

MacIntyre Wind Precinct Connection Project

Construction update



SEPTEMBER 2023

About Powerlink

Powerlink is a Government Owned Corporation that owns, develops, operates and maintains the electricity transmission network in Queensland. We connect Queenslanders to a world-class energy future, providing electricity to five million Queenslanders and 238,000 businesses.

We are also responsible for connecting large-scale renewable energy developments, including wind and solar, and providing electricity to large industrial customers in the rail, mining and LNG sectors.

About the MacIntyre Wind Precinct Connection Project

Powerlink has been engaged by ACCIONA Energia to connect the MacIntyre Wind Precinct (MacIntyre Wind Farm and CleanCo's Karara Wind Farm) to the Queensland electricity grid. The transmission infrastructure for the project includes two new switching stations and approximately 65km of 330kV transmission line connecting the precinct to Powerlink's existing 330kV Millmerran to Middle Ridge transmission line. The project is being delivered in a staged approach with construction works taking place for a period of 18-24 months, subject to good weather and site conditions.

Acknowledgement

Powerlink acknowledges the Traditional Owners and their custodianship of the lands and waters of Queensland and in particular, the lands on which we operate. We pay our respect to their Ancestors, Elders and knowledge holders and recognise their deep history and ongoing connection to Country.



Recent highlights

- Conclusion of helicopter transmission line and Optical Ground Wire (OPGW) stringing to connect the transmission towers and switching stations into the network.
- Tummaville Switching Station construction works completed with commissioning and testing underway in preparation for energisation in October 2023.

Construction progress

Transmission Line

Site clearing and access:

100% complete

Foundation works:

100% complete

Tower assembly:

100% complete

Tower erection

100% complete

Conductor stringing:

100% complete

Site rehabilitation

25% complete

Tummaville Switching Station

Construction

100% complete

Testing and commissioning:

30% complete

MacIntyre Switching Station

Construction

80% complete

Testing and commissioning:

0% complete

Current construction activities

- Progressing commissioning activities and commencement of cut-in works to energise the Tummalville Switching Station.
- Progressing towards finalisation of transmission line wires (conductor) stringing works and site demobilisation.
- Progressing with construction works at the MacIntyre Intermediate Switching Station (MISS).



Water trucks along Owen Scrub Road

With the final stages of commissioning work for the Tummalville Switching Station about to kick off, there will be an uptick in activity happening along Owen Scrub Road near Leyburn.

Our construction contractors are demobilising and Powerlink crews will commence testing and commissioning work to prepare our infrastructure in readiness for the wind farm to begin exporting electricity.

We understand the management of Owen Scrub Road during our works for the MacIntyre Wind Precinct Connection Project have been challenging for some residents. We thank you for your continued patience and support. In an effort to minimise dust and traffic impacts while this work is undertaken, Powerlink will use a water truck to water down the road for the duration of work in this area.

We are also working with ACCIONA Energia and the Southern Downs Regional Council on a plan for maintenance of Owen Scrub Road following completion of these works.

Tummalville Switching Station ready for switch on

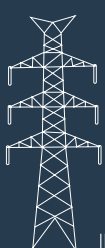
Construction works at the Tummalville Switching Station have now concluded.

A switching station is like a traffic control centre for electricity. Just as a traffic control centre directs the flow of vehicles on a road network, a switching station directs the flow of electricity through the power grid. It allows the electricity to be routed to different paths, ensuring that it reaches its destination safely and efficiently.

Powerlink's focus now moves to completion of the MISS Switching Station and the commencement of commissioning works.

This involves testing and preparation of our infrastructure to support the electricity flows that will occur once the MacIntyre Wind Precinct begins generating and exporting electricity to the grid in early 2024.

Project snapshot



167 TOWERS



400m



50-60m



OVER
4100t



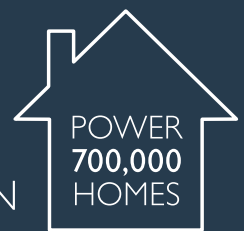
235t

INSULATORS 42,000 | CONDUCTOR 690km | OPGW 125km



1GW

RENEWABLE
GENERATION



POWER
700,000
HOMES



CONSTRUCTION WORKFORCE

220 jobs supported

11 local suppliers engaged



GOONDIVINDI | SOUTHERN DOWNS | TOOWOOMBA



Precision flying speeds up connection works

A helicopter crew has been hard at work above the MacIntyre Wind Precinct as part of the final stages of this connection project.

The highly skilled helicopter crew commenced work on-site in November 2022 to undertake transmission line stringing to connect the transmission towers and switching stations into the network.

Over the course of nearly 200 hours of flying time, the crew has hung more than 33,810 insulators on tower cross arms and has strung more than 840km of conductor and Optical Fibre Ground Wire.

The use of helicopters to string transmission line reduces construction-related impacts on landholders and the environment and is considerably faster than on-the-ground methods.

The technique to string the transmission line involves using the helicopter to pull a steel cable, known as 'draw wire' from a brake winch on the ground. The helicopter pilot guides the draw wire onto a pulley attached to the arms of the tower. Once this has been completed, the draw wire is attached to the transmission line conductor (cable), and a winch is used to pull the conductor away from the conductor drums and onto the towers.

We'd like to extend our thanks to landholders and the community for their patience while this work was undertaken. You can find out more about the process of helicopter stringing by clicking the QR code to watch a video from our helicopter pilot John Caldwell, the Chief Pilot at Leading Edge Helicopters.



New guide to entice more visitors to the region

Community Relations Advisor Lucas Bell popped by the 'Jumpers and Jazz in July Festival' office recently to offer Powerlink's funding support towards their advertising collateral for this celebration.

This important annual festival has become a fixture on the tourism events calendar in Warwick and draws a large crowd of over 40,000 people, many of whom are visitors to the area.

Promotional advertising is critical to the success of any festival, so when the organisers approached Lucas to gauge Powerlink's support to help fund a promotional brochure showcasing local businesses, we were only too happy to provide support.

"It was a quick decision knowing the Southern Downs Industry Education Association (SDIEA) would be involved and our support would also be contributing to upskilling young people in the region," said Lucas.

"Their business trainees had a hand in all aspects of the design and production of the guide and can now take those valuable skills into their future careers."

Thanks to assistance from Powerlink, the Jumpers and Jazz in July Festival's *Eat, Stay, Shop, Local Guide* has now become a permanent publication which will play a vital role in promoting visitors to the region throughout the year.



GE visit boosts efficiency

Just like your household safety switch, circuit breakers provide a critical safety and protection role in Powerlink's transmission network by interrupting current when it exceeds limits.

General Electric (GE) designs and supplies the circuit breakers for the MacIntyre Wind Precinct switching stations. When we recently encountered some challenges with installation of this equipment, GE were quick to join the Powerlink crews on-site to better understand our assembly process.

A total of 10 GE representatives joined members of Powerlink's Primary Plant Procurement team at our MacIntyre Intermediate Switching Station (MISS) so they could understand and appreciate the process and some of the challenges faced.

This was a valuable exercise in collaboration that enabled us to collectively develop a solution to our installation challenges which resulted in maintaining Powerlink's project timelines. This updated process will now be deployed across our project portfolio.

Our thanks to GE for being so responsive and supporting the commitment Powerlink has to our customers.



Further information

For more information on the MacIntyre Wind Precinct Connection Project, please contact:

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Use the QR code to access our project webpage.



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