



**Australian Government**  
**Civil Aviation Safety Authority**

AIR NAVIGATION, AIRSPACE AND AERODROMES

File Ref: F18/1791-1

15 June 2018

Mr Lee Webb  
Planning Officer  
Department of Planning Transport and Infrastructure

Email: Lee.Webb@sa.gov.au

Dear Mr Webb,

**PROPOSED CRYSTAL BROOK ENERGY PARK, PORT PIRIE, SA**

Thank you for your email dated 22 May 2018 requesting CASA comment regarding the Crystal Brook Energy Park, Port Pirie, South Australia.

The proposal consists of two parts, a wind farm comprising 26 turbines with a maximum blade tip height of 240m AGL, and a solar farm consisting of 170ha of single axis tracking photovoltaic panels facing north.

**Solar Farm**

The solar farm is located at a distance from the nearest aerodrome that would not be a hazard to air navigation and therefore does not require a glare analysis.

**Wind Turbines**

Due to their height above ground level, CASA considers the turbines to be a potential hazard to air navigation. The risk can be suitably mitigated by the installation of steady red medium intensity hazard lights installed in accordance the NASF Guideline D – Wind Turbines, para 35 to be operational at night and at times of reduced visibility.

ICAO recommends that: *the obstacle lights should be installed on the nacelle in such a manner as to provide an unobstructed view for aircraft approaching from any direction.* (Ref ICAO Annex 14 Vol 1 para 6.2.4.4).

NASF Guideline D – Wind Turbines, para 36 states: *To minimise the visual impact on the environment, obstacle lights may be partially shielded, provided it does not compromise their operational effectiveness.*

Should obstacle lighting be considered to have a negative impact on visual amenity and result in resident objection, CASA recommends that an Aircraft Detection Lighting System (as recommended in the United States Federal Aviation Administration Advisory Circular AC 70/7460-1L CHG1 – Obstruction Marking and Lighting), be installed. Such a system would only activate the lights when an aircraft is detected in the near vicinity and

deactivate the lights once the aircraft has passed. This would be a reasonable and feasible alternative to having the lights activated from dusk to dawn and in low light levels during the day. It would also ensure that aviation hazard lighting is implemented in a manner that minimises visual intrusion to surrounding residences.

In support of subpart 175.E of the Civil Aviation Safety Regulations 1998, CASA recommends that all permanent obstacles 100 m or more above ground level are reported to the Aeronautical Information Service (AIS) provider, Airservices Australia.

Any decision to light, or not light, the proposed turbines remains with the planning authority to determine.

Yours sincerely



Kevin Scrimshaw  
Acting ANAA Branch Manager

15<sup>th</sup> June 2018