



CASA Ref: F24/25602-1
Your Ref: SSD-50505215 Wed 21/08/2024 4:19 PM

MAJOR PROJECTS – BULLAWAH WIND FARM SSD-50505215, CASA COMMENTS

- The proposal includes up to 143 Wind Turbine Generators (WTGs) that will be up to approximately 300 m Above Ground Level (AGL) tip height.
- There will be up to 7 permanent wind monitoring (or similar) towers up to 200 m AGL.
- The WTGs are located beyond the Obstacle Limitation Surface (OLS) of the nearest certified aerodrome - Hay Aerodrome, about 38km to the north west.
- The 25 nm MSA will need to be increased by 700 ft to 2400 ft or sectorised for the Project Area (to be confirmed by Airservices). Air routes Q60 and W762 LSALTs will need to be raised by 200 ft (to be confirmed by Airservices).
- The Aviation Impact Assessment advises that one (known) Aeroplane Landing Area (ALA or uncertified aerodrome), Host ALA, is within the area and will be affected.
- The AIA considers the National Airports Safeguarding Framework (Guideline D).

According to Visual Flight Rules (VFR), pilots are permitted to fly as low as 500 ft AGL. The maximum height of the WTGs is approximately 300 m (984 ft) AGL.

International standards require 2,000 candela lighting intensity on the nacelle / generator housing (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). Mid-point lighting on

the turbine mast is not essential. The obstacle lighting should be monitored to alert the wind farm operator of any outage. The lighting system design should ensure that some of the obstacle lights 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 13 / Page 60 'Effect of obstacle lighting on neighbours'). Also, Section 15.4 'AHL Mitigation Measures' and Section 16.2 of the Landscape and Visual Impact Assessment by Moir describe recommendations to reduce the potential visual impacts from Aviation Hazard Lighting (AHL).

Further to Recommendation 5, AS 3891.2:2018 Air navigation – Cables and their supporting structures – Marking and safety requirements Part 2: Low level aviation operations. AS 3891.2, Air navigation — Cables and their supporting structures — Marking and safety requirements, Part 2: Low-level aviation operations is available.

The recommended changes to air routes W762 and Q60 lowest safe altitudes (LSALT) and 25 nm MSA are covered in Aviation Impact Assessment Sections 6 and 10 but not specifically included in Section 11 Recommendations. The proponent (or the proponent's Aviation Consultant) should engage with Airservices Australia regarding the changes to the LSALTs and the 25 nm MSA before the offending WTGs have been erected. The proponent (or the proponent's Aviation Consultant) should also advise the Hay Aerodrome Operator (Hay Shire Council) of the recommended change to the 25 nm MSA.

Yours sincerely

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