

# MacIntyre Wind Precinct Connection Project

## Construction update



APRIL 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

- We thank landholders for allowing access for construction. We continue to work closely with landholders to minimise and manage the impacts of our construction works on their properties and operations.
- Clearing and access works have been completed to facilitate access along the transmission line easement.
- Helicopters are being used to string conductor through the transmission line structures. Stringing conductor across the Cunningham Highway and adjacent rail line was successfully completed with traffic management plans in place to minimise road closures.
- Switching station construction is well advanced, with testing and commissioning to commence in mid-2023.
- The connection project construction workforce of 220 people is using local services and accommodation in Warwick and Toowoomba.
- Local contractors are engaged in civil construction, earthworks and concrete supply for the project, with other local businesses supplying support services.
- Introducing Lucas Bell, new Powerlink Community Relations Advisor for Southern Queensland and a key contact working with members of the community.

## Property access for construction

We appreciate the cooperation of landholders in providing access to their properties for construction activities. For most landholders, the construction process requires multiple visits to their property over an extended period of time. We always endeavour to work around landholders' farming activities and business operations.

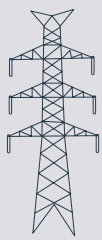
We remain committed to providing landholders with as much notice as possible prior to accessing their land, including the use of helicopters to string transmission lines on their property. We are also committed to meeting the conditions agreed with the landholder, and behaving in accordance with Powerlink's Land Access Protocol.

We have worked closely with landholders to respect and comply with their requirements for gate management. With landholder agreement, we have installed approximately 40 gate signs to instruct the project team and contractors on how the gates are to be left.

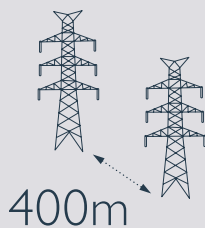


Signs are installed to instruct our workforce about landholders' requirements for gates.

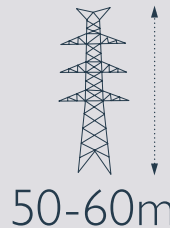
## Project snapshot



**167**  
TOWERS



400m



50-60m

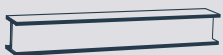


OVER  
**4100t**

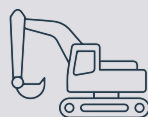


**235t**

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

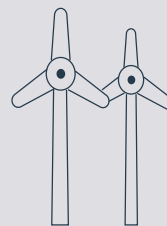


**370 TONNES**  
OF STRUCTURAL STEEL



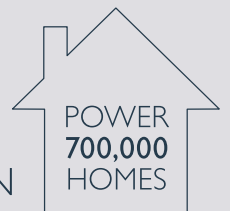
**20,000m<sup>3</sup>**

OF CUT AND FILL  
BULK EARTHWORKS



**1GW**

RENEWABLE  
GENERATION



POWER  
**700,000**  
HOMES



**25kms**

OF ELECTRICAL CABLE



**2000m<sup>3</sup>**

OF CONCRETE



GOONDIWINDI | SOUTHERN DOWNS | TOOWOOMBA



CONSTRUCTION WORKFORCE

**220** jobs supported



## Current construction activities

### Assembling and installing transmission towers

Steel for the towers is supplied to each location in bundles and assembled into tower sections on-site. These sections are lifted by an all-terrain crane to form the completed tower.

Tower assembly and installation began in September 2022, and has been progressing, with some rescheduling of work due to weather conditions in late 2022.

### Stringing transmission line wires

Using a helicopter for stringing helps to minimise the impact on land use, the environment and traffic. The helicopter strings a draw wire through rollers attached to the tower arms. Winches then pull the aluminium conductors (wires) through the rollers. Once the conductors are drawn through, work crews use fittings and hardware to clamp the conductors onto each tower.

Each continuous segment of conductor is about 8km long, and there are 12 segments to be installed on the transmission line. The first segment was strung in December 2022 and stringing will continue until July 2023.

A traffic and rail management plan was implemented when stringing across the Cunningham Highway and adjacent rail line. The successful crossing used cranes with pulleys on either side of the highway to support the draw wire. Road closures were limited to five minutes at a time over two days, under the traffic management plan.

### Substation electrical work

At the Tummalville Switching Station site all high voltage electrical substation equipment has now been installed on site and cabling is presently being connected. At the MacIntyre Switching Station site, electrical equipment installation is in its early stages. Powerlink's specialist communication equipment that assists in operating the transmission network is now monitoring both sites.

### Substation fencing, surfacing and road works

At Tummalville Switching Station site permanent security fencing and signage is being installed on the perimeter of switching station. Once it is installed, the temporary construction fencing at Tummalville will be removed. Construction of permanent security fencing at the MacIntyre Switching Station site will then commence.

After construction is completed the switching stations' access roads will be asphalt sealed and yards resurfaced with aggregate, all of which will be performed and transported to site by heavy vehicles. After this is completed, traffic around the sites will significantly reduce.



Towers are assembled and installed in sections.



We work with landholders to provide advance notice all works including transmission line stringing by helicopters.



Tummalville Switching Station site.



MacIntyre Switching Station site.

## Upcoming activities

### Testing and commissioning

We will test and commission the switching stations and transmission line through an extensive series of processes on site. Substation testing will involve Powerlink, UGL and contractor personnel accessing the sites using light vehicles. The infrastructure is expected to be commissioned in late 2023.

### Working with local businesses

Powerlink, together with our principal contractor UGL, have continued to maximise opportunities for local employment and procurement where possible on the connection project. We are proud to share some of the key work that been delivered by local suppliers:

- Warwick-based BK Civil Group has undertaken civil, earthwork, and roadwork activities at Tummaville.
- Concrete for Tummaville Switching Station has been supplied by Boral in Pittsworth.
- Joe Wagner Group of Toowoomba has undertaken civil construction for the MacIntyre Switching Station.
- Concrete for MacIntyre Switching Station has been supplied by Johnson's Concrete and Quarries in Inglewood.

In addition, local employees and businesses have been subcontracted to deliver products and services for the project, including servicing equipment, vegetation clearing, gate manufacture, water hauling, accommodation and catering. We appreciate the responsiveness of local businesses to engage in the project procurement opportunities.

## Construction progress

### Transmission Line

Site clearing and access:

100% complete

Foundation works:

85% complete

Tower assembly:

75% complete

Conductor stringing:

30% complete

Site rehabilitation

5% complete

### Tummaville Switching Station

Civil works:

100% complete

Plant delivery:

100% complete

Assembly works:

80% complete

Electrical works:

60% complete

Testing and commissioning:

0% complete

### MacIntyre Switching Station

Civil works:

100% complete

Plant delivery:

50% complete

Assembly works:

25% complete

Electrical works:

20% complete

Testing and commissioning:

0% complete

## Connecting with communities

Lucas Bell, Powerlink Community Relations Advisor, brings diverse experience including project management, community engagement and environmental regeneration to his new role of supporting community outcomes in Southern Queensland (including Ipswich to the Southern Downs, and the Burnett region).

Having lived in regional Queensland and New South Wales, and through his work in local government, marine research and farming, Lucas values the diversity of needs and expectations of regional communities.

“My father was a Biripi-Kamilaroi man and my mother was born in Wales, and I grew up spending time between the salt water of the mid-north coast and my parent’s cotton properties in rural New South Wales,” Lucas said.

“I believe that community is about achieving something together. Powerlink is part of this community and I’m looking forward to working with this community as it is engaged in the energy transformation and renewable energy future.”

As part of the project team, Lucas will be working with community representatives to identify opportunities for Powerlink to support the changes desired by the community and investments that matter.



*Lucas Bell, Community Relations Advisor – Southern Queensland.*

## Inspiring career paths for local students

Monan Higgs, Powerlink’s Manager Design Coordination met with high school students from Stanthorpe and Warwick as part of an event hosted by ACCIONA Energia in collaboration with NAWIC National Association of Women in Construction.

She joined a panel of impressive women, all of whom are working in various roles at the Macintyre Wind Precinct, to share their career journeys and insights, hopefully encouraging the young women to consider careers in these fields.

“I enjoyed meeting the students and answering their questions about Powerlink’s transmission network and how it will connect the energy generated at the wind farm to Queensland’s electricity grid,” said Monan.

Our thanks to ACCIONA Energia and NAWIC Qld for creating such a valuable opportunity to engage with local students and inspire them to consider career opportunities in electricity transmission and renewable energy.







## Working with Traditional Owners

The Macintyre Wind Precinct is on the traditional lands of the Kambuwal People and Githabul People. We would like to acknowledge the traditional custodianship of the Githabul People and the Kambuwal People.

We pay our respects to the ancestors, elders past and present and recognise their deep history and connection to Country.

We were very privileged to be joined by Elders Uncle Rob and Aunty Selena, and Tanisha for a Welcome To Country for visiting Powerlink and ACCIONA Energia Executives.

Our thanks to them for sharing their rich tradition, culture and knowledge of the land, and welcoming us to work together on country into the future.



## Further information

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

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