

## Department of Health

Public Health Services

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## Environmental Impact Assessments

### *Public Health Services comments*

**Proponent:** Equis Wind (Australia) Projects (LHWF2) Pty Ltd as trustee for the Equis Wind (Australia) LHWF2 Holding Trust

**Proposal/Application:** Bell Bay Wind Farm

**Document title:** *Major Project Proposal: Bell Bay Wind Farm by Equis Wind (Australia) Projects (LHWF2) Pty Ltd as trustee for the Equis Wind (Australia) LHWF2 Holding Trust*

#### **Date of referenced**

**document:** 1 May 2024, revision 4

**Agency/Division/Branch:** Department of Health, Public Health Services (PHS)

#### **Overview**

The Bell Bay Wind Farm (the Project) comprises the use and development of a wind farm, Battery Energy Storage System (BESS), transmission line, buildings and associated infrastructure. Approval for the subdivision of land into separate titles for certain wind farm infrastructure components will also be sought as part of the Project, to assist with the Project's future use, access, and operation. The Project is an optimisation and expansion of the Low Head Wind Farm (LHWF), which was previously approved. The Project is on partially the same land as LHWF. LHWF in its original form is no longer proceeding, however work undertaken for LHWF will continue to help guide and inform this Project.

The Project Area comprises approximately 2780 hectares of land north-east of George Town, including a primary wind farm and BESS area and a transmission line corridor between the wind farm and the existing George Town Substation. The land is generally cleared, non-prime agricultural land across undulating hills and plains. Nearby towns include Low Head and Bellbuoy Beach to the west, Beechford to the northeast, and George Town to the southwest. The Project is close to the Bell Bay Advanced Manufacturing Zone (BBAMZ), a major industrial precinct featuring heavy industry, and a designated Hydrogen Hub by the State and Federal Government.

The Tasmanian Renewable Energy Target (TRET) is a legislated renewable energy target, requiring development of sufficient renewable energy capacity to double current annual electricity generation of 10,500 gigawatt hours (GWh) to 21,000 GWh by 2040, with an

interim target of 150% (or 15,750 GWh) by 2030. The proposed Project will provide a significant single contribution towards the TRET of up to 770 GWh per annum.

## **Key Issues**

PHS advises that current national advice provided by the National Health and Medical Research Council Statement: Evidence on wind farms and human health, 2015 is that significant health effects from wind turbines are unlikely beyond 1500m from a wind farm.

## **Noise**

The Project area is mostly used for agriculture and located between Beechford and Bellbuoy Beach, north east of George Town.

A Noise Impact Assessment will identify the characteristics and location sources to be assessed, the location and nature of receptors and nature of the receptors of the sound source and evaluate baseline sound levels and compare them to the sound levels emitted by the sound source. This data will inform mitigation strategies.

Monitoring will occur after the Project commences to ensure compliance with relevant noise standards including: Environmental Management and Pollution Control Act (EMPCA), The Environment Protection Policy (Noise) 2009 (EPP) and Tasmanian EPA Noise Measurement Procedures Manual 2008 (NMPM).

## **Electromagnetic Interference**

The proposal stated that the electromagnetic interference (EMI) analysis will be carried out but no data has yet been provided. In addition, assessment of extremely low frequency (ELF) electric and magnetic fields (EMF) may also be required as the wind firm will have Battery Energy Storage System (BESS), transmission line, buildings and associated infrastructure.

Electricity transmission lines, substations and transformers will emit extremely low frequency (ELF) electric and magnetic fields (EMF). Assessment should be carried out on ELF EMF fields and compare against reference levels to determine whether mitigation measures are required and assist with the determination of the position of the wind turbine generators (WTGs) to reduce interference with communications and mitigate any other adverse health effects.

The *International Commission on Non-Ionizing Radiation Protection* (ICNIRP) has issued Guidelines for Limiting Exposure to Time-Varying Electric and Magnetic Fields (1 Hz - 100 kHz). Reference levels for exposure of members of the public and occupational exposures are available from the ICNIRP guideline. The ICNIRP ELF guidelines are consistent with Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) understanding of the scientific basis for the protection of the general public (including the foetus) and workers from exposure to ELF EMF.

The World Health Organisation (WHO) has also published Environmental Health Criteria 238, *EXTREMELY LOW FREQUENCY FIELDS* (2007), which may be informative in the preparation of any reports.

### **Shadow Flicker**

The community may be exposed to blade glint and shadow flicker from project infrastructure. Visual amenity is proposed to be considered during the design of the wind farm, particularly regarding the value that the local community puts on landscape character and attributes.

Visual impact and shadow flicker analysis is proposed to be undertaken to assess the potential near and far field visual impacts of the Project. It will outline and evaluate any potential design and siting options that could avoid and minimise potential effects on landscape and visual amenity of neighbouring residences and communities, and additional management strategies that may further minimise potential effects. PHS recommends that blade glint also be included in the visual amenity assessment.

### **Air emissions**

Localised air emissions such as dust and vehicle emissions may be generated during the construction phase, diminishing once operational. While this will be largely contained within the project site, impact beyond the boundary is possible as a result of offsite traffic movements.

Public Health Services supports the further consideration of these emissions, with reference to minimising potential environmental and amenity impacts of increased traffic movements during the 2-year construction phase on any identified sensitive receptors.

### **Community and Stakeholder Consultation**

A *Planning Tasmania* consultation has already gone ahead in order for the Proposal to reach this stage (see [here](#)).

A Community and Stakeholder Consultation Strategy has been developed. The applicant has advised the strategy will be updated to reflect progress and incorporate any emerging engagement issues or needs. A Summary Report will be prepared for lodgement with the Major Project Impact Statement.

### **Summary**

This proposed \$950 million Project will aim to reduce reliance on non-renewable energy sources and reduce greenhouse gas emissions and local air emissions and the population's carbon footprint. It is on land spanning an area of 2780 hectares and will comprise up to 28 wind turbine generators and associated infrastructure. The proposal would generate up to 224 MW of energy and substantially contribute towards Tasmania's Renewable Energy Target. The site builds upon the work undertaken for the previously approved Low Head Wind Farm.

Public Health Services wishes to review the Major Project Impact Statement (MPIS) and review the assessment reports for:

- Noise generation from construction and operational phases (noise impact assessment)
- Electromagnetic interference (EMI), extremely low frequency (ELF) electric and magnetic fields (EMF)
- Visual impact and shadow flicker analysis
- The Community and Stakeholder Consultation Strategy

And receive comments on the suggested proposals for:

- management of any dust mitigation strategy as part of the site Environmental Management Plan.
- Assessment of blade glint

In conclusion, the scale and complexity of the public health impacts of this project proposal warrant the Director of Public Health requiring an assessment of the proposed project's impact on public health. This is required in accordance with section 74(5) of the *Environmental Management and Pollution Control Act 1994*.

**Approved: Stewart Quinn, Acting Environmental Health Director**

A handwritten signature in black ink, appearing to read 'Stewart Quinn', written in a cursive style.

**Date: 2 September 2024**