

Mount James Wind Farm Community Newsletter

Project Overview

The proposed Mount James Wind Farm (MJWF) project is being co-developed by Iberdrola Australia and North Queensland Renewable Energy Zone Pty Ltd (NQREZ). The project is located in North Queensland's Porcupine region, approximately 80 km north of Hughenden, along the western edge of the Great Dividing Range. It will have approximately 1,000 MW of installed capacity and up to 166 wind turbine generators. The Copperstring 2032 project to construct a 1,100 km high-voltage electricity transmission line from Townsville to Mount Isa combined with North Queensland's abundant wind resources, makes this area ideal for renewable energy generation.

Planning Update

Environmental studies have been completed on the 50,000 hectares of the MJWF project site. This information has been incorporated into the wind farm design to avoid environmentally and heritage sensitive areas. In addition, all permits for the construction of the project are being processed. The project team are currently working with local, state and commonwealth agencies and expect the project will go to public notification for state approval (DA Amendment) and commonwealth environmental approval (EPBC Act) in the second half of 2025.



Mount James Transmission Connection

The Mount James Transmission Connection (MJTC) is a proposed development by Iberdrola Australia of a transmission line designed to connect the MJWF to the grid. This transmission line will span approximately 70 kilometres, linking the Flinders Substation near Hughenden to the MJWF near Porcupine, Queensland. This region is strategically positioned within the Flinders Renewable Energy Zone, making it a key contributor to both state and national clean energy transitions.

Iberdrola Australia plans to construct, own, and operate this private transmission line, which will integrate into a future substation near Hughenden in the Flinders Shire Council region. While the final design and route are still being determined, the transmission line is expected to feature double circuit steel towers with a 60-metre easement. The MJTC will undergo a Development Application process in 2025, with the Flinders Shire Council serving as the responsible planning authority.

Community Engagement

Festival of the Outback Skies

Iberdrola Australia is a proud sponsor of the Flinders Shire Council's three-day event in Hughenden and has been involved in sponsoring this memorable event since 2023. The Team has thoroughly enjoyed getting the opportunity to meet community members and stakeholders to discuss the project with them. The highlight of the event is the Dinner Under the Skies.

Hughenden Show

As a major sponsor of the Hughenden Show for the second year running, the project team enjoy the opportunity to engage with the community. The grand finale of the Hughenden Show, the fireworks is spectacular and not to be missed.

Hydrogen Grand Prix (H2GP)

Iberdrola Australia are very proud to be sponsoring such an innovative and action-packed education opportunity. The program gives high school students the opportunity to race hydrogen fuel celled remote control cars, providing valuable experience in teamwork, project building, hydrogen technology, industry exposure and network building. It's wonderful to see valuable insights and career pathways being learnt by students, via engagement with members of the Iberdrola Australia Project Team.

Regional University Study Hub (RUSH)

Iberdrola Australia is thrilled to be collaborating with Flinders Shire Council to support the Regional University Study Hub (RUSH). We will provide equipment, administrative assistance and the opportunity for local and statewide travel for industry-based work experience.

Local Economic Membership

We are active and proud members of the Mount Isa to Townsville Economic Zone (MITEZ) and Townsville Enterprise Limited (TEL) industry groups. The Project Team recently attended the Green Energy Forum and regularly participate in events related to the Lansdown Industrial Eco-Precinct.



Did you know...

How do wind turbines work?

A wind turbine is made up of a number of components including blades, a nacelle, gearbox, generator, tower and foundation. As the wind turns the blades, it drives a generator that converts the mechanical energy into electrical energy. This electricity is transmitted to the grid which is then delivered to consumers.

How much wind is needed to generate renewable energy?

Wind turbines do not need much wind to start spinning. They start to operate at wind speeds of 10 to 15km per hour. To minimise safety risks, they stop operating during very high wind speeds of about 90 km per hour.

Why are the turbines not spinning/generating energy at all times?

There are a number of reasons why individual wind turbines may not be turning. This includes wind conditions and the safe operating parameters of the wind turbines, scheduled or unscheduled maintenance, and export constraints placed by Australian Energy Market Operator (AEMO) or the Transmission Network Service Provider.

How long do wind turbines operate?

A wind turbine is usually operational for about 30 years. At the end of their lifespan, wind turbines can be:

- Repowered: Replacing older turbines with newer, more efficient models.
- Extended Operations: With refurbishment and upgrades, some turbines can continue operating for a few more years.
- Decommissioned: If neither repowering nor extended operations are viable, the wind farm may be decommissioned.
- Recycling: A significant portion of a wind turbine's components, including steel, aluminium, copper, and cast iron, are recyclable.

How much energy do wind turbines generate?

Over the course of a year, a six megawatt (MW) wind turbine can power about 3,500 homes. The entire project will be able to supply energy for over 500,000 homes.

Transmission Lines

What role do transmission lines play in the energy grid?

Transmission lines are essential for renewable energy projects because they connect remote renewable energy sources, like wind and solar farms, to the main electricity grid, ensuring that clean energy can be efficiently distributed to homes and businesses.

How does renewable energy integration affect transmission lines?

As more renewable energy sources, like wind, are integrated into the grid, transmission lines may need upgrades or expansions to handle increased capacity and ensure reliable delivery to consumers.





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