

# Liverpool Range Wind Farm

Fact Sheet

01

October  
2021

## Aviation Fact Sheet



### Why was the assessment undertaken?

The layout and height of wind turbines can result in potential impacts upon nearby airfields, air routes and air safety navigation.

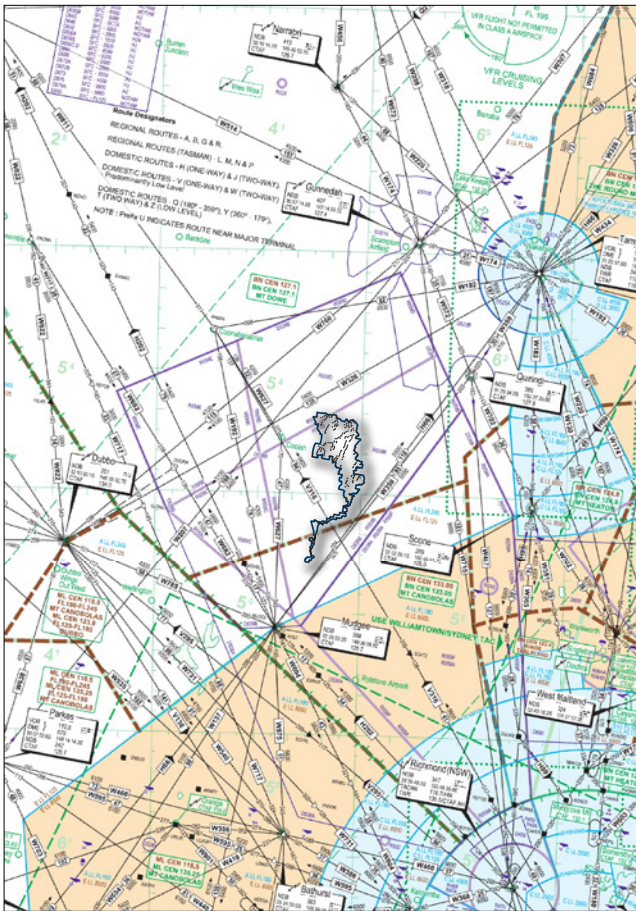
An Aviation Impact Assessment (AIA) was prepared by Aviation Projects Pty Ltd to assess the potential aviation impacts associated with the following key changes to the approved wind farm layout and design proposed by the Modified Project:

- Increase in maximum blade tip height to 250 metres (m) above ground level (AGL) (increase of 85 m)
- Decrease in maximum number of turbines to 223 (removal of 44 wind turbines).
- Revised turbine layout and associated ground elevations
- Proposed inclusion of up to 14 x permanent meteorological masts (metmasts) of up to 169 m AGL

### What was the approach?

The AIA was prepared considering the relevant conditions of Development Consent SSD 6696 and in accordance with all relevant publications, guidelines, Acts and Regulations, to demonstrate that appropriate risk mitigation strategies have been identified. In particular the AIA addresses the following:

- Considered all potential aviation activities including recreation, commercial, civil (including for agricultural purposes) and military operations, including departure and approach procedures for airfields.
- Assessed the impacts of wind turbines and permanent masts on flight procedures and aviation communications, navigation and surveillance (CNS) facilities, and radar operations.
- Undertook a safety risk assessment and considered the requirements for obstacle lights and markings on wind turbines and permanent metmasts.
- Completed a comparative assessment of the potential aviation impacts associated with the Approved Project and the Modified Project.
- Consulted with relevant aviation operators and authorities, including with Airservices Australia, Department of Defence, Royal Flying Doctor Service, NSW Rural Fire Service, National Parks and Wildlife Service, and all relevant local councils.



Flight map: Example of aviation activity near the Project site

## What did we find and how does it compare to the Approved Project?

The AIA found that the nature and extent of potential aviation impacts associated with the Modified Project are generally consistent with those associated with the Approved Project and can be mitigated/managed appropriately. The table below provides a snapshot of the potential impacts associated with the Modified Project and a comparison against what was previously found for the Approved Project.

	Approved Project	Modified Project
<b>OLS and PANS-OPS surfaces of any registered or certified aerodrome</b>	Will not infringe on any OLS and PANS-OPS surfaces of any registered or certified aerodrome.	Will not infringe on any OLS and PANS-OPS surfaces of any registered or certified aerodrome.
<b>Aviation Obstacle Lighting and Marking</b>	Aviation obstacle lighting on wind turbines not required. Metmasts were not assessed.	Aviation obstacle lighting of turbines or metmasts is not considered necessary as it is unlikely that they would create a safety hazard to aviation activity in the area at night.
<b>Aircraft Landing Areas (ALAs) – unregulated/uncertified landing areas</b>	Impact to flight circuit operations not assessed in detail. Wake turbulence impacts not assessed in detail.	No impact to flight circuit operations at any ALAs. Based on conservative worst-case estimates specified in the National Airport Safeguarding Framework - Guideline D wake turbulence may be noticeable at five nearby ALAs. All relevant ALA operators are aware of the potential impacts.
<b>Radar Navigation Aids:</b> - Cecil Park Primary Surveillance Radar (PSR) and Sydney PSR - Mt Sandon Secondary Surveillance Radar (SSR), Cecil Park, and Sydney SSR - Mt Boyce Route Surveillance Radar (RSR) and Round Mountain RSR - Williamstown Tactical Air Command military radar	No expected impact.	No expected impact – outside of radar line of sight.
<b>Lowest Safe Altitude (LSALT) protection surfaces for published air routes</b>	No expected impact.	Will infringe on a single 4-degree grid LSALT protection surface. Mitigation measures are required.

## What are the proposed mitigation strategies?

When considering the Modified Project, the Department of Planning, Industry and Environment (DPIE) will refer the application to the relevant aviation authorities including the Civil Aviation Safety Authority (CASA) for their advice.

So that the Vertical Obstacle Database can be updated relevant aviation authorities will be provided details of the wind farm, including turbine coordinates and maximum blade tip heights, once a wind turbine model has been selected and the layout finalised.

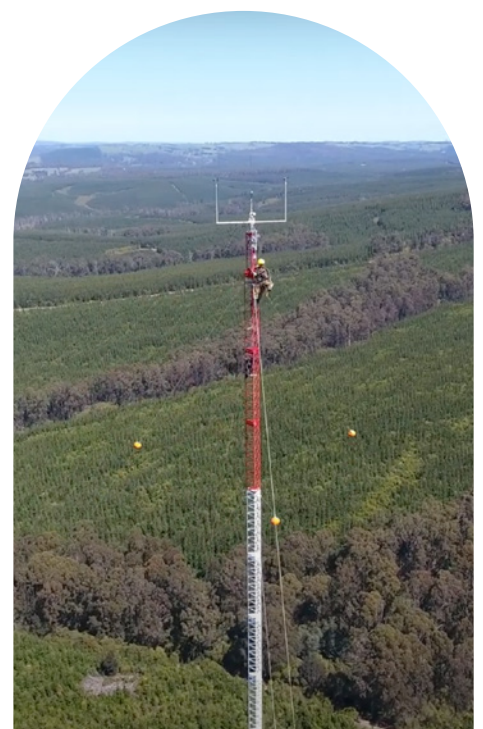
Further consultation with nearby ALA operators and aerial firefighting operators will continue as the turbine layout is finalised prior to construction.

Aviation marker painting and balls will be included on the permanent metmasts to minimise potential aviation safety risks due to their tall slimline design, which can make them less visible in the day or night sky.

LSALT protection will be addressed through an administrative change to raise the relevant grid LSALT by 30m prior to construction.

## Assessment against Development Consent

The Modified Project can comply with the existing conditions of the Development Consent relating to aviation, and as part of those conditions, the Project is required to implement mitigation measures to immediately adjacent landholders where aerial agricultural operations are impacted by turbines.



For more information, please visit the website below

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

**Email:** [liverpoolrangewindfarm@tiltrenewables.com](mailto:liverpoolrangewindfarm@tiltrenewables.com) | **Web:** [www.liverpoolrangewindfarm.com.au](http://www.liverpoolrangewindfarm.com.au)

**Postal Address:** PO Box 16080 Collins St West, Melbourne Vic 8007