Hexham
Wind Farm

Chapter 2

Project rationale and benefits

WIND PROSPECT

2.1 Overview

A significant transition is occurring both nationally and internationally from traditional forms of electricity generation that use fossil fuel resources to the use of renewable resources such as wind energy. This transition is occurring in response to several factors including climate change, cost of energy, government policy, and community expectations.

The aim of the project is to deliver affordable and reliable electricity through the conversion of wind energy into electrical energy. The demand for new renewable energy generation is high and is forecast to increase, and the project is well-suited to meeting a significant proportion of this demand.

This chapter explains the characteristics that make the project site suitable for a wind farm and the potential implications of the project not proceeding. It also describes the policy context for renewable energy projects in Victoria, as well as the environmental and economic benefits the project would bring. Finally, the chapter explains how the project's objectives (as listed in Chapter 1 – ***Introduction***) would be achieved, driven by policy and the anticipated environmental and economic benefits.

2.2 Site characteristics

The selection of the Hexham area was the result of an extensive assessment of sites across Victoria. From an initial list of 30 potential sites, Hexham was found to have key characteristics needed for a successful project. Specifically, the following characteristics led to the decision to select the Hexham area to develop a wind energy project:

- **Strong, reliable winds**
  The Moyne Shire area has a reliable and strong wind resource that has been confirmed for the project site through long-term wind monitoring.
- **Proximity to an existing high voltage transmission line and connection infrastructure**
  The existing 500 kilovolt Moorabool to Heywood high-voltage transmission line traverses the project site and would facilitate the export of electricity produced by the project to the National Electricity Market.
- **Relatively low population density**
  The population density of the Moyne Shire local government area is 3.2 people per square kilometre and considerably lower around the project site. The project is located within open farmland and away from larger coastal populations and tourist areas, making it possible for wind turbines to be built at appropriate distances from dwellings.
- **Good vehicle access to, and around, the project site**
  The project has good access to a port and a network of existing roads for project construction and operation.
- **Suitable terrain for wind farm construction**
  The terrain within the project site is quite flat, providing for a simple and cost-effective construction process compared to more hilly areas (Figure 2.1).
- **Land that is largely cleared and contains few environmental constraints**
  The area has been cleared and has been farmed for many years. There are no protected areas such as national or state parks or Ramsar wetland areas close to the site.
- **Appropriate zoning**
  The project site is mostly zoned Farming Zone. This zone allows for the development of wind energy projects as long as other planning provisions are met.

Figure 2.1 Typical farmland in the project site

Once the Hexham project site was selected, detailed ecological assessment work commenced to map native vegetation and potential habitat within the project site and undertake targeted flora and fauna assessments. In 2019, the project was publicly announced, and information gathered from a range of stakeholders, including project neighbours and other community members. The process leading to the project design being assessed within the EES is discussed in Chapter 5 – ***Project alternatives and design development***.

2.3 Policy context

The rationale for the project is influenced by local, state and national government policies, and international frameworks. Key drivers relate to climate change and the need to reduce greenhouse gas emissions, as well as the economics of reducing the cost of electricity, stimulating the economies of regional areas and maintaining reliable electricity supply. International agreements in relation to the management of climate change impacts have led to commitments at all levels of government to set and achieve greenhouse gas reduction targets, and to implement initiatives to encourage renewable energy development to replace fossil fuels.

The following section describes the policy context at different government levels and how this has provided a key rationale for the project.

2.3.1 International context

The international community is increasingly calling for accelerated efforts to decarbonise economies to minimise and reduce emissions of carbon dioxide, with electricity generation being a key focus.

United Nation Sustainable Development Goals

The United Nations (2015) Transforming our world: the 2030 Agenda for Sustainable Development outlines a set of 17 sustainable development goals and 169 targets to create a more equitable, prosperous, sustainable and resilient future. The sustainable development goals seek to end poverty, reduce inequality and improve health and education while tackling climate change and protecting the natural environment.

The project most closely aligns with sustainable development goal no. 7:

> *"Ensure access to affordable, reliable, sustainable and modern energy for all."*

The project would directly contribute to the achievement of this goal through the delivery of low-cost, renewable and reliable electricity to the National Electricity Market.

The **National Electricity Market** facilitates the wholesale dispatch of electricity, which is transported via transmission lines (incorporating about 40,000 kilometres of state and private assets) to industrial energy users and local energy distributors in all states and territories except Western Australia and Northern Territory. In total, the National Electricity Market supplies more than 85% of Australia's population (AEMO, 2025a).

Paris Agreement

The outcome of 2016 meeting of the United Nations Framework Convention on Climate Change in Paris was a world-wide commitment to limit global warming to well below 2 degrees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels, termed the Paris Agreement of 2016. A key component of the Paris Agreement is that countries submit their plans for climate action via 'Nationally Determined Contributions' by 2020 and for these contributions to be reviewed and updated (to be increasingly ambitious) on a 5-year cycle. In 2022, Australia submitted an updated Nationally Determined Contribution committing to reducing emissions to 43% below 2005 levels by 2030. In 2025, Australia further strengthened its commitment by setting a 2035 target to reduce emissions by 62 to 70% below 2005 levels, as part of its updated Nationally Determined Contribution (DCCEEW, 2025a).

The Kyoto Protocol was the predecessor of the Paris Agreement. The Kyoto Protocol was adopted in December 1997 and entered into force in 2005. It put into operation the United Nations Framework Convention on Climate Change by committing industrialised countries and economies in transition to limit and reduce greenhouse gas emissions in accordance with agreed individual targets.

Australia is a signatory to both the Kyoto Protocol and the Paris Agreement (see Section 2.3.2).

2.3.2 Commonwealth context

Through climate adaptation and climate science policy and programs, the Department of Climate Change, Energy, the Environment and Water (DCCEEW) is tasked with managing programs that respond to climate change, and manage energy, water, and environmental resources. Australia's Department of Industry, Science and Resources is responsible for job creation and building a stronger, more inclusive, and sustainable economy. The Department of Agriculture, Fisheries and Forestry is responsible for safeguarding and growing sustainable agriculture, fisheries, and forestry through biosecurity, production, and trade. Together with the Department of Foreign Affairs and Trade, these departments negotiate and implement Australia's obligations under the Paris Agreement and administer other major Commonwealth programs and strategies that relate to climate change.

Meeting the Paris Agreement

Under the Paris Agreement, the Australian Government has established the nationally determined contribution of an economy-wide target to reduce greenhouse gas emissions by 43% below 2005 levels by 2030 and 62 to 70% below 2005 levels by 2035 (DCCEEW, 2025a). Australia's most recent estimate of the country's national inventory of greenhouse gas emissions up to the March quarter 2025 showed emissions were 1.4% (or 6.5 million tonnes carbon dioxide equivalent) lower than in March 2024 (DCCEEW, 2025b). Emissions were 28.1% below the level of emissions in June 2005 (which is the baseline year for the Paris Agreement). This reduction in emissions is partly due to ongoing reductions in emissions from electricity (down 29.2% from the peak recorded in the year to June 2009), although electricity maintained the highest contribution with 34% of total emissions, indicating there is considerable potential for further reductions.

In August 2022, the Labor Government enshrined into law an emissions reduction target of 43% from 2005 levels by 2030 and net-zero emissions by 2050. In September 2025, an additional emissions reductions target for 2035 of 62 to 70% below 2005 levels was also included in Australia's Nationally Determined Contribution under the Paris Agreement. The net-zero emissions by 2050 target have also been committed to by all Australian states and territories.

The project would make a meaningful contribution to Australia's target to reduce carbon emissions under the agreement, as outlined in Section 2.4.

Renewable Energy Target

The Renewable Energy Target, administered by the Clean Energy Regulator, is a Commonwealth Government policy designed to ensure at least 33,000 gigawatt hours of Australia's electricity comes from additional renewable sources each year. Under the Renewable Energy Target, the Large-scale Renewable Energy Target scheme requires high-energy users to acquire a fixed proportion of their electricity from renewable sources. This occurs in the form of large-scale generation certificates, which are created by large renewable energy power stations (such as wind farms) and then sold to high-energy users who must surrender them to meet their obligations under the Large-scale Renewable Energy Target (i.e., to meet their renewable energy obligations). One large-scale generation certificate can be created per megawatt hour of eligible electricity generated by a power station, providing a supplement to the generator's income received for the energy sold on the market.

The Renewable Energy Target's 33,000-gigawatt hours target (including the Large-scale Renewable Energy Target) was met at the end of January 2021 (Clean Energy Regulator, 2025a). Large-scale generation certificates will continue to be generated and high-energy users will continue to be required to meet their obligations under the policy until 2030. The large-scale generation certificate price is set by market forces (including supply and demand) and is expected to decrease during the decade to 2030 as oversupply in the market significantly reduces their value.

The project can be expected to create and sell large-scale generation certificates from the time of commissioning up until 2030 when the Large-scale Renewable Energy Target scheme ends. The large-scale generation certificate spot price in Quarter 2 2025 was $21.25 per megawatt hour (Clean Energy Regulator, 2025b). As the supply of renewable energy in the market increases, prices are expected to fall further as the Large-scale Renewable Energy Target scheme approaches its end in 2030. The Large-scale Renewable Energy Target scheme is therefore not expected to be pivotal in the financial success of the project.

Other Commonwealth initiatives

The recent focus of the Commonwealth Government has been on boosting renewable energy through supply of reliable, secure, and affordable energy. Investment has been made to programs including:

- the Powering Australia plan, centring on job creation, reducing power bills, and reducing emissions through support of the renewable industry
- the Capacity Investment Scheme, designed to accelerate investment in renewable generation and clean dispatchable capacity with an aim of delivering 40 gigawatts of new capacity by 2030
- the National Performance Strategy which prioritises efficiency and performance to achieve emissions reduction targets of 43% by 2030
- Renewable Energy Transformation Agreements, made between the Commonwealth and State and Territory government to coordinate renewable energy development and infrastructure planning, supporting national targets
- identification and support of 56 priority renewable energy projects across Australia through the National Renewable Energy Priority List
- investment in the National Hydrogen Strategy
- emission abatement strategy
- establishing suitable offshore renewable energy areas
- new technologies via the Technology Investment Roadmap.

Investment has also occurred in large-scale pumped hydro projects like Snowy Hydro 2.0 and transmission projects such as Marinus Link, as well as supporting energy efficiency measures and developing a national strategy for electric vehicles.

The Commonwealth Government has policies and programs that provide indirect support for large-scale conventional wind energy projects. For example, the carbon emission reduction benefits of pumped hydro are maximised by using renewable energy, such as wind energy projects, to pump water that can later be used to generate electricity. The environmental benefits of electric vehicles are also maximised when the source of electricity to charge them is from renewable energy such as wind energy projects.

Manufacturing and recycling

In 2021, the Commonwealth Government released a Recycling and Clean Energy National Manufacturing Priority Road Map (DISR, 2021) as part of its Modern Manufacturing Strategy. The road map highlights opportunities that exist in Australia for manufacturing and recycling of clean energy components such as wind turbines and batteries. The road map signals an expression of the Commonwealth Government's intentions to support manufacturing and recycling enterprises in the wind energy sector, and sets two-, five- and ten-year goals to achieve its vision to:

> *"...develop world-leading advanced manufacturers that seize economic opportunities from sustainability, the clean energy transition, and the global effort to create more value from resources and reduced waste."*

An industry-wide approach to recycling would streamline processes, helping to reduce costs and increase the effectiveness of these processes. The project owner and operator would work with the Commonwealth Government, as well as state and local governments and industry associations (e.g., the Clean Energy Council) when preparing and later implementing the project's detailed decommissioning plan. This will help maximise the recyclability of wind farm infrastructure at the end of its life. In 2021, over $44 million in grants was shared with six recycling and clean energy manufacturers through round 1 of the Modern Manufacturing Strategy.

2.3.3 Victorian context

The Victorian Government's policies relating to energy, and particularly renewable energy, have changed considerably during the past 20 years. The last six years has seen concerted effort by the Victorian Government to increase the contribution of renewable energy as a means of reducing greenhouse gas emissions from the electricity sector, including providing support to develop socially and environmentally sustainable wind energy projects. Importantly, the project would contribute to the state's long-term target of net zero emissions by 2050, underpinned by the Victorian *Climate Change Act 2017*.

Other policy objectives include reducing the cost of electricity, stimulating the Victorian economy, and assisting with the evolution of the National Electricity Market currently underway.

Victoria's Renewable Energy Roadmap

In 2015 the Victorian Government released the state's Renewable Energy Roadmap (DEDJTR, 2015). It was acknowledged at the time that a critical element of delivering a sustainable economy is to increase the supply of renewable energy generation in the National Electricity Market. At that time, only 12% of Victoria's electricity was sourced from renewable energy (predominantly via wind, solar and hydro power).

The Renewable Energy Roadmap included several initiatives including reinstating a whole-of-Victorian Government facilitation service for renewable energy projects and investigation of new models to enable renewable energy projects. The Renewable Energy Roadmap also flagged the intention of releasing a Renewable Energy Action Plan that would establish targets for renewable energy generation in Victoria.

Feedback received on the Renewable Energy Roadmap in 2015 from industry, environment and climate groups, local government and the public helped shape the Victorian Government's Renewable Energy Action Plan (discussed in the following section).

Renewable Energy Action Plan

Victoria's Renewable Energy Action Plan (DELWP, 2017a) set out long-term actions to drive renewable energy investment in Victoria. Action 1 of the Plan was a commitment to the Victorian Renewable Energy Target for 2020 and 2025. Initially, the Victorian Government legislated renewable energy targets within the *Renewable Energy (Jobs and Investment) Act 2017* of 25% renewable energy by 2020 (achieved), 40% by 2025 and 50% by 2030.

Following announcement ahead of the State Government election in November 2022, the Labor Government legislated updated targets for renewable energy, being 65% renewable energy by 2030 and 95% renewable energy by 2035. This also included energy storage targets of at least 2.6 gigawatts of energy storage capacity by 2030, and at least 6.3 gigawatts by 2035.

Action 6 of the Renewable Energy Action Plan is to streamline renewable energy project processes and approvals. The Government established a 'one stop shop' for wind farm planning permit matters "*to ensure relevant government agencies can respond promptly to issues for individual applications*". The action also flagged the future introduction of Environment Protection Authority (EPA) Victoria audit of noise assessments and noise management plans (refer to Chapter 3 – ***Legislation and policy framework*** to see how these apply to the project).

Action 17 of the Renewable Energy Action Plan is to support energy storage that integrates with renewable energy generation. The Plan commits to a minimum of two 20 megawatt batteries in western Victoria, "*to support battery storage becoming mainstream*".

Victoria's Climate Change Strategy

Victoria's Climate Change Strategy (DELWP, 2021a) was a roadmap to net-zero emissions and a climate resilient Victoria by 2050, developed to meet initial targets to reduce the state's greenhouse gas emissions from 2005 levels by 28–33% by 2025 and 45–50% by 2030.

In May 2023, the Victorian Government confirmed new emissions reduction targets of 75 to 80% for 2035, and net zero emissions by 2045 through amendments to the *Climate Change Act 2017.* To reflect these targets, Victoria's 2035 Emissions Reduction Target: Driving Real Climate Action (DEECA, 2023a) was published, which outlines the key policies and actions that will support their achievement. This strategy is linked to the legislated renewable energy targets referred to above under the Renewable Energy Action Plan.

Victoria's energy future

The Australian Energy Market Operator (AEMO) reported in 2020 that "*a minimum of 13.2 GW [gigawatts] of Victorian renewable generation would be required by 2030 to meet the Victorian Renewable Energy Target (VRET). This means Victoria will need at least an additional 5.4 GW of additional large-scale renewable energy projects and DER [distributed energy resources] investment to meet the VRET*" (AEMO, 2020). This statement was made before the announcement by Energy Australia in March 2021 of the early closure of the Yallourn coal-fired power station in 2028 instead of 2032, and the announcement by AGL in September 2022 of the early closure of Loy Yang A coal-fired power station in 2035 instead of 2045.

Along with Victoria's updated renewable energy targets, the early closure of Yallourn and Loy Yang A, along with the potential early closure of other coal-fired power stations within the National Electricity Market, creates additional incentive to add new energy generation before 2028. Given current global and local trends and Victorian Government policies on energy, the replacement for Yallourn's 1,450 megawatts (~10,500 gigawatt hours) and Loy Yang A's 2,210 megawatts (~15,000 gigawatt hours) of generation will most likely be from renewable energy sources. The addition of large-scale batteries (and pumped hydro) will also contribute to the energy mix, allowing renewable energy to be stored during periods of low demand and dispatched when demand is higher.

The project's estimated 2,559 gigawatt hours (annually) of renewable energy could replace around 9% of Yallourn and Loy Yang A's output, and the battery energy storage system would provide additional security of supply to the National Electricity Market.

Renewable Energy Zones

The 2025 Victorian Transmission Plan (VicGrid, 2025) proposed seven Victorian Renewable Energy Zones (Figure 2.2). These Renewable Energy Zones are regions with the greatest potential for renewable energy development across the state, and their selection focuses on areas where grid improvements should be carried out to facilitate the transition to a renewables-based National Electricity Market. This Plan was developed following the release of the Victorian Renewable Energy Zones Development Plan Directions Paper in February 2021 (DELWP, 2021b) which tabled several priority transmission network upgrades *"to support existing and future renewable energy generation development in Victoria's Renewable Energy Zones"*.

The Victorian Government has committed to developing the Renewable Energy Zones to meet the following objectives:

- ensure that communities, including traditional owners, are engaged in the process
- provide for the orderly, planned development of renewable energy resources
- efficiently and effectively expand the grid and connect new generation
- reduce network congestion and costs.

In early 2021, the Victorian Government announced the establishment of VicGrid to administer a $540 million Renewable Energy Zone fund. This government agency will engage with regional communities to provide for appropriate and beneficial development in each Renewable Energy Zone. Their work will see immediate network investments to upgrade the grid to support the decentralisation of energy generation (i.e., over-reliance on coal fired generation in the Latrobe Valley) and integration of renewables within the Renewable Energy Zones in Victoria.

The strength of the wind resource, access to a transmission network with capacity and the availability of suitable land on which to develop renewable energy projects has led to south-west Victoria being designated a Renewable Energy Zone. This identification of the candidate Renewable Energy Zone was formalised by the Victorian Government in early 2021, and the management of the Renewable Energy Zone will be overseen by VicGrid.

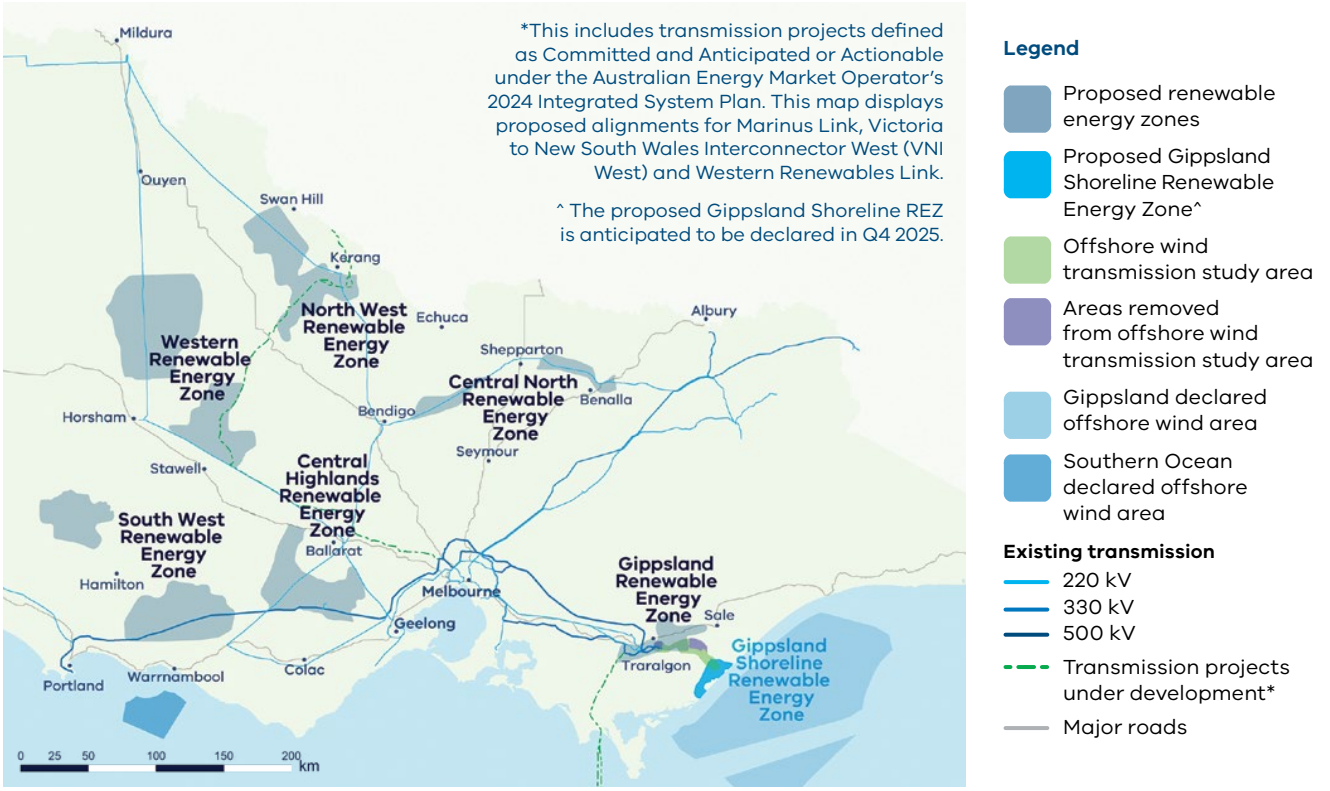

Figure 2.2 Renewable Energy Zones in Victoria *(Source: VicGrid, 2025)*

Cheaper, Cleaner, Renewable: Our Plan for Victoria's Electricity Future

In 2023, the Victorian Government released Cheaper, Cleaner, Renewable: Our Plan for Victoria's Electricity Future (DEECA, 2024), a whole-of-system strategy outlining the state's pathway to achieving 95% renewable electricity generation by 2035 and net zero emissions by 2045. The plan builds on previous commitments and introduces new mechanisms to accelerate the transition away from fossil fuels while ensuring affordability, reliability, and community benefit.

The plan is structured around four key pillars:

- **Enabling the renewables big build**, including the development of Renewable Energy Zones, offshore wind, and large-scale storage projects such as the Victorian Big Battery.
- **Empowering households and businesses to lower energy bills** and emissions through electrification and energy efficiency upgrades.
- **Managing the transition away from fossil fuels,** with the planned retirement of coal-fired power stations and replacement with renewable generation and firming capacity.
- **Creating jobs, skills, and supply chains,** including the re-establishment of the State Electricity Commission (SEC) to invest directly in renewable energy and storage.

The plan also introduces a community benefits framework, requiring energy developers to contribute funds that directly benefit landholders, Traditional Owners, First Peoples, and regional communities hosting new energy infrastructure. Planning and approval processes are being streamlined to accelerate project delivery while maintaining environmental and social safeguards.

This plan reinforces the importance of projects like the proposed wind farm and battery energy storage system, which align with Victoria's long-term energy and climate goals and contribute to a more resilient, equitable, and sustainable electricity system.

Victoria Planning Provisions

State Government plans and strategies for renewable energy are supported through the Victoria Planning Provisions contained within all local planning schemes, including the Moyne Planning Scheme. Clause 19.01-2S (Renewable energy) has the objective of promoting *"the provision and use of renewable energy in a manner that ensures appropriate siting and design considerations are met"*. One of the strategies listed in this planning provision is to *"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"*.

Clause 52.32 (Wind Energy Facility) provides more specific direction in relation to the use and development of land for a wind farm *"to facilitate the establishment and expansion of wind energy facilities, in appropriate locations, with minimal impact on the amenity of the area"*. Specifically, the clause includes a description of when a permit is required to use and develop land for a wind energy project and what a permit application must include.

2.3.4 Local and regional policies

Victoria's Regional Statement

Victoria's Regional Statement was released in 2015 and set out the next steps and flagged future directions for regional development policy. The statement's focus is on regional jobs growth and boosting regional economies, with renewable energy identified as a key element of future plans.

In late December 2019, the Barwon South West Renewable Energy Roadmap was released, which incorporates the Moyne Shire (DELWP, 2019). The roadmap articulates the region's *"vision for a renewable energy future, identifying opportunities to attract investment and better understand their community's engagement and capacity to transition to renewable energy"* (from the Minister's foreword). Collaboration, consultation and engagement with local communities was key to the roadmap's development. Key themes from the consultation were:

1. Support for renewable energy is strong – very few people (less than 1%) did not support a shift to renewable energy.
2. Take a strategic approach and listen to the community – the community was concerned that renewable energy generation projects were not being planned in a systematic way across Victoria, leading to rushed and ad hoc projects, and that community consultation about proposed renewable energy projects was poor.
3. Share the benefits – it was important that projects created local jobs and an economic boost to local businesses.
4. Wind and solar are the preferred technologies – these technologies were seen by communities as the most appropriate, given the climatic conditions and advantages.
5. Cut down the complexities and costs and make it easier – the community felt that the current rules and regulations are highly complex and preventing community involvement and innovation in the renewable energy space.

Respectful engagement and honest sharing of information has formed a key part of the project's development for more than ten years. While some of the key themes of the project's consultation are reflected in those from the Roadmap, community engagement was (and continues to be) carried out in accordance with the Clean Energy Council's (2021) Best Practice Charter for Renewable Energy Developments.

Moyne Shire Council

As of September 2025, Victoria has 39 wind farms operating throughout the state, with several others under construction, with planning approval, seeking planning approval or under investigation. The Moyne Shire is home to Victoria's oldest wind farm, Codrington Wind Farm (near Port Fairy), built in 2001 and still operating today. As of September 2025, the Moyne Shire has:

- nine operational wind farms (Codrington, Dundonnell, Hawkesdale, Macarthur, Mortlake South, Mortons Lane, Ryan Corner, Salt Creek and Yambuk Wind Farms)
- two wind farms with a permit but not yet constructed (Mt Fyans and Woolsthorpe Wind Farms)
- two wind farms with planning applications lodged (Swansons Lane and Willatook Wind Farms)
- two wind farms undertaking environment effects statements (Darlington and Hexham Wind Farms).

An additional wind farm is also proposed by Tilt Renewables in the neighbouring Southern Grampians Shire (the Bushy Creek Wind Farm about 34 kilometres north-east of Mortlake).

In October 2019, Moyne Shire Council declared a climate emergency. The declaration *"commits Council to advocating to state and Federal governments to declare a climate emergency and to drive actions to reduce emissions and the impacts on coastal areas. Moyne Shire Council will also incorporate the declaration in all of its relevant strategies and policies and consider the impact of climate change when planning and decision making"* (Moyne Shire Council, 2019a).

The Moyne Shire's Council Plan 2025 - 2029 (Moyne Shire Council, 2025a) includes strategic objectives relating to renewable energy, including to:

- *"Advocate for improved outcomes and increased benefit for community and individuals from the renewable energy sector"*,
- *"Explore innovative partnership opportunities with industry, government and the community"*, and
- *"Participate in setting standards for the sector, drawing on our experiences with development, operation and decommissioning"*

The project team has worked with Council via Council's Major Projects team, the EES Technical Reference Group and periodic presentations to councillors.

On 27 November 2018, Council resolved to oppose any further wind farm development or new transmission infrastructure within the shire, pending the implementation of the National Wind Farm Commissioner's 2017 annual report recommendations within Victoria. The key concern raised by Council was around cumulative impacts of wind farms on the community, including social impacts relating to housing availability, noise and visual amenity, and traffic, as well as environmental impacts such as impacts to Brolga and other threatened fauna, native vegetation and threatened flora (Moyne Shire Council, 2021a).

In June 2022, Moyne Shire Council consulted with the community and industry on a revised Wind Farm Position Statement, which sought to understand the community's view on wind farms within Moyne Shire. When residents were asked whether they have a positive, neutral or negative view of wind farms in Moyne Shire, the survey found that most residents (54%) have a positive view (JWS Research, 2022). The survey also identified that 43% of residents support the continued construction of wind farms in Moyne Shire, with 30% of respondents opposing and 16% requiring more information to assist in forming their view (e.g., impacts on the land, environment, fauna and people) (JWS Research, 2022).

On 6 September 2022 Council revised its position on wind farm development, stating that *"Moyne Shire Council strongly recommends that the State Government pause the issuing of all wind farm planning permits in the Shire until strategic land use planning in the South West Renewable Energy Zone (SWREZ) is completed in consultation with Moyne Shire and other affected Councils and communities"* (Moyne Shire Council, 2022). In this revised position statement, Council notes that planning should consider:

- wind farm turbine buffers (increased to 5 kilometres from towns and settlements, 2 kilometres from houses and 1 kilometre from neighbouring property boundaries)
- cumulative impacts of wind farm development, including impacts to flora and fauna, amenity (visual and noise) and traffic
- cap on wind farm development within Moyne Shire, including consideration of the number, location and density of turbines, and cumulative environmental and social impacts
- long-term economic and social benefits, including the use of local businesses and employment opportunities during wind farm construction and operation
- undergrounding of high voltage power lines, where feasible, or sharing of power line infrastructure between wind farm developments where not feasible
- decommissioning policy, including a plan for the reuse and recycling of wind farm components
- impacts to agricultural land
- protection of significant flora, fauna and vegetation communities
- buffers around airstrips and airports, and heights of turbines in relation to Minimum Safe Altitude levels and Obstacle Limitation Surfaces.

The concerns raised by Moyne Shire Council in November 2018 and the planning directions outlined in the June 2022 position statement have been considered through the EES process, including the avoidance of impacts where possible, and implementation of mitigation and management measures where needed (as summarised in Chapter 28 – ***Environmental management framework***).

Great South Coast Regional Growth Plan

Regional Growth Plans cover eight regions in Victoria and, together with Plan Melbourne 2017-2050 (DELWP, 2017b), provide a land use planning framework for Victoria. Of the regional plans, the Great South Coast Regional Growth Plan (DTPLI, 2014) covers the project site and Moyne Shire, as well as the municipalities of Corangamite, Glenelg, Southern Grampians and Warrnambool.

The Great South Coast Regional Growth Plan outlines opportunities for growth during the next 30 years, with the vision to *"create a thriving, multifaceted and resilient economy, while valuing and managing our natural resources and environment"*. A key strategic direction of the Plan is to position the Great South Coast for economic growth, with renewable energy (including wind energy) identified as a major opportunity for the region. Land use policies, strategies and actions outlined in the Plan in relation to alternative energy production (i.e., energy generated from renewable sources and natural gas) include:

- *"support the development of energy facilities in appropriate locations where they take advantage of existing infrastructure and provide benefits to the regional community*
- *require the protection and proper maintenance of infrastructure and assets, including local roads, during the development and construction of energy projects*
- *plan for and sustainably manage the cumulative impacts of alternative energy development*
- *secure access to key construction material resources in the region, including on-site quarrying".*

2.4 Environmental benefits

The project would provide several environmental benefits from a global to a local level.

The project would contribute significantly to both the Commonwealth and Victoria's renewable energy generation target of 65% by 2030 and 95% by 2035. Between July 2024 and June 2025, renewable energy sources accounted for approximately 58.5 gigawatts of installed electricity generation capacity in the National Electricity Market, contributing around 63.7% of the total installed capacity (AEMO, 2025a). Of this, wind energy sources accounted for 13.1 gigawatts of installed capacity. If the project's contribution of approximately 700 megawatts was added to the National Electricity Market at the time, it would represent an increase of more than 5% in wind generation capacity.

As more renewable energy generation is added to the grid the emissions intensity of the electricity is reduced. The emissions intensity is the amount (in tonnes) of carbon dioxide emitted per megawatt of electricity supplied to the grid from all contributing generators. Figure 2.3 shows the emissions and emissions intensity within the National Electricity Market. The emission intensity is the amount of carbon dioxide emitted per megawatt generated and the graph indicates that, since 2015 in Australia, electricity has increasingly been supplied by renewable energy sources.

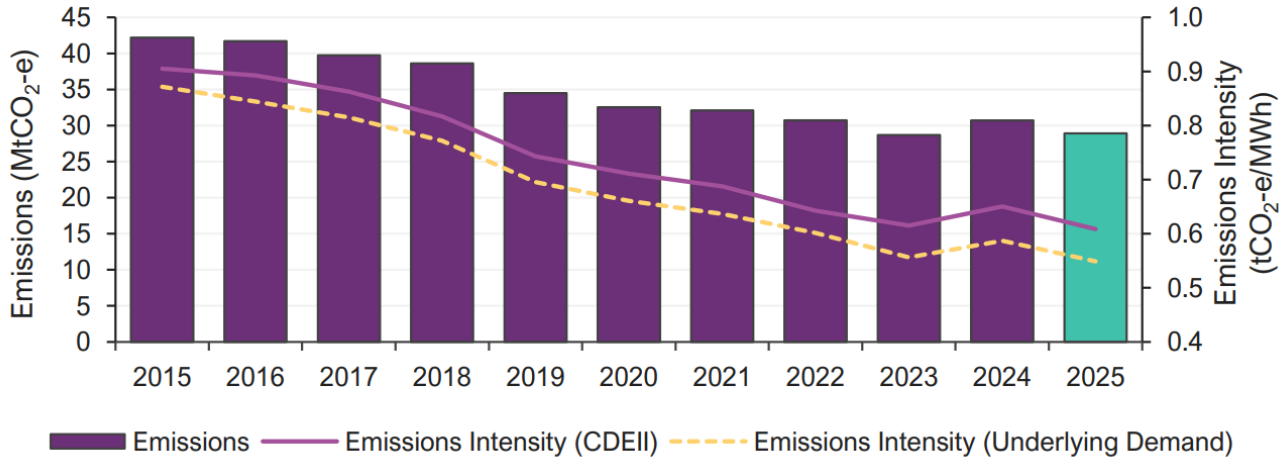

Figure 2.3 NEM Emissions and emissions intensity (Source, AEMO, 2025b)

The key environmental benefit of the project would be contributing to a reduction of emissions intensity of electricity within the National Electricity Market. The project will contribute around 2,559 gigawatt hours per year of electricity to the National Electricity Market, which is enough to power more than 630,000 homes with renewable energy. If the project were to directly replace black coal generation, this would equate to savings of around 2.2 million tonnes of carbon dioxide equivalent annually. Given the continued role of brown coal in the National Electricity Market generation supply mix, the emissions savings could be even greater if the project's output displaces brown coal generation.

Australia has one of the highest per capita emissions of carbon dioxide in the world, and our population of more than 27.5 million people (ABS, 2025) is contributing significantly to human-induced climate change on a per capita basis. Australia ranks higher than other large democracies for per-capita emissions, including the India, United States and South Korea which have higher total emissions (EDGAR Community GHG Database, 2025). Australia is also highly exposed to the impacts of climate change, providing a particular imperative that action is taken to reduce carbon emissions as soon as possible (Australian Climate Service, 2025).

2.5 Economic benefits

The main drivers for developing wind energy projects may be environmental, but there are also significant economic drivers. The relative cost of wind energy continues to fall and is predicted to fall further into the future. The key contributors to this fall in cost are:

- improvements in wind turbine, energy storage and electricity grid technologies
- higher costs to produce energy from fossil fuels
- policy certainty, particularly at the state level, that create a more stable market for wind energy technology
- a growing and increasingly skilled local workforce.

2.5.1 Electricity costs

The CSIRO GenCost 2024-2025 Final Report (Graham et al., 2025) stated that:

> *"The capital costs of onshore wind generation technology increased by a further 8% in 2023-24 and another 6% in 2024-25…The LCOE cost range for variable renewables (solar PV and wind) with integration costs is the lowest of all new-build technologies in 2030."*

Levelised cost of energy (LCOE) refers to the total unit costs a generator must recover over its economic life to make a return on investment. The Australian Energy Market Commission's Residential Electricity Price Trends Report (AEMC, 2024) states that for the NEM, *"Residential electricity prices are modelled to fall by about 13% over the next 10 years….driven by an anticipated increase in renewable generation"* including wind farms.

2.5.2 Investment in the wind sector

The Clean Energy Council's Clean Energy Australia Report 2025 (Clean Energy Council, 2025a) reported a considerable increase in investment commitments to large scale energy generation projects, with new financial commitments of $9 billion. Combined with investment commitments in utility scale storage, this is the highest recorded level of annual clean energy investment in Australia's history.

The Moyne Shire Annual Report 2021-2022 (Moyne Shire Council, 2021b) reported that renewable energy projects worth an estimated $7 billion are in various stages of planning and development across the shire. This includes projects that are not yet financially committed, such as the Hexham Wind Farm project.

It is clear from the growth of installed wind farm generation capacity in Australia that investment has been increasing. Greater energy policy certainty at the state level and estimated closure dates for some of Australia's biggest coal-fired power stations is fuelling the investment in the renewables sector.

2.5.3 Employment and economic stimulus

Renewable energy projects, including wind farms, contribute significant employment opportunities and economic benefits to local communities. The Clean Energy Council reports that there are approximately 30,000 existing jobs in clean energy, with the potential creation of an additional 40,000 jobs due to the pipeline of projects through to 2030 (Clean Energy Council, 2025b).

The project peak would support the local and regional economy by providing around 360 direct full-time equivalent jobs during construction and an estimated additional 193 indirect full-time equivalent jobs through supply chains and local service industries. Around 27 ongoing full-time equivalent maintenance jobs and 7 indirect full-time equivalent jobs would also be created throughout the operation of the wind farm.

The project would also upgrade roads (as required) to provide access for oversized project infrastructure components such as wind turbine blades and tower sections. These upgrades would also improve road conditions for local road users in the longer term.

The project is predicted to generate considerable economic benefits during its 25-year life, including:

- capital expenditure during construction of approximately $2,440 million, of which $249.8 million is expected to be invested locally
- operational capital expenditure estimated at $31.0 million per annum during the project's operational life, of which $13.4 million is expected to occur annually within the Moyne and Warrnambool local government areas
- additional expected economic stimulus of $1.2 million per annum through the Neighbour Benefit Sharing program, during the project's operational life
- total rates to the Moyne Shire estimated to be more than $1 million each year during the project's operational life
- the inclusion of local and regional content requirements into key project contracts to maximise employment opportunities in the Moyne Shire and surrounding areas.

Further details about the economic benefits can be found in Chapter 21 – ***Socio-economic***.

2.5.4 Neighbour Benefit Sharing Program

The project's Neighbour Benefit Sharing Program has been developed in consultation with the local community and draws upon recommendations from the Australian Energy Infrastructure Commissioner's annual reports, the Clean Energy Council's (2019) A guide to benefit sharing options for renewable energy projects, and the Department of Environment, Land, Water and Planning's Community Engagement and Benefit Sharing in Renewable Energy Development in Victoria - A guide for renewable energy developers (Lane and Hicks, 2017).

The total value of the Neighbour Benefit Sharing Program is dependent on the number and location of constructed wind turbines, however, the current estimate of total value of the program is around $.2 million each year for the life of the project with all payments indexed annually to the Consumer Price Index, from the commencement of the program. The injection of this money into the local economy is expected to benefit the region.

For eligible neighbouring landowners and/or residents with a dwelling within six kilometres of a constructed wind turbine (excluding those hosting infrastructure), the Neighbour Benefit Sharing Program would offer:

- a one-off construction payment of $1,000
- a neighbour benefit payment of between $1,000 and $30,000 annually (subject to eligibility criteria, including proximity of dwellings to constructed wind turbines)
- an energy cost offset plan payment of up to $2,000 annually.

In addition, a community benefit fund would be established. The fund would comprise $1,000 per year for every operational turbine commencing at the commissioning of the wind farm and continue annually for as long as the wind farm is operational. A formally established fund committee including community representatives would determine how these funds would be allocated and eligible initiatives. All annual payments would be indexed each year to the Consumer Price Index following commencement of the program.

Subject to sufficient interest from the local community a Community Co-investment Program would also be developed providing an opportunity for community members and organisations to invest in the operational project and participate in financial benefits. Community co-investment involves a community investment body investing in a renewable energy project, acquiring rights to a portion of the project's profit but gaining no decision-making power or control of the project.

The proposed Neighbour Benefit Sharing Program was communicated to project stakeholders in November 2020 via a flyer (Attachment IV – ***Neighbour Benefit Sharing Program flyer***) and via the project website. A summary of the program, including an example of the Neighbour Benefit Program payment calculation, is illustrated in Figure 2.4.

The Neighbour Benefit Sharing Program will be implemented through the project's Environmental Management Measures, as outlined in Chapter 28 – ***Environmental management framework***. In accordance with the relevant Environmental Management Measure, further engagement and involvement with the affected communities would be carried out to determine how the Neighbour Benefit Sharing Program would be set up, managed and spent.

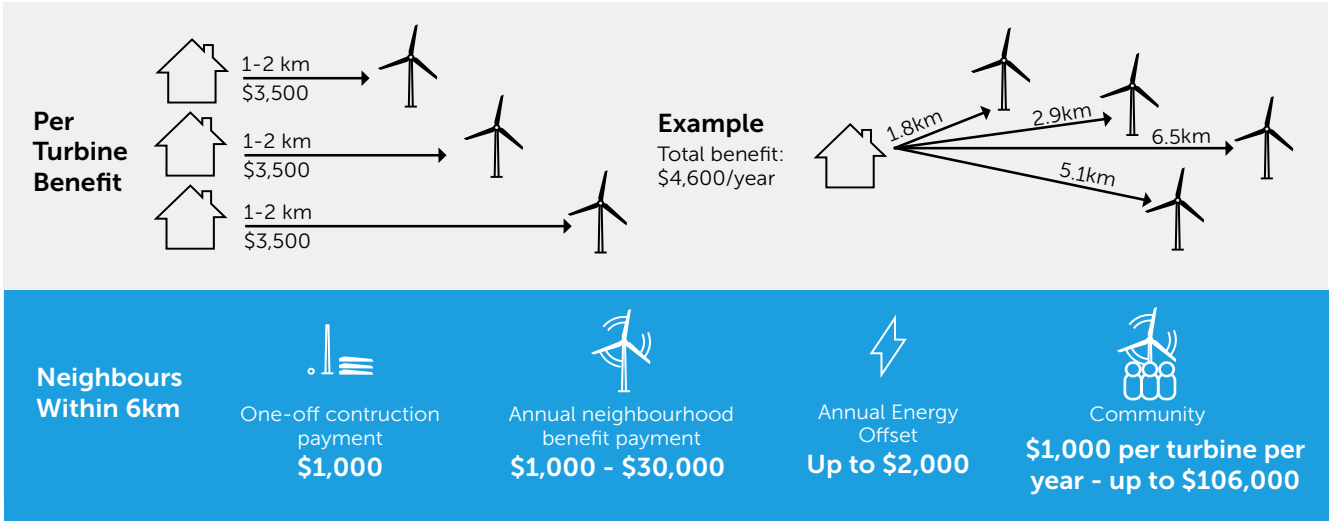

Figure 2.4 Neighbour Benefit Sharing Program summary

2.6 Achieving project objectives

Table 2.1 outlines how project objectives would be achieved. Later chapters of this EES explain how some of these project objectives would be achieved in more detail. These chapters are referred to in the table where relevant.

Table 2.1 Project objectives

Objective	How the project aims to achieve the objective
Deliver affordable and reliable electricity generated by renewable energy to the electricity grid	The project would provide around 700 megawatts of wind generation capacity to the National Electricity Market. Large scale wind turbines are proven technology and have been part of Australia's energy mix for more than 20 years. The project also has provision for around 200 megawatts/800 megawatt hours of battery energy storage system which, along with hydro and pumped hydro projects (developed and operated by others), would ensure variable renewable energy generators (such as wind farms) can deliver reliable electricity to consumers. Wind energy is considerably cheaper than fossil fuel generation and is expected to remain so into the future.
Support Victoria's Renewable Energy Target	The project would deliver around 2,559 gigawatt hours of affordable renewable electricity to the grid annually, replacing electricity sourced from fossil fuels. This would help the Victorian Government reach its renewable energy targets of 40% by 2025, 65% by 2030 and 95% by 2035.
Support the Commonwealth Government's greenhouse gas emissions reduction target	The project would supply around 2,559 gigawatt hours of renewable electricity annually. This would help the Commonwealth Government achieve its Paris Agreement greenhouse gas reduction target of 43% below 2005 levels by 2030, as well as the Commonwealth Government's target of achieving net-zero emissions by 2050.
Improve network strength through the development of a firmed power supply	The project proposes to include a battery energy storage system that can provide short-term supply to the National Electricity Market. Further details about the battery energy storage system can be found in Chapter 6 – ***Project description***.
Minimise negative effects, and maximise positive effects on the environment and communities	The EES process established a mitigation hierarchy whereby potential impacts are firstly avoided or reduced during the pre-construction phase, with any remaining potential impacts addressed via management measures in the construction and operational phases of the project in order to achieve the evaluation objectives for the project (as stated in the EES scoping requirements). This process is explained within Chapter 4 – ***Assessment framework***. A thorough assessment of impacts and opportunities has been carried out via the EES process, committing the project to effective avoidance and mitigation measures listed in Chapter 28 – ***Environmental management framework***. Neighbouring landowners and local community organisations would continue to be consulted throughout the pre-construction, construction and operational phases to work through any issues and to maximise the benefits from the project. Government agencies and Council would be expected to maintain a strong involvement in all stages of the project to help achieve the best outcomes for the environment and communities. These stakeholders are expected to help provide an understanding of the various regulatory requirements, review the adequacy of mitigation and management measures, and where required, enforce compliance with project commitments.

Objective	How the project aims to achieve the objective
Support the local community and the local economy	The project would increase development in the region, providing opportunities for local contractors and suppliers of goods and services, and opportunities for local employment during construction and operation. The project would also include a Community Benefit Fund (as part of the Neighbour Benefit Sharing Program), administered by a community-led independent fund committee, comprising $1,000 per operational wind turbine per year indexed annually to the Consumer Price Index from the commencement of the fund. Further details about how the Community Benefit Fund and the Neighbour Benefit Sharing Program were developed can be found in Chapter 7 – ***Stakeholder consultation*** and Attachment IV – ***Neighbour Benefit Sharing Program flyer***.
Support participating and neighbouring landowners	The project would provide landowners with additional drought resistance income streams complementary to their existing farming operations. The Neighbour Benefit Sharing Program would offer the following benefits to eligible neighbouring landowners and/or residents with a dwelling within six kilometres of a constructed wind turbine (excluding those hosting infrastructure): • one off construction payment of $1,000 • neighbour benefit payment of between $1,000 and $30,000 annually (subject to eligibility criteria, including proximity of dwellings to constructed wind turbines) • energy cost offset plan payment of up to $2,000 annually. Further details about how the Neighbour Benefit Sharing Program was developed can be found in Chapter 7 – ***Stakeholder consultation*** and Attachment IV – ***Neighbour Benefit Sharing Program flyer***. The project infrastructure layout has been designed to minimise impacts to the ongoing farm operations of the host landowners, with access tracks following fence lines and using existing farm access track layouts where appropriate. Construction would be managed in accordance with a stringent Environmental Management Framework and environmental management plans to protect the amenity of, and limit impacts to, neighbouring landowners and the local community.
Engage and work with community and stakeholders to identify any potential environmental impacts and implement appropriate mitigation and/or monitoring measures	A consultation plan was formalised at the start of the EES process in 2022. Considerable community engagement occurred prior to this time, however the consultation plan set out a process to inform the public about the EES, seek targeted input and to respond to that input. Inputs included issues of potential concern, local knowledge on existing conditions, perceptions of potential effects, and feedback on proposed mitigation and management measures. Consultation would continue in accordance with the commitments made in Chapter 28 – ***Environmental management framework***.