

## Electromagnetic Interference (EMI) 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 explains the potential impact of the wind turbines on telecommunications, navigation and radar services. It also shows what we are proposing to do to manage potential impacts. The impacts presented are a worst-case scenario. With the measures proposed, the potential impacts should be reduced or mitigated.

### What electromagnetic interference should I expect?

The electromagnetic interference associated with the RTS Project would largely be consistent with the Approved Project.

An Electromagnetic Interference (EMI) Assessment was undertaken for the RTS Project. The key findings and the actions we will take to manage potential impacts are summarised in the following sections.

#### WHAT IS EMI?

**Electromagnetic interference (EMI) is unwanted noise or interference in an electrical path or circuit caused by an outside source. It is also known as radio frequency interference. EMI can cause electronics to operate poorly, malfunction or stop working completely.**

### Electromagnetic interference

The EMI Assessment found the RTS Project would likely avoid impacts on:

- Existing point-to-point links
- Two communication towers located within 2 km of the nearest turbine
- Existing mobile reception
- New communication link proposed by NSW Telco – three turbines (D40, D43, and E31) have now been shifted to avoid impacts

However, the RTS Project could impact one Land Mobile Radio licence and the Bureau of Meteorology's Namoi (Blackjack Mountain) weather radar located approximately 80 kms to the north of the Project site. We are working with the owner of the Land Mobile Radio licence and Bureau of Meteorology on how best to manage potential impacts.

While existing TV coverage was assessed as marginal, it is unknown whether the RTS Project will impact on TV reception.

However, in the event it does, mitigation measures will be applied.

**More information about electromagnetic interference can be found in the EMI Assessment provided as an attachment to the Response to Submissions (RTS) Report.**

## Managing electromagnetic interference

The table below shows the mitigation measures available for potential interference with point-to-area style communications (e.g. mobile phones, radio and television broadcasting). Point-to-point links (e.g. line-of-sight connections) are unlikely to be affected by the RTS Project. Mitigation measures for point-to-multipoint services will be determined in consultation with the relevant stakeholders. We will continue to monitor for electromagnetic interference. In the event there is an unexpected impact on radio communications we will rectify this.

Proposed mitigation	
Type	Available mitigation measures
Mobile Phones	Move a short distance until the signal improves or use an external antenna
Wireless Internet	Move outdoor antennas, micro-site wind turbines or install new NBN tower
Radio (FM)	Install antennas or amplifiers at affected residences, increase the broadcast signal strength from the transmission tower, move the tower or install a signal repeater
Television	Realign or relocate antenna, tune antenna to an alternative source, install a more directional or higher gain antenna, install satellite television or a television relay station. Residents within 10 kms of the Project site can request pre-construction and post-construction reception surveys
Land Mobile Licence	Work with the licensee to ensure existing signal strength and quality is maintained
Weather radar	Work with the Bureau of Meteorology to maintain weather radar signal quality

### 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.

### 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](http://www.planningportal.nsw.gov.au/major-projects/projects/mod-1-turbine-and-infrastructure-changes)

EPBC Approval:

[epbcpublicportal.awe.gov.au/all-referrals/project-referral-summary/?id=dc3fd301-9a6b-ed11-81ac-00224818aa21](http://epbcpublicportal.awe.gov.au/all-referrals/project-referral-summary/?id=dc3fd301-9a6b-ed11-81ac-00224818aa21)

#### STAY UP TO DATE

To view the Project online and to subscribe to the newsletter, visit:

[www.liverpoolrangewindfarm.com.au](http://www.liverpoolrangewindfarm.com.au)



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For more information, please visit the website below

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