CIVIL AVIATION AUTHORITY
OF NEW ZEALAND
Te Mana Rererangi Tūmatanui o Aotearoa

NAVIGABLE AIRSPACE DETERMINATION: **Harapaki Wind Farm, State Highway 5, Hawkes Bay.**

PURSUANT TO Rule Part 77 of the Civil Aviation Rules I, Hamish William McKoy, Senior Technical Specialist, having received from Meridian Energy Limited, notification of intention to erect 41 Wind Farm Turbines and two Meteorological masts at a site in Hawkes Bay, 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 the agreed lighting plan, V2, submitted to CAA in January 2022, 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. 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

    d. 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

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

2. Prior to erecting the masts, Meridian Energy Limited is to provide details of the Wind Turbine locations to Aeropath (info@aeropath.aero) for inclusion in the relevant aeronautical charts and for publication of the revised Minimum Safe Altitudes and affected NZNR IFPs as identified in the revised Aeropath assessment submitted January 2022 ; and

3. Upon notification of (2) above, Aeropath are to revise the affected IPS's and enter the wind farm into the Aeronautical Information Publications (AIP) and enter the turbines into the obstacle data base; and

4. Meridian Energy Limited is to notify CAA (Quote 22/77/33 Aeronautical.services@caa.govt.nz) once the construction of all turbines with associated compliant lighting/marking is completed; and

5. Prior to the wind farm turbines being erected, Meridian Energy Limited are to liaise with Aeropath (Quote 22 77 33 info@aeropath.aero) to publish an appropriate NOTAM and/or AIP supplement for the 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); **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 25th March 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 25th day of February 2022.

Hamish William McKoy
Senior Technical Specialist

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.