the wind farm?

No changes are proposed to the intent of the existing conditions in the Development Consent related to operations. During operations the Modified Project will be required to comply with all relevant legislation and guidelines that govern the Approved Project.

Consistent with recent wind farm approvals, it is likely that DPIE will update the existing condition related to operational turbine noise to require compliance with the relevant noise guidelines, and remove the references to specific noise criteria at non-associated residences.

In addition, it is necessary to amend particular components of the Development Consent to reflect the Modified Project layout, including the amended schedule of land forming part of the Project, modified infrastructure layout, updated road upgrade standards and potential site access points, and the inclusion of a Battery Energy Storage System (BESS) facility.

Ultimately, these changes to the Development Consent do not impact on the intent of the existing conditions and do not fundamentally change the operational requirements of the Project.

How much will Tilt Renewables benefit from the Modified Project?

An increase in generation capacity would mean a better financial outcome for Tilt Renewables, but it's not the only driver for us – we also want to have a positive environmental and social impact. This project has been a long time in the making – we have invested significant time and money in the Project to-date, and expect

to invest upwards of \$2 billion in addition to ongoing commitments such as the VPA, other benefit sharing commitments, rates, capital investment, rates and landowner payments - so of course we want it to be the best possible project it can be.

Are the modifications to the Approved Project necessary to make the Project work?

The Project is already approved but the proposed modifications will help ensure that the Project is competitive in the current and future energy market and is better able to service the state's growing energy needs.

Can you still build the wind farm if the Modification Application is not approved?

The existing Development Consent remains in place regardless of whether or not the Modification Application is approved. This existing Development Consent allows the Project to be built subject to specific conditions.

Who is responsible for approving the Modification Application?

The NSW Government Department of Planning, Industry and Environment (DPIE) is responsible for considering the Modification Application and granting approval, including determining any conditions that must be complied with.

The Commonwealth Government Department of Agriculture, Water and the Environment (DAWE) is responsible for granting approvals under the *Environment Protection and Biodiversity Conservation Act 1999*.

How can I lodge a submission on the Modified Project?

We are intending to lodge the Modification Application this year, once we have spoken with the local community, heard any issues, questions or concerns they may wish to raise, and prepared appropriate responses including any design or layout changes that can be accommodated.

Once the Modification Application has been lodged, DPIE will then require a formal public exhibition process to be undertaken, during which you will be able to make a formal submission to DPIE via their [Major Projects website](#). Submissions in support of the Modified Project can also be lodged with DPIE for their consideration.

General Project Information

The following information below is project-related and for general information purposes only. It will not form part of the Modification Application that will be formally assessed by DPIE.

What is the difference between Associated and Non-associated residences?

Associated residences are those residences that have some formal involvement in the Project and are classified as either being either a 'host' or a 'neighbour', defined broadly as follows:

- a 'host' landowner has an agreement in place to enable infrastructure proposed by the Project to be located on their property.
- a 'neighbour' landowner typically has a residence that is within proximity of the Project and there is an agreement in place to address potential impacts from the wind farm (e.g. noise, visual or shadow flicker).

Non-associated residences are all residences that do not have any agreements in place.

Where will you source water for construction?

We understand that water supply can be a sensitive issue, especially in regions that have experienced drought conditions in recent years. Based on our recent experience constructing two wind farms in Victoria, we've estimated that around 650 ML of water will be required during construction.

For water supply, we've been investigating the available surface and ground water resources in the local area and broader region. We have engaged a suitably qualified professional who has significant local experience in the local area to provide advice. They advise that there is sufficient supply of groundwater in the local area to meet demand over the construction period. As the Project progresses towards construction we will approach interested landowners so we can drill test bores and confirm available water supplies. We will then secure the required access rights and water access licenses to use those groundwater supplies during construction. Surface water in the local area is unreliable and therefore unlikely to be used.

We hold in high regard our social licence to operate in the local area and therefore will be looking to implement the strategy with the least impact on community water supplies.

How will you deal with erosion?

We acknowledge that the community has in-depth local knowledge of the land and water, and we recognise that there will be challenges regarding the management of land through the construction of the wind farm.

For example, erosion will be managed through improvements in the detailed design of the site and through the implementation of construction measures tailored to the landscape, in accordance with all relevant environmental management plans that will need to be prepared for the Project prior to construction.

In addition, we hope to employ skilled and knowledgeable locals to support site preparation and construction efforts of the Project. We encourage businesses to register their interest in working on the Project via our Goods and Services Register.

How will you manage fire risk?

The summer of 2019-2020 was unprecedented in Australia for bushfires, particularly in NSW. Fire safety is a high priority for us from site development right through to construction and operation. A wind farm should not be considered a hindrance to firefighting, and indeed can assist firefighters to more easily access parts of the landscape through the use of well-constructed and maintained wind farm access tracks. A variety of preventative and reactive controls will be in place.

Compared with the Approved Project, the Modified Project does not differ in terms of ignition risks or management strategies to combat fire. However, we'll be consulting further with key fire authorities and will prepare specific management plans for the Project to manage fire risks.

How is constructing a wind farm producing more clean energy?

Wind farms capture the energy of the wind – a renewable resource with no emissions – thus making it ‘clean energy’. This energy is harnessed, converted and distributed into the National Electricity Market (NEM).

While it’s true that greenhouse gas emissions are produced when wind turbines are manufactured, built, maintained and decommissioned, the life cycle greenhouse gas emissions from wind technology is considerably lower than emissions from technologies powered by combustion-based natural gas and coal.

How will the Project benefit the local community?

We are committed to sharing the benefits of the Liverpool Range Wind Farm with the local community and invite you to share your ideas on how we could contribute to meaningful projects that have positive and lasting benefits for many.

On other projects we have provided sponsorships, education programs, training and employment schemes – but all communities are different, so we don’t take a one-size-fits-all approach.

Your feedback will help inform a Benefit Sharing Plan, which is in addition to the already committed Community Enhancement Fund for the local community. Please submit any ideas via email:

liverpoolrangewindfarm@tiltrenewables.com

Additionally, the Project will provide full time employment for up to 800 staff during construction and up to 47 ongoing jobs during its operational life, providing increased employment opportunities and economic benefits for the local community, broader region and the state of NSW.

The Modified Project will also result in a direct injection of approximately \$6-\$7 million per annum to the local community through payments to local landowners, permanent staff and benefit sharing plan contributions providing better diversification of income, a drought proof and post retirement income for farmers and shared benefits.

COMMUNITY ENHANCEMENT FUND

Tilt Renewables has an agreement with both Warrumbungle and Upper Hunter Shire Councils to provide \$3,000 per constructed turbine per year to Community Enhancement Funds (CEF) administered by CEF Committees, for the life of the Project. The development contribution (increased by CPI) will require a split of 77% for the CEFs and 23% for a Road Maintenance Fund.

We are seeking your feedback on Benefit Sharing contributions during construction. Head to the Project web page to find the [feedback form](#) or hover over the QR code below to access it directly.

NEIGHBOUR AGREEMENTS

Neighbour Agreements are part of our commitment to being a good long-term neighbour, sharing benefits and contributing to the local community. The agreements are in addition to our other benefit sharing initiatives and are part of our commitment to contribute positively to the broader community.

We will offer neighbour agreements where specialist reports identify a potential impact. If you’d like to find out more about neighbour agreements and whether you are eligible, please contact us at: liverpoolrangewindfarm@tiltrenewables.com or on [1800 WE TILT \(938 458\)](tel:1800WE TILT).

The neighbour agreements do not prevent people from making a submission on the Project, nor do they remove the need for us to comply with conditions of the Development Consent for the wind farm.



The Modified Project will save over 2.9 million tonnes of carbon dioxide from entering the atmosphere per year. That's equivalent to taking approximately 943,000 cars off the road each year.



We welcome your feedback and ideas

We are committed to open and honest dialogue with all stakeholders, with an aim to build and enhance community acceptance and trust in all projects, and in the renewable energy industry as a whole. We welcome your feedback if you have any concerns, and we are happy to assist with any questions you may have about the Project.

We are committed to listening and will use feedback to inform the design and construction of the project, the way we work together and share benefits with the local community, and the ways we consult and keep you informed about the project moving forward.

Use the QR code to access the feedback form or contact us at:
liverpoolrangewindfarm@tiltrenewables.com
or on 1800 WE TILT (938 458).



How can I get a job on the project / supply the project?

Wind farm construction creates hundreds of direct jobs on-site and thousands of jobs in businesses that supply the project. The types of jobs created include:

- Domestic scale electricians
- Transport operators
- Competent machine operators
- General labourers
- Quarries
- Concrete businesses

Construction also provides an economic boost for regional communities by increasing demand for local goods and services, such as accommodation, hotels, restaurants and cafes. We are committed to employing local people and buying local wherever possible.

Keep an eye on our website to find the latest updates or subscribe to our e-news list to receive updates via email or post. More information will be available close to construction, after head contractors and suppliers are appointed.

As the Project progresses towards construction, we will share our Goods & Services Register with our project delivery partners. We will also be investigating opportunities to work with networks to source Indigenous workers and build industry skills through employment and training programs.

We are committed to employing local people and buying local wherever possible.
To register interest in providing goods or services for the Project please head to the Goods and Services Register on our Project website: www.liverpoolrangewindfarm.com.au

GOODS AND SERVICES REGISTER

To register interest in providing goods or services for the Project, please visit www.liverpoolrangewindfarm.com.au and complete the linked form under the Employment section.



SIGN UP & STAY INFORMED

If you haven't already, please subscribe to our newsletter to ensure you receive all Project updates and information. We understand that not everyone uses email, so we will be working with local businesses to host Project information packs such as the newsletter, fact sheets and maps. Subscribe to receive the newsletter by email or post, by contacting us at: liverpoolrangewindfarm@tiltrenewables.com



For more information, please visit the website below
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