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Alberton Wind Farm

Planning Permit Application for a Wind Energy Facility, Removal of Native Vegetation and Create or alter access to a road in a Road Zone, Category 1

15 September 2017

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EXECUTIVE SUMMARY

Beveridge Williams & Co Pty Ltd acts on behalf of Synergy Wind Pty Ltd (the permit applicant) to make an application for a Wind Energy Facility at Alberton, Gippsland and associated approvals.

Planning Approval

This report provides the strategic justification and assessment of the proposal against the planning requirements as listed in the Wellington Planning Scheme pursuant to the relevant statutory and strategic policy provisions. The assessment contained in this report is based on the submitted wind farm layout and a number of technical assessments which have been prepared to accompany the application.

Approval under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

As part of the assessment of the application under the EPBC Act a referral was made to the federal Minister for the Environment and Energy. A decision was made under section 75 of the EPBC Act that the proposed action is a controlled action and, as such, it requires assessment and a decision about whether approval for it should be given under the EPBC Act.

The federal government further advised that Victorian Government has confirmed that the proposal to construct a 34 turbine wind farm near the township of Alberton West, will be assessed using the Victorian Planning Permit process accredited by the bilateral assessment agreement between the Commonwealth and Victorian governments (the Bilateral agreement made under section 45 of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) relating to environmental assessment).

This application will therefore be assessed under both the Wellington Planning Scheme and the requirements of the Bilateral agreement made under section 45 of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) relating to environmental assessment.

The Proposal

The proposed Wind Energy Facility will involve up to 34 turbines. The turbines will have a maximum overall tip height of 200m. Turbines 31 – 34 must have an overall tip height of 180m in order to be within shadow flicker limits at 3rd party residences.

A manufacturer has yet to be nominated to supply the wind turbines, however the consultant's reports have made assessments which include a number of different wind turbine models.

The Wind Energy Facility will also involve constructing access tracks, cabling, and electrical infrastructure. The ultimate electrical infrastructure plan will be provided in due course. A preliminary report has been provided by Jacobs which investigate the existing network and opportunities for the proposed Wind Energy Facility.

Synergy Wind is a project development company which identifies and develops viable renewable energy sites throughout Australia. Synergy Wind is funded by private investors who have experienced the renewable energy industry from many perspectives - as hosts of wind turbines and solar panels, as developers of wind farms, as owners and users of biomass plants.

Synergy Wind has engaged qualified consultants to undertake specialist investigations to ensure the proposed layout plan meets policy and legislative requirements, and minimises any significant impacts on the area and region.

Specialist investigations undertaken include:

- *Alberton Wind Farm Feasibility Study*, Jacobs (6 October 2015)
- *Alberton Wind Farm, Flora and Fauna Assessment*, Brett Lane & Associates (December 2016)
- *Alberton Wind Farm, Bird and Bat Surveys*, Brett Lane & Associates (August 2016)
- *Alberton Wind Farm, Shorebird Data Analysis*, Brett Lane & Associates (December 2016)
- *Alberton Wind Farm, Targeted Flora Survey*, Brett Lane & Associates (November 2016)
- *Alberton Wind Farm, Additional information on Matters of National Environmental Significance*, Brett Lane & Associates (July 2017)
- *EPBC Act Bilateral Agreement Assessment Documentation – Report No. 14107 (6.7)*
- *Landscape and Visual Impact Assessment*, Green Bean Design Pty Ltd
- *Aviation Impact Assessment, Alberton Wind Farm*, SGS Hart Aviation (16 December 2015)
- *Alberton Vic Wind Farm – Investigation of Possible Impacts on Broadcasting and Radiocommunication Services*, Lawrence Derrick & Associates (4 July 2016)
- *Cultural Heritage Assessment*, Biosis (14 September 2017) & Cultural Heritage Management Plan - Approved 15 February 2018.
- *Preliminary Geotechnical Investigation*, Golder Associates (17 January 2017)
- *Alberton Wind Farm, Noise Assessment*, Marshall Day Acoustics (19 April 2018)
- *Alberton Wind Farm, Shadow Flicker and Blade Glint Assessment, DNVGL (15 September 2017)*

As a result of the assessments undertaken we contend that the subject proposal is an appropriate location for a proposed windfarm and that the proposal will have minimal impact on the amenity of the area.

Summary of Key Matters for Consideration

Matter	Summary of Assessment
Decision Guidelines	<p>The proposed application gives effect to the State and Local Planning Policy Framework and is consistent with the purpose and requirements of zones, overlays and other applicable planning provisions of the Wellington Planning Scheme.</p>
Contribution to Government Policy Objectives	<p>The permit gives effect to the objectives of planning in Victoria and complies with and gives effect to the provision of the Wellington Planning Scheme, in particular Clause 19.01-2S (Provision of Renewable Energy).</p> <p>The approval of the proposal will help achieve the Victorian Government objective "Accelerating development of renewable energy generation in Victoria to reduce emissions, create jobs and put downward pressure on energy prices."</p>
Amenity of the Area and the Surrounding Area	
Flora & Fauna	<p>The design of the proposed wind energy facility (including roadworks) has taken into consideration a number of factors, including the avoidance of state and federal significant species and native vegetation.</p> <p>The investigation was commissioned to provide information on the extent and condition of native vegetation in the study areas according to Victoria's Biodiversity assessment guidelines (DEPI 2013b), as well as any potential impacts on flora and fauna matters listed under the state Flora and Fauna Guarantee Act 1988 (FFG Act) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). This report outlines any implications under relevant national, state and local legislation and planning policies that control development impacts on biodiversity.</p> <p>This bird and bat surveys were commissioned to provide baseline data on the pre-construction utilisation of the wind farm site by birds and bats as a basis for the development of any mitigation measures that may be necessary. As it was finalised at the same of the initial Flora and Fauna assessment it is based on the same layout of the wind farm given at that time.</p> <p>The bird utilisation survey (BUS) scope was consistent with the requirements for a "Level One" bird risk assessment in accordance with 'Wind Farms and Birds - Interim Standards for Risk Assessment' issued by the then Australian Wind Energy Association (AusWEA 2005). This approach has been endorsed in the Clean Energy Council's Best Practice Guidelines (CEC 2013).</p>

Matter	Summary of Assessment
	<p>Bat surveys were undertaken in accordance with Clean Energy Councils' Best Practice Guidelines (2013) using bat detection systems to record the echolocation calls of bats. Records were made from five sites during February and March 2015. The sites included monitoring with two recorders at a wind mast with one microphone at 50 metres, and another at ground level (1-2 metres) at the same location. The survey sites represented the various habitat types within the wind farm with a focus on the possible presence of threatened species of bats.</p> <p>A migratory shorebird survey was undertaken in February 2015 along the coast of the Corner Inlet and Nooramunga Marine and Wildlife Reserves, whose main coastlines lie approximately three kilometres south of the proposed wind farm site. The detailed methodology and results of this survey are included in BL&A Report 14107 (1.3).</p> <p>In July 2017, BL&A prepared an additional report addressing a request for further information for the Department of the Environment, and Energy regarding Matters of National Environmental Significance (MNES). This report has been prepared to supplement the flora and fauna report prepared by BL&A (2016) on the Alberton Wind Farm project. It aims to address specific concerns about the impacts of the project on matters of national environmental significance (MNES) protected under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act). This is required as the Commonwealth Minister for the Environment has made the project a 'controlled action' under this Act.</p> <p>Final assessment of the impacts on Flora and Fauna will be assessed under the bi-lateral agreement between the Commonwealth and State Government. The documentation supplied in order to support the assessment of flora and fauna impact will be assessed concurrently with this planning permit application.</p> <p>Implementation of a Bat and Avifauna Management Plan for the proposed wind farm will ensure that procedures and strategies exist to respond to any unanticipated impacts on the White-bellied Sea-eagle and the Powerful Owl. Implementing these mitigation measures will ensure that obligations under relevant legislation and policies are adhered to, and that requirements to offset native vegetation removal are avoided or minimised. It will also ensure that the environmental footprint of the project is appropriately limited.</p>
Heritage	<p>The results of the 2015 and 2016 cultural heritage assessments and surveys have informed the layout of turbines, tracks, underground cable and indicative electrical layout ensuring the proposed Alberton Wind Energy Facility avoids impact to all known and likely cultural heritage and historical archaeological places. The assessment provides due diligence for the proposed development under Sections 27 and 28 of the Aboriginal Heritage</p>

Matter	Summary of Assessment
	<p>Act 2006. A mandatory Cultural Heritage Management Plan (CHMP) is therefore not required under r.6 of the Regulations because the Activity Area, the Proposed Wind Energy Facility Area, will avoid all areas of designated cultural heritage sensitivity.</p> <p>However, following further discussions, Aboriginal Victoria 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 have undertaken a voluntary CHMP for the Proposed Alberton Wind Energy Facility (CHMP Plan ID. 15167). The CHMP for the proposed development was approved on the 15 February 2018.</p> <p>Following issue of a Planning Permit, final Development Plans will be prepared in compliance with Planning Permit requirements, and the voluntary CHMP. The CHMP will also be referenced in relation to any micro-siting of infrastructure to avoid potential impacts.</p>
Landscape and Visual Amenity	<p>This LVIA has determined that the visual effect of the Alberton Wind Farm is likely to be moderate low from the majority of publicly accessible locations surrounding the wind farm, and that the proposed Alberton Wind Farm:</p> <ul style="list-style-type: none"> • would have a low visual effect on the rural/coastal townships of Toora, Welshpool and Port Welshpool • would have a low moderate visual effect on the rural/coastal townships of Port Albert, Alberton and Yarram • would result in moderate low (albeit short term and transitory impacts) effects on views from the South Gippsland Highway • would result in generally moderate impacts on views from the majority of local roads where fully or partially screened by roadside and/or field boundary tree planting • would not have a significant visual effect from public reserves and recreational areas, including any available views from state significant landscape areas such as the Nooramunga Marine and Coastal Park and Wilsons Promontory National Park.

Matter	Summary of Assessment
Blade Glint and Shadow Flicker	Both the blade Glint and the shadow flicker requirements as specified in the draft National Wind Farm Development Guidelines (July 2010) are met.
Noise	<p>Compliance with the NZS 6808:2010 noise limit is achieved at all wind speeds at all identified non-stakeholder properties identified in the vicinity of the proposed Alberton wind Farm for each of the assessed candidate wind turbine models.</p> <p>Additional Recommendations have been made with regard to stakeholder properties, which will guide the ultimate selection of the Wind Turbine manufacturer.</p> <p>The Policy and Planning Guidelines for the Development of Wind Energy Facilities in Victoria (November 2017) requires that all noise reports must be accompanied by a peer review from an environmental auditor appointed under Part IXD of the Environment Protection Act 1970 verifying that the report or plan is suitable.</p> <p>In accordance with the guidelines and in response to advice from DELWP Synergy Wind engaged EnviroRisk to undertake a peer review of the Marshall Day Noise assessment. The audit report conclude that the Marshall Day report was generally suitable subject to some minor amendments/clarifications. In response, minor amendments have been made to the Marshall Day assessment report.</p>
Electromagnetic Interference	<p>The proposal has the potential to have an impact on telecommunication services (e.g. Interference fixed point-to-point links, satellite television and internet signals, terrestrial television broadcasts etc).</p> <p>In the event that interference is an issue during construction or after commissioning of the proposal, there are several mitigation options available to ensure these impacts are mitigated as details in the report from Lawrence Derrick & Associates.</p>
Aircraft Safety	SGS HART Aviation is of the view that the overall risk to aviation operations in the vicinity of the proposed Alberton Wind Farm is sufficiently low such that the installation of obstacle lights is not necessary, even if the maximum height of the wind turbines were 200m (~656ft).

1 PLANNING PERMIT APPLICATION – PROPOSED WIND ENERGY FACILITY

1.1 Location & Site Description

The proposed AWEF (proposed AWEF) is located 216 kilometres east of Melbourne in South Gippsland in the Shire of Wellington, along the South Gippsland Highway, 6 kilometres south of Yarram.

The district offers many suitable characteristics for a Wind Energy Facility:

- very good wind resources with wind speeds between 7.0 to 7.5 m/s at a height of 65 metres that have been confirmed by 14 months monitoring and data from nearby weather stations.
- relatively low population density and a mix of cleared farmland and natural areas.
- excellent connection to the State electricity grid via a 66kv powerline running through the site thus avoiding the need for extensive construction of overhead power lines.
- excellent connection to transport access from the South Gippsland Highway and access to the Ports of Anthony and Hastings allowing transport of turbines over a short distance compared to other major ports some distance away.

The proposed AWEF is located across private properties held by 13 landowners and Synergy Wind.

The proposed AWEF (Appendix M) comprises:

1. 34 turbines are proposed. Each of the wind turbine structures has a tower and nacelle (containing the turbine). The structures will have an overall tip height of a maximum 200 metres and a minimum ground to blade tip clearance of 40 metres. A total swept Path Area of 15,393.8m³ is generated for each turbine. Elevations of likely turbine types are contained in Appendix M.

The turbines are spread across approximately 8.5 kilometres north-south, and 10 kilometres east-west however the structures occupy a very small footprint within this area (less than 0.05% of the land area). The turbines are to be located in four groups: a large 'vee' shaped central group of 18 turbines to the west-south-west of Alberton; two groups of 4 and 6 turbines each, further to the west, adjacent to the South Gippsland Highway; and a group of 5 turbines to the north, west-south-west of Yarram.

2. Adjacent concrete hardstand (approx. 25m x 45m) to facilitate construction. A plan of a typical hardstand layout is also provided in Appendix M, noted that this typical example is based on a Senvion turbine, and at this stage the Turbine manufacture has not been confirmed as noted below.
3. Underground electrical cables and access tracks link the proposed turbines. Details of the proposed routes of the access tracks and turbines has been provide in Appendix M over 4 sheets showing the supporting infrastructure and its relationship to existing roads, property boundaries and waterways. Underground cabling and associated trenching would be established within a 3 metre path.

It is proposed to build approximately 23 km of new access tracks to provide construction and maintenance access to the individual wind structures from existing roads. It is proposed that these tracks will be 4-6 metres wide gravel during the construction period and will be reduced to 2.5 metres wide after construction. The arrangement of tracks has been designed to minimise the number and extent of tracks required.

An existing 66kV line runs across the Study Area at three points, and the Proposed AWEF will connect to the main power grid at one of these locations, therefore avoiding the requirement to build substantial new external overhead powerlines. This represents a significant benefit and reduction of potential visual impact.

The wind turbines will be connected to the proposed substation by underground and overhead 22kV electricity lines. There will be approximately 15km of overhead electricity lines with an easement of up to 16m width (12km will involve the utilisation of the existing 66kV line). New overhead infrastructure will consist of runs of single stem poles and conductors, similar to other similar transmission lines.

Underground cabling and associated trenching will be contained within a 3 metre wide corridor, and align with existing and new tracks where possible to minimise impacts.

A substation may not be required depending upon the type of turbine used. If required, a substation is likely to be located near the intersection of Coal Mine Road and the former South Gippsland rail line. The substation would be connected to the adjacent existing overhead 66kV transmission line that travels through the Study Area. The substation site may include one large and two small substations.

Up to four works compounds of approximately 0.575 hectares to 2.773 hectares will be established during construction.

Infrastructure Summary

- Access tracks – four to six (6) metres wide (during construction, and to be reduced to 2.5 metres post-construction);
- Underground cabling and associated trenching – three (3) metres wide;
- Approximately 3km of 22kV overhead poles and wires
- 34 wind turbines (30 turbines with a maximum tip height of 200m and 4 turbines with a maximum tip height of 180m) – footings of approximately 15 metre radius;
- One hardstand beside each wind turbine – approximately 25 x 45 metres;
- Two small electrical substations;
- One larger electrical substation compound (approximately 130m by 60m); and
- Four works compounds – between 0.575 to 2.773 hectares (not all of these compounds will be used but impacts for all compounds have been assumed for this investigation).

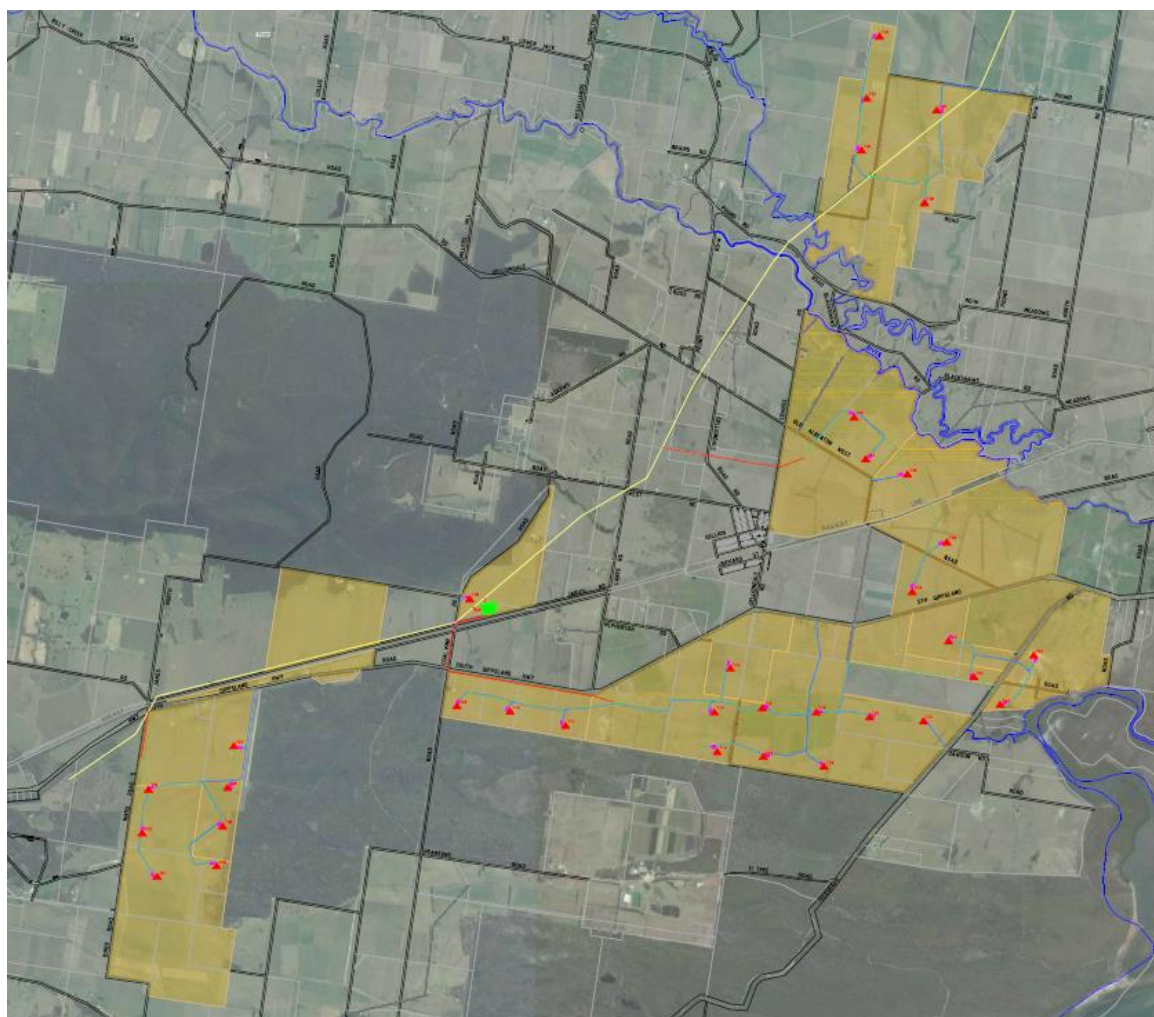
The application is presented as a 'maximum footprint' where 7 different turbines have been modelled to enable maximum potential impacts to be assessed against Wind Energy planning provision. The

exact turbine model will be selected following commercial tendering, and the footprint could be less than stated in this application.

The electrical infrastructure needed to support the AWEF is **not included as part of this planning permit** application and is **conceptual only**. The electrical plan cannot be confirmed until planning permit is granted, a final turbine model selected and a connection agreement signed with AusNet (the Victorian Government energy operator) who will advise on electrical connection requirements. Once this is known, a planning permit application for a Minor Utility Installation will be lodged. An existing 66Kv electricity line runs through the site, avoiding the need for extensive overhead power lines to be constructed.

The proposed AWEF will generate approximately 393 GWh of electricity per year, enough to power around 45,000 households per year, contributing to the Victorian Government's objective to deliver 1500 MW of renewable energy by 2020, and reducing CO2 emissions by 390,000 tonnes per year.¹

It is estimated the proposed AWEF will generate around 115 jobs and inject around \$2.9 million into the local economy during construction, and generate 12 long-term operation jobs.



Proposed Alberton Wind Energy Facility, Proposed Layout, 16 June 2017 (Refer also Appendix M)

¹ Calculated using Victorian Government guidelines
https://www.planning.vic.gov.au/__data/assets/word_doc/0017/9701/Greenhouse-abatement-figures,-April-2015.doc

The turbines are spread across approximately 8.5 kilometres north-south, and 10 kilometres east-west. The structures occupying a very small footprint within this area (less than 0.05% of the land area).

1.2 Project Background

The project started in 2014 when Synergy was approached by a landowner with an interest in hosting a wind farm and who introduced Synergy to neighbours also interested. From there, the project grew organically through contact by interested landowners to neighbours on behalf of Synergy given the need for residences within 1km need to provide consent.

In early 2015, preliminary environmental and cultural heritage studies were carried out to understand the site and any constraints. These studies, along with wind data and input from landowners to minimise impact on agricultural use and capacity of land, resulted in a preliminary layout of 40 turbines ensured culturally sensitive locations, native vegetation and flora and fauna issues were identified and considered early in the plan. Site visits were undertaken to identify and record exact locations of neighbouring residents, GPS locations of proposed turbines and confirm the layout plan met landowner needs.

In December 2015 and January 2016, group meetings were held with landowners and nearby residents to display the detailed studies (environmental, cultural heritage, noise), illustrate potential impacts and discuss the conceptual layout plan. The session identified residents who found it untenable to live within 1km of a turbine, and as such, a revised layout plan was developed and further noise assessment done to ensure noise limits were met.

From mid-2015 to mid-2017, a series of detailed site surveys and assessments, and predictive modelling studies were undertaken for birds and bats, migratory shorebirds, flora and fauna, cultural heritage, aviation and electromagnetic interference, noise, shadow flicker and blade glint, visual impacts, transport, geotechnical and grid capacity analysis (refer to the Appendix list for full list of reports). These studies enabled the conceptual plan to be further refined to reduce impacts and the process of formal environmental assessment to commence.

2 STRATEGIC PLANNING JUSTIFICATION – STATE AND REGIONAL SIGNIFICANCE

The State Planning Policy Framework (Clauses 11 to 19 of the Shire of Wellington Planning Scheme) provide the strategic justification for the proposed AWEF.

Provision of Renewable Energy for Victoria

Clause 19.01-2S 'Provision of Renewable Energy' facilitates the State Government's objective to:

To promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met.

This will be achieved by (Strategies):

- *Facilitate renewable energy development in appropriate locations.*
- *Protect energy infrastructure against competing and incompatible uses.*
- *Develop appropriate infrastructure to meet community demand for energy services.*
- *Set aside suitable land for future energy infrastructure.*
- *Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.*
- *Recognise that economically viable wind energy facilities are dependent on locations with consistently strong winds over the year.*

In achieving the Renewable Energy Objective, planning proposals must consider the "Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria" (Guidelines) 2017 (refer to assessment in following Chapters).

Victorian Government - Renewable Energy Target

In June 2016, the State Government announced the Victorian Renewable Energy Target for generation of 25 per cent green energy by 2020 and 40 per cent by 2025.

In addition, the Victorian Government released Victoria's Renewable Energy Roadmap (the Roadmap) in 2015 which sets out the Government's plan to attract Victoria's share of renewable energy investment and jobs in Australia. The Roadmap will help achieve the Victorian Government objective: "Accelerating development of renewable energy generation in Victoria to reduce emissions, create jobs, and put downward pressure on energy prices".

Supporting Gippsland Regional Growth

In considering the policy objectives and strategies for the Gippsland region, planning must consider as relevant, the Gippsland Regional Growth Plan (Victorian Government, 2014) which includes the following **Objectives**:

A Diversified Economy (Clause 17.01-1S) - To strengthen and diversify the economy.

Innovation and research-(17.01-2S) - To create opportunities for innovation and the knowledge economy within existing and emerging industries, research and education.

Sustainable development (Clause 15.02) -Improve efficiency in energy use through greater use of renewable energy technologies and other energy efficiency upgrades.

Clause 11.01-1S 'Settlement' refers to the Gippsland Regional Growth Plan (Victorian Government, 2014) which highlights the strategic importance of wind energy facilities to the future prosperity of the Gippsland Region:

"the Gippsland region's economy is predominantly driven by its abundant natural resources such as productive agricultural land and earth resources" (p14).

"Energy, gas, water, mining, construction and defence are other key sectors that drive the Gippsland economy and create significant benefits for employment, exports and wealth creation" (p14).

"Gippsland will need to move to a low-carbon economy and diversify its economic activities. The region is in a position to take advantage of its existing assets and resources in energy" (p14).

The Gippsland Regional Growth Plan (State of Victoria, 2014) aims to achieve these goals by (Strategies):

- *Facilitate and manage access to earth resources where appropriate, including sand and stone, minerals and renewable energy potential.*
- *Support transition to a low-carbon economy with renewable energy and greenhouse emission reductions including geothermal, clean coal processing, and carbon capture and storage.*

Section 1.7 of the Gippsland Regional Plan 2015-2020 (State of Victoria, Committee for Gippsland, 2015) considers wind farms as strategic regional assets, stating:

2.4.2. Energy

*In order to protect and further strengthen Gippsland's competitive position as an energy producing region, there is a need to work with industry, and the community, and **position Gippsland as a future leader in new, low emissions energy technologies including renewables.***

2.4.2.3. Large Scale Renewable Energy

Increasing community concern with the issue of climate change, plus the acknowledgment of the need for a transition to a cleaner economy sooner rather than later, will focus the interest of government and industry for investment in this area.

*Bioenergy, solar and wind all offer economic, social and environmental opportunities in the region. **Large Scale wind projects are suited along the Gippsland Coast**, whilst large-scale bioenergy and solar are suited to the Latrobe Valley and Gippsland Plains.*

The Regional Plan identifies "Renewable and low carbon energy projects being planned and developed" as one of the Key Indicators of a prosperous region, highlighting the importance and value of renewable energy such as wind energy facilities.

Municipal Strategic Statement (MSS)

Clause 21 of the Wellington Scheme 'Municipal Strategic Statement (MSS)' outlines the strategic objectives for the Shire of Wellington and local implementation of State planning objectives.

The Study Area is located within Planning Unit 5 – Strzelecki (north of South Gippsland Hwy) and Unit 8 Coastal (south of South Gippsland Hwy). The Scheme notes the strategic contribution of farming to the Shire's agricultural economy from these areas and that conflicts have risen over years between "lifestyle living" and forestry activities. The Proposed AWEF is located over farmland that is very productive given the rainfall off the Strzelecki Ranges.

The development of a wind farm will not conflict with farming activities, and a significant amount of work has been done with participating landowners over the last three years, to ensure that the proposed layout does not hinder farming activities. In addition, the Proposed AWEF will provide valuable additional, regular and guaranteed farm income that will assist to maintain the viability of farming in the area.

The proposed AWEF will contribute to strengthening and diversifying a new sustainable economic base for the Shire of Wellington and contribute to the new green energy image being sought for the wider Latrobe area. In addition, the proposal does not hinder potential future exploitation of the recognised brown coal resources recognised in the Wellington Scheme Overlay, should extract become viable in the future, within Australian commitments to reduce production of greenhouse gases.

The proposed AWEF makes a valuable contribution to the Victorian Government's Renewable Energy Target for generation of 25 per cent of green energy by 2020 and 40 per cent by 2025.

3 WELLINGTON PLANNING SCHEME – PLANNING REQUIREMENTS

A Wind Energy Facility is assessed against State Planning Policy, local planning policy and other matters specified in Section 60 of the Planning and Environment Act 1987.

The Study Area is located within the Shire of Wellington and is subject to the provisions of the Wellington Planning Scheme, in particular:

- Clause 19.01-2S 'Provision of Renewable Energy' requires proposals to be assessed against the Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (Guidelines) 2017 (Victorian State Government).
- Clause 52.32 'Wind Energy Facility' which sets out particular planning provisions and requirements for wind energy planning permit applications.
- Clause 52.32-2 'Use and development of land' which requires a planning permit for the use and development of land for the purpose of a wind energy facility and consent from owners within one kilometre of turbines.
- Clause 72.01-1 'Minister is the Responsible Authority' identifies the Minister for Planning is the responsible authority for all new planning permit applications for the use and development of land for the purpose of a wind energy facility. This includes transmission infrastructure associated with a wind energy facility and any removal of native vegetation associated with this infrastructure.
- Clause 65 'Decision Guidelines' and Clause 65.01 'Approval of an application or plan' set out matters to be considered by the Responsible Authority.
- Clause 52.17 Native Vegetation
- Clause 52.29 Applies to land adjacent to a Road Zone- Category 1.

In applying the Wellington Planning Scheme, Clause 73.03 Land Use Terms of the Victorian Planning Provisions defines a 'wind energy facility' as:

Land used to generate electricity by wind force. It includes land used for:

- a) any turbine, building or other structure or thing used in or in connection with the generation of electricity by wind force*
- b) an anemometer.*

It does not include turbines principally used to supply electricity for domestic or rural use of the land.

Other supporting infrastructure such as the overhead and underground powerlines and substation, are defined as either a 'utility installation' or a 'minor utility installation', depending on the nature and capacity of the transmission or distribution infrastructure.

3.1 Wellington Planning Scheme - Zone & Overlay Controls

Zone Control

The turbines associated with the subject facility will be located generally within the Farming Zone, one turbine will be located within the Industrial 1 zone.

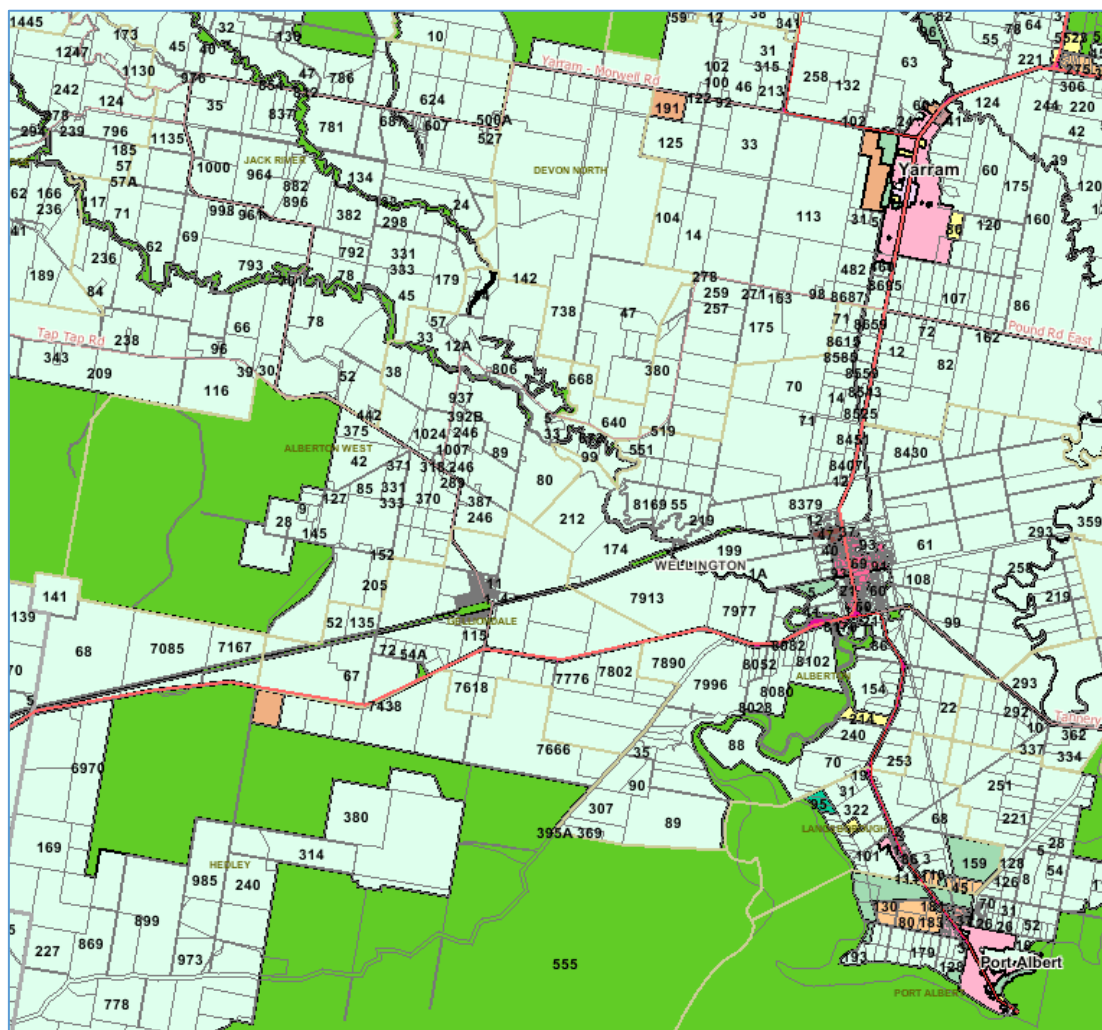


Figure 4 – Zoning Plan

Source: Land.vic.gov.au (Not to scale)

The Study Area is predominately located within the Farming Zone (FZ) apart from one turbine which is located within an Industrial 1 Zone (INZ1). Other zones within the vicinity of the Proposed AWEF include Public Conservation and Resource Zone (PCRZ) and Road Zone – Category 1 & 2 (RDZ1 (South Gippsland Highway) and RDZ2 (Gelliondale Road)). No turbines are proposed to be located within the RDZ1 or RDZ2 however underground cables and new access points are proposed.

The Study Area is also partially affected by the following Planning Scheme Overlays:

- Bushfire Management Overlay (BMO/WMO)
- State Resource Overlay – Schedule 1 (Gippsland Brown Coalfields) (SRO1)
- Environmental Significance Overlay – Schedule 2 (Wetlands) (ESO2)

- Design and Development Overlay – Schedule 1 (Industrial Areas) (DDO1)
- Heritage Overlay – Schedule 81 (Gelliondale Briquette Plant – VHR Number H1058) (HO81)
- Floodway Overlay (FO)
- Land Subject to Inundation Overlay (LSIO)

Clause	Purpose	Requirement
35.07 FARMING ZONE	<ul style="list-style-type: none"> • To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies. • To provide for the use of land for agriculture. • To encourage the retention of productive agricultural land. • To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture. • To encourage the retention of employment and population to support rural communities. • To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision 	<p>A Planning permit is required for the use and buildings and works for a wind energy facility in the farming zone.</p> <p>A wind energy facility is consistent with the purpose of the farming zone.</p> <p>The proposed wind energy facility will complement the rural use of the land by allowing agricultural uses to continue within the Wind Energy Facility boundaries.</p>
33.01 INDUSTRIAL 1 ZONE	<ul style="list-style-type: none"> • To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies. • To provide for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities. 	<p>A Planning permit is required for the use and buildings and works for a wind energy facility in the industrial zone.</p> <p>A wind energy facility is not inconsistent with the purpose of the industrial zone.</p> <p>The proposed wind energy facility will complement the largely rural use of the land by allowing agricultural uses to continue within the Wind Energy Facility boundaries. The previous industrial use of the land has ceased to operate. Wind farm use is a section 2 use in the zone and amenity has been assessed in this report</p>
36.04 ROAD ZONE	<ul style="list-style-type: none"> • To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies. • To identify significant existing roads. • To identify land which has been acquired for a significant proposed road. 	<p>Pursuant to the road zone a planning permit is required for use and buildings and works associated with a road zone. However, some cabling and changes to access points are proposed as part of the application.</p>

Overlays		
Heritage Overlay	<ul style="list-style-type: none"> • To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies. • To conserve and enhance heritage places of natural or cultural significance. • To conserve and enhance those elements which contribute to the significance of heritage places. • To ensure that development does not adversely affect the significance of heritage places. • To conserve specifically identified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with the conservation of the significance of the heritage place. 	<ul style="list-style-type: none"> • A planning permit is required to construct a building or to carry out works in a Heritage overlay. • Consideration will be given to the significance of the heritage place and whether the proposal will adversely affect the natural or cultural significance of the place. • Whether the location, bulk, form or appearance of the proposed building will adversely affect the significance of the heritage place • Whether the proposed works will adversely affect the significance, character or appearance of the heritage place
State Resource Overlay	<ul style="list-style-type: none"> • To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies. • To protect areas of mineral, stone and other resources, which have been identified as being of State significance, from development that would prejudice the current or future productive use of the resource. 	<ul style="list-style-type: none"> • A permit is for specific development and works under this overlay considerations include. • The need to ensure development of the land does not inhibit the eventual development or use of the coal resource. • The need to exclude urban development, including low density residential development and rural living development, from the area to which this schedule applies. • The impact of the building or works on nearby existing or proposed brown coal mining or electricity generation and on any nearby agricultural uses.
LSIO - Land Subject to Inundation Overlay	<ul style="list-style-type: none"> • To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies. • To identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area 	<ul style="list-style-type: none"> • Consideration of application includes the susceptibility of the development to flooding and flood damage. • The effect of the development on redirecting or obstructing floodwater, stormwater or drainage water and the effect of the development on

	<p>determined by the floodplain management authority.</p> <ul style="list-style-type: none"> • To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity. • To reflect any declaration under Division 4 of Part 10 of the Water Act, 1989 where a declaration has been made. • To protect water quality in accordance with the provisions of relevant State Environment Protection Policies, particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria). To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health 	<p>reducing flood storage and increasing flood levels and flow velocities.</p>
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Particular Provisions:		
<p>Clause 52.17 Native Vegetation</p>	<ul style="list-style-type: none"> • To ensure permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria’s biodiversity. This is achieved through the following approach: <ul style="list-style-type: none"> ○ Avoid the removal of native vegetation that makes a significant contribution to Victoria’s biodiversity. ○ Minimise impacts on Victoria’s biodiversity from the removal of native vegetation. ○ Where native vegetation is permitted to be removed, ensure that an offset is provided in a manner that makes a contribution to Victoria’s biodiversity that is equivalent to the contribution made by the native vegetation to be removed. 	<ul style="list-style-type: none"> • A permit is required to remove, destroy or lop native vegetation, including dead native vegetation where the land area is greater than 0.4 hectare. • See attached reports from Brett lane and Associates which assess the extent of the native vegetation to be removed and the further discussion in Section 4.4.

	<ul style="list-style-type: none"> • To manage native vegetation to minimise land and water degradation. • To manage native vegetation near buildings to reduce the threat to life and property from bushfire. 	
<p>Clause 52.29 Applies to land adjacent to a Road Zone-Category 1.</p>	<p>To ensure appropriate access to identified roads.</p> <p>To ensure appropriate subdivision of land adjacent to identified roads.</p>	<ul style="list-style-type: none"> • Planning permit required to create access to a Road Zone – Category 1. • The Subdivision of land adjacent to a Road Zone Category 1

4 PLANNING ASSESSMENT

This section provides an assessment of the Proposed AWEF against the required Wellington Scheme planning controls and policy provisions including the Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (Victorian Government, 2017).

4.1 Planning Zones

The land is generally all contained within the farming zone, apart from one lot which is in the Industrial one zone, however this industrial zoning is a bit of an anomaly in the area and is due to the presence of the former briquette operations at the site.

The proposal will not have a significant impact on the use of the land for agriculture. Agricultural activities in the area are generally low intensity agricultural uses and the location of the wind energy facility over the land will not have a significant impact on agricultural production. The proposal will not adversely affect the use of the land for agriculture.

In line with the purpose of the zone the wind farm will encourage the retention of employment and population to support rural communities.

4.2 Planning Overlays

Appendix C of this report shows the proposal in relation to planning scheme overlay over and near the application area. The overlay which specifically relate to the application are the State Resource Overlay and the Land Subject to Inundation Overlay.

The majority of the site is subject to the State Resource Overlay. The schedule to the overlay lists the resource as Gippsland Brown Coalfields. The Statement notes that:

The Gippsland Coalfields provide a secure long term energy source for base load power generation in Victoria, as well as providing a unique opportunity for other related significant developments

The management objectives of the land note that the of land over the resource should be of a type that will not inhibit, by way of community significance or cost of removal, the eventual productive use of that resource. The relatively small footprint of the wind energy facility and the requirement for decommissioning will ensure that eventual productive use of that resource is not inhibited.

The eastern edge of the application area is also subject to a Land Subject to Inundation Overlay. The nature of the proposed development is that it can successfully be built in flood prone areas. The nature of the development means that the free passage and temporary storage of floodwaters is maintained, the proposal will not be at risk from flood damage, is compatible with the flood hazard and local drainage conditions. The proposal will also not cause any significant rise in flood level or flow velocity.

One turbine is also located adjacent to Heritage Overlay HO81 (Gelliondale Briquette Plant). The recorded area of the historical site, which is recorded on the Heritage Register (H1058) and the Heritage Inventory (H8220-0008) lies 40 metres to the north of the propose location for Turbine T08. The place is also listed on the Heritage Overlay (H081) in the planning scheme. The proposed turbine, crane pad and associated infrastructure will not impact on the significance of this industrial historical site.

4.3 Clause 52.32-1 to 3 – Use and Development Requirements

Clause 52.32-2 specifies that *A permit is required to use and develop land for a wind energy facility.* The table to clause 52.32-2 nominates locational criteria and condition requirements. The proposed AWEF meets all locational criteria and conditions.

Location	Conditions	Compliance with Condition
On land where any turbine that forms part of the facility is located within one kilometre of an existing dwelling. This does not apply to a Wind energy facility that is located on land in a residential zone, an industrial zone, a commercial zone or a special purpose zone.	Must meet the requirements of clause 52.32-3.	Meets the requirements of Clause 52.32-3.
Land described in a schedule to the National Parks Act 1975	Must be principally used to supply electricity to a facility used in conjunction with conservation, recreation, administration or accommodation use of the land.	The facility is not proposed on listed in a schedule to the National Parks Act 1975
Land declared a Ramsar wetland as defined under section 17 of the Environment Protection and Biodiversity Conservation Act 1999 (Cwth)		The facility is not proposed on land declared a Ramsar wetland as defined under section 17 of the Environment Protection and Biodiversity Conservation Act 1999 (Cwth)
Land listed in a schedule to clause 52.32-2	Must be on land in a residential zone, industrial zone, commercial zone or special purpose zone and must be integrated as part of the development of the land.	The facility is not within five kilometres of a residential zone, an industrial zone, a business zone or a special purpose zone in the urban area of Sale

Turbines within one kilometre of a dwelling

Clause 52.32-3 requires applications with turbines within one kilometre of existing dwellings to provide evidence of consent by residents including a signed consent form and map (refer to Appendix B).

4.4 Clause 52.32-4 Application Requirements

Site Context and Analysis

The application area is mainly cleared agricultural land with dispersed patches of remnant vegetation. A number of farm dwellings are scattered through the area. These uses would be able to continue during the construction and operation phases of the Proposed AWEF.

The Proposed AWEF will be located across private properties, The overall area is around 3,200 hectares (herein referred to as the 'Application Area'), however the proposed development footprint, located within the Application Area (and herein described as the 'Proposed Wind Energy Facility Area'), comprises approximately 59.39 hectares (Appendix D), being approximately 1.8% of the Study Area.

A summary overview of the Proposed AWEF Area and Application Area, is provided below. Figure 3 to Figure 11 inclusive illustrate the wider Study Area.

The Study Area primarily comprises land within private property, with the proposed works being located within cleared paddocks used for grazing stock. The land is generally flat. These areas are dominated by introduced pasture grasses, though the proposed powerlines and access tracks impact small patches of vegetation in some locations.



Figure 3 (left): Typical example of farmland within the Study Area; Figure 4 (right): Typical lower order road located between farms within the Study Area



Figure 5 (left): Rail trail; Figure 6 (right): Existing power line (right)



Figure 7: Looking south towards locations of T05 and T06 (left); Figure 8: Looking south towards locations of T10 and T11 from South Gippsland Highway and Coal Mine Road intersection (right)



Figure 9: Looking west towards location of T18 and T22 from northern boundary of Gelliondale State Forest and Ti Tree Road (left); Figure 10: Looking northeast towards location of T25 from gate of Old Alberton Drive (right)



Figure 11: Looking north towards location of T20, T21 and T23 from private access road

There are no watercourses within the Proposed AWEF Area, though it is noted that both Albert River and Jack River traverse the wider Study Area. The existing overhead 66kV powerline to which the Proposed AWEF will connect crosses both Albert and Jack Rivers.

The Proposed AWEF Area would not impact on any built structures, other than in some locations where agricultural boundary fencing may be impacted, and would be replaced.

There are no historical or Aboriginal cultural heritage sites located within the Proposed AWEF Area, though it is noted that there is one historical site within the wider Study Area, and several Aboriginal Heritage sites located within the wider Study Area. Part of the wider area is subject to Cultural Heritage Sensitivity, the project intent has been to avoid these areas.

Landform and Soils

The Study Area is generally flat coastal plains, with dispersed creek margins, gentle slopes, isolated hills and swamps. The minimum altitude is 6 metres above sea level (ASL) and the maximum is 25 metres (ASL).

The soil type in the Study Area is primarily sandy soils. Different soil types that are indicated in the Study Area include yellow duplex soils, duplex soils, pale sands and sands. The central north-western part of the Study Area comprises lower slopes of the foothills of the Strzelecki Ranges. The southern part of the broader study area supported a gently undulating coast barrier dune complex with light-loamy to sandy soils. Land between the coastal dune complex and higher, hilly country further inland comprises relatively flat swampy ground with loamy to clayey soils.

Land Use and Built Form

The majority of the Study Area and its surrounds has been cleared of native vegetation and is currently being used for grazing stock, primarily dairy farms. Wide scale deforestation has occurred to allow for pastoral activities. These paddocks are dominated by introduced pasture grasses.

Built form across the Study Area is minimal, and limited to intermittent homesteads, farm infrastructure and roads. There are 17 dwellings that are located within 1 kilometre of turbines, noting that all of these landowners have signed up to a consent agreement for the Proposed AWEF, and that three (3) of these dwellings are not used as permanent residences and will be unoccupied following the construction of the Proposed AWEF. Roads are a mixture of sealed and unsealed local roads. The South Gippsland Highway bisects the study area.

A former rail reserve which also bisects the study area is now used as part of the South Gippsland Rail Trail, a 74km gravel cycle track which extends from Leongatha to Port Welshpool. The section which extends through the Study Area has not yet been developed and is not accessible to the public. Funds generated by the Proposed AWEF's Community Fund could potentially be used to complete the Rail Trail project.

Flora and Fauna and Native Vegetation

The majority of the environment in the surrounding region is agricultural and bush blocks. Most of that land is dominated by introduced flora species. There are two water courses running through the Study Area. Although 267 plant species were recorded during the Flora and Fauna Assessments, of these 178 (67%) were indigenous and 89 (33%) were introduced or non-indigenous native in origin. A total of 120 fauna species were recorded. This included 101 bird (10 introduced), 10 mammal (5 introduced), six reptile, three frog and an array of invertebrate species (BL&A 2016).

The Study Area comprised three distinct vegetation characteristics. The central north-western part comprised lower slopes of the foothills of the Strzelecki Ranges. Much of this land had been cleared. However, some notable blocks of remnant Yellow Stringybark forest had been retained within areas abutting the more extensive forests of the Strzelecki Ranges.

The southern part of the Study Area supported a gently undulating coast barrier dune complex with light-loamy to sandy soils. This area would have once supported a complex of healthy vegetation types with Sedgy Wetland and Swamp Scrub in larger wet depressions and along drainage lines. Almost all this area (except for mainly roadside vegetation and scattered paddock trees) has been cleared of native vegetation and is being used for stock grazing. Adjacent state forests (to the south) supported extensive expanses of Healthy Woodland, Swamp Scrub, Sedge Swamp and Damp Heathland.

Land between the coastal dune complex and higher, hilly country further inland comprised relatively flat swampy ground with loamy to clayey soils. This land would have once supported Swamp Scrub and grassland vegetation but has been extensively cleared, drained and converted to intensively managed dairy farms. Groundwater had also been significantly drained due to past practices. The existing extant of the woody vegetation in this area comprises planted shelterbelts of non-indigenous trees.

Careful siting of the Proposed Wind Energy Facility Area has enabled clearing of native vegetation to be largely avoided. Up to 1.195 hectares of remnant patch native vegetation and removal of sixteen (16) scattered trees would be removed as a result of the Proposed AWEF. Native vegetation removal is generally limited to small sections along roadsides, where access tracks are required to connect to local roads, or where powerlines are required to cross road reserves or the Rail Trail. Underground infrastructure will generally run across open farm land, avoiding areas of ecological sensitivity to connect to the overhead collector system. The scattered trees to be removed comprise four (4) Coast Manna-gums (3 large and 1 medium) and 12 Swamp Paperbarks (small).

Following planning approval, micro-siting (within 100 metres) during the detailed design stage provides flexibility to adjust the location of infrastructure to further minimise potential impacts.

Offsets required to compensate for the proposed removal of native vegetation have been determined and will be secured prior to the removal of native vegetation. The offset target for the current proposal is likely to be achievable within the Study Area.

The Proposed AWEF will not result in the potential for long term loss of a significant proportion of known remaining habitat or population of a threatened fauna species within Victoria.

The Proposed AWEF will not result in significant effects to flora and fauna, for the following reasons:

- The existing landscape of the Proposed AWEF is highly fragmented due to the long history of dryland agriculture and broad scale clearing activities that have taken place. In addition, only a small amount of native vegetation is to be removed for the Proposed AWEF. For these reasons, it is considered that the Proposed AWEF is not likely to significantly increase the level of fragmentation, or impact upon fauna movements.
- Appropriate avoidance and mitigation measures will be included within the respective Environmental Management Plans / Construction Environmental Management Plans to ensure that no threatening processes are made worse by the Proposed AWEF, and implemented via Planning Permit conditions.
- The BL&A analysis of susceptibility of EPBC Act listed migratory fauna species to impacts identified that the Fork-tailed Swift and the White-throated Needletail could be impacted by the Proposed AWEF the Study Area, as they fly at Rotor Swept Area (RSA) height and are likely to forage over the Study Area. However, the number of individuals that may be affected by the Proposed AWEF in a year is much less than an ecologically significant proportion of the population, and it is very unlikely that the Proposed AWEF will lead to an unacceptable risk to the population. For this reason, it is considered that the Alberton Wind Farm will not lead to an unacceptable risk to this species' population that would be of conservation concern.
- Whilst there is potential for direct impacts from strikes to Baillon's Crake, Eastern Great Egret, Intermediate Egret, and Little Egret, the number and frequency of occurrence of these species on the Proposed Wind Energy Facility Area is low and the likelihood of turbine collision is considered very low. The low likelihood of collision with operating turbines makes a significant impact on these species from the Proposed AWEF very unlikely.
- Whilst White-bellied Sea-Eagle (FFG Act: Listed) are vulnerable to collision with operating turbines, no evidence was found for nesting near proposed turbine locations during site studies, however the species may occasionally fly across the site given its proximity to coastal habitats. This could put individuals at risk of occasionally colliding with operating wind turbines. The frequency of such collisions is likely to be very low so population consequences are not considered significant. It will be important to monitor for the presence of this species as part of any impact monitoring and mitigation plan and have a plan involving investigation and a targeted mitigation response should repeated collision be detected.
- The Powerful Owl generally confines itself to forested habitats, none of which will have turbines built in them and dispersal of juvenile owls after breeding is finished would be a rare event, most likely confined to the areas where treed habitats are closest. Where this occurs, either side of the South Gippsland Highway, no turbines are proposed to be constructed. The likelihood of an ongoing impact to this species is therefore very low.
- The Swift Parrot could occur occasionally during dispersive movements, particularly when in transit between large forested areas. However the Proposed AWEF lies in an area where there are few Swift Parrot records and where regular migration is not likely to occur. The population of Swift Parrot likely to use the study area is very small. Given the distribution, abundance and habitat preference of the Swift Parrot, and taking into consideration the lack of preferred mainland foraging tree species on and around the Proposed Wind Energy Facility Area, and the modelling results of Smales (2006), no significant impacts on the Swift Parrot population are expected from the Proposed AWEF.
- Southern Brown Bandicoot, Long-nosed Potoroo, Swamp Antechinus and White-footed Dunnart prefer habitat with dense vegetation cover. These habitats provide a high level of

constraint, and where possible, removal of vegetation in these areas will be avoided, no significant impacts are anticipated from the Proposed AWEF.

- No listed frog species have the potential to occur on the Proposed Wind Energy Facility Area. The Proponent commits to a suitable buffer of at least 50 metres from waterways and wetland habitat impacts on frog habitat are not expected.
- There have been no records of the Growling Grass Frog in the region since 1995 and it is likely that the species is extinct in this region. The species will therefore not be adversely affected by the Proposed AWEF.
- The Proposed Wind Energy Facility Area is located sufficient distance from the Albert River, significant tributaries and wet habitats in the Study Area to avoid impacts on flows or water quality in the Albert River to ensure that there are no impacts on Australian Grayling and Dwarf Galaxias, burrowing crayfish. The Proposed AWEF will include a buffer of at least 50 metres from any watercourse.
- No impacts are expected to Ecological Communities from the Proposed AWEF.
- Implementation of a Bat and Avifauna Management Plan for the Proposed AWEF will ensure that procedures and strategies exist to respond to any unanticipated impacts on the White-bellied Sea-eagle and the Powerful Owl.

Hydrology

There are two water courses running through the Study Area – the Albert River and the Jack River.

The Albert River is the largest watercourse crossing the Study Area. Its reaches in the northern sections meanders through the landscape and held shallow to moderately deep, flowing fresh water. Although the river banks and channel are vegetated (with a mixture of indigenous reeds, rushes, herbs, climbers, trees and shrubs as well as introduced vegetation), surrounding land is mostly cleared dairy farms. Closer to the mouth of the river, water becomes brackish, shallower and slower-flowing. These areas, including a number of tributaries (possibly spring-fed) support mostly degraded brackish wetland vegetation (e.g. Sea Rush and Australian Salt-grass). These areas are being used to graze dairy cattle. The tidal reaches of the river are wider and are lined with Mangrove Shrubland, with Saltmarsh and associated vegetation types further from the river.

The Jack River is a permanent waterway that crosses the north-eastern part of the Study Area. This river runs almost parallel to the Albert River, within a kilometre or so of the latter, and joins with the Albert River at a number of locations. A number of wet and dry ox-bows occur between and along the two rivers. Stony Creek, which had been channelized for part of its length, is a notable tributary to the Jack River. This creek dissects the far north-eastern corner of the Study Area.

Brett Lane & Associates determined that although there are farm dams and small watercourses located in the Study Area, it was determined that these do not contain suitable habitat for the Growling Grass Frog and given that the species had not been detected in the Proposed Wind Energy Facility Area and immediate surrounds previously, no further surveys were therefore deemed necessary.

Aquatic habitats scattered across the Study Area consist of the Albert River and its tributaries, drainage lines, ephemeral wetlands and farm dams. The majority of farm dams are accessible to stock and

support little or no vegetation. Ephemeral drainage lines are common throughout the Study Area as a method of draining water from low-lying agricultural land. Where more permanent water-bodies are allowed to flow naturally and excluded from grazing pressure, low and high marshes occurred, particularly in the north-east of the Study Area in association with the Albert River.

The coastal wetlands and shallow marine waters of the Corner Inlet and Nooramunga area, north and east of Wilson's Promontory are nominated under the Convention on Wetlands (the 'Ramsar' Convention) as a wetland of international importance. These wetlands are located to the south of the Proposed Wind Energy Facility Area, generally around 3.5km from the Study Area. The closest turbines are located in the east of the Proposed Wind Energy Facility Area 962 metres at its closest point from the Ramsar site boundary.

There are no impacts anticipated to Jack River or Albert River as the Proposed Wind Energy Facility Area has been designed to avoid these areas. The Proposed AWEF would not generate significant run off or affect streamflows. The footprint of the Proposed Wind Energy Facility Area represents a very small proportion of the catchments to these Rivers. Additionally, the distance of the Proposed Wind Energy Facility Area to these rivers over grassed or cropped land is sufficient to remove any sediment mobilised from the works area during a rainfall event. Environmentally sensitive construction measures will be employed including sediment and erosion controls to ensure that the Proposed AWEF does not discharge waste water and runoff to water environments, and specified within the CEMP to be implemented via Planning Permit conditions. A detailed drainage management plan will also be implemented prior to construction as a requirement of Planning Permit conditions, to prevent any localised drainage issues.

None of the Study Area lies within the Ramsar site boundary and none of the wetland will be directly destroyed or modified by the Proposed AWEF. It is not anticipated that there will be any impacts to aquatic, estuarine or marine ecosystems due to the distance separating the Proposed AWEF from the upper shores of these wetland areas.

The Proposed AWEF is sufficiently distant from the Ramsar site, of low enough intensity and will be executed in an environmentally sensitive manner, ensuring that there will be no significant impacts on the Corner Inlet Ramsar site. The distance to the edge of the wetland from the construction site is such that any runoff from the construction site will dissipate within the grassed and cropped land before it reaches an open waterway. Land within this area is currently ploughed and cropped regularly. This is ample distance for any entrained sediment and associated pollutants to settle before any runoff reaches an open waterway. Notwithstanding, sediment and erosion control measures will be in place to prevent runoff from entering sensitive environments, such as watercourses.

The implementation of best practice methods for weed and pest animal control, documented in a pest plant and animal management plan within the CEMP for the Proposed AWEF will ensure that no invasive species harmful to the ecological character of the wetland will be established in the Ramsar site as a consequence of the Proposed AWEF. The CEMP would be implemented via the Planning Permit conditions.

Regional 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 the turbines. A sediment, erosion and water quality management plan would be prepared to be prepared as part of the required CEMP, implemented by Planning Permit conditions.

Built Cultural Heritage

The Gelliondale Briquette Plant is located on the corner of Coal Pit Road and the South Gippsland Highway, Gelliondale and is listed on the Victorian Heritage Register (H1058) and subject to a Heritage Overlay Schedule 81 (HO81) in the Wellington Scheme. The site's significance relates the *“technical accomplishment in the history of briquette production and of the construction and layout of a brown-coal mining operation”*, an old and rare example of a briquette plant, and its association with James T. Knox (1889-1967) a notable civil engineer.

Indigenous Cultural Heritage

No archaeological surveys had previously been completed in the Study Area and there were no previously recorded sites. However, during Aboriginal cultural heritage surveys undertaken by Biosis, two new Aboriginal artefact places were identified as well as three additional landforms of sensitivity for undetected cultural heritage. The Proposed Wind Energy Facility Area will avoid each of these landforms.

After consultation with Aboriginal Affairs Victoria and DELWP it was agreed the Synergy Wind would commission a voluntary Cultural Heritage Management Plan (CHMP) under Section 45 of the Aboriginal Heritage Act 2006. This voluntary CHMP was completed in late 2017 and was approved by the Gunaikurnai Land and Waters Aboriginal Corporation on the 15 February 2018. A copy of the approved CHMP is provided for your reference in appendix H.

Any further works on the site will be required to operate under the nominated Cultural Heritage management conditions contained in Part 2 of the voluntary CHMP.

Site and Context analysis - The Surrounding Area

An existing 66kV line runs across the Study Area at three points, and the Proposed AWEF will connect to the main power grid at one of these locations. This powerline is located within an existing electricity easement 14.4m wide.

The Proposed AWEF infrastructure is designed to account for existing easements for utilities, which includes electricity distribution, water, and communications, to minimise any impacts on existing services. Any impacts through design and/or construction will be mitigated.

There are no current Native Title applications or determinations which affect the Study Area. The Schedule of Native Title Determination Applications, the Registered applications for native title, the current Native Title Determinations, the Native Title Determination Outcomes and the Indigenous Land Use Agreements have been reviewed. This reflects the freehold status of the Study Area (ie farmland under previous exclusive possession). Much of the public land which lies to the south is covered by a completed Native Title determination, including the Gelliondale State Forest and the adjacent waterbodies. This was granted in 2010 and is held by the Gunaikurnai Land and Waters Aboriginal Corporation Registered Native Title Bodies Corporate.

Alberton West State Forest: This area comprised an extensive forest remnant on the foothills of the Strzelecki Ranges, immediately north-west and contiguous with remnant forest blocks in the central north-western part of the broader study area.

Strzelecki Ranges: The main expanse of remaining remnant native forest covering the Strzelecki Ranges occurred less than 10 kilometres to the north-west. This habitat was somewhat linked to the broader study area via a patchwork of cleared farmland and small to large patches of remnant native forest.

Unnamed State Forest: This area supported extensive heathy woodlands and other near-coastal vegetation types. It extended southwards from the southern edge of the broader study area.

Nooramunga Marine and Coastal Parks (Ramsar listed Important Wetland): This area supported extensive coastal banksia woodlands, saltmarshes and other coastal vegetation types, as well as areas of intertidal sand and mud flats and shallow marine waters. It extended southwards from the southern edge of the abovementioned unnamed state forest, to Corner Inlet. Nooramunga Marine Coastal Park generally occurs approximately 3.5 kilometres south of the broader study area whereby the closest Indicative Turbine (T33) is at 962 metres from its closest point from the Ramsar site boundary.

Corner Inlet (Ramsar listed Important Wetland): This area extended westward from the southern end of Nooramunga Marine Coastal Park. Corner Inlet lies approximately 7 kilometres southwest of the broader study area.

Wilson's Promontory National Park: This area extended southward from Corner Inlet, approximately 15 kilometres south-west of the Study Area.

Design Response

Plans

Detailed plans of the proposed development can be found in Appendix M. This plan also shows the concept of the layout for proposed associated transmission infrastructure, and electricity utility works.

Landscape Assessment

Accurate visual simulations illustrating the development in the context of the surrounding area and from key public view points.

A Landscape and Visual Impact Assessment (LVIA), report has been prepared by Green Bean Design Pty Ltd.

The Study Area is not located within a Significant Landscape Overlay (SLO) or Environmental Significance Overlay (ESO), however is located near these areas.

Proposed turbines T01-T07 (inclusive) are located immediately to the east of SLO3 within the neighbouring South Gippsland Planning Scheme. This relates to the 'Corner Inlet Amphitheatre'. Mount Hoddle and the Welshpool Hills are prominent landforms that provide an amphitheatre setting for Corner Inlet and Wilsons Promontory, with the entire landscape unit being of regional significance. The area is also of high environmental significance. It is identified by the RAMSAR Convention as a bird habitat of international importance, and is listed on the Register of the National Estate for its plant life, which is of bio-geographic significance. Aboriginal middens are plentiful along the shores of Corner Inlet, adding cultural heritage to the landscape's layers of significance.

Turbines T33 and T34 are also located near the ESO1 being the 'Coastal and Gippsland Lakes Environs'. The Ninety Mile Beach (22km to the east) and Gippsland Lakes (78km to the northeast) and their environs are noted for their significant environmental, landscape, and recreational areas. ESO1 notes that there are significant environmental issues in this area, including water quality, landscape, protection of primary and secondary sand dunes, flooding, protection of vegetation habitat, impacts on neighbouring wetlands and coastal parks. Coastal and estuarine systems are vulnerable to human development.

The Study Area is not located within an area identified as of regional or State significance. The Coastal Spaces Landscape Assessment Study (2006) identifies the landscape surrounding the Proposed Wind Energy Facility Area as being part of the South Gippsland Coastal Plains regional landscape type, and is located within the Gippsland Region. The typical landscape character area, within this landscape type, is broadly identified as low lying and flat, covering a long stretch of varied coastline. Valued visual links to natural landscapes include extensive views toward Wilsons Promontory as well as occasional distant views toward mountains and ranges to the north.

The Coastal Spaces Landscape Assessment Study notes low density development scattered throughout the landscape character area with small 'lifestyle' settlements on the coast (Port Welshpool and Port Albert). Medium sized rural towns (Yarram) are located in the east of the landscape character area. The LVIA also notes a number of smaller towns located along the South Gippsland Highway within the landscape character area (Toora, Welshpool and Alberton).

The Study Area is located near a State significant landscape area. The Coastal Spaces Landscape Assessment Study identifies the Nooramunga Marine and Coastal Park as being a State Significant landscape area and valued by the community for panoramic 'out views' of Wilsons Promontory, particularly from Snake Island. The park is noted as being visually significant and is generally located between 3 and 5 kilometres from the Study Area. The park is characterised as a chain of small islands, barriers and spits of sand, mudflats and mangroves.

The Study Area and Proposed AWEF is not within or adjoining land reserved under the National Parks Act 1975. However, the Study Area is located near the Corner Inlet Marine National Park (approximately 7 kilometres southwest) and the Wilsons Promontory National Park (approximately 15 kilometres south-west).

Wilsons Promontory National Park is located around 15 kilometres south west of the Study Area and is identified as a landscape at both State and National levels for visually significant characteristics including geological and flora. The Coastal Spaces Landscape Assessment Study notes community value placed on this landscape for the extent of undeveloped character and 'near wilderness' experience.

6808:2010 noise limit at all wind speeds at all identified properties identified in the vicinity of the Proposed AWEF (Figure 16).

For the other models, the predicted noise levels from the Proposed AWEF comply with the base limits at all non-stakeholder properties, for each of the turbine types. Predicted noise levels from the Proposed AWEF marginally exceed the NZS6808:2010 noise limit for between one (1) and three (3) shareholder properties.

The noise assessment is based on the indicative layouts and turbine models based on the understanding that the final turbine model and layout will be determined by a competitive tender following issue of the Planning Permit. Accordingly, at this stage in the planning for the Proposed AWEF, the candidate turbine models referred to in the noise assessment primarily assess the viability of the Wind Energy Facility in achieving compliance with the applicable limits at surrounding receiver locations. The assessment demonstrates that the noise limits can be practically achieved, accounting for typical noise emission levels that are representative of the types of turbine options that may be considered for the site.

The detailed noise assessment would be undertaken as required by Planning Permit conditions. Compliance with wind energy facility noise guidelines is compulsory and as a result, significant effects on amenity of residents are unlikely to occur.

Noise associated with construction works, would be managed in accordance with a CEMP to be implemented via Planning Permit conditions. The CEMP would include measures to monitor and control environmental risks. In relation to noise it would address the EPA Victoria Guidelines for Major Construction Sites (1996) and the EPA Victoria Noise Control Guidelines (2008).

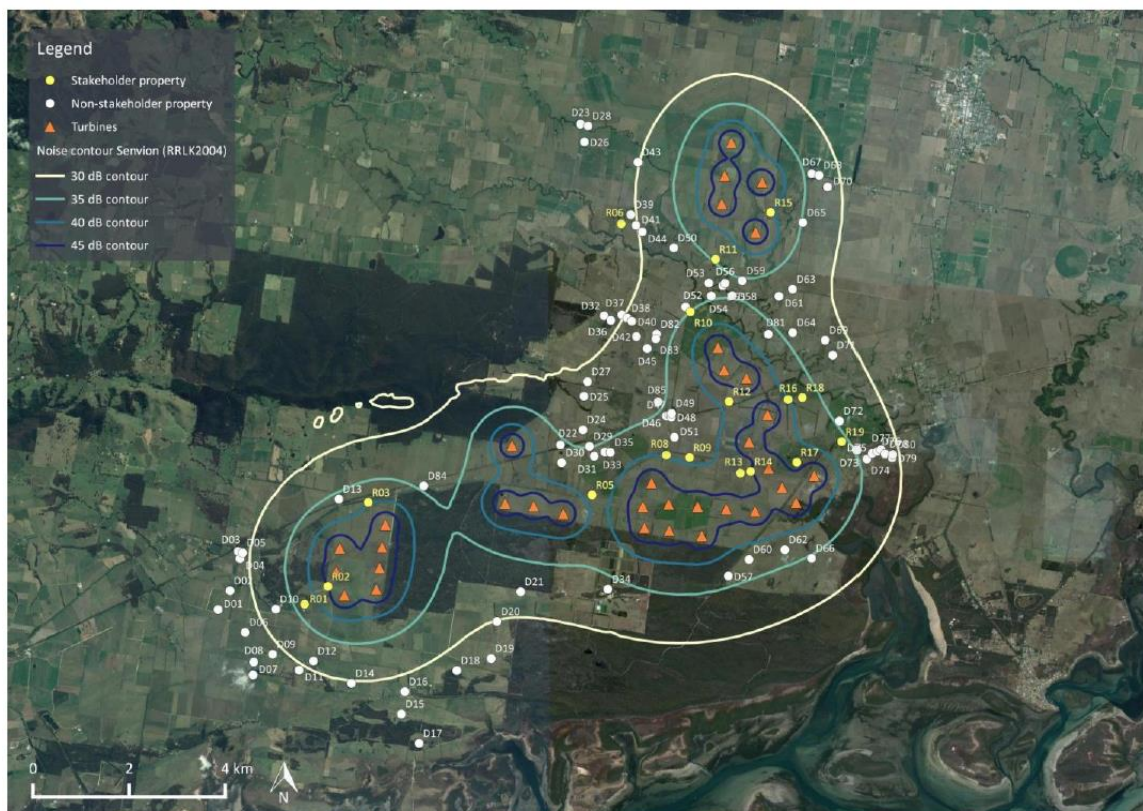


Figure 16: Noise Contour Map for the the Servion 3.4 M140 turbine model

Preliminary Noise Report Audit

In line with the updated Policy and Planning Guidelines for the Development of wind energy facilities in Victoria (November 2017) and discussions with DELWP, Synergy Wind engaged EnviroRisk to undertake an audit of the suitability of the Marshall Day report (dated 14 September 2017). The auditor found that the Marshall Day report:

- contains compliance predictions that are based on sound methodology;
- the process and calculations have been undertaken by skilled and experienced personnel.

The auditor did make some recommendations in relation to the Marshall Day report. Synergy Wind requested Marshall Day consider those comments and they have provided an updated amended report to address the relevant issues raised by the auditor.

The auditor also made comment with regard to other potential noise sensitive locations. These are highlighted on page 12 of the auditor's report. We have carried out further investigation with respect to those potential noise sensitive locations and can confirm that in our view they are not classified as a noise sensitive location in accordance with the [NZS6808:2010](#).

Shadow Flicker and Blade Glint

A Preliminary Shadow Flicker and Blade Glint Assessment has been undertaken (Appendix L) for the Proposed AWEF.

Shadow flicker involves the modulation of light levels resulting from the periodic passage of a rotating wind turbine blade between the sun and an observer. The duration of shadow flicker experienced at a specific location can be determined using a purely geometric analysis which takes into account the relative position of the sun throughout the year, the wind turbines at the site, local topography and the viewer. The Shadow Flicker and Blade Glint Assessment has also sought to quantify the likely reduction in shadow flicker duration due to turbine orientation and cloud cover. However, it is noted that this assessment is preliminary only, and has not involved site inspection or consideration of local conditions at each of the dwellings. Following issue of a Planning Permit, a Detailed Assessment will be undertaken that will take account of window orientations and local screening from trees or structures may further reduce the actual shadow flicker durations. This will be used to inform the Detailed Design.

The locations of 102 dwellings were considered as part of the assessment. Some of the dwelling locations are in close proximity to turbine locations (the closest dwelling is approximately 355 metres from a turbine), which is likely to lead to high shadow flicker and other impacts.

The Victorian Planning Guidelines recommend a shadow flicker limit of 30 hours per year in the area immediately surrounding a dwelling. In addition, the EPHC Draft National Wind Farm Development Guidelines recommend a limit on the theoretical shadow flicker duration of 30 hours per year, and a limit on the actual shadow flicker duration of 10 hours per year.

The results indicate that, of the 102 dwellings identified, there are only ten (10) locations which are expected to experience a shadow flicker duration in excess of the recommended limit of 30 hours per year within 50 metres of the dwelling location, all of which are shareholder dwellings (Figure 17). The predicted shadow flicker durations at many of these dwellings are high, with the highest predicted actual duration at a shareholder dwelling being approximately 57 hours. However, as noted above it is highlighted that local conditions at each of the dwellings have not been considered as part of the Preliminary Assessment, and that window orientations or local screening from trees or structures may further reduce the actual shadow flicker durations.

The dwelling with the highest impact, R02, as well as dwellings R14 and R18 are to be unoccupied if turbines are constructed by agreement with the landowners. These dwellings are not permanent residences and are used by farmers for occasional or temporary accommodation of staff or other visitors. Excluding these dwellings, the highest predicted actual shadow flicker duration is approximately 32 hours.

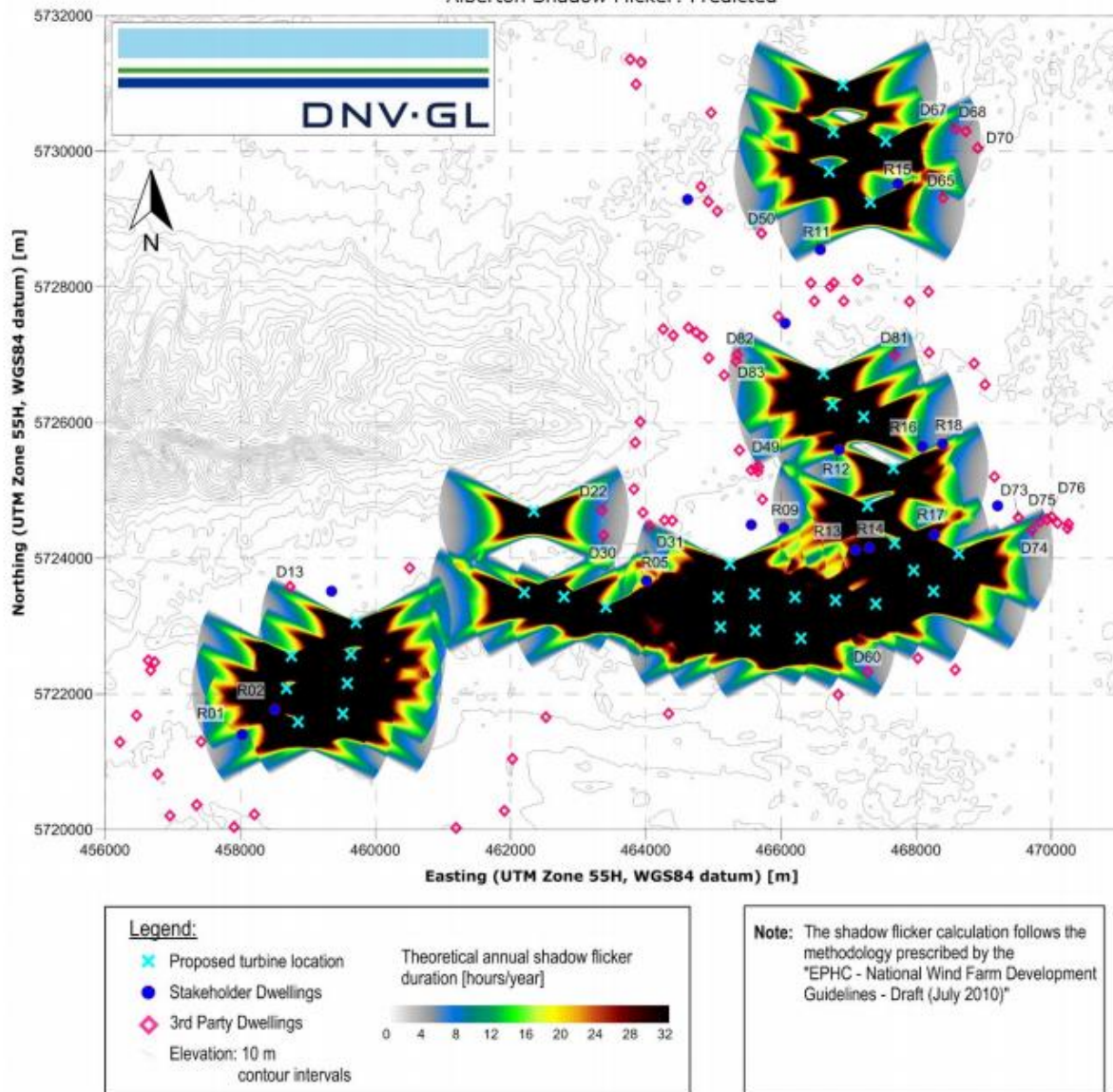
The effects of shadow flicker may be reduced through a number of mitigation measures such as the installation of screening structures or planting of trees to block shadows cast by the turbines, the use of turbine control strategies; which shut down turbines when shadow flicker is likely to occur, or relocation of turbines. The assessment recommended that mitigation strategies are implemented for the Proposed AWEF to reduce potential shadow flicker impacts at dwellings located in close proximity to the turbines. Synergy has advised and sought the consent of stakeholders to an exceedance where the shadow flicker limit is exceeded.

Furthermore, Synergy Wind intends to investigate the implementation of a shadow flicker protection system to reduce shadow flicker impacts at dwellings experiencing high shadow flicker durations.

Blade glint involves the reflection of light from a turbine blade, and can be seen by an observer as a periodic flash of light coming from the wind turbine. Blade glint is not generally a problem for modern turbines provided non-reflective coatings are used for the surface of the blades.

Overall, the combination of the low number of dwellings in the vicinity of the turbines that could theoretically be affected, along with the ease of mitigation, suggests the likelihood of significant environmental effects from shadow flicker is low.

Alberton Shadow Flicker: Predicted



Maximum predicted annual shadow flicker duration

Cultural Heritage

Aboriginal Heritage

Biosis undertook a Cultural Heritage Assessment (15 September 2017) for the Proposed AWEF (Appendix H).

An initial assessment, based on detailed background research and a targeted field inspection, was undertaken by Biosis Pty Ltd on behalf of Synergy Wind Pty Ltd in 2015, during the earlier design stages for the Proposed AWEF. The primary intent of the 2015 assessment was to inform on legislative obligations with respect to future development, the potential risk associated with varying degrees of archaeological potential of different landforms, and provide a predictive model for the Study Area with respect to potential cultural heritage values. The results of the 2015 assessment informed the design of the turbine locations, enabling the Proposed AWEF to avoid impact to all areas of designated cultural heritage sensitivity under the Aboriginal Heritage Regulations 2007. A Cultural Heritage Management Plan (CHMP) is therefore not required for the Proposed AWEF under r.6 of the Regulations because the Activity Area, being the Proposed Wind Energy Facility Area, will avoid all areas of designated cultural heritage sensitivity.

In 2016, following determination of the Proposed Wind Energy Facility Area (including intended locations of the turbines and the indicative electrical and access track layouts), the Proponent commissioned a cultural heritage field survey (Standard Assessment) to inspect each of the proposed turbine locations and the landforms crossed by the indicative electrical and access track layouts, and to assess these locations for potential cultural heritage impacts. The results of the field inspections of the proposed locations, combined with the evidence of the initial desk-based assessment and landform analysis, has been used to assess the potential impacts to cultural heritage of the proposed development. The resulting assessment has been used to provide further modification to the Proposed Wind Energy Facility Area where required, to avoid any potential impacts to cultural heritage caused by the indicative electrical and access track layouts.

The cultural heritage assessment undertaken during the preliminary design stages of the Proposed AWEF has been intended to ensure it will avoid impacts to all known and likely cultural heritage and historical archaeological places. The assessment provides due diligence for the proposed development under Sections 27 and 28 of the Aboriginal Heritage Act 2006.

A voluntary CHMP has been prepared. This will reduce the risk of harming undetected cultural heritage under Sections 27 and 28 of the Act. The voluntary CHMP also sets out the procedures for management any unexpected discovery of Aboriginal cultural heritage. Modelling of the Proposed AWEF requirements shows that the avoidance of areas of designated and potential sensitivity is both realistic and achievable.

The Proposed AWEF has been designed to avoid impacts to Aboriginal cultural heritage, whereby the Proposed AWEF Area, including the proposed locations of the turbines and associated infrastructure, do not lie within areas of designated cultural heritage sensitivity.

The locations of each of the 34 proposed turbines have been examined and assessed during the cultural heritage surveys. The turbine positions have been specifically planned to avoid potential impacts to Aboriginal cultural heritage, based on the results of the initial assessment. From the results

of the second survey, none of the proposed turbine locations were assessed as being of cultural heritage sensitivity. It is unlikely, therefore, that the construction of the turbines and crane pads at any of the locations assessed would impact on any undetected Aboriginal cultural heritage.

The initial designs for the associated infrastructure (including the access roads and electrical cable layout) were assessed as part of the cultural heritage survey. None of the proposed locations (based on the initial designs) lie within an area of designated cultural heritage sensitivity under the Aboriginal Heritage Regulations 2007.

Four landforms which are sensitive for Aboriginal cultural heritage have been identified during the survey and will be avoided by the Proposed AWEF are:

- Sandy rise to the north of Turbine T04. This is a crescent-shaped shallow dune formation containing surface artefacts and will be registered as an Aboriginal place. All works will be located more than 50 metres from the Aboriginal place and there will be no works that will affect this sensitive landform.
- Area of surface artefacts adjacent to a farm access track west of Turbine T12. This will be registered as a Low Density Artefact Distribution consisting of two surface artefacts, found in a disturbed context. No impacts will be caused by the proposed works to the location of the recorded place as all works will be located more than 50 metres from the Aboriginal place.
- Sandy rise between T12 and 13. No artefacts have been recorded on this rise but it is assessed as being sensitive for Aboriginal cultural heritage. The development will avoid impacts to this landform.
- Alluvial rise to the north of T34. No artefacts have been recorded on this landform but it is assessed as being sensitive for Aboriginal cultural heritage. No impacts will be caused by the proposed works to this landform.

Aboriginal Victoria have 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 prepared a voluntary CHMP for the Proposed AWEF (CHMP Plan ID. 15167).

Voluntary Cultural Heritage Management Plan

The results of the 2015 and 2016 cultural heritage assessments and surveys have informed the layout of turbines, tracks, underground cable and indicative electrical layout ensuring the proposed AWEF avoids impact to all known and likely cultural heritage and historical archaeological places. 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 therefore not required under r.6 of the Regulations because the Activity Area, the Proposed Wind Energy Facility Area, will avoid all areas of designated cultural heritage sensitivity.

However, following further discussions, Aboriginal Victoria have 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 have completed preparation of a voluntary CHMP for the Proposed AWEF (CHMP Plan ID. 15167).

Following issue of a Planning Permit, Development Plans will be refined in compliance with Planning Permit requirements, and the voluntary CHMP will be utilised in the final layout and micro-sitting of the turbines and associated infrastructure to avoid any potential impacts.

Gelliondale Briquette Plant

The Victorian Heritage Register Statement of Significance (H1058) for the site does not list any aspects related to conservation of visual, architectural or landscape related values. While the landscape surrounding the site will change, this will not adversely affect the significance of the site and as such, the Proposed AWEF meets the requirements of Clause 43.01 of the Wellington Scheme 'Heritage Overlay'.

Aircraft Safety

Potential aviation impacts were addressed in the "Aviation Impact Assessment, Alberton Wind Farm" (SGS, 16 December 2015) Appendix F) that identified potential impacts on local aircraft movements and airfields and the need or otherwise for obstacle lighting.

The assessment concluded the overall risk to aviation operations in the vicinity of the Proposed AWEF is sufficiently low and the installation of obstacle lights is not necessary even if the maximum height of the wind turbines were 200 metres (~656ft). The report makes a number of recommendations to maintain aviation safety, principally requiring the notification of aviation stakeholders and identifying the Wind Energy Facility on aeronautical maps.

AirServices Australia undertook a Airservices assessment of the Alberton Wind Farm in Victoria at our request.

Their response was as follows:

With respect to procedures designed by Airservices in accordance with ICAO PANS-OPS and Document 9905, at a maximum height of 217.7m (715ft) AHD this wind farm will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Yarram Airport.

CASA was also consulted as part of discussions with stakeholders they noted as follows:

The operator of Yarram Aerodrome, Wellington Shire Council, has advised CASA that the proponent consulted Council about the proposed wind farm. Council advised the proponent that the wind farm would be outside the Obstacle Limitation Surfaces for Yarram Aerodrome.

However, as per CASA's standard response typical for these applications they have recommended red warning lights be implemented. However, their request appears to be at odds with our clients consultant's report and with the advice of Airservices Australia. Hence our client is not proposing to install night lighting without specific justification as to why the lighting is required. Night lighting has the potential to increase the visibility of the wind farm at night and can also have unintended environmental impact as insects, birds and bats can be drawn to the lights.

Electro-magnetic Interference

Potential electro-magnetic impact has been addressed in the “Investigation of Possible Impacts on Broadcasting and Radiocommunications Services “(Lawrence Derrick & Associates, 2016) (Appendix G).

The report concludes that overall there will be no adverse impacts on point-to-point or omnidirectional radio systems in the area are expected, stating:

- Interference to MF and FM sound broadcasting is not expected as adequate separation is provided. There are no radio sites close enough to the proposed turbines to require buffer zones. The Telstra UHF Link from Yarram to Mt Oberon Lighthouse which appears to operate over-the-horizon may need further consideration for any impact on that links performance.
- Mobile radio and other radiocommunication services in the area are not expected to be impacted by the Proposed AWEF or its operation. Cellular mobile coverage at some individual locations may be affected but the with the robust nature of the transmission system and with alternative base stations available, acceptable grade of service should be maintained
- TV reception at some dwellings could have some probability of noticeable effects at times. Mitigation methods are available to return reception to at least preconstruction conditions.
- During construction there is no impact on point to point radio links expected due to their remoteness from the Study Area.

The Proponent will notify PMP operators, Commercial Television Station operators in the area and Broadcast Australia for the ABC and SBS, of the Proposed AWEF to enable these organisations to confirm that there are no potential interference issues seen to be relevant to their operations.

It is also proposed to carry out a pre-construction TV reception survey for this project at selected dwellings within 5km to establish a reception baseline of the digital TV environment now existing in the region for comparison with any post construction reception complaints in the area. Mitigation methods are available to return reception to at least preconstruction conditions.

Transport

Traffic volumes will increase during the construction of the Proposed AWEF, and a traffic and transport assessment will be submitted with the Planning Permit application to confirm volumes. At this stage there is likely to be an average of approximately 14 trucks accessing the Proposed Wind Energy Facility Area per day in addition to construction staff traffic. The assessment will also identify what impacts are likely to occur and where, along with potential mitigation and management measures. Construction traffic is likely to include cars, utilities, four-wheel drive vehicles, large semi-trailers, B-double, concrete trucks and large cranes. Post construction traffic is expected to be limited to light vehicles and an occasional maintenance vehicle.

The construction phase will be limited to a period of approximately 18 months. The Proponent considers that any amenity impacts arising can be addressed through standard construction management measures such as controlled working hours, selection of local traffic routes during

various phases of construction, selection of access track construction materials and road watering. Furthermore, where possible, the proponent will seek to source materials from site and as close to Proposed Wind Energy Facility Area as possible to minimise the number and duration of vehicle movements.

A Preliminary Transport Management Plan (Appendix L) has been prepared to identify the potential transport route of wind turbine components from the preferred port of entry (Port Anthony) to the Proposed Wind Energy Facility Area, with a particular focus on the turbine blades. The key route into the Proposed Wind Energy Facility Area is expected to be from the Port Anthony along the South Gippsland Highway (Figure 14 and Figure 15). Local roads would be used to travel the remainder of the distance to the turbine sites. The assessment concluded that with a moderate amount of upgrades and modifications to some relevant stretches of the potential haulage route, loads could physically be delivered to all Wind Turbine locations proposed for the Proposed AWEF. The road is predominantly good quality highway with the exception of the more localised wind turbine access routes. No significant structures or trees were noted along this route, however a number of smaller underpasses were identified and should be assessed to confirm the axle loadings are acceptable.



Figure 14: Road Transport Route – Port Anthony to South Gippsland Highway



Road Transport Route – South Gippsland Highway to sites within the Study Area



Intersection Works details



Four existing intersections and one existing access point will require some modification to enable construction and equipment supply vehicles to access the proposed turbine locations. Details of the five locations are shown below. Further detail of the proposed transport, access and delivery arrangements are contained in the Cardno Report in Appendix L.

Road reserves on the south side of South Gippsland Highway and Private Access Road (approximately 1.2km east of Birds Road South)	
Upgrades an existing access point onto the South Gippsland Highway –	
Activity Type - Construction Access	
Cardno Report Reference: IN4	
Cardno Plan	Cross Reference to Vegetation Plan from Brett lane and Associates -

Road reserves of South Gippsland Highway and Coal Mine Road	
Upgrades an existing access point onto the South Gippsland Highway at the intersection of Coal Mine Road	
Activity Type - Construction Access	
Cardno Report Reference: IN5	
Cardno Plan	Cross Reference to Vegetation Plan from Brett lane and Associates -

Road reserves of South Gippsland Highway and Old Alberton Road	
Upgrades an existing access point onto the South Gippsland Highway – Activity Type -	
Activity Type - Construction Access	
Cardno Report Reference: IN6	
Cardno Plan	Cross Reference to Vegetation Plan from Brett lane and Associates -

Road reserves of South Gippsland Highway and Ti Tree Road	
Upgrades an existing access point onto the South Gippsland Highway	
Activity Type - Construction Access	
Cardno Report Reference: IN8	
Cardno Plan	Cross Reference to Vegetation Plan from Brett lane and Associates -
	

Road reserves of South Gippsland Highway and Pound Road West	
Upgrades an existing access point onto the South Gippsland Highway	
Activity Type - Construction Access	
Cardno Report Reference: IN9	
Cardno Plan	Cross Reference Earth Resources Explore Victoria on-line – Tree Cover and Ecological Vegetation Groups (EVC) shown
	

After completion of construction and commissioning works, the operational traffic volumes at the Proposed AWEF will be little different in nature to current vehicle movements around the area.

It is expected that a condition of the Planning Permit will include the need for a Traffic Management Plan to be prepared (in consultation with Council and VicRoads) to the satisfaction of the Minister for Planning.

Decommissioning & Rehabilitation Plan

The operational life of the Proposed AWEF is expected to be around 20-30 years after which time the facility may be decommissioned and removed, or repowered with new turbines (subject to a further planning application if required). Key decommissioning activities would be carried out in consultation with the land owners to ensure that the land can be returned to agricultural use (i.e. some access tracks may be retained at the request of the land owner) and in accordance with the Planning Permit conditions. It is expected that Planning Permit conditions will specify a requirement for a section 173 agreement under the Planning and Environment Act 1987, which will set out the timing and requirements for decommissioning.

Community

The Proposed AWEF includes a commitment (should the project be permitted to proceed) to providing ongoing, meaningful support to the host community during the life of the Proposed AWEF, through a Community Support Fund of up to \$80,000 per annum. This Fund would be administered by a community-appointed body, and would contribute to local community projects. It is noted that a former rail reserve in the Study Area is now used as part of the South Gippsland Rail Trail, a 74km gravel cycle track which extends from Leongatha to Port Welshpool. The section which extends through the Study Area has not yet been developed and is not accessible to the public. Funds generated by the Proposed AWEF could be used to complete this project.

Other key social and community benefits include:

- Employment in the region during construction phase is anticipated to be around 115 construction workers plus additional employment generated by procuring local services including civil works, electrical works, receiving Port, stevedoring, storage, craneage, transportation, supply of materials and equipment, accommodation, security, traffic management. Indirect employment during the construction process is expected generate jobs for 270 people locally, 870 state jobs and 1360 nationwide jobs. Each worker is expected to spend approximately \$25,000 in the local area in shops, restaurants, hotels and other services, ie \$2.875M.²

² Calculation derived from Sustainability Victoria's "A Guide to Calculating Greenhouse Benefits of Wind Energy Facility Proposals" available from

² Calculated using multipliers from SKM "Wind Farm Investment, Employment and Carbon Abatement in Australia: (2012).

- Employment during the operations phase including maintenance and tourism is expected to be 12 staff – a total input of \$300,000 spent in the local economy.
- Renewable, locally generated electricity added to the grid that will contribute to the reduction of carbon emissions associated with electricity generation.

Community and stakeholder engagement

A formal and informal program of stakeholder consultation and engagement has been ongoing since 2014 including:

- Group meetings with those residents and landowners immediately surrounding the proposed site in late 2015/early 2016.
- Ongoing liaison with participating landowners.
- A Q&A session and 4-day information display for the broader Wellington Shire community in August 2017.
- Briefings of Wellington Shire Council and South Gippsland Council

Synergy Wind will be holding further community information sessions (including a tour to the nearby Bald Hills Wind Farm) during the planning application exhibition period.

The Synergy website also provides current project information, and the opportunity for community members to get in touch with any queries or comments.

5 OTHER LEGISLATION

5.1 Environmental Effects Act

Synergy Wind submitted an Environmental Effects Referral to DELWP for their comment and review. On the 27 December 2017 the Minister for Planning determined, under section 8B(3) of the Environmental Effects Act, that an EES was not required for the proposed wind farm. A copy of the Ministers Decision is contained in Appendix P.

5.2 Environment Protection and Biodiversity Conservation Act (EPBC Act) – Bilateral Agreement

Commonwealth Minister for the Environment has made the project a ‘controlled action’ under the EPBA Act attached as appendix Q. In July 2017, BL&A prepared an additional report addressing a request for further information for the Department of the Environment, and Energy regarding Matters of National Environmental Significance (MNES). This report has been prepared to supplement the flora and fauna report prepared by BL&A (2016) on the Alberton Wind Farm project. It aims to address specific concerns about the impacts of the project on matters of national environmental significance (MNES) protected under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act).

It has been directed that the controlled actions should be assessed under the EPBC Act Bilateral Agreement of 2014 as established between the Commonwealth and Victorian Governments. Hence, the assessment of the controlled action will occur concurrently with the subject planning permit application.

In response to the requirement to provide further details of the proposal under the Bilateral agreement, an additional report was undertaken by Brett Lane and Associates to respond to the specific matters which were required to be assessed by both the responsible Federal and State Governments. This report is titled:

- *Bilateral EPBC Act Bilateral Agreement Assessment Documentation – Report No. 14107 (6.7)*

This report is contained within appendix D of this submission and addresses matters specifically outlined in relation to the matters raised by the Commonwealth and State Governments.

The key concerns in the Reasons for Decision were related to the potential for significant impacts on:

- The Corner Inlet Ramsar Site, and in particular on small tributaries within the wind farm site that flow into the Albert River, which flows into the Ramsar Site;
- The nationally Critically Endangered Orange-bellied Parrot (*Neophema chrysogaster*) and Swift Parrot (*Lathamus discolor*);

- The nationally Vulnerable Growling Grass Frog (*Litoria raniformis*); and
- The listed migratory White-throated Needletail (*Hirundapus caudacutus*) and Fork-tailed Swift (*Apus pacificus*).

The assessment of the above matters will be considered simultaneously with this planning permit application and the Bilateral Agreement between the Victorian and Commonwealth Governments.

6 CONCLUSION

The proposed development of a Wind Energy Facility at Alberton positively responds to the requirements of the Wellington Planning Scheme and associated incorporated documents.

The proposal will contribute the achievement of renewable energy targets at both the State and Federal Government Level.

The Proposed AWEF will generate approximately 393 GWh of electricity per year, which will power approximately 45,383 average households and will contribute to approximately 390,000 tonnes of CO2 savings per year.

The specialist reports conducted that the proposal meets the key criteria in relation to:

- Cultural Heritage;
- Flora and Fauna; and
- Local amenity considerations.

The subject application will:

- give effect to the objectives of planning in Victoria and the State Planning Policy Framework and Local Planning Policy Framework;
- comply with the standards contained in the Guidelines;
- meet Victorian government comments regarding wind and renewable energy; and
- not result in any significant effects on the environment and will not create any significant social impact.
- Furthermore, the proposal will bring immediate and long-term economic and other benefits to the local community.

Having regard to all of the above, to the detail provided in this application and to the various expert reports provide, it is our opinion and the proposed development of a Wind Energy Facility satisfies the requirements of the Wellington Planning Scheme and associated incorporated documents. It also supports both the State and Federal Governments Renewable Energy Targets, while adding investment into Wellington Shire producing local jobs and helping to diversify the economy.

For the reasons outlined above and detailed throughout the report it is respectfully requested that a planning permit be issued to allow for the land to be used for a Wing Energy Facility.

BEVERIDGE WILLIAMS & CO PTY LTD.

September 2017

(Updated August 2018)