Banana Range Wind Farm Connection Project

Draft Corridor Selection Report Summary

Banana Range Wind Farm Connection Project - Early Engagement

Powerlink has been engaged by EDF Renewables to consider options to connect their proposed Banana Range Wind Farm (BRWF), about 20km west of Biloela, to the electricity grid. As part of our planning to ensure a safe and reliable power supply into the future, we looked in detail at the existing transmission network in the local area and examined a range of options to connect the proposed wind farm. Based on the power proposed to be generated at the wind farm, we would need to build a new 275kV double circuit transmission line from the existing Calvale Substation to the proposed BRWF substation.

As part of our early engagement for the project, we began contacting landholders in June 2022 to inform them of the study area identified between the Calvale Substation and the Banana Range site, within which the 275kV transmission line is proposed to be located. At this initial stage we were interested to hear what's important to you and what we needed to understand about how you manage your property and business operations, to help us with corridor planning. Community information drop-in sessions were also held in mid-July 2022 to provide an opportunity to meet our project team in person and hear your feedback.

Input and feedback from this early engagement on the study area provided valuable information to help us determine and assess potential corridors for the proposed transmission line. Three potential corridors, generally 1km wide, were identified for more detailed analysis. In late August 2022, landholders within each corridor were contacted and community information drop-in sessions were held in mid-September 2022 to provide further information and face-to-face engagement opportunities.

Feedback and input were again collected from landholders and the wider community about the suitability of these corridors. Assessing each corridor option in conjunction with community feedback helped us to identify and consider the environmental, economic and social impacts of each corridor, ultimately identifying a corridor that, from a comparative assessment perspective, has the potential for the least overall impacts.

During our early engagement with landholders and the community from June to October 2022, the project team had the following touchpoints:

- 217 phone calls made/received
- 15 emails received and responded to
- 24 meetings held with individual landholders
- 328 letters sent to landholders via email or post
- 12 entries made on the Social Pinpoint interactive mapping engagement platform
- 63 landholders and community members attended the community information drop-in sessions (in July and September 2022)

The top five items of interest raised by landholders and the community throughout this engagement process included:

1. Impacts to farming operations including biosecurity, loss of productivity, machinery movement and access, GPS systems, compaction of soils, irrigation systems such as centre pivots and travelling irrigators
2. Proximity to homes
3. Loss of property value
4. Visual impacts of the transmission line
5. Perceived health effects from Electric and Magnetic Fields (EMF).

Corridor comparison

Through landholder and community feedback, and technical assessments, three potential corridor options were identified:

- Northern Corridor 1
- Northern Corridor 2
- Central Corridor (co-location with the existing Calvale to Moura transmission line).

The three corridors contain common sections at the eastern and western ends.

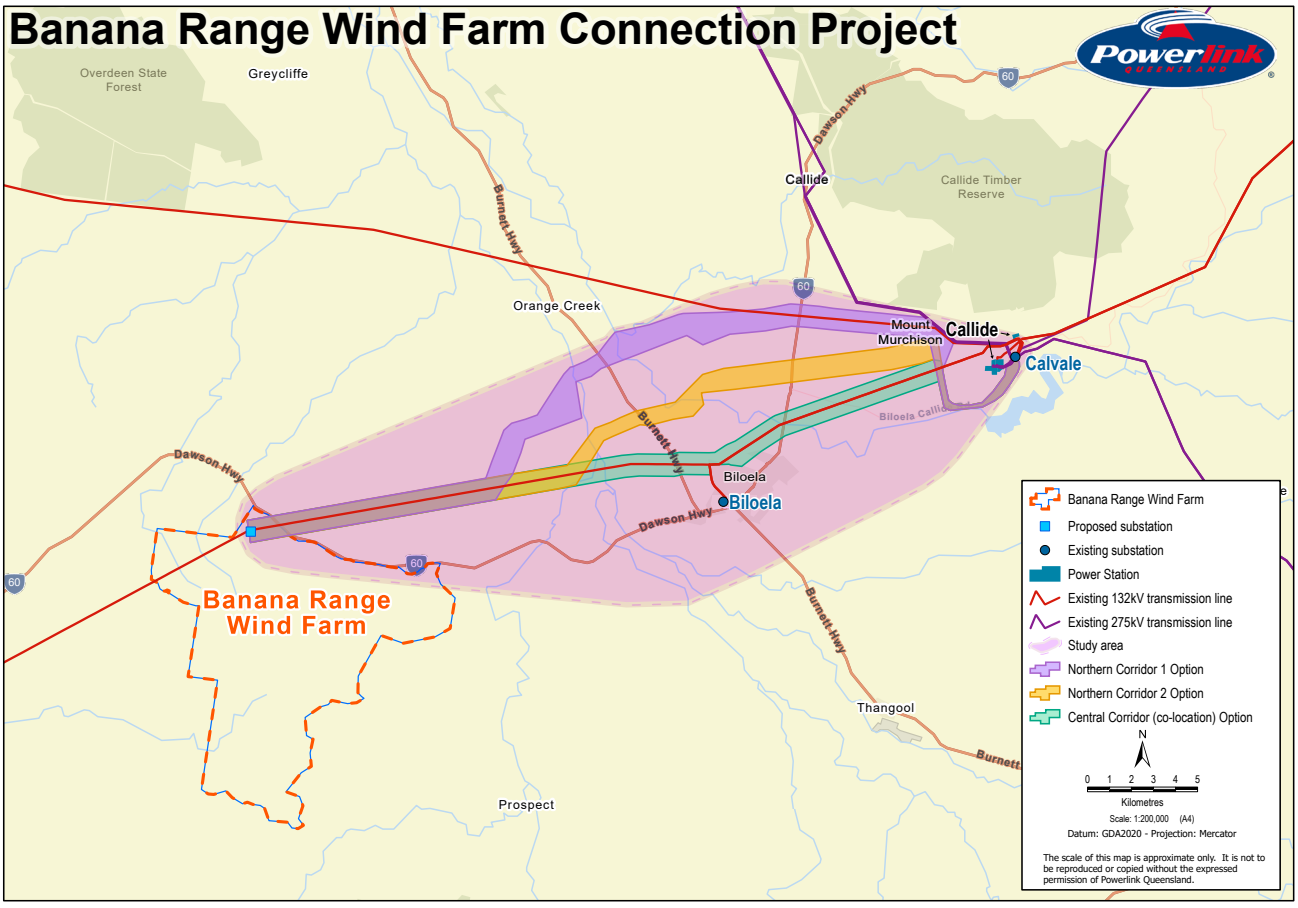
At the eastern end, all corridors are located south-west from the Calvale Substation and then turn north, remaining near the western boundary of the power station property. This minimises impact on agricultural land immediately west.

At the western end, all corridors co-locate with the existing Calvale to Moura transmission line and continue west to the proposed substation at the Banana Range Wind Farm site.

Each corridor was assessed using both qualitative and quantitative information. Qualitative assessment includes professional expert input, observations in the field, landholder feedback and general insights as part of engagement. Quantitative assessment considers numerical data on impacted areas (e.g. intensive cultivated land), transmission line length, and individual counts (e.g. houses, schools, number of land parcels and number of bend points on a potential transmission line).

The assessment process involves weighing up the potential environmental, social and economic impacts of each corridor option. The recommended corridor is the option that has the least overall impacts based on careful consideration of a range of environmental, social and economic factors.

The proposed corridor options have been assessed using quantitative analysis and ranking them against each assessment criteria. Further analysis was then undertaken based on the comparative assessment of each corridor option, as shown in the table overleaf. Based on their impact, each option has been ranked 1 to 3, with 1 being the least impact and 3 being the highest impact.



Summary of corridor assessment

	Northern Corridor 1		Northern Corridor 2		Central Corridor	
	Impact	Rank	Impact	Rank	Impact	Rank
LAND USE						
Strategic Cropping Land	48.5%	1	50.9%	2	52.4%	3
Agricultural Land Class A and B*	37.9%	1	51.2%	2	55.3%	3
Agricultural Land Class C*	37.2%	2	37.8%	1	37.1%	3
HOUSING						
Houses within the corridor	7	1	10	2	243	3
Lots crossed by corridor centreline	63	1	84	2	334	3
INFRASTRUCTURE						
Main roads	3	1	3	1	3	1
Railway	2	2	3	3	1	1
Transmission line (high voltage)	2	1	2	1	3	2
Airstrips	0	1	1	3	0	1
PROTECTED FLORA AND FAUNA						
Category A, B, C or R** vegetation	10.9%	3	4.3%	1	5.1%	2
WATERCOURSES						
Number of watercourse intersections (major)	2	1	2	1	3-4	2
COST						
Corridor length	40.78km	3	37.57km	2	35.35km	1
Potential bendpoints	20	1	21	2	20	1
Potential co-location with existing rail or transmission lines	16km	3	23km	2	30km	1
TOTAL SCORE		22		25		27
TOTAL RANK		1		2		3

* Agricultural Class A – Crop land that is suitable for a wide range of current and potential crops with nil to moderate limitations to production.

* Agricultural Class B – Limited crop land that is suitable for a narrow range of current and potential crops due to severe limitations, but is highly suitable for pastures. Land may be suitable for cropping with engineering or agronomic improvements.

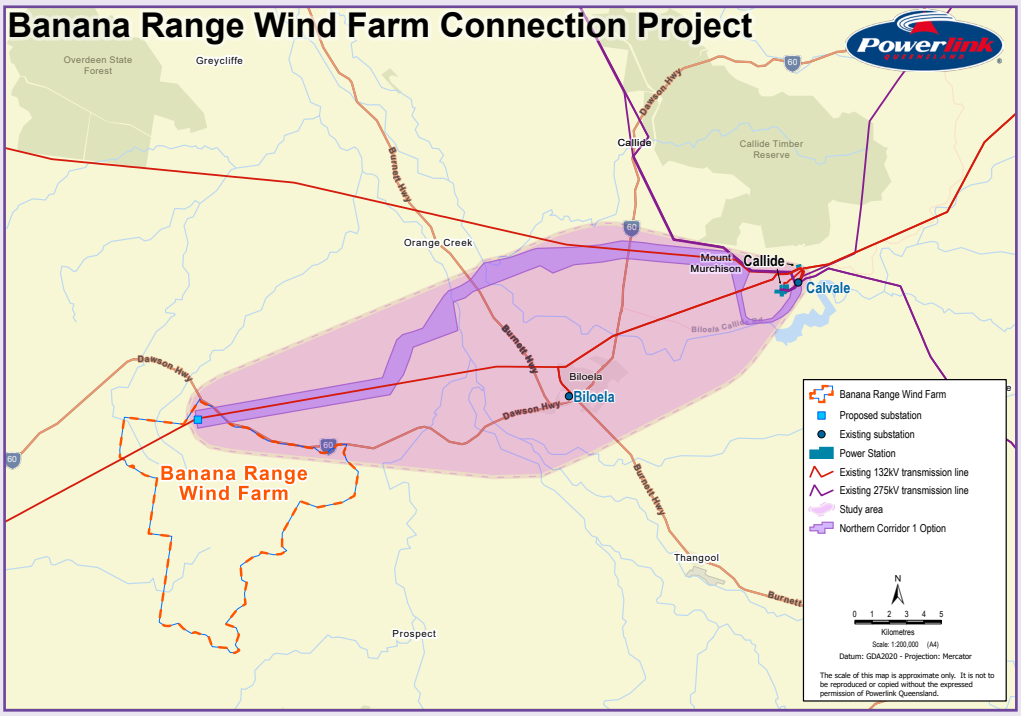
* Agricultural Class C – Pasture land that is suitable only for improved or native pastures due to limitations which preclude continuous cultivation for crop production. Some areas may tolerate a short period of ground disturbance for pasture establishment.

** Category A – Compliance areas, environmental offset areas and declared areas, Category B – remnant vegetation, Category C – high-value regrowth vegetation areas and Category R – areas within 50m of a watercourse.

Northern Corridor 1, while slightly longer than the other two corridors, has the lowest social impact given it intersects the least number of land parcels and houses and overall, intersects the lowest percentage of areas of Strategic Cropping Land and Class A and B land compared to both Northern Corridor 2 and Central Corridor. Potential environmental impacts to protected flora and fauna are higher for Northern Corridor 1. They are mainly limited to watercourses where impacts can be avoided or minimised through appropriate siting of transmission towers and potentially over-spanning of vegetation. Northern Corridor 1 also avoids impacts on an airfield in Northern Corridor 2.

Northern Corridor 1

The Northern Corridor 1 is located in the northern most section of the study area and seeks to reduce the level of interaction with high cultivation land. It also provides an opportunity to co-locate the proposed 275kV transmission line with a section of the existing Calvale to Baralaba 132kV line and contains less than 10 houses and other places of assembly.

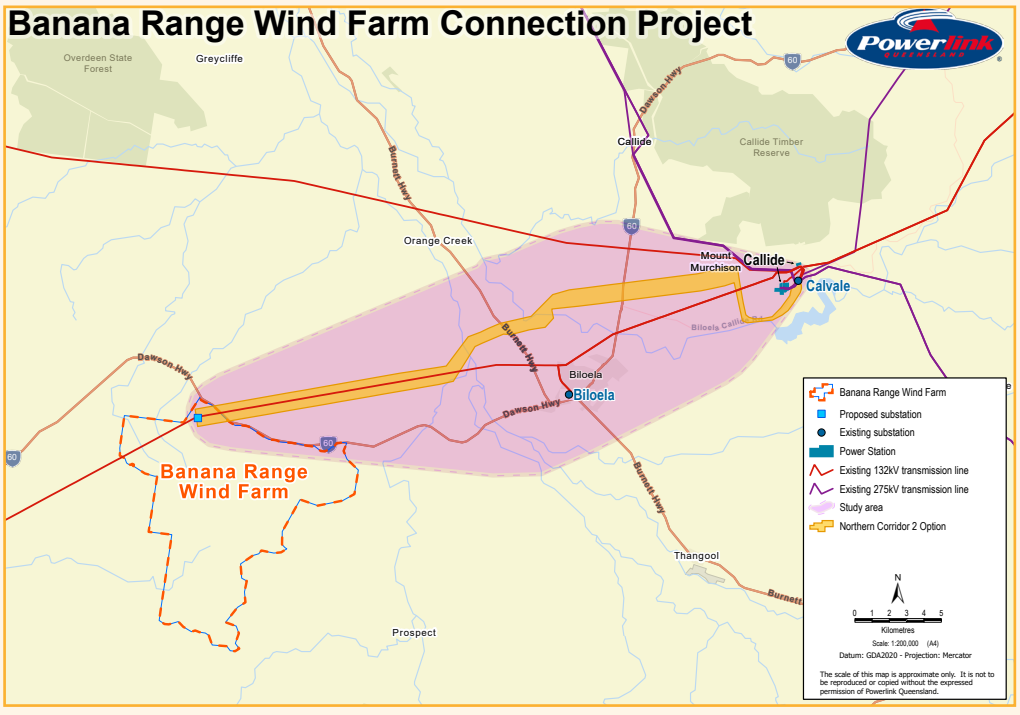


Key characteristics

- Total length – 41km
- Opportunity to co-locate with the existing Calvale to Baralaba and Calvale to Moura 132kV lines
- From west of the power station to Kroombit Creek, land use comprises cultivation and grazing areas
- Less than 10 houses identified
- Larger land parcels
- Longer corridor includes more grazing land which is generally compatible with a transmission line and reduced impacts on cultivated land to the south
- Potential impact on remnant vegetation around creek lines.

Northern Corridor 2

The Northern Corridor 2 is similar to the Northern Corridor 1 but is located further south and centred on co-location opportunities with the Moura rail line servicing the Callide Power Station and mine. This corridor also contains a low number of houses or places of assembly (10 in total), however it traverses significant areas of high cultivation land (based on Strategic Cropping Land and Agricultural Land Class definitions and mapping), impacts an airfield on Shepherdon's Road and includes an abattoir site.

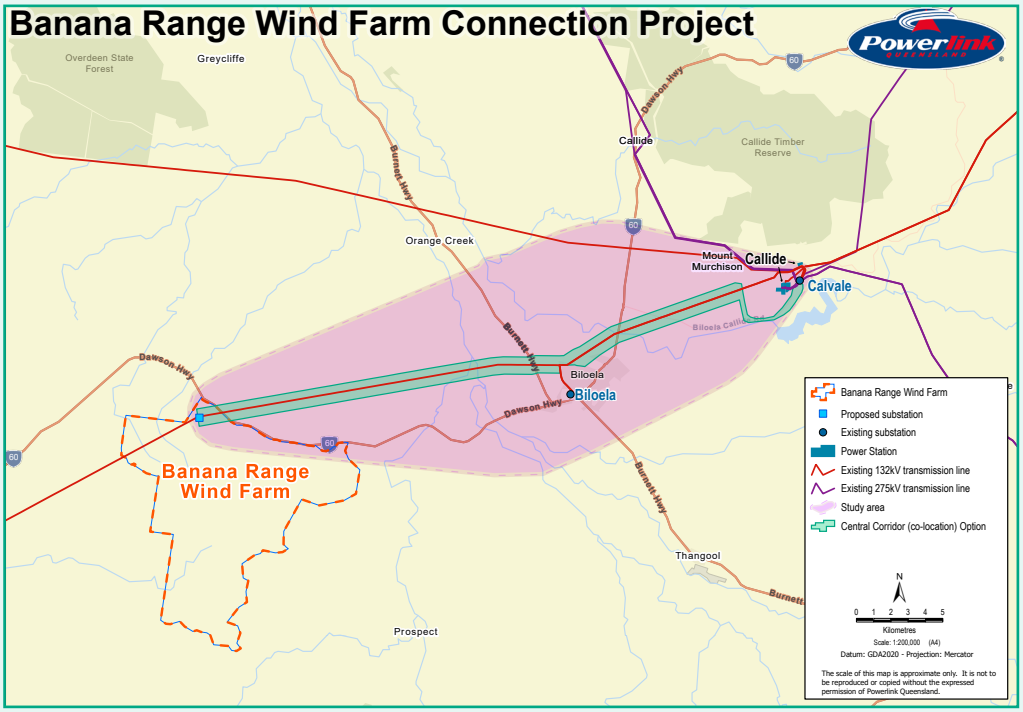


Key characteristics

- Total length – 38km
- Opportunity to co-locate with the existing Moura Railway and Calvale to Biloela to Moura 132kV line
- Includes Teys abattoir site and an airfield
- From west of the power station to Kroombit Creek, there are significant impacts on intensively cultivated land
- Low number of houses
- Larger land parcels
- Opportunity to follow property boundaries where possible
- Potential impact on remnant vegetation.

Central Corridor

The Central Corridor is co-located with Powerlink's existing Calvale to Biloela to Moura 132kV transmission line. Like the Northern Corridor 2, it traverses extensive areas of cultivation between the power station, west to Kroombit Creek. The 132kV transmission line was built in the 1960s and since that time, many houses have been built very close to the transmission line. This has resulted in just over 240 houses being located within the 1km wide Central Corridor. Significant visual amenity impacts are expected from the proposed 275kV transmission line given it will be taller and wider than the existing line.



Key characteristics

- Total length – 35km
- Very significant opportunity to co-locate with the existing Calvale to Moura 132kV line
- From west of the power station to Kroombit Creek, there are impacts on intensively cultivated land
- Impacts the Biloela Showgrounds and residential properties along Auburn Street
- Significant number of houses within the corridor
- Significant number of land parcels
- Most direct corridor between the two substations
- Intersects large and small properties
- Does not follow property boundaries
- Potential impact on remnant vegetation.

Consideration of a southern corridor

A southern corridor option was initially considered, however following engagement with landholders, other stakeholders and members of the community, as well as detailed technical assessment, this option was not considered viable moving forward, mainly due to significant social impacts. This includes impacts on many small properties south of Biloela township, including the Prospect and Valentine Plains areas as well as impacts on the community and sporting facilities along Valentine Plains Road.

Recommended corridor

It was clear during the early engagement phase how important it will be for the transmission line to minimise impacts on high value cultivated land due to concerns regarding farm productivity and personnel safety. By undertaking a comparative assessment of the proposed corridor options, informed by feedback from the early engagement process, we have identified the Northern Corridor 1 option as the recommended corridor. The Northern Corridor 1 option has the lowest social impacts given it affects the least number of land parcels and houses, together with the lowest impacts on Strategic Cropping Land and Agricultural Land Class A. This has been confirmed through field inspections which have identified existing house locations and current land use.

Powerlink community information drop-in session in July 2022.

Have your say on the Draft Corridor Selection Report

Input from landholders, the wider community and other stakeholders about this project is vital, and will continue to guide our decision-making and planning. A full copy of the Draft CSR is available on our website at www.powerlink.com.au/bananarange. Please contact us if you would like to receive a hard copy of the report. We welcome your feedback on the Draft CSR and are seeking your input by Friday 16 December 2022.

We invite you to share your comments in whatever format is most convenient for you, including via phone, email or through our feedback form or interactive map on our website. We are also hosting additional community information drop-in sessions in Biloela on Tuesday 29 and Wednesday 30 November 2022 to provide another opportunity to speak with our project team, ask questions and share your insights. Please refer to the contact details below for more information on how to get in touch with our project team.

Next steps

We will review all feedback and submissions received on the Draft CSR, with the view to publicly releasing the Final CSR in February 2023. The Final CSR will outline the submissions received to the Draft CSR and how those submissions have been considered. This report will also share a final decision on the recommended corridor for the proposed transmission line. This is known as the 'study corridor' and may be up to a kilometre or more wide in some places. Powerlink will then commence detailed landholder engagement and technical studies within the study corridor to determine a suitable transmission line alignment. Development approval and easement acquisition for the proposed transmission line will commence around mid-2023, with construction proposed to occur from 2024. Please note that no final decisions on the transmission line's location will be made until all required approvals have been achieved. We will continue to engage with landholders, the local community and other stakeholders as the project progresses.

To learn more about the Banana Range Wind Farm Connection Project or provide your feedback on the Draft CSR, we encourage you to contact us.

Phone:

If you would like to discuss the Draft CSR or the project more broadly, please contact our Landholder Relations Advisor, Bernie Jefferies on 0439 967 607

Email:

projects@powerlink.com.au

Website:

Through our project webpage or interactive mapping tool which is available at www.powerlink.com.au/bananarange

Use the QR code to access our project webpage.

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