



AIR NAVIGATION, AIRSPACE AND AERODROMES BRANCH

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### **CASA ASSESSMENT – POTTINGER WIND FARM SSD-59235464**

CASA has reviewed the Aviation Impact Assessment (AIA) (Appendix Q to the EIS) by Aviation projects for the proposed Pottinger Wind Farm, ~60 km south of Hay.

- The proposal is for up to 247 Wind Turbine Generators (WTGs) that will be up to 280 m Above Ground Level (AGL) tip height.
- There will be up to 10 wind monitoring towers (up to 180 m AGL)
- The WTGs are located beyond the Obstacle Limitation Surface (OLS) of the nearest certified aerodrome - Hay Aerodrome (YHAY)
- The Airservices Assessment of 2 May 2024 advises the following will be affected:
  - the 25nm MSA for Hay Airport.
  - lowest safe altitude for the air routes H247 and W762.
  - Grid LSALTs.

This CASA assessment is made in accordance with the *National Airports Safeguarding Framework (Guideline D)* as developed by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts, to provide planning advice to State and Local Planning Authorities.

With regards to Visual Flight Rules (VFR) operations, pilots are permitted to fly as low as 500 ft AGL (ie, terrain). The WTGs will reach up to a maximum height of approximately 291.5 m (956 ft) AGL.

Except for Recommendation 8 '*Lighting of WTGs*', CASA agrees with the Recommendations at Section 11 of the Aviation Impact Assessment.

Contrary to AIA Recommendation 8, 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 2,000 candela lighting intensity on the nacelle (also recommended in the NASF guideline) and 200 candelas at the mid-point of the turbine mast. CASA recommends that 200 candela as a minimum intensity lighting on the nacelle would suffice (due mainly to the lack of background lighting in the vicinity of the turbines). The obstacle lighting should be monitored to alert the wind farm operator of any outage and at least some of the obstacle lights should remain on during an outage. 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 15 / Page 63 '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.

Recommendation 2 could read:

Ideally this should only be done if potential impacts have been considered – through an aviation impact assessment or by sending the details to Airservices Australia in advance of the mast and/or WTG being erected, ....

Note that the Airservices Assessment advises: **Please consult with the aerodrome and aviation operators to ensure that they accept the proposed changes.**

Recommendation 4 could read:

Details of the wind farm should be provided to the operator of Hay Aerodrome and to local and regional aircraft operators prior to construction in order for them to consider the potential impact of the wind farm on their operations.

Yours sincerely

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