

# Guildford Wind Farm

Project Overview

June 2022



## Location



The site proposed for the Guildford Wind Farm is approximately 7 km north-east of Waratah and 15 km south of Hampshire in the Waratah-Wynyard Council area.

It is in Tasmania's North West Renewable Energy Zone, an area identified by the Australian Energy Market Operator as optimal for new projects to support Tasmania's renewable energy growth and help the state meet its world-leading target for generating 200% of its energy needs from renewable sources by 2040.

The site has an excellent wind resource, is used for commercial forestry and is crossed by high voltage powerlines.

The proposal involves up to 80 wind turbines with an output capacity of up to 450 megawatts.

## Planning & assessment

The proposed Guildford Wind Farm will be subject to a rigorous and comprehensive assessment process.

The planning aspects of the development application will be assessed by Waratah-Wynyard Council with the environmental impacts assessed by the Environment Protection Authority Tasmania (EPA). The EPA is responsible for identifying key environmental impacts for detailed study, assessing impact reports, recommending conditions for approval and regulating environmental impacts. The EPA has outlined the requirements for assessment and preparation of the project's Environmental Impact Statement (EIS) in Guildford Wind Farm's Project Specific Guidelines.

## Commonwealth assessment

The proposal has been referred to the Australian Department of Agriculture, Water and the Environment for review under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and deemed a 'controlled action'. This means it will also require assessment and approval under the EPBC Act before it can proceed. This assessment will be done by the EPA under the bilateral agreement with the State of Tasmania.

## Environmental Impact Assessment (EIS)

The EIS will require rigorous, technical and comprehensive assessment of various potential impacts by independent specialists. Key considerations identified by the EPA for the EIS include: threatened avian and non-avian fauna, threatened flora and ecological communities, World Heritage properties and National Heritage places, and noise emissions.

After preliminary assessment by Waratah-Wynyard Council and the EPA the EIS will be placed on public exhibition.

## Approval conditions

If the application is approved it will be for the project as described. Construction and operation must abide by any conditions and commitments attached to the approval.

EPA regulatory officers will ensure compliance with any environmental conditions during pre-construction, construction, commissioning, operation and decommissioning.

## Ecology

Increasing renewable energy capacity and protecting local wildlife are both critically important and can both be achieved with careful planning, management, and the right approach. Avoiding and minimising ecological impacts is a priority, and the proposal will require comprehensive and thorough assessment of potential ecological impacts in accordance with both the EPA and federal requirements.

The ecological assessment work will be undertaken by independent ecologists and specialists. It will involve investigating plant and fauna species and habitats within the project boundary over multiple seasons through field studies and surveys. For example, eagle utilisation across the site will be studied for up to two years.

As the ecological work progresses Epuron will work with specialists and stakeholders to modify the design to avoid, minimise and mitigate ecological impacts.

## Noise

Noise from wind turbines can be predicted using acoustic modelling and a technical noise assessment by acoustic specialists is required as part of EIS. This involves applying the noise levels from the candidate wind turbine at all proposed wind turbine locations and using predictive modelling to determine the noise associated with operation of the wind farm at sensitive receptors or dwellings around the site.

The operational noise limit is 35 dB or the background level plus 5 dB at any non-involved residence. The diagram below shows the dB noise levels of familiar sounds for reference.

The wind farm's compliance with the specified noise limits must be predicted to comply before approval can be granted and demonstrated to comply post installation.

The comprehensive technical noise assessment involving predictive modelling will be done by independent acoustic specialists and the results of the assessment will be available in the EIS.

## Landscape and visual impact

A detailed landscape and visual impact assessment will be done by an independent specialist for the EIS. This will include photomontages to show what the proposed wind turbine layout would look like from selected public viewpoints.

Photomontages are compiled from location photographs overlaid with a technical digital representation of the wind farm called a wireframe. Wireframes are produced using specialist industry software and based on precise distances and dimensions of the proposed wind turbine model to provide an accurate and correctly scaled representation.

## Property values

In Australia a number of wind farms have been built on or close to private land. Property prices are influenced by many factors however there is no evidence to suggest that proximity to a wind farm is one of them or to support any correlation between property values and wind farms.

Two studies into whether wind farms influence property values have been done by the NSW Government, with results published by the NSW Valuer General (2009) and the NSW Office of Environment and Heritage (2016). They reviewed property transactions before, during and after the construction of nearby wind farms and analysed sale prices in the context of broader market trends. Both found there to be no link between wind farms and property values.

## Construction and traffic

Construction of the wind farm can only commence after the necessary approvals have been granted and detailed engineering plans finalised.

The project would involve comprehensive construction management and traffic management plans compliant with Work Health & Safety legislation. These would cover all aspects of construction including working hours, noise, traffic and dust management.

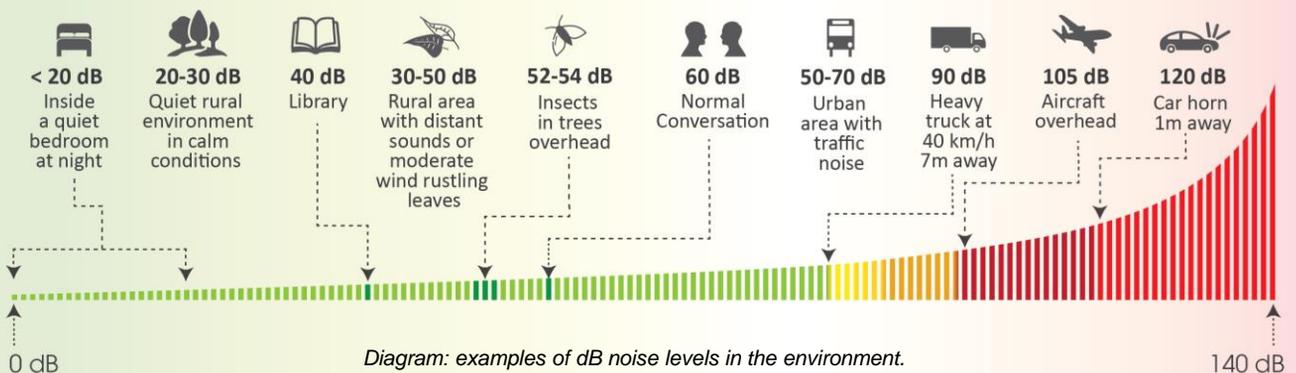


Diagram: examples of dB noise levels in the environment.

## Health

The relationship between noise from operating wind turbines and health effects has been the subject of extensive review by independent medical and research organisations including the Australian Medical Association and the National Health and Medical Research Council (NHMRC).

To date there has been no evidence of a causal relationship between wind turbine noise and adverse health effects.

The NHMRC has concluded in its *Statement: Evidence on Wind Farms and Human Health* (2015) : "After careful consideration and deliberation of the body of evidence, NHMRC concludes there is currently no consistent evidence that wind farms cause adverse health effects in humans."

## Fire safety and management

Wind turbines are designed to mitigate fire risk. They are constructed with fire resistant materials and operated by sophisticated monitoring systems that automatically follow shutdown procedures in response to operational issues, and can be remotely shut down in the event of fire in the area.

Wind turbines also provide a safe path for lightning strikes to the ground and access tracks serve as natural fire breaks.

A comprehensive bushfire management plan for the site would be developed in consultation with forestry management and Tasmania Fire Services. Firefighting on the site would be managed in the same way as any other area, with ground and air based resources subject to prevailing weather conditions, and avoiding wind turbines in the same manner as any other obstructions such as buildings or powerlines.

## End of operation

Wind turbines have an operational life of approximately 25 years. Options at the end of this period include extending the life of the wind farm via refurbishment, repowering the site with new infrastructure or decommissioning.

If the operator decides not to extend or refurbish the facility it will be decommissioned, usually within 18 months of ceasing operation.

Decommissioning would involve the establishment of a decommissioning fund by the operator, the removal of above ground infrastructure including wind turbines, electrical infrastructure and maintenance buildings, and returning the site to its former state where practicable.

## KEY BENEFITS

**JOBS** - The project would provide hundreds of jobs during the construction period and a number of ongoing full-time jobs for maintenance and operations.

**ECONOMIC BOOST** - Construction would generate significant direct and indirect expenditure within the local and Tasmanian economy, including work for contractors and suppliers, and patronage for surrounding accommodation, retail, service and hospitality businesses.

**COMMUNITY FUNDS** - The project will involve a fund to support local initiatives and projects over the 25-year life of the wind farm.

**CLEAN ENERGY** - Growth in Tasmania's renewable energy capacity will deliver clean, affordable and reliable electricity to households and businesses.

## Planning and assessment

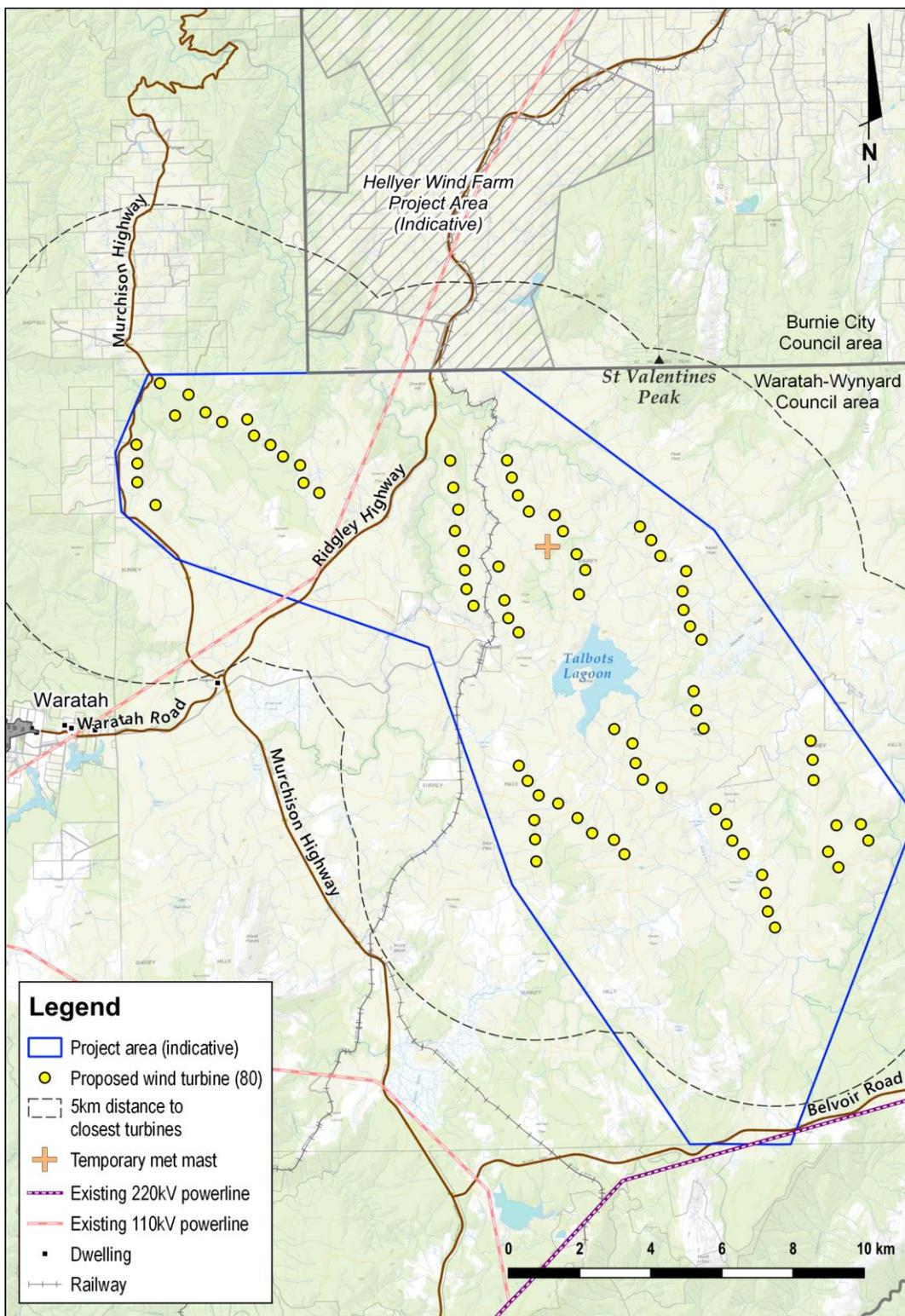
The diagram below outlines the key steps in the planning and assessment process.

- 1 Site selection and preliminary investigations
- 2 Referral to the Australian Department of Agriculture, Water and the Environment for review under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- 3 Notice of Intent (NOI) lodged with the Environment Protection Authority Tasmania (EPA)
- 4 EPBC Act referral decision: controlled action (Ref 2020/8797)
- 5 Project Specific Guidelines for the Environmental Impact Statement (EIS) issued by the EPA

WE  
ARE  
HERE

Studies, assessments,  
iterating site design

- 7 Development application (DA) and EIS submitted to Waratah-Wynyard Council
- 8 DA and EIS referred by Council to the EPA
- 9 Preliminary assessment by Council and the EPA
- 10 DA and EIS on exhibition for public submissions
- 11 Responses to public submissions and requests for additional information from stakeholders (if required)
- 12 Assessment by the EPA Board
- 13 Determination by the EPA Board and approval conditions provided to Council and DAWE
- 14 Determination by DAWE
- 15 Assessment by Council
- 16 Determination by Council



The initial proposed layout involves 80 wind turbines. The project area is adjacent to another proposed wind farm, Hellyer Wind Farm.

### Questions and feedback

Epuron values input from members of the local community and other interested parties. Questions and feedback are welcome and where practicable we aim to incorporate community input into the project design to improve outcomes and benefits. Send comments to [info@guildfordwindfarm.com.au](mailto:info@guildfordwindfarm.com.au) or via online the feedback form at [guildfordwindfarm.com.au](http://guildfordwindfarm.com.au).

### Register for updates

For email updates register at [epuron.com.au/mailling-list-details](http://epuron.com.au/mailling-list-details) and select 'Guildford WF' in your preferences. To receive updates via post send your name, postal address and a request to be added to the mailing list to [info@guildfordwindfarm.com.au](mailto:info@guildfordwindfarm.com.au). We respect your privacy and your details will only be used for this purpose.

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