

Construction Noise Fact Sheet



In September 2022 a modification application was submitted to the Department of Planning and Environment (DPE) for the Liverpool Range Wind Farm (Mod-1 Project). In response to submissions received during the public exhibition period we have made a number of changes to the Project. These changes are reflected in the Response to Submissions (RTS) Report and the Amendment Report. The reports will be assessed by DPE who will then make a determination on the application. These reports contain information about how the RTS Project is different from the Approved Project, and how these changes would affect the environment and how they can be managed.

This factsheet sets out the expected changes to construction noise associated with the RTS Project. It also shows what we are proposing to do and how we will work with the community to manage potential impacts. The impacts presented are a worst-case scenario. With the measures proposed the RTS Project's impacts should be reduced or mitigated.

When talking about potential impacts, there are two types of residences:

- **Associated residences** host landholders, landholders providing access during construction or operation and other landowners with a financial or in-kind agreement with the Project.
- **Non-associated residences** owners or occupiers who do not have a financial or in-kind agreement with the Project.

If you would like to read more about construction noise, see Predictive Noise Impact Assessment attached to the Amendment Report.



What construction noise should I expect?

The RTS Project is expected to generate a similar level of construction noise to the Approved Project for Non-associated residences.

The following sections summarise the key findings from the Predictive Noise Impact Assessment undertaken for the RTS Project and the actions we will take to manage the impact on the community.

SOURCES OF CONSTRUCTION NOISE

Construction activities necessarily create noise. The construction activities expected to generate the most noise include:

- Concrete batching
- Construction of public roads and access tracks
- Construction traffic
- Establishment of turbine foundations including blasting for turbine foundations
- Trench excavation
- Turbine erection works

The Predictive Noise Impact Assessment focuses on the level of noise experienced at Non-associated residences so we can better manage any impact on the community.

CONSTRUCTION NOISE LEVELS

The RTS Project would generate a similar level of construction noise to the Approved Project. However, there are up to five additional temporary concrete batching plants proposed by the RTS Project. Thirteen potential locations for batching plants have been identified within the wind farm (see Figure 1) and one location has been identified along the external transmission line corridor, near Turill.

The RTS Project is seeking approval for the operation of up to nine batching plants concurrently within the windfarm. The Predictive Noise Impact Assessment assessed predicted noise from batching plants at all Non-associated residences and found that the noise conditions of the existing development approval are adequate to govern the operation of the batching plants within the windfarm.

The batching plant along the external transmission line corridor (near Clifdale Road, Turill), would temporarily increase noise for six Non-associated residences. The peak noise level at these Non-associated residences could reach 48 db(A), which is less than a normal conversation. It is worth noting that this section of the RTS Project's external transmission line (and associated batch plant near Turill) would not be constructed in the event the Liverpool Range Wind Farm project connects into the Central-West Orana Renewable Energy Zone (CWO REZ) Transmission Line proposed by EnergyCo between Merotherie and the wind farm site. We have prepared a separate Transmission Line fact sheet which provides additional details on the CWO REZ Transmission Line project.

The noise generated by construction of the RTS Project would be generally consistent with that of the Approved Project.

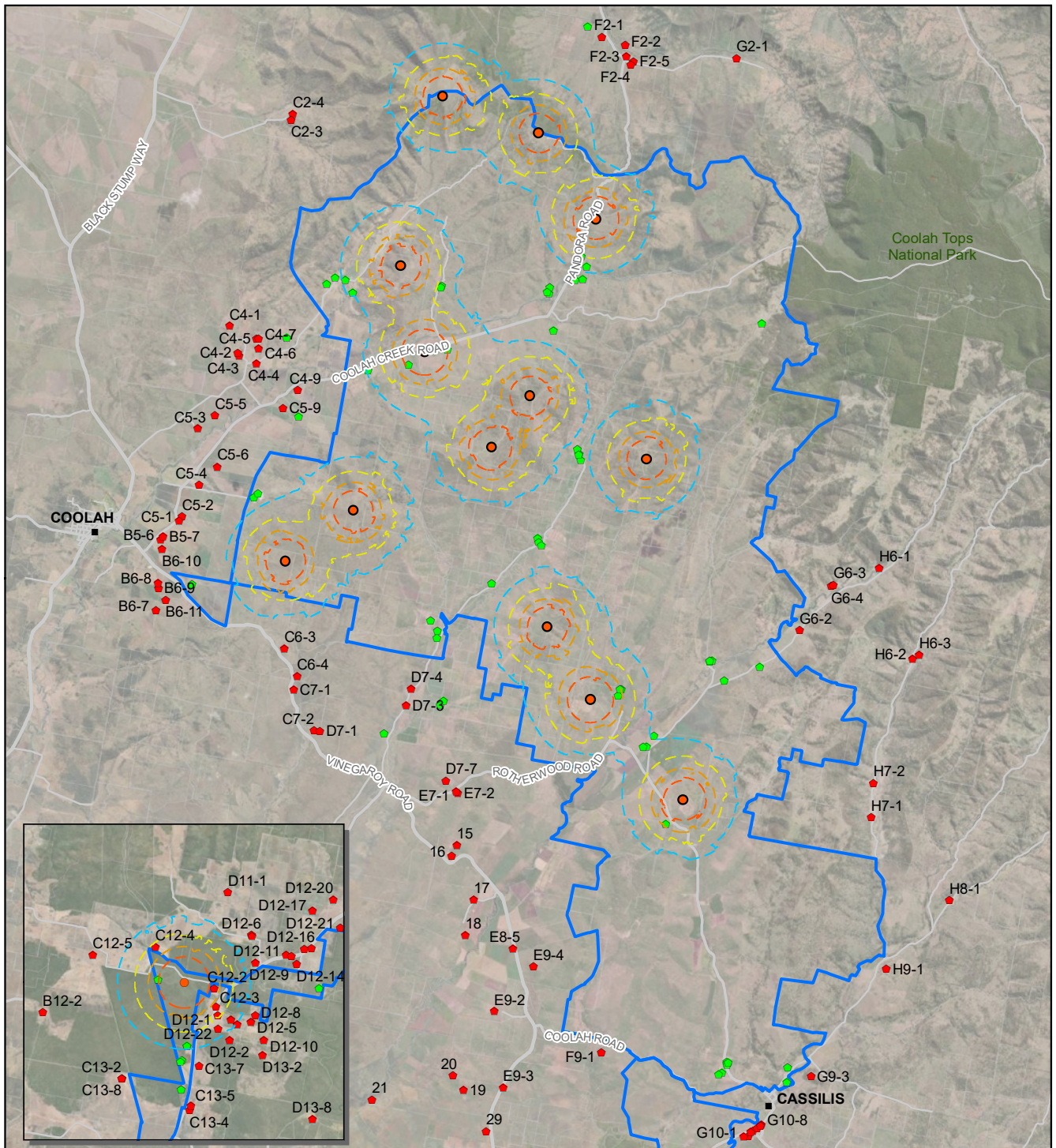
Example sound levels	
dB	Sound source
140	Jet engine at 30m
130	Rivet hammer (pain can be felt at this threshold)
120	Rock drill
110	Chain saw
100	Sheet-metal workshop
90	Lawn mower
85	Front-end loader
80	Curbside heavy traffic, lathe
70	Loud conversation
60	Normal conversation
30	Whispering
0	Hearing threshold

Source of table: Safework Australia, 2015

All other construction noise associated with the RTS Project would be consistent with the Approved Project. This includes:

- Construction of the turbine foundations with the use of rock breaker machinery. These works will be short term in nature, moving to the next site as soon each foundation is completed.
- Night time works could be triggered by concrete pours or the erection of wind turbines. These works can take several days before moving to the next turbine location.

FIGURE 1: PREDICTED BATCH PLANT NOISE WITHIN WINDFARM



Document Path: G:\GIS\Project Data\Development\NSWLiverpool\Maps\Working\LRWF_RL241A_Modified Batch Plant Noise Level Map_A4_20230526.mxd

<p>Legend</p> <ul style="list-style-type: none"> RTS Site Boundary Potential Construction Compound, Laydown Area, Batch Plant Location Dwellings ● Associated Dwellings ● Non-Associated Dwellings 	<p>Predicted Noise Levels Concrete Batch Plant</p> <ul style="list-style-type: none"> 35 dB(A) 40 dB(A) 45 dB(A) 50 dB(A) 	<p style="text-align: right;">Date: 26/05/2023 Version: B</p> <p style="text-align: center;">N</p> <p style="text-align: center;">0 1 2 3 4 5 Kilometers</p> <p style="text-align: center;">GDA 1994 MGA Zone 55 1:190,000</p>	
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BLASTING AND GROUND VIBRATION

The RTS Project is likely to require blasting at turbine foundation locations. Consistent with the Approved Project, this activity would meet human comfort limits as well as the relevant guidelines and conditions of the development approval.

CONSTRUCTION TRAFFIC

The RTS Project would result in a negligible increase in the estimated daily volume of construction traffic compared to the Approved Project (see separate fact sheet prepared for traffic and transport). Construction traffic associated with the RTS Project would generate a similar level of noise to the Approved Project. The level of traffic noise expected outside any Non-associated residence during the day would be 55 dB(A) or less, about the level of a normal conversation.

There may also be times where equipment deliveries take place at night due to traffic congestion or for the safe passage of heavy vehicle convoys or especially long loads. These deliveries would comply with the relevant requirements for noise generated on local and regional roads and be governed by a traffic management plan.

Managing construction noise

We will work with the community to reduce the disturbance construction noise could cause. Consistent with the Approved Project we will continue to:

- Schedule construction work between 7am and 6pm Monday to Friday and between 8am and 1pm on Saturdays, where feasible
- Limit blasting to between 9 am and 5 pm Monday to Friday and between 8 am to 1 pm on Saturday
- Construction work on Sundays to occur where it is inaudible at Non-associated residences
- Locate fixed noise sources as far as reasonably practicable from residences
- Install acoustic screens around fixed noise sources, where appropriate
- Enclose generators and compressors, where appropriate
- Ensure effective site, equipment and vehicle management

We will also continue to engage with the community throughout construction, to keep them updated on the schedule of works.

Next steps:

We are aiming to lodge the Response to Submissions (RTS) report, Amendment Report, and all updated environmental impact assessments with DPE in June 2023. These reports will detail the consultation completed to-date, how submissions received during public exhibition have been addressed, and will clearly show the changes to the design and layout of the Project. DPE will review the documentation and make a determination on the Modification Application.

We are also seeking Commonwealth approval under a separate approvals process under the *Environment Protection and Biodiversity Conservation Act 1999*. The project will be assessed by way of Public Environment Report (PER) which will be subject to a public exhibition process managed by the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW). Further details on the timing of this will be provided via our website and newsletters.

STAY UP TO DATE

To view the Project online and to subscribe to the newsletter, visit:
www.liverpoolrangewindfarm.com.au



To stay up to date on progress of the Project visit:

Modification Application:

www.planningportal.nsw.gov.au/major-projects/projects/mod-1-turbine-and-infrastructure-changes

EPBC Approval:

epbcpportal.awe.gov.au/all-referrals/project-referral-summary/?id=dc3fd301-9a6b-ed11-81ac-00224818aa21

For more information, please visit the website below

or call us anytime to ask questions using: **1800 WE TILT (938 458)**

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