

FAQ

Frequently Asked Questions

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The project

The Captains Mountain Wind Farm is a proposed renewable energy project in the Toowoomba Region of South Queensland, near the town of Millmerran, approximately 190km west of Brisbane.

The project will consist of around 35 wind turbines each with a maximum blade tip height of 252 metres and a combined maximum capacity of around 252 megawatts (MW). The proposed project will help achieve the national target of 82% renewable electricity generation by 2030. When fully operational, the project is expected to generate enough energy to power over 100,000 average Queensland homes annually.

Did you know?

A single turbine at the Captains Mountain Wind Farm will generate more electricity in 7 weeks than residential Millmerran typically consumes in an entire year.



Project at a glance

Status	Planning and approvals stage
Planned capacity	Up to 252MW
Investment	Around \$700 million in the local region
Turbines	Up to 35 turbines
Blade tip height	Up to 252m
Connection	Into the existing transmission network at Millmerran
Jobs	Around 275 jobs created during construction, around 5-10 during operation


2019
Vestas started scoping out the area for its wind resource potential.


2026
Federal and State development consent expected.


2027
Preliminary construction works expected to begin.


700,000 MWh
expected energy generation per year.


over 100,000
the annual number of average Queensland homes that could be powered by the energy produced from the wind farm.



Who we are

The project is being developed by Captains Mountain Wind Farm Pty Ltd, which is fully owned by Vestas, ranked as the most sustainable energy solutions company in the world from 2022 through 2025. Vestas is funding the development and design of this wind farm project, and is committed to supplying the wind turbines, managing project construction and providing long-term operation and maintenance services for the wind farm.

With more than 200 GW of wind turbines installed in 88 countries, Vestas has installed more wind power than anyone else. Vestas, headquartered in Denmark, has been active in Australia since 2001 and employs around 800 staff in Australia and New Zealand.

Learn more about Vestas at www.vestas.com.

Vestas®



30,000

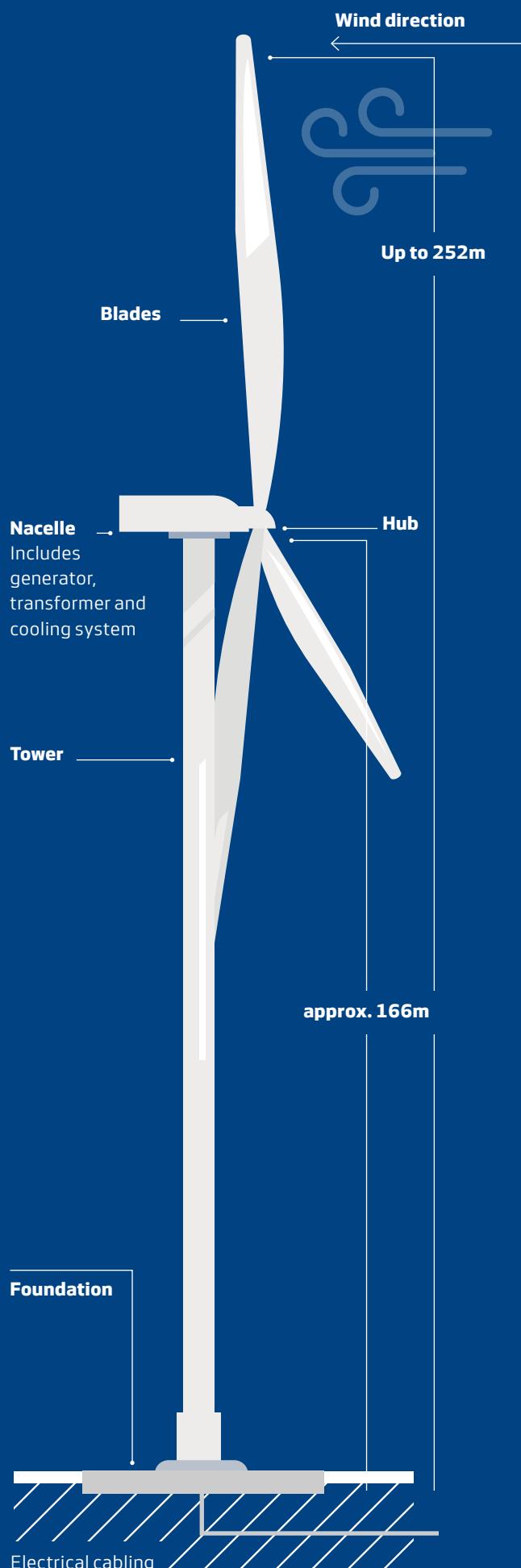
People employed worldwide.

40+

Years of experience with wind energy.

91,600

Turbines installed in 88 countries worldwide.



Why wind energy?

Driven by the urgency of climate change, Australia and the world are transitioning from traditional fossil fuel generation. Wind is a clean and inexhaustible resource that generates zero pollution or carbon emissions during operation.

Wind energy is cheaper than new generation from coal and natural gas. Together with solar and other renewable energy projects, wind energy is helping to drive down the cost of wholesale electricity.

Wind turbines convert the natural movement of air into mechanical energy through rotation of the turbine blades. This mechanical energy is converted into electricity, which is sent to the electrical grid.

Wind farms regularly account for 13% of the total electricity generated in Australia (source: AEMO).

What does the wind farm mean for you?



How do wind farms compare to traditional energy sources?

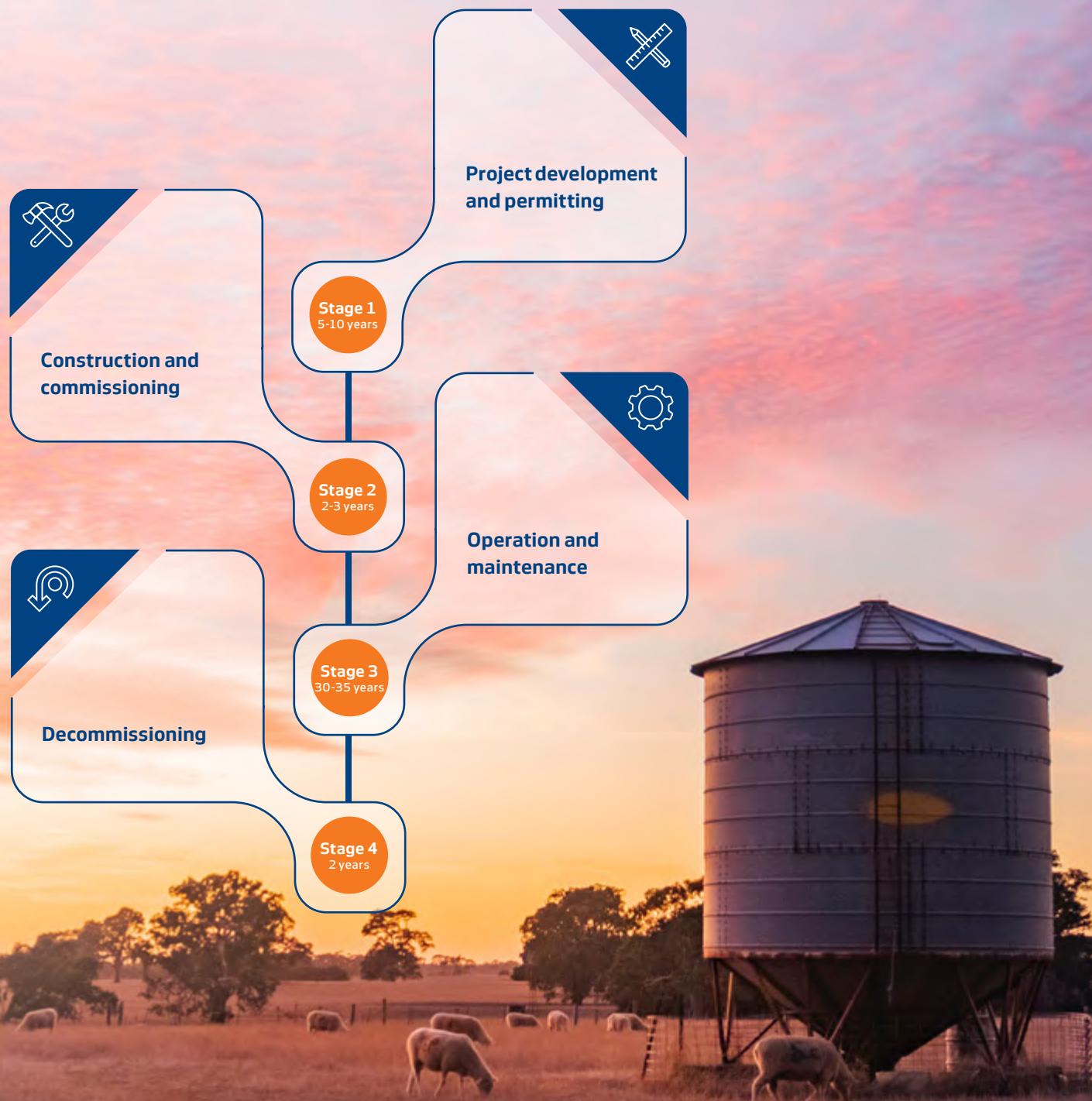
Compared to traditional energy sources such as coal and gas, wind farms:

- require no invasive mining, extraction or burning of fossil fuels;
- emit no greenhouse gas during operations;
- emit no fine particle pollution, sulphur dioxide, or oxides of nitrogen;
- require no water during operation;
- have limited environmental impacts from construction.

All emissions generated across the turbine lifecycle are offset in the first year of plant operation.

What is the process to build a wind farm?

Developing and constructing a wind farm is a complex task that requires many years of planning and design.





Stage 1
5 to 10 years

Project development and permitting

The development stage of a wind project includes:

- discussions with potential host landowners;
- installation of wind monitoring equipment such as masts or remote sensing units;
- identification of potential wind turbine locations, and design of transportation and access routes and electrical infrastructure;
- consultation with local councils and State/Federal government stakeholders;
- engagement with the local community and project neighbours;
- environmental impact assessment including potential biodiversity, noise, visual, traffic, socioeconomic, bushfire, heritage, aviation and other impacts;
- preparation of State and Federal permitting applications and documentation;
- grid connection studies in accordance with requirements set by the Australian Energy Market Operator (AEMO) and the local network service provider (Powerlink);
- financial modelling;
- project funding and investment decisions.

Project development is complex and requires continuous adjustment to conform with the Queensland Government's stringent development assessment process and the challenging technical requirements of connecting into the grid network.

Why is the Captains Mountain Wind Farm near Millmerran?

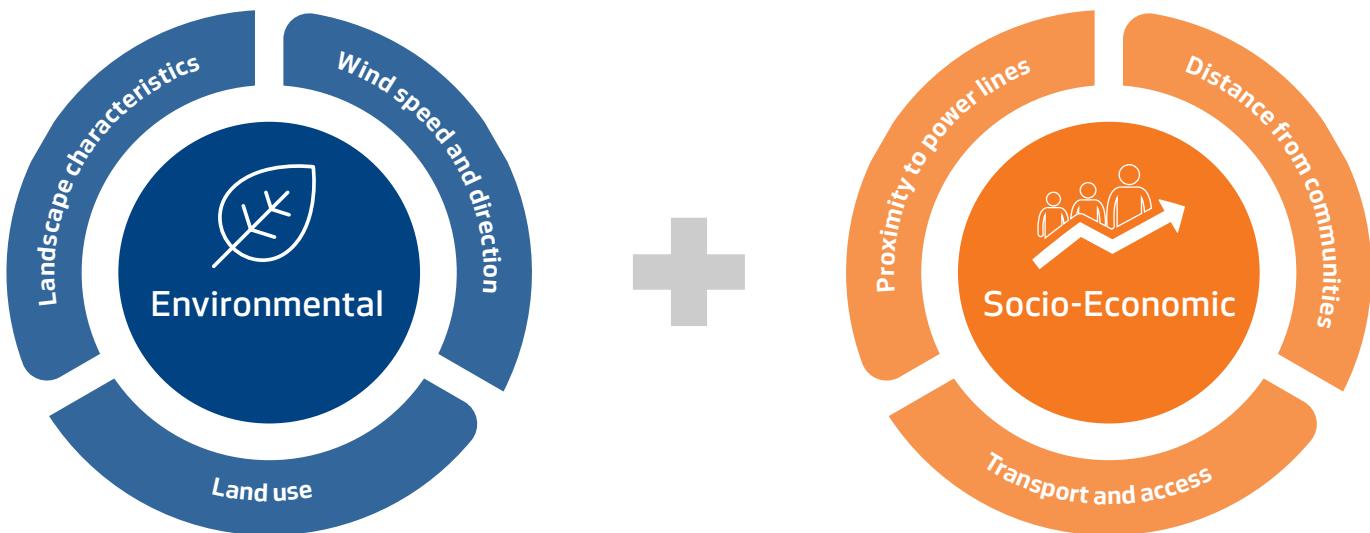
Wind speed is a key driver when it comes to generating wind energy. To generate energy in the most cost-effective way, turbines need to be placed in areas of high and consistent winds. The Captains Mountain project area was selected for this reason. Importantly, the project site is also accessible for the transport of equipment and is in close proximity to existing transmission infrastructure.

The project area is located within the Southern Queensland Regional Energy Hubs, as outlined in the Queensland Energy Roadmap 2025. These hubs form part of a coordinated framework to guide energy development across priority regions, identified for their strong potential to support sustainable electricity generation.





Selecting the best location depends on

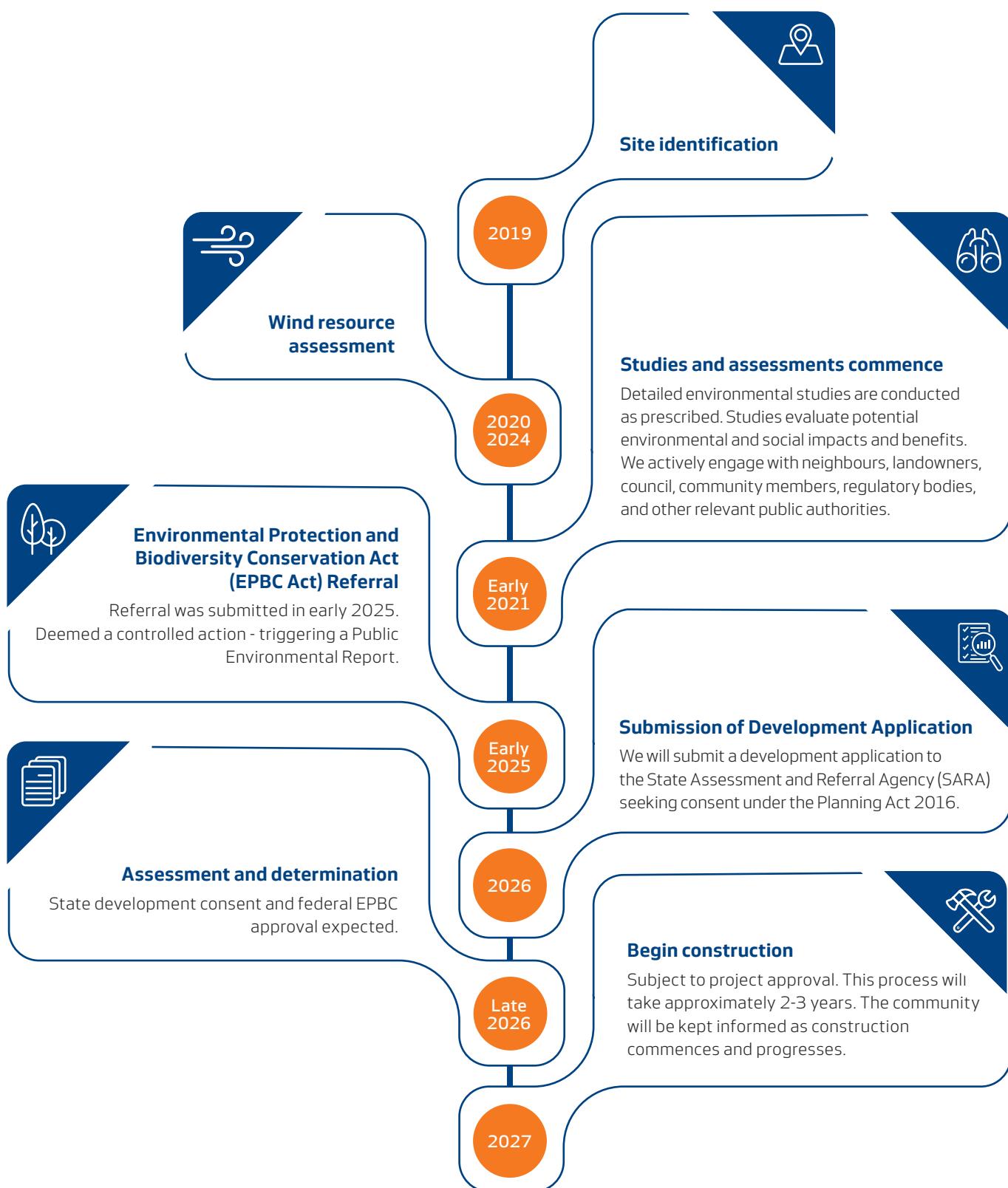




What are the steps in the approval process?

The diagram below shows the key steps in the environmental permitting process for wind farms in Queensland. Project development is an iterative process that takes into consideration the results of technical and environmental investigations, and feedback from the community and other stakeholders.

The project proposal will be assessed by both the Queensland Government and the Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW).





Where can I find technical documents on the project?

The project has been deemed a controlled action under the Australian Government's Environment Protection and Biodiversity Conservation (EPBC) Act. As a result, it will be assessed through a Public Environment Report (PER). The PER, along with associated documents, will be published on the EPBC Act Public Portal and made available for a period of public comment.

Publicly available documents will also be accessible as released via the project website, and we will provide notification when the public comment period begins.

What environmental studies are needed?

A wind farm project must obtain rigorous local, State and Federal approvals to ensure its compliance with relevant legislation and regulations.

To support the application for approval, various environmental studies are conducted to identify project impacts including:

- ecology and biodiversity;
- visual & landscape;
- noise;
- shadow flicker;
- aviation;
- electromagnetic interference;
- water, waste and erosion;
- cultural heritage;
- traffic and access.

Please visit our website captainsmountainwindfarm.com.au for the most recent information on studies, planning, and approvals for the Captains Mountain Wind Farm.

What is the impact to biodiversity?

The proposed development must satisfy the stringent biodiversity impact assessment requirements of both the State Government and the Federal Government (through the EPBC Referral process).

To date, we have conducted various flora and fauna surveys, as well as specific bird and bat surveys. Each survey has been undertaken by accredited ecologists. The surveys are extremely detailed and site-specific to the proposed turbine locations, road and electrical alignments, and surrounding areas.

The project layout has been designed to minimise impacts to biodiversity by establishing infrastructure and roads to avoid areas of high conservation significance.

What is the impact to cultural heritage?

We recognise the importance of undertaking a Duty of Care Assessment (DCA) for both Aboriginal cultural heritage and historic heritage at the project site, ensuring we avoid impacting any areas of cultural significance.

The project team is engaging with the relevant Aboriginal Parties for the project area, the **Bigambul People** and the **Kambuwal People**, with regards to any concerns and potential impacts on Aboriginal social, historical, scientific and aesthetic objects or values and potential economic impacts and benefits.



**Stage 2**

2 to 3 years

Construction and commissioning

Pending planning and approvals, Captains Mountain Wind Farm aims to begin preliminary construction works in 2027. This stage will take approximately two to three years.

How do you minimise or avoid construction disturbance to the local community?

We will work closely with contractors, local communities, neighbours and local councils to plan and manage

construction to minimise disturbance.

Construction management will include:

- regular and ongoing communication with the community;
- working during standard construction hours as much as possible;
- communicating with affected stakeholders where it may be necessary to work outside standard hours, or where work is expected to be disruptive;
- a rigorous safety culture;
- environmental monitoring.

What can I expect during construction?



Safety

Safety is our highest priority and this includes a work safe culture for our team, contractors and when visitors come to site.

We will prepare a detailed health and safety plan to identify and mitigate all potential safety risks, and we will ensure all construction employees and contractors are appropriately trained and qualified.



Noise

Some construction activities will create localised noise.

This includes road construction, turbine foundation excavation and construction, concrete batching, rock crushing and heavy vehicle movements.

Our construction works will be carried out with noise monitored to meet the Queensland specified guidelines. We will take all feasible and reasonable control strategies to minimise noise impacts during construction, and we will provide advance notice if we expect noise levels to exceed the criteria.



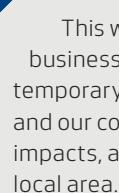
Working hours

Construction will occur during standard construction hours Monday through Friday 7am to 6pm and Saturday 8am to 6pm, with no work on Sundays and public holidays. When works need to happen outside these standard hours, we will provide advance notice and put in place measures to minimise disruption.



Social and economic

There will be more people and vehicles in town and on the road during construction with limited scheduled works on Sundays and public holidays.

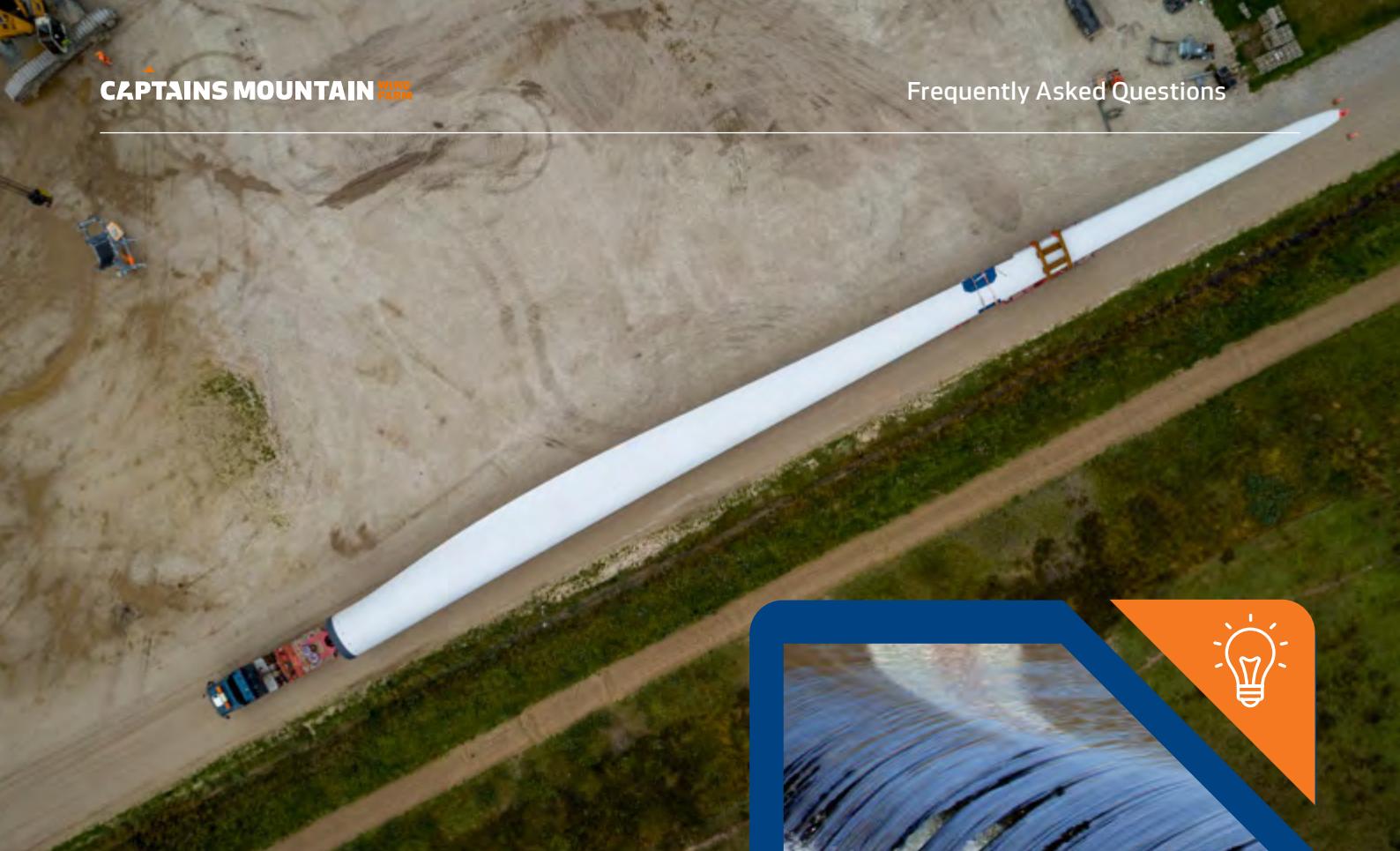


This will mean more economic activity for local businesses and possibly higher occupancy rates in temporary accommodation. We will work with Council and our contractors to identify solutions and reduce impacts, and provide a strong economic benefit to the local area.



Dust

Construction work may generate dust. We will wet down construction areas and unsealed roads to minimise the dust.



Traffic

Wind farm construction involves a large number of heavy vehicle movements to transport wind turbine tower sections, blades and other equipment.

These movements will be planned and involve support vehicles and traffic control where required. Construction will also require transport of raw materials (e.g. sand, aggregate, cement, gravel), equipment (e.g. cabling, fencing, machinery). In addition, construction workers and project staff will travel to and from the site.

To minimise impact to the local community, we will use major roads to access the construction site whenever possible.



Cultural heritage

We will consult with Traditional Owners before and during project construction to ensure that all cultural heritage sites identified prior to construction, as well as any unexpected finds during construction, are protected and preserved in accordance with the wishes of these stakeholders.



Will water be required, and where will it be sourced?

We understand that water is a critically important issue for the local community. Relative to fossil fuel generation, wind farms require very little water to generate electricity, nor is there a significant risk of groundwater pollution. The largest share of water is used during the construction phase, primarily for production of concrete used in the wind turbine foundations. Once operational, the only water use would be for domestic purposes in the plant maintenance building. Captains Mountain Wind Farm will source water from local supplies, subject to availability and within the constraints of the development approval for the project.



Stage 3
30 to 35 years

Operation and maintenance

Vestas will operate and maintain the wind turbines and other infrastructure to ensure safe and efficient works that optimise energy generation. The Vestas service team will include skilled staff permanently based in Millmerran or surrounding towns. Our team will be part of the local community.

Do wind farms impact livestock or farming operations?

The majority of wind farms are developed on agricultural land and wind turbines are very much compatible with existing farming operations. Turbines occupy only a small amount of land, and landowners can continue normal grazing or cropping activities. Livestock has often been seen using turbine towers for shade and shelter from wind and rain. The income provided to landowners hosting wind farm infrastructure can help make farms more resilient to the impacts of droughts, fires and commodity price fluctuations.

Are there any health risks associated with wind farms?

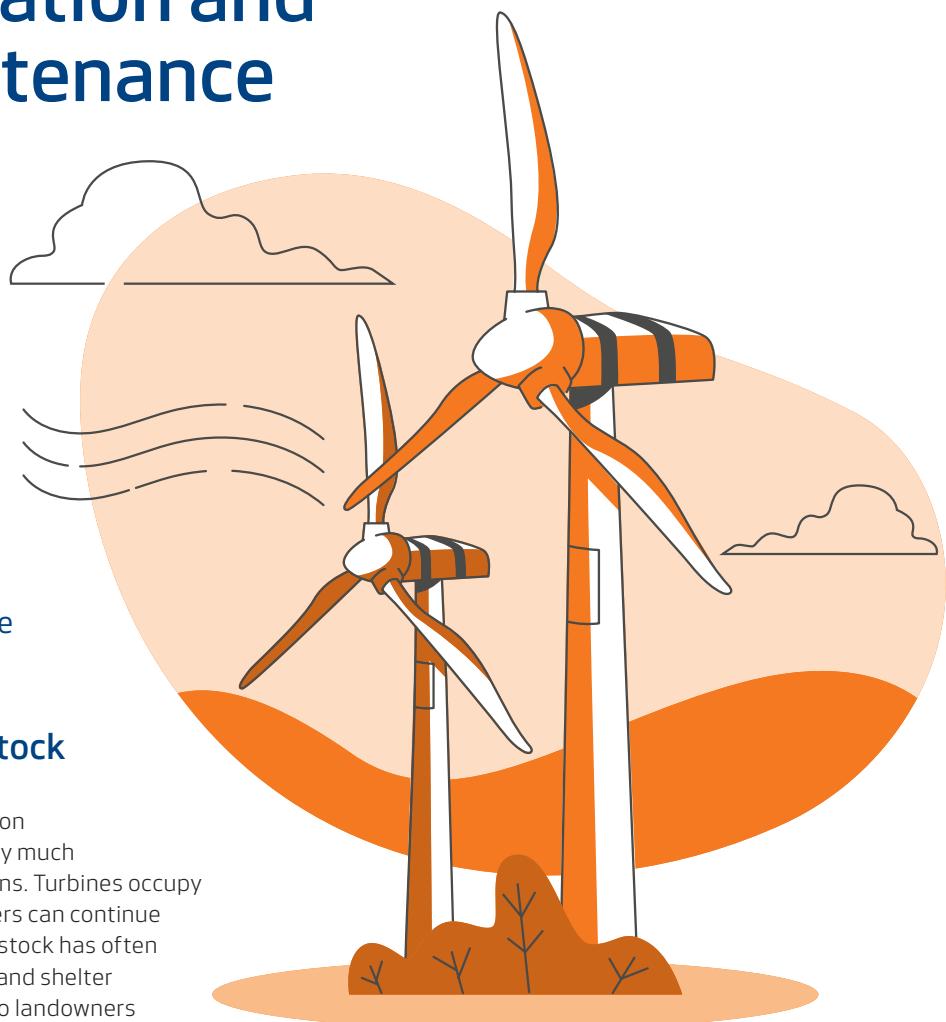
Numerous reviews of research literature conducted by leading health and research organisations worldwide, including Australia's National Health and Medical Research Council (NHMRC), have concluded there is no published evidence to link wind turbines with adverse health effects.

Will there be loud noise from the turbines?

Wind turbine movement creates sound; however, people generally find they can have a conversation at the wind turbine base without having to raise their voices.

The noise impact from a wind turbine will depend on wind speed, wind direction, topography, vegetation, and the distance from the turbine. While the turbines for this project are larger, they use improved blade control technologies and generally rotate slower than existing wind farms (historic), meaning that noise and infra-sound impacts are typically similar to or lower than those from older turbine models.

The QLD wind farm code specifies noise criteria to ensure that noise levels from wind turbines are compatible with



surrounding land uses and do not significantly affect residents in the area.

The noise monitoring and impact assessment for the Captains Mountain Wind Farm project predicts the operational noise at neighbouring dwellings will be lower than relevant noise criteria specified in the guidelines.

The relevant assessments and approval documentation will be made publicly available as part of the development application.

Our team will continue to monitor noise during operations to ensure the actual operational noise does not exceed the relevant noise criteria and, if it does, we will fix the issue.

The Clean Energy Council's independent research summary of wind turbines and health is linked [here](#).

Will turbines affect property values?

Several studies commissioned by Australian state governments examining the potential impacts of wind farms on property values have found no evidence that wind farms lower the value of a rural property.



Stage 4
2 years

Decommissioning

The Captains Mountain Wind Farm has been designed to operate for approximately 30 years. At the end of that period, it may be possible to replace some equipment and extend the project for a further period. Such extension would require a new development approval.

Decommissioning of wind farm infrastructure at the end of project life will be a legal condition of the development consent. In addition, contracts with landowners also require that wind turbines and other infrastructure are removed at the end of the lease term.

A Rehabilitation and Decommissioning Plan will identify activities to be carried out on site post-construction and at the end-of-life decommissioning phase. Decommissioning will involve de-energising, disconnecting, dismantling, demolishing and removing wind turbines and other operational infrastructure. We will also rehabilitate roads and fencing in consultation with host landholders.

Vestas has a goal of achieving zero-waste wind turbines by 2040.

The proposed Vestas wind turbine is around 88% recyclable. This includes the steel that forms the tower and the aluminium and copper used in electrical equipment within the turbine. Turbine blades are the most challenging component to recycle, but there are already a number of technologies available for recycling of blades, and no turbine blades will be taken to a landfill nearby. Blades are constructed of carbon and glass fibre composites, polyurethane foam and epoxy adhesives.

The recycling process aims to separate the polymer (resin) and fibre composites. Once separated, the resins are usually used for energy production while the fibre can be reused or recycled. As the global wind industry continues to grow, and as increasing numbers of older windfarms require repowering or decommissioning, more commercial options for recycling of wind turbine blades are becoming available. The wind industry is currently upscaling and investing in new recycling solutions, Vestas is on the way to achieving 100% blade recyclability by 2030.

Did you know?

Energy payback is the time required for a wind farm to produce as much energy as it consumes over the full life cycle of the plant, considering manufacturing of components, transport, construction, operation and decommissioning. For Vestas turbines, the typical 'break even' point – where energy output exceeds energy required – is between 5 to 8 months, depending on the wind speed and other site-specific factors. This means that a typical wind farm becomes carbon neutral in less than one year of operation. By comparison, a coal-fired power station always consumes more energy than it generates, and never achieves an energy payback.

Energy amortisation time for construction, operations and disposal

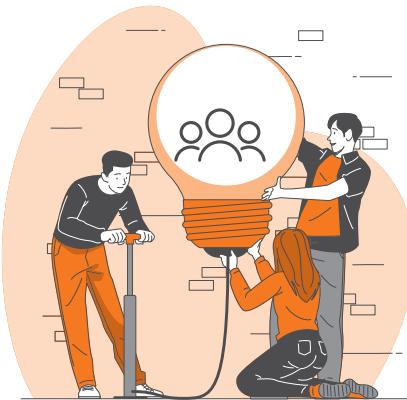
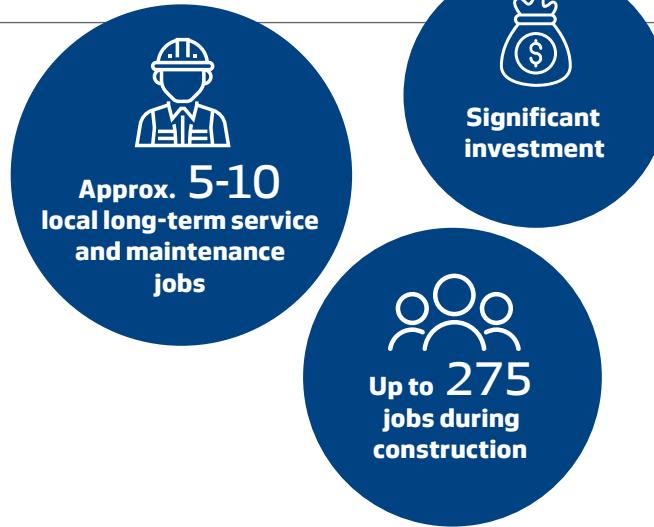
Wind	5 to 8 months
Hydro	9 to 13 months
Solar PV	1 to 2 years
Coal	Never



Working with the local community

Captains Mountain Wind Farm intends to develop, construct and operate the proposed wind farm, which means we want to be part of the community now and well into the future. Our goal is to build long-term relationships with local residents, businesses and organisations.





What local jobs will be created?

The Captain Mountain Wind Farm project will deliver significant benefits to the local region and its communities, including the creation of new jobs and opportunities for local businesses and contractors.

The project will create up to an estimated 275 new jobs during construction and approximately 5 to 10 long-term service and maintenance jobs during project operation.

Construction and operation will require a range of skills such as:

- engineering;
- trade (electrical, mechanical, construction);
- transport;
- building material providers;
- equipment operators;
- consultants;
- project management;
- administration.

The service team will include wind turbine technicians, managers, warehouse staff and administrative staff. These will be permanent roles, based in Millmerran or surrounding communities.

Vestas is committed to ensuring strong local employment and economic benefit from the project. If you are interested in working for or with the project, you can register your interest by contacting the project team.

The project will deliver significant benefits to the region and local community:

- substantial capital investment in the Toowoomba region;
- opportunities for local contractors and businesses to supply services to project construction and operation;
- jobs created;
- training and development of new skilled labour in the region in the growing renewable energy industry;
- upgrades to some local roads and construction of new access roads which may support emergency response activities in the future.

Will there be a community benefit fund or similar?

Captains Mountain Wind Farm recognises that the project will bring changes to the local landscape, community, and broader region. We are motivated to maximise the projects meaningful, measurable, and lasting benefits.

We will enter into a Community Benefit Agreement (CBA), informed by the project's Social Impact Assessment (SIA) in line with the QLD state guidelines. The CBA aims to manage and counterbalance social impacts, as well as enhance community outcomes for a positive legacy. The CBA runs for the life of the project. Further detail will be shared as consultation and assessment work progresses.

How can I have a say in planning and decisions?

We are committed to positive engagement for all the stages of the wind farm's lifecycle – from site selection to decommissioning. We will continue to engage with the local council, landowners, neighbours and surrounding communities as early as possible, keeping people informed and involving them in decisions they can influence.

How do I stay updated on the project?

We will keep the community up-to-date in various ways including our website, email updates, newsletters, information displays at local events, phone calls and visits to community members directly affected. We also welcome visitors at our local shopfront. The project team is committed to ensuring that the local community has multiple opportunities to learn about, ask questions, and provide input to, the proposed wind farm.

Keep in touch with us via:

Website	captainsmountainwindfarm.com.au
Project updates	published on the website and delivered by mail locally
Email	info@captainsmountainwindfarm.com.au
Phone	1800 313 095
Facebook	@captainsmountainwindfarm
LinkedIn	linkedin.com/captains-mountain-wind-farm
Shopfront	21 Campbell Street, Millmerran (open by appointment)

CAPTAINS MOUNTAIN

WIND FARM

We are committed to keeping you informed about the project, and we want to hear from you! Visit captainsmountainwindfarm.com.au or call **1800 313 095** to learn more.

