



CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

Te Mana Rererangi Tūmatanui o Aotearoa

NAVIGABLE AIRSPACE DETERMINATION: NZ Windfarms Limited – Te Rere Hau Wind Farm, 376 North Range Road, Palmerston North.

PURSUANT TO Rule Part 77 of the Civil Aviation Rules I, Sean Turangarau Kere Rogers, Manager Aeronautical Services, having received from NZ Windfarms Limited, notification of intention to erect a series of Wind Farm Turbines at a site located at 376 North Range Road, Palmerston North, conducted an aeronautical study in consultation with such persons, representatives and organisations as I considered appropriate.

After completing the aeronautical study, I am satisfied that the proposed action, if executed, could constitute a hazard in navigable airspace.

THEREFORE I HEREBY ISSUE a

DETERMINATION OF HAZARD IN NAVIGABLE AIRSPACE

in respect of the above notification.

The following conditions are specific to this Determination:

1. The wind turbines shall be lit with appropriate obstacle lights in accordance with a CAA agreed lighting plan meeting the applicable aspects of the CAA Lighting and Marking of Wind Farm Turbines Policy, International Civil Aviation Organisation Annex 14 and Civil Aviation Rule Part 77, Appendix B as follows:
 - a. The highest turbines, those at the extremities of the site, and other turbines around the perimeter of the site will be lit to enable pilots to identify the extent of the windfarm. The spacing between lit turbines will not exceed 900m along the perimeter and the flashing should be coordinated between all the lights in the wind farm so that they flash simultaneously; and
 - b. Lighting will be medium intensity red as defined in Rule Part 77, Appendix B10, i.e. an effective intensity of not less than 1600 candela of red light and will flash between 20 and 60 times per minute; and
 - c. For turbines exceeding 150m AGL, a secondary back up light is required plus an array of 3 intermediate low intensity lights installed at a distance of half the nacelle height; and
 - d. The obstruction lights shall be located on or above the top of the nacelle, shall be visible from all directions, and may be shielded below the horizontal plane; and
 - e. The painting of turbines with obstruction marking will not be required. The rotor blades, nacelle and upper 2/3 of the supporting mast of wind

The provisions of this determination are in addition to and not in derogation of the provisions of any other Act, or any orders or regulations made thereunder.

turbines should be painted white, or a similar industry accepted colour, so that they are visible to aviators during hours of daylight.

2. When plans are finalised, NZ Windfarms Limited is to provide exact details of the wind turbine locations and proposed compliant lighting to CAA (Quote 22/77/72 [aeronautical.services@caa.govt.nz](mailto: aeronautical.services@caa.govt.nz)) for review and acceptance; and
3. Prior to construction, NZ Windfarms Limited is to provide details of the wind turbine locations and erection dates to Aeropath Quote 22/77/72 ([info@aeropath.aero](mailto: info@aeropath.aero)) and request inclusion in the relevant aeronautical charts for publication of the revised Minimum Safe Altitudes (MSA) identified in the Aeropath assessment dated 14 June 2022; and
4. Upon receipt of the information in (3) above from NZ Windfarms Limited, Aeropath is to amend the AIP MSA's as specified in the assessment submission dated 14th June 2022; and
5. NZ Windfarms Limited is to provide CAA ([Aeronautical.services@caa.govt.nz](mailto: Aeronautical.services@caa.govt.nz)) with at least seven days' notice of the wind turbine construction commencing and once the construction of all turbines with associated compliant lighting/markings is completed; and
6. Prior to the wind farm construction, NZ Windfarms Limited are to promulgate with Aeropath ([info@aeropath.aero](mailto: info@aeropath.aero)) an appropriate NOTAM and/or AIP supplement for situational awareness of aviators and are to comply with the following temporary lighting solutions:
 - a. A red medium intensity light is to be installed and operational on any attendant crane until such time the permanent light is operational within the area of the turbine (i.e. either on this turbine or an adjacent turbine within 900m – 1040m); or
 - b. A temporary light is to be installed on the turbine nacelle until such time as a permanent light is operational within the area of the turbine.

This Determination of Hazard shall become final on 26th August 2022 unless a petition for review is received by the Director prior to that date.

This Determination of Hazard shall not expire but may be revoked, in writing, by the Director.

Dated at Wellington this 29th day of July 2022.


Sean Turangarau Kere-Rogers
Manager Aeronautical Services

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