Australian Government

Civil Aviation Safety Authority

STAKEHOLDER ENGAGEMENT DIVISION

CASA Ref: GI18/607

23 August 2018

Ms Natasha Homsey
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Resource and Energy Assessments
Planning Services
Department of Planning & Environment
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SYDNEY NSW 2001

Email: natasha.homsey@planning.nsw.gov.au

Dear Ms Homsey

Thank you for your email of 10 August 2018 requesting comment from the Civil Aviation Safety Authority (CASA) on an application to further modify the Flyers Creek Wind Farm Project (08_0252), near Orange, New South Wales.

CASA has reviewed the aeronautical impact assessment in accordance with the International Civil Aviation Organization Annex 14 Volume 1 which states:

> 4.3.2 Recommendation. In areas beyond the limits of the obstacle limitation surfaces, at least those objects which extend to a height of 150 m or more above ground elevation should be regarded as obstacles, unless a special aeronautical study indicates that they do not constitute a hazard to aeroplanes.

It is noted that this study may have regard to the nature of operations concerned and may distinguish between day and night operations.

I am advised that the development comprises of 38 wind turbines, at a maximum height of 160m high (528ft) above ground level (AGL), located approximately 15km south of Orange Airport and 46km east of Cowra Airport. The turbines will reach to a height of 528ft AGL, and therefore the turbine blades will infringe navigable airspace for visual flight rules (VFR) aircraft by 28ft. CASA has determined that VFR and other aircraft complying with the rules of the air are required to avoid any charted obstacle by at least 500ft vertically. This is supported by the aeronautical impact assessment prepared by Aviation Projects. The risk to air navigation is mitigated to an acceptable level of safety providing these obstacles are appropriately identified by a Notice to Airmen (NOTAM) and on aviation charts.

CASA does not consider lighting of the turbines necessary for this proposal. However, as military aircraft operate to lower heights than civilian aircraft, the Department of Defence should be consulted to confirm that the proposed turbine blades will not generate a risk to the safety of military aircraft operations. If Defence determines that the turbine blades will generate a risk to the safety of military aircraft operations, CASA recommends the wind farm be lit with steady red medium intensity lighting at night as per subsection 9.4.7 of the CASA Manual of Standards for Part 139 of the Civil Aviation Safety Regulations 1998 and in accordance with the National Airport Safeguarding Framework guidelines.

The proponent must ensure that the coordinates and survey heights of each turbine blade are reported to CASA prior to project works commencing to ensure that a NOTAM is published with information about obstacles that may impact the safety of air navigation during the construction phase.

The proponent is required to advise Airservices Australia of the coordinates and final survey heights of each turbine at least one month prior to completion of the project so that the information can be published on the relevant aviation charts and can be included in a temporary NOTAM pending publication of the obstacle information on the relevant aviation charts. Airservices Australia can be notified by email at: vod@airservicesaustralia.com.

The proponent should also consider the specific issues which are contained in the attachment as part of any planning and development.

For more information or to discuss this matter further, please email: anaa.corro@casa.gov.au.

I trust this information is of assistance.

Yours sincerely

Carolyn Hutton
Branch Manager
Government and International Relations

ATTACHMENT – CASA Recommendations

Departure and Approach Procedures

Any proposed structures and cranes if used in construction should be referred to the procedure design organisation/s responsible for the maintenance of instrument flight procedures at the Aerodrome. Please be aware that there may be more than one organisation responsible for the procedures at the aerodrome.

To check which organisations are responsible you can view the procedures at: http://www.airservicesaustralia.com/aip/aip.asp then Departure and Approach Procedures. The logo on the bottom of each procedure plate indicates the design organisation responsible.

Compliance with standards

Any aerodrome developments to aviation facilities associated with the planning proposal need to be consistent with the requirements of Civil Aviation Safety Regulations 1998 Part 139 and the associated Manual of Standards. Further details are available on the CASA website: https://www.casa.gov.au/standard-page/casr-part-139-aerodromes

The National Airports Safeguarding Framework provides guidance on planning requirements for development that affects aviation operations. This includes building activity around airports that might penetrate operational airspace and/or affect navigational procedures for aircraft. The Framework consists of a set of guiding principles with six guidelines relating to aircraft noise, windshear and turbulence, wildlife strikes, wind turbines, lighting distractions and protected airspace. Further information is available from the following link: https://infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasf/

Aerodrome operations

Consultation should also be undertaken with the aerodromes operational management team to manage the following issues with developments adjacent to any aerodromes:

- Airport master planning: Council should ensure that the proposal does not affect any future development or upgrades planned by the aerodrome's operational management.
- Obstacle limitation surfaces (OLS) and Procedures for Air Navigation Services – Aircraft Operations: Prior to construction, the development and crane activity should be reviewed by the aerodrome's management team for the protection of these surfaces.
- Wildlife hazard management plan: Consideration needs to be given to the final heights and bird attractions of landscaping provisions which potentially may cause a risk to aviation activities.
- Obstacle lighting: The building and any construction cranes would need to be marked to comply with CASR 139 and associated MOS, paying particular attention to the quantity, type, luminescence and whether day and/or night marking is required.
- Lighting in the vicinity of an aerodrome: Any proposed non-aeronautical ground light in the vicinity of an aerodrome may by reason of its intensity, configuration or colour, cause confusion or glare to pilots and therefore might endanger the safety of aircraft.
- Gaseous plume: Exhaust plumes can originate from a number of sources and aviation authorities have established that an exhaust plume with a vertical gust in excess of 4.3 metres/second may cause damage to an aircraft airframe, or upset an aircraft when flying at low levels.
- Control of dust: During any construction the emission of airborne particulate may be generated which could impair the visual conditions.