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AIR NAVIGATION, AIRSPACE AND AERODROMES BRANCH

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CASA ASSESSMENT – THE PLAINS WIND FARM SSD-50629707

CASA has reviewed the Aviation Impact Assessment (AIA) (Appendix Q to the EIS) by Aviation projects for the proposed The Plains Wind Farm.

- The proposal is for up to 188 Wind Turbine Generators (WTGs) that will be up to 270 m Above Ground Level (AGL) tip height.
- There will be up to 10 new wind monitoring towers (up to 95 m AGL)
- There will be transmission lines.
- The WTGs are located beyond the Obstacle Limitation Surface (OLS) of the nearest certified aerodrome - Hay Aerodrome (YHAY)
- The 10nm MSA and 25nm NSA for Hay Airport will be affected.
- Hay Airport RNP RWY 04 approach procedure will all be affected.
- The Project would not affect the RNP GNSS RWY 22 procedure, however due to requirement of increasing the 25 nm MSA to 2200 ft the minimum altitudes in some segments would need to be increased.
- The Aviation Impact Assessment advises that Ravensworth aerodrome (YRWH), North Bundy Station (YNBS) and an unnamed ALA 1 are the closest to the Project. However, no WTGs are located within a radius of 3 nm of closest runway.

Except for Recommendation 7 *'Lighting of WTGs'*, CASA agrees with the Recommendations at Section 11 of the Aviation Impact Assessment.

Contrary to Recommendation 7, CASA considers the proposed wind farm will be a hazard to aviation safety and recommends that the wind farm is obstacle lit with steady medium-low intensity red obstacle lighting in accordance with the National Airports Safeguarding Framework Guideline D '*Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation'* National Airports Safeguarding Framework Principles and Guidelines (infrastructure.gov.au) and section 9.31 of Part 139 Aerodromes Manual of Standards Part 139 (Aerodromes) Manual of Standards 2019 (legislation.gov.au).

International standards require, and the NASF guideline recommends, 2,000 candela lighting intensity. CASA recommends that 200 candela as a minimum intensity lighting would suffice. The

obstacle lighting should be monitored to alert the wind farm operator of any outage. The lighting system should have a failsafe mode to ensure that at least some of the obstacle lights remain on during an outage, and a management system developed to ensure any outages are corrected promptly. CASA is prepared to review a lighting plan that indicates which turbines are proposed to be lit.

As the Aviation Safety regulator, CASA does not consider the visual impact of obstacle lighting on neighbours / homesteads. However, there are mitigations for visual impact such as baffling and intensity control (as described in the Aviation Impact Assessment Table 16 / Page 59 'Effect of obstacle lighting on neighbours').

Further to Recommendation 11, and as recommended by the Aerial Application Association of Australia, CASA recommends that the following Australian Standard be considered regarding overhead transmission lines:

- AS 3891.2, Air navigation — Cables and their supporting structures — Marking and safety requirements, Part 2: Low-level aviation operations.

The proponent or Aviation Consultant should engage with Airservices Australia (flight procedure designer for Hay Aerodrome) regarding the changes to instrument approach procedures (including MSAs) for Hay Aerodrome. There should be no changes to instrument procedures without the permission of the airport operator. (It is expected that the Airport Operator will consult with aviation operators to ensure that all stakeholders understand the proposed changes that are required to accommodate the Wind Farm.)

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Yours sincerely

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