



Australian Government

Civil Aviation Safety Authority

AIR NAVIGATION, AIRSPACE AND AERODROMES

File Ref: EF11/1146-11

30 June 2016

Mr Michael Juttner
Senior Planner
Department of Environment, Land, Water and Planning
1 Spring Street
MELBOURNE VIC 3000

Dear Mr Juttner,

PROPOSED HAWKESDALE WIND FARM – REVISED ASSESSMENT

On 4 November 2015, CASA advised that the proposal for the Hawkesdale Wind Farm (26 wind turbines with tip heights up to 180 m AGL) would have an unacceptable impact on aviation safety as the following PANS-OPS surfaces for Warrnambool Aerodrome would have been affected:

- 10NM MSA will be penetrated by 186 ft.
- RNAV-Z (GNSS) RWY 13 Approach left initial leg will be penetrated by 370 ft.
- NDB-A holding pattern will be infringed by 161 ft.

The NDB has been decommissioned. The 10NM MSA has been addressed (2100 ft) in the Airservices RNAV-Z (GNSS) RWY 31 procedure dated 26 May 2016.

CASA has received a report from The Airport Group 'Hawkesdale Wind Farm and Warrnambool Instrument Flight Procedures Prepared for Warrnambool City Council November 2015'. The report advises:

- The lowest altitude an aircraft may descend to in the initial segments of the RNAV-Z (GNSS) Instrument Flight Procedure to Runway 13 at Warrnambool, must change from 1700ft to 2100ft once the wind farm is constructed,
- The 10nm MSA should be amended from 1900ft to 2100ft in coordination with Airservices Australia.

A marked up copy of the RNAV-Z (GNSS) RWY 13 Approach procedure with the above amendments included was included in the report.

CASA recommends that the revised RNAV-Z (GNSS) RWY 13 Approach procedure by the The Airport Group is implemented in August 2016.

CASA considers the proposal to be a hazard to aviation safety, but the risks to aircraft safety would be mitigated by the provision of obstacle lighting.

CASA recommends that the wind farm is lit with steady red medium intensity lighting at night as per Section 9.4 of the CASA Manual of Standards Part 139. Characteristics for medium intensity lights are stated in subsection 9.4.7. The turbines that should be lit are those identified by Aviation Projects in the drawing '100401-02 Hawkesdale Wind Farm Obstacle Lighting Design v1.1 151009'.

If you require further information, please call Matthew Windebank or David Alder on 131757.

Yours sincerely

A handwritten signature in cursive script that reads "David Alder".

David Alder
Aerodrome Engineer

cc: Mr Shaq Mohajerani, Union Fenosa

cc: Mr Terry O'Sullivan, Airport Service Manager, Warrnambool City Council