

Ecology and Environment

ALBERTON WIND FARM KEY FACTS



RIGOROUS RESEARCH:

Extensive assessments and surveys have been undertaken during the feasibility and pre-planning permit application phases including:

- flora and fauna assessment
- bird and bat surveys
- shorebird data analysis
- landscape and visual impact assessment
- aviation impact assessment
- Investigation of possible impacts on broadcasting and radiocommunication services
- cultural heritage assessment
- preliminary geotechnical investigation
- noise assessment
- shadow flicker and blade glint
- preliminary transport management plan

GENERAL IMPACT

FAUNA

Studies have found that the risks of wind farms for bird collision are lower than many imagine, especially compared to the collision risks from other tall structures (such as communication or transmission towers). Their impact is found to be insignificant compared to that of domestic cats, or the loss of habitat through development or ecological change. In Australia collision rates are generally around one to two birds per turbine per year.

Environmental assessments identified a range of bird species within the vicinity of the proposed Alberton Wind Farm (AWF) including the Fork-tailed Swift and the White-throated Needletail, Baillon's Crake, Eastern Great Egret, Intermediate Egret, and Little Egret, White-bellied Sea-Eagle, Powerful Owl, and Swift Parrot.

These assessments found overall that the project does not pose the potential for long term loss of bird life. There is potential for a small number of Fork-tailed Swift and the White-throated Needletail to be impacted because of the height at which they fly, however this would not be ecologically significant, or pose an unacceptable risk to the broader population.

The assessments found that the likelihood for other species to experience turbine collision to be low.

Note: The Minister for Environment, in his determination that an Environmental Effects Statement (EES) is not required for the AWF, noted that further assessment and mitigation of effects and risks to these bird species would need to be undertaken as part of the planning permit process.

FLORA

Environmental assessments found the project would not significantly impact on local flora, because of the long-term land use of the area and the extensive clearing of vegetation undertake over the years.

The project itself would require only a small amount of native vegetation to be removed. Offsets to compensate will be identified and would need to be put in place before the removal of this vegetation.

WATER ENVIRONMENTS

No impacts to aquatic, estuarine or marine ecosystems are expected due to the distance separating the Alberton Wind Farm from the wetland areas of Corner Inlet and Nooramunga. Further, groundwater resources would not be affected due to the small turbine footprint and the ability to respond to any potential water issues during the micro-siting of turbines (refer page 20, <https://www.planning.vic.gov.au/environment-assessment/ees-referrals-from-2013#Alberton>).

SHADOW FLICKER AND BLADE GLINT

The combination of the low number of dwellings in the vicinity of the turbines that could be theoretically effected, (noting those dwellings are those of landowners hosting turbines) along with the ease of mitigating any potential affects, suggests the likelihood of significant environmental effects from shadow flicker is negligible.

A further assessment, undertaken following the issue of a planning permit and final selection of the turbine, will be used to inform the detailed design of the Alberton Wind Farm.

CULTURAL HERITAGE ASSESSMENT AND VOLUNTARY CULTURAL HERITAGE MANAGEMENT PLAN

The results of cultural heritage assessment and surveys undertaken in 2015 and 2016 have informed the layout of turbines, tracks, underground cabling and indicative electrical layout, ensuring the proposed AWEF avoids impact to all known and likely cultural heritage and historical archaeological places.

As the assessment provides due diligence for the proposed development under Sections 27 and 28 of the Aboriginal

Heritage Act 2006, a mandatory Cultural Heritage Management Plan (CHMP) is not required.

However, following further discussions, Aboriginal Victoria has indicated that cultural heritage for this area is relatively unknown, and that whilst low risk, there is a chance of encountering undiscovered cultural heritage during construction. Accordingly, Synergy Wind has commenced preparation of a voluntary CHMP for the proposed project.

A Standard Assessment has already been completed. Further consultation with the Registered Aboriginal Party (RAP) has been undertaken to inform the level of investigation that the RAP will require for the Complex Assessment to approve the voluntary CHMP.

Following issue of a planning permit, development plans will be prepared in compliance with planning permit requirements and the voluntary CHMP, once the proposed extent of the development is confirmed.

NOISE

The final turbine model and layout will be determined by a competitive tender, following issue of a planning permit. Candidate turbine models were nominated to assess the viability of the Alberton Wind Farm to achieve compliance with the applicable noise limits at surrounding received locations. The assessment, undertaken by noise specialists, Marshall Day, demonstrates that the noise limits can be practically achieved.

It is important to note that compliance with wind energy facility noise guidelines is compulsory for any wind energy facility.

For comparison, the following table provides an overview of a range of activities and associated noise levels:

NOISE SOURCE	NOISE LEVEL (dBA)
Busy road at 5km	35-45
Car at 65km/h at 100m	55
City Traffic	90
Conversation or busy general office	60
Jet aircraft at 250m	140
Pneumatic drill at 7m	95
Quiet bedroom	30
Rural night-time background	20-40
Truck at 50km/h at 100m	65
Wind turbine at 350m	35-45

Reference Dr Mark Diesendorf's book Greenhouse Solutions with Sustainable Energy (2007), Chapter 6.



For further information:

Wind energy and noise - go to: <http://embark.com.au/display/public/content/Wind+myths+and+facts#Windmythsandfacts-Noise>.

The EES referral - go to: <https://www.planning.vic.gov.au/environment-assessment/ees-referrals-from-2013#Alberton>.

If you would like more information on the Alberton Wind Farm or Synergy Wind Pty Ltd please:

Phone: + 61 3 85068371 Email: contact_us@synergy-wind.com

