July 2025

Bungaban Wind Farm – Connection Project

Final Corridor Report

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Acknowledgement of Country

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.

Executive summary

This final corridor report has been prepared by Queensland Electricity Transmission Corporation Limited, trading as Powerlink Queensland (Powerlink), for the proposed Bungaban Wind Farm Connection Project (the project).

Powerlink is a leading Australian provider of high voltage electricity transmission network services, and owns, develops, operates and maintains the high voltage electricity transmission network in Queensland.

Powerlink engaged project consultants WSP Australia Pty Ltd (WSP) to undertake technical, spatial data and mapping analysis to support the preparation of this report.

The purpose of this report is to outline the engagement undertaken with landholders, Traditional Owner groups, the community and other stakeholders on the corridor selection process, how feedback has been considered, and refinements made to finalise a 1km-wide corridor, within which up to 100m-wide easement alignment will be determined.

Project background

In July 2024, Powerlink released a study area report that provided a summary of the area that was identified for developing a transmission line connection for this project. Following community engagement, the study area was refined to identify possible corridor options.

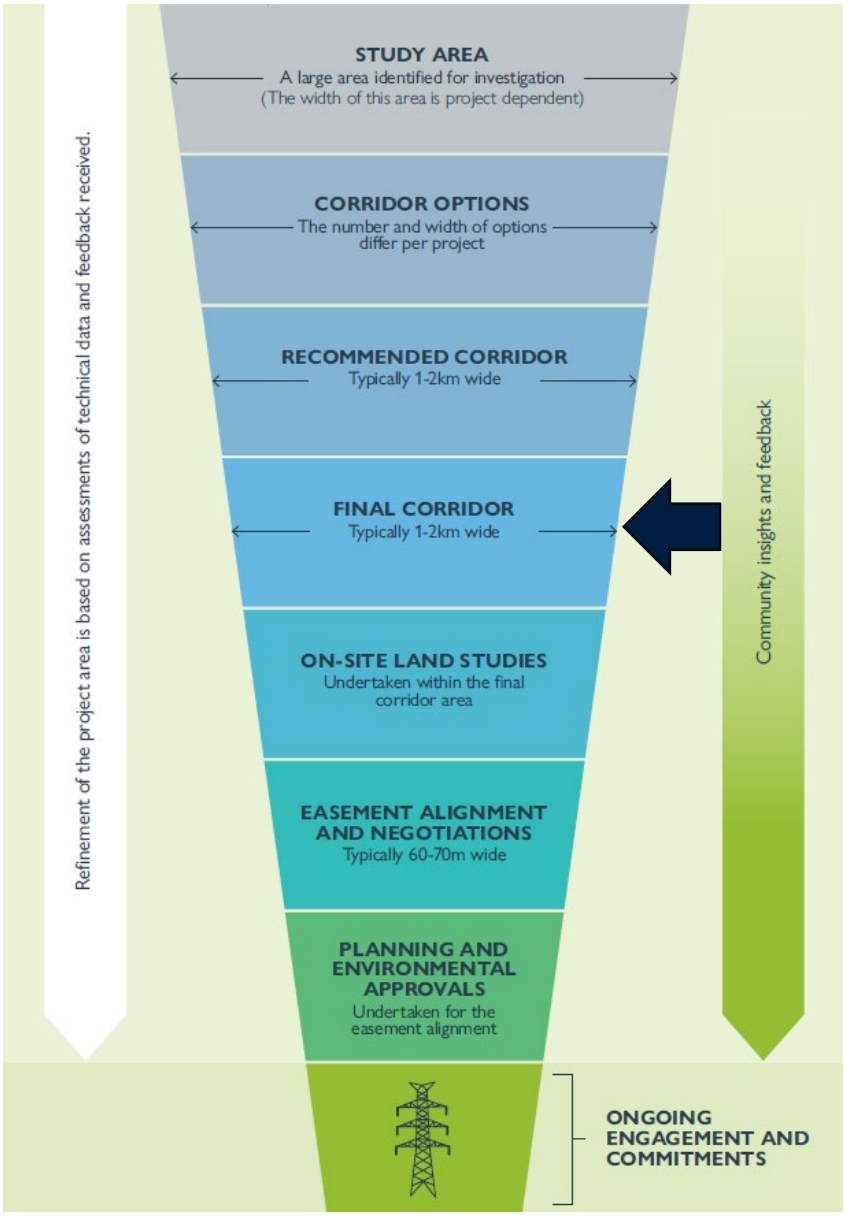
In November 2024, the corridor option report was released, identifying two possible 1km-wide corridor options (southern and northern options) to connect the Bungaban Wind Farm Substation to the Wandoan South Substation. Both options had a common alignment between the Wandoan South Substation to an area approximately 50km north-east of the Bungaban Wind Farm Substation.

In April 2025, a 1km-wide recommended corridor was released for consultation.

Bungaban Wind Farm

Windlab's Bungaban Wind Farm is a proposed 1.4-gigawatt (GW) wind farm located in the Western Downs and Banana Shire local government areas of Queensland, about 40km from Wandoan and 60km from Taroom, and 450km north-west of Brisbane. The wind farm is proposed to comprise of up to 204 wind turbines and a battery energy storage system with the capacity to generate enough energy to power 700,000 homes.

Figure 1: Transmission Easement Engagement Process



This report expands on the findings of the previous corridor analysis, by reviewing the options in light of additional assessments from community engagement, physical land, environment and heritage values, social impacts, legislative requirements and Powerlink's technical input in relation to constructability of transmission lines.

Three objectives, referred to as project objectives, were used to inform the approach to corridor selection. They are:

Social
To consider the use of land and the community livelihood within and adjacent to corridor options.

Environment
To consider a balanced approach to corridor selection with the least practicable impact on environment and heritage values.

Economic
To consider construction and operational factors such as cost at a preliminary level, given the scale of the project.

The methodology used for the corridor selection included using publicly available information, as well as technical and spatial data, to identify constraints and opportunities from a social, environmental and economic perspective. These constraints and opportunities were used to assess a 1km-wide recommended corridor that, on balance, achieves the project objectives.

Recommended transmission corridor

In November 2024, Powerlink released for review and comment, two 1km-wide corridor options for the transmission line, sharing a common section from Wandoan South Substation to Roche Creek Road, then splitting into corridor option 1 (south) and corridor option 2 (north). Engagement with stakeholders, highlighted an area within corridor option 1 (south) for further investigation.

In March 2025, corridor option 1 (south) bubble investigation area was released for consultation. Further investigation occurred in a small section between Roche Creek Road and Middle Creek Road, and engagement proceeded with specific landholders in the corridor option 1 (south) investigation area. Based on insights and analysis, it identified a recommended corridor that included corridor option 1 (south) with some realignments.

Powerlink subsequently undertook a desktop review of existing and current data to identify physical, natural, social and economic characteristics, to further assess the corridor options and bubble investigation area to ensure suitability of a recommended corridor.

The recommended corridor was released for consultation in April 2025. The corridor addressed both the constraints and opportunities, resulting in a corridor that aimed to balance the project objectives.

Further information on the 1km-wide recommended corridor is set out in Powerlink's Bungaban Wind Farm Connection Recommended Corridor Report (available online at Bungaban Wind Farm Connection Project | Powerlink).

Final 1km-wide corridor

Feedback on the recommended corridor report helped inform the refinement and selection of the final 1km-wide corridor. Feedback was gathered from targeted consultations with directly-affected landholders, Traditional Owners and stakeholders within the 1km-wide recommended corridor. This phase aimed to confirm the suitability of the recommended corridor and identify refinements based on site-specific considerations.

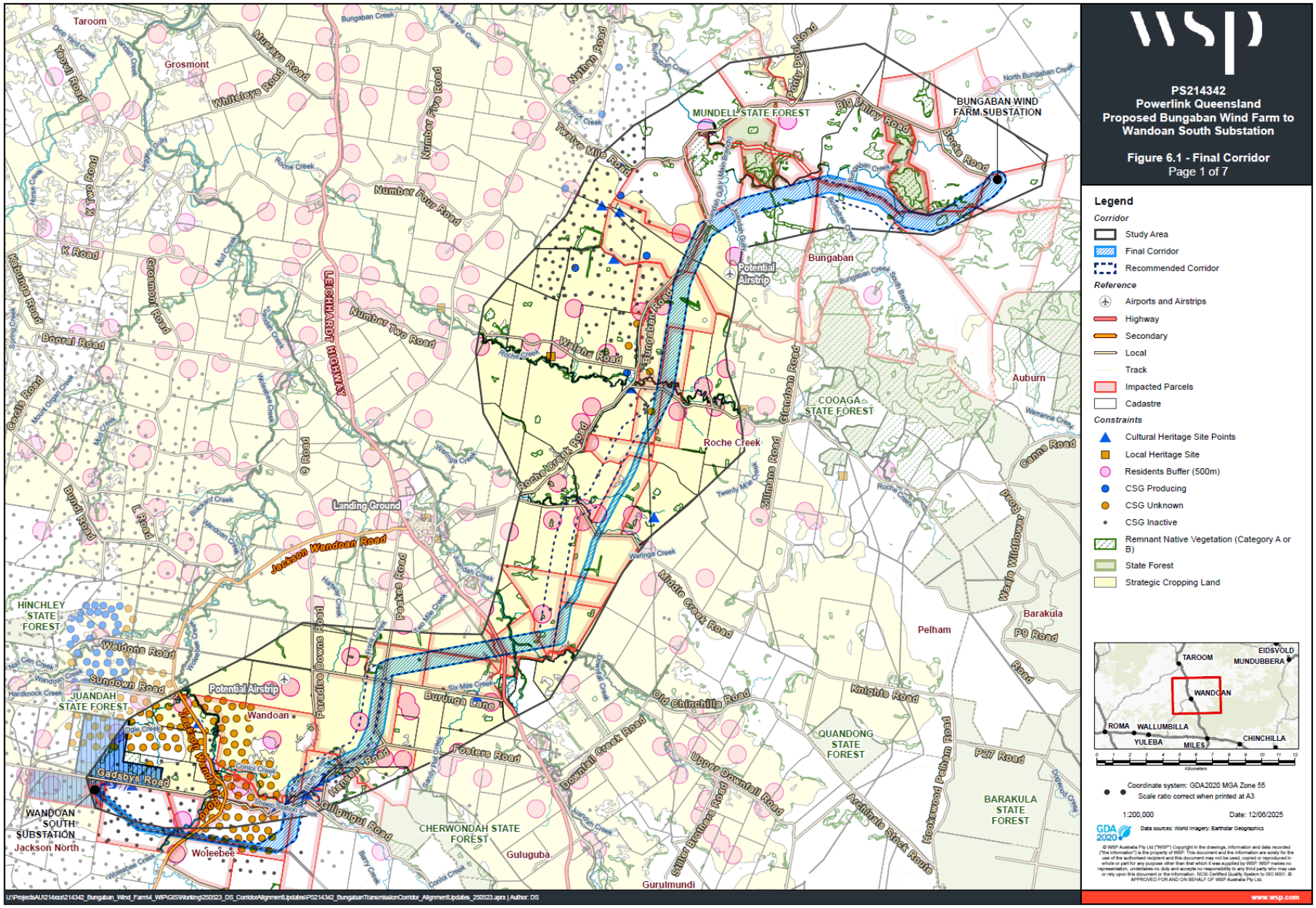
Consultation activities included one-on-one meetings, feedback forms, phone calls, interactive map, social media posts, email distributions and community drop-in sessions.

Through the corridor selection process, a final 1km-wide corridor has been identified, in which an easement alignment up to 100m-wide will be determined. The final 1km-wide corridor maintains the ability to:

- reduce impacts to farming operations, both land and aerial operations
- maximise distance from residential dwellings where possible
- minimise biosecurity risk
- balance interactions with other proposed large-scale infrastructure developments.

The final corridor identified is shown in Figure 2.

Figure 2: Bungaban Wind Farm Connection Project Final Corridor



1.0 Introduction

1.1 Project background

The Bungaban Wind Farm is a proposed 1.4 GW wind farm located in the Western Downs and Banana Shire regions of Queensland, about 40km from Wandoan and 60km from Taroom, or 450km north-west of Brisbane. Australian renewable energy company Windlab is developing the proposed wind farm. Energy generated by the proposed wind farm will provide clean energy to Queensland households.

To connect the proposed wind farm to the electricity network, the following new transmission infrastructure is proposed under the project:

- a new 275 kilovolt (kV) substation
- up to a 100m-wide easement to contain a double circuit 275kV transmission line between Powerlink's existing Wandoan South Substation and the proposed Bungaban Wind Farm, to allow for future network expansion needs.

1.2 Purpose of this report

Powerlink has prepared this report to conclude the corridor selection process, involving landholders, Traditional Owner groups, the community and other stakeholders, by identifying a final 1km-wide corridor.

Following the finalisation of the 1km-wide corridor, detailed discussions will continue with all stakeholders, and further analysis and studies will be undertaken to enable the refinement of the final 1km-wide corridor to an easement alignment up to 100m-wide.

The purpose of this report is to:

- outline the public consultation process recently undertaken on the recommended corridor
- provide an overview of stakeholder feedback and how this feedback has been considered
- identify amendments to the corridor to inform the identification of a final corridor
- identify a final 1km-wide corridor, which will undergo further refinement to determine up to a 100m-wide easement alignment.

1.3 Approach

The Transmission Easement Engagement Process (TEEP) is the overarching process that seeks to incorporate engagement activities and feedback into each step of the corridor selection process. This project is currently at stage four of the TEEP. Powerlink actively seeks feedback from stakeholders to help inform our project planning and decision making, as well as how to avoid, minimise and mitigate impacts that have the least overall impact on balance.

The refinement process during corridor selection uses a multi-criteria analysis (MCA) framework that supports the project objectives to measure and assess the likely impact of the project. The inclusion of stakeholder feedback, along with technical and desktop studies are also used to help identify constraints and opportunities which are verified through detailed studies as the project progresses.

2.0 Final corridor engagement

Following the public release of the recommended corridor report in April 2025 (available at powerlink.com.au/bungaban) Powerlink engaged with landholders, Traditional Owners, community and other stakeholders within the 1km-wide recommended corridor between March and June 2025 to obtain direct feedback.

Consultation activities included:

- one-on-one meetings
- feedback forms
- community information drop-in sessions
- interactive map of the recommended corridor
- phone calls, emails and letters to landholders
- stakeholder briefings
- social media posts
- newsletter
- webinar

Based on the feedback and consideration of matters raised by the community, further changes were made to the recommended corridor which culminated in the creation of the final corridor.

Subsequent phases of the project will include further engagement, detailed environmental and social impact assessment including targeted surveys, impact assessments and the development of planning, design and construction considerations.

Powerlink is committed to genuine and meaningful engagement, which forms a critical part of this project. Further details on our commitment to engaging on this project can be viewed on the Bungaban Wind Farm Connection Project webpage.

2.1 Traditional Owner engagement

Powerlink acknowledges and respects the ongoing connection of Traditional Owners to their traditional lands and waters. Traditional Owners and First Nation People are welcome at all community engagement sessions, and dedicated engagement processes are also undertaken with Traditional Owners likely to be impacted by the proposed final corridor. Engagement has been undertaken with the following Traditional Owner identified under the *Aboriginal Cultural Heritage Act 2003* (Qld) (ACH Act): the Iman People.

Detailed discussion with Traditional Owners is ongoing and will continue through our next phase as we identify up to 100m-wide easement alignment.

2.2 Engagement analysis

Feedback following the recommended corridor engagement identified areas of key interest and concern. All feedback has been reviewed and considered to determine the constraint, potential impact and necessary action. The key themes have flowed into the corridor selection process and have been referenced in the MCA.

Themes raised through the recommended corridor engagement were similar to those mentioned in previous consultation and are as follows:

Key landholder feedback Feedback theme	Response
Farming practices • Reducing impacts on farming activities, both land and aerial operations	The final corridor traverses a smaller area of strategic cropping land, taking into account landholders and their operations on the land. More opportunities to co-exist with farming practices and other land uses may arise during the identification of the easement alignment up to 100m-wide.
Lifestyle impacts • Visual impacts • Proximity to homes	The final corridor looks to traverse fewer number of land parcels and maximises distance to residential properties where possible. Further conversations and considerations of proximity and visual impacts will occur as we continue to a refine to an easement alignment up to 100m-wide.
Property impacts • Balancing interactions with other proposed large-scale infrastructure development	Importantly, landholder preferences, ongoing property operations, and future development plans were carefully considered alongside the interests of gas and renewable energy proponents to support the shared use of land for agriculture, infrastructure, and other development within the area.

All feedback received during the engagement period has been collated and considered by Powerlink.

An additional theme noted and considered relates to biosecurity.

Key feedback	Consideration
Biosecurity	• Powerlink seeks to understand landholders' biosecurity arrangements and current practices to limit any introduction or further spread of invasive weeds and pests. • To address biosecurity concerns, Powerlink will implement strict biosecurity measures and controls. This may include regular inspection and monitoring of project sites and wash down stations for all project vehicles to go through before and after entering a landholder's property. • Powerlink will work with landholders to identify biosecurity risks on each property and develop appropriate management measures, including those referred to in specific biosecurity management plans. • We value our long-term working relationships with landholders and intend to work with them on biosecurity matters from the planning phase through to construction, operation and maintenance.

While this additional theme is important, it will be managed in broader terms throughout the project.

2.2 Corridor alignments

Powerlink's commitment to early, ongoing and transparent engagement with our stakeholders, has resulted in tangible changes to the corridor. As a result of the feedback, five realignments have been made to the recommended corridor which has resulted in the creation of the final corridor:

Knudsens Road

- The corridor realigns as it leaves Bungaban Wind Farm and navigates south to Mundell State Forest and along Knudsens Road.

- This recommended corridor was designed to abut the northern boundary of Knudsens Road, however, it presented limited line design options. As a result, the final corridor has shifted slightly to the north to allow the corridor to extend across both the northern and southern boundaries of the Knudsens Road easement. This provides opportunities for the detailed design stage to locate the transmission line on either side of the road to further avoid constraints within the landscape and improving constructability.
- Detailed discussion with landholders will continue through our next project phase as we work to identify an easement alignment up to 100m-wide in this area.

Old Chinchilla Road / Roche Creek Roads deviation

- This corridor has moved from a western alignment to a more easterly route after further consideration of impacts to biodiversity, landholder feedback and retaining the transmission line within land proposed for future energy infrastructure.
- The eastern shift has positioned the final corridor on Middle Creek Energy Hub properties. Extensive consultations have been undertaken with the energy developer and this shift is the outcome of those discussions. It should be noted that a reduction of the final corridor width is proposed in this area to assist with co-location options.
- Detailed discussion with landholders and energy developers will continue through our next phase as we identify an easement alignment up to 100m-wide in this area.

Giligulgul Road / Hansens Road

- Minor straightening of the corridor was applied to more precisely follow property boundaries and to consider other future property development.
- Detailed discussion with landholders and energy developer will continue through our next project phase as we work to identify an easement alignment up to 100m-wide in this area.

Hansens Road

- The corridor has shifted further east to accommodate the construction of new energy infrastructure. This will enable co-location of the transmission line with existing and future infrastructure development.
- Detailed discussion with landholders and energy developer will continue through our next project phase as we work to identify an easement alignment up to 100m-wide in this area.

Connection into Wandoan South Substation

- The corridor was designed to co-locate with Powerlink's existing Columboola transmission line prior to its connection into Wandoan South Substation.
- Due to conflicting infrastructure developments in this area, the corridor width was reduced to 300m (extends across the 100m transmission line easement along with a further widening of 100m north and 100m south of the easement).
- Detailed discussion with landholders, other infrastructure bodies and energy developers will continue through our next project phase as we work to identify an easement alignment up to 100m-wide in this area.

With five realignments adopted, the final 1km-wide corridor length has decreased slightly by 0.1km (>1%) overall, resulting from landholder and energy developer consultation to improve co-existence opportunities in this area. Further detail on the social, environment and economic criteria is contained in Appendix B.

Figure 2 above shows the final corridor in solid blue, with the recommended corridor shown in hatched black. The hatched line of the recommended corridor reveals where changes have been made and these sections removed between the draft and final corridor, based on feedback from landholders and other stakeholders.

2.3 Summary of final 1km-wide corridor

Overall, the final 1km-wide corridor continues to achieve the least overall impact across social, environment and economic objectives.

A reduction of the final corridor width to 300m is proposed within the Middle Creek area to support co-location with other large-scale infrastructure developers.

It is noted that, compared to the recommended corridor, the final corridor results in an increase in both the area of ecological matters and heritage count. The refinement of the 1km-wide corridor to an easement alignment up to 100m-wide will be aimed at further avoiding and minimising these impacts. Specifically, this will involve working closely with stakeholders to ensure tower design and placement are carefully considered with further exploration of opportunities to avoid areas of particular interest or value. Appendix B identifies the high-level constraints and opportunities across the final corridor.

Further opportunities to minimise social, environmental and economic impacts will be explored as the final 1km-wide corridor is refined to an easement alignment up to 100m-wide. The design phase is key to being able to take advantage of any opportunity to further reduce impacts, informed by feedback from landholders.

Table 1: Assessment of the 1km-wide recommended corridor and final corridor

CRITERIA	Unit	Recommended Corridor	Final Corridor
Social			
Criteria 1: Land parcels	Count	51	50
Criteria 2: Residences	Count	0	0
Criteria 3: Strategic cropping land	Ha	4,498.2	3,524.9
Criteria 4: Renewable energy infrastructure	Count	3	3
Criteria 5: Resource interests	Count	18	9
Criteria 6: Intensive land use	Ha	14.7	14.7
Environmental			
Criteria 1: Regional ecosystem	Ha	290.9	247.9
Criteria 2: Threatened ecological communities	Ha	234.4	266.2
Criteria 3: MSES regulated vegetation – Category C and R	Ha	123.9	206.5
Criteria 4: Heritage	Count	1	5
Economic			
Criteria 1: Length of corridor	Km	82.7	82.6
Criteria 2: Area with a slope greater than 20%	%	0.2	0.4
Criteria 3: Co-location	Km	12	12

The engagement completed to-date reflects Powerlink's commitment to genuine and meaningful engagement, which forms a critical element of the corridor selection process. Feedback received, whether positive or negative, helps guide how Powerlink considers and manages project constraints and opportunities across economic, environmental and social perspectives. It shows Powerlink's commitment to actively listen to feedback received and respond where possible to lessen impacts to properties, business operations and the environment.

Powerlink has considered specific site and project feedback received directly from landholders to minimise impacts to existing land uses and farming operations, and as a result has actively sought to address those concerns in the identification of the final corridor.

Powerlink acknowledges the deep and ongoing connection Traditional Owner groups have with the area, and value their insights provided. Our project team continue to engage with Traditional Owner representatives beyond the formal consultation period, helping to gain more in-depth insights into areas of cultural heritage significance.

3.0 Legislative and approval requirements

To progress this project, several potential legislative and approval requirements are needed. This section discusses some of the State and Federal Government approval frameworks required.

3.1 Potential environmental approvals

Potential environmental approvals are subject to final corridor refinement, actual infrastructure disturbance locations and further ecological and cultural heritage investigations, however, may include:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (Cth) Referral and potential approval for significant impact on Matters of National Environmental Significance (MNES)
- Ministerial Infrastructure Designation (MID) under the *Planning Act 2016* (Planning Act) for electricity operating works
- Clearing permit for the clearing of protected plants under the *Nature Conservation Act 1992* (NC Act)
- Species Management Program (SMP) under the *Nature Conservation (Animals) Regulation 2020* for the tampering of active breeding places where impact cannot be avoided (Low Risk SMP is required for impact to Least Concern species/High Risk SMP is required for impact to colonial breeders, near threatened, Vulnerable, Endangered and Critically Endangered species).

Prior to construction of the project, further assessment of the project's potential legislative obligations will be undertaken once the easement alignment is identified, and additional technical investigations (desktop and field based) have been completed.

A full list of legislative considerations and other obligations required for the project is provided within Appendix C.

4.0 Conclusion and future studies

The final 1km-wide corridor has been identified for the Bungaban Wind Farm Connection Project. In establishing a final corridor, several assessment criteria were analysed in addition to the careful consideration of feedback received from landholders, Traditional Owner groups, the community, other stakeholders, and spatial analysis.

Engagement with landholders as part of the TEEP process for this project has established constructive relationships. Powerlink will seek to build on and incorporate further collaboration with our stakeholders moving forward. This collaborative approach will strengthen our ability to identify and integrate amicable solutions, resulting in stronger opportunities for shared land use with landholders.

Through the corridor selection and refinement processes, the final 1km-wide corridor:

- traverses fewer number of land parcels and is located further away from residential properties
- traverses a smaller area of strategic cropping land
- intersects smaller areas of endangered and 'of-concern' vegetation

Importantly, landholder preferences, ongoing property operations, and future development plans were carefully considered alongside the interests of gas and renewable energy proponents to support the shared use of land for agriculture, infrastructure, and other development within the area.

Following release of the report, additional detailed technical studies and continued engagement will help to narrow down and determine a transmission line alignment within an easement of up to 100m wide.

4.1 Future studies and engagement

Detailed field studies are required to further identify project constraints at an individual property level, and opportunities within the final 1km-wide corridor, to optimise the transmission line design while achieving the social, environment and economic objectives of the project. It is noted that there are areas of the proposed final corridor that are reduced in width to allow for co-location opportunities. This phase of the project focuses heavily on identifying specific areas to avoid, mitigate and to further manage throughout the design of the transmission line alignment.

Planning approval through the use of the MID process under the Planning Act will be required for this project. In addition, detailed environmental assessments and approvals will also be undertaken as part of the design phase. Concurrent to these processes, property access and easement negotiations will commence. To facilitate this, further detail is required on several key elements, as referenced below.

Social

- Landholder and community consultation – engagement with stakeholders, particularly impacted and surrounding landholders and Traditional Owner groups, on the final corridor to understand use of land, proximity to homes and potential impacts to properties.
- Social and economic impact assessment – investigations to identify potential social and economic impacts from the construction and operation of the project.

Environment, heritage and planning

- Ecology – further assessment, including targeted field surveys of the final corridor to identify areas that contain habitat for threatened flora and fauna species, or threatened ecological communities. The assessment will also determine the potential impact to habitat for threatened flora and fauna species.
- Biosecurity matters – further investigation into the potential biosecurity risks will be undertaken prior to construction.

- Cultural heritage– further investigations are required to identify any potential impact to indigenous and non-Indigenous cultural heritage values.

Economic

- Land, geology and soils – contaminated land, acid sulphate soils or dispersive soils can pose construction issues due to the need to implement specialist management or design practices and/or treatment. Field investigations including sampling and analysis will be undertaken as part of geotechnical investigations.
- Poor ground conditions – geotechnical investigations to identify problematic soils and geology such as hard rock, which can pose constructability difficulties, or substantially increase project costs due to specialist design required and/or additional construction materials and foundations, as well as access and easements to be provided.
- Flood potential – further investigation into the potential for flooding within the corridor will be required to understand the risk to the project both during construction and operation.
- Crossings and bends – further investigation to confirm the minimum number of interfaces between the corridor and other infrastructure such as roads, rail, pipelines and other identified values. This will help to better understand where these asset types are located and inform potential options for the easement alignment. The number of potential bends and associated impacts to the project will be assessed and further refined during the next phase.

The corridor selection process has relied on publicly available data sources and feedback from all engagement activities undertaken to-date. Investigations will need to be undertaken and mapped at an individual lot-based/property-specific level and taken into consideration during the design of the transmission line.

As the project progresses, Powerlink remains committed to engaging with all stakeholders to share information on project milestones and seeking feedback to inform project decisions.

Appendix A – Feedback themes

All feedback received through the recommended corridor consultation phase has been categorised into the themes listed below, reflecting the key interests and concerns of stakeholders.

Figure 3: Key themes from engagement on the RCR

Top 4 Landholder themes	Number of times the theme was raised
Commercial farming operation	14
Renewable energy interface	9
Proximity to houses	7
Visual amenity	6

Appendix B – Key considerations

The corridor identification and selection process evaluated and considered opportunities and constraints from social, environmental and economic perspectives, resulting in the identification of a final corridor for further investigation.

The methodology used for the corridor selection included using publicly available information, as well as technical and spatial data, to identify constraints and opportunities from a social, environmental and economic perspective.

A summary of the quantitative social, environmental and economic criteria considered in identifying the final corridor is provided below.

Social

Table 2: Table of changes to final 1km-wide corridor when compared to recommended 1km-wide corridor

Criteria	Final Corridor
Social criteria	
Criteria 1: Number of land parcels intersected (Count)	Decrease by 1
Criteria 2: Residences (Count)	No change
Criteria 3: Strategic cropping land (Ha)	Decrease by 973Ha
Criteria 4: Renewable energy infrastructure (Count)	No change
Criteria 5: Resource interests (Count)	Decrease by 9
Criteria 6: Intensive land use (Ha)	No change

Table 3: Summary of considered social criteria associated with the final corridor

Assessment criteria	Final corridor assessment outcome
Social	
Land parcels and residences	The final corridor is located within the Rural Zone under the *Western Downs Planning Scheme 2017*. The placement of the corridor within rural zoned land is preferred over residential or open space zones because of the social impacts associated with easement acquisition within a residential zoned area and the amenity impacts of converting open parkland into a substation. The final corridor reduces the number of properties impacted.
Strategic cropping land	As a result of landholder feedback received, changes were made to the corridor that better align with existing farming operations. As a result of these changes, the final corridor impacts have significantly decreased to current grazing activities and will avoid areas used for cropping purposes.
Renewable energy infrastructure and resource interests	The final corridor looks to impact fewer coal seam gas (CSG) resources than the recommended corridor. This was achieved through engagement with relevant CSG stakeholders. The final corridor looks to impact the same number of wind turbines associated with nearby energy developments. It should be noted that the final corridor is now situated within the existing energy development footprint.

Assessment criteria	Final corridor assessment outcome
Intensive land uses	Based on desktop analysis, the final corridor impacts the same area with intensive land use.

Environmental

Table 4: Table of changes to final 1km-wide corridor when compared to recommended 1km-wide corridor

Criteria	Final corridor
Environment criteria	
Criteria 1: Regional ecosystem (Ha)	Decrease by 43Ha
Criteria 2: Threatened ecological communities (Ha)	Increase by 31.8Ha
Criteria 3: MSES regulated vegetation – Category C and R (Ha)	Increase by 82.6Ha
Criteria 4: Heritage (Count)	Increase by 5

Summary of considered environmental criteria associated with the final corridor

Assessment criteria	Final corridor assessment outcome
Environment	
Environment values	The final corridor intersects small, scattered areas of mapped remnant (endangered, of-concern and least concern) vegetation (regional ecosystems) (Category A and B). As these areas are small in nature, they may be able to be spanned by the transmission line, with no or limited clearing required. The final corridor has an increase in threatened ecological communities and MSES regulated vegetation. The final corridor will be reduced from 1km to 100m-wide easement and will look to avoid environmental values through the refinement process. Threatened fauna species protected under State and Commonwealth legislation are known/likely to be present within the final corridor based on desktop assessments. Threatened fauna species could be potentially impacted through the loss of habitat. Given that fauna species are mobile and move throughout their habitat, the potential extent of impact to fauna species cannot be accurately determined by desktop searches alone. As such, further ecology studies are required to determine the presence of fauna species. Site investigations will be undertaken to validate the desktop assessments.
Cultural heritage	The final corridor touches on additional cultural heritage sites from the previous recommended corridor. Notwithstanding, the corridor will be reduced from 1km to 100m wide easement and look to avoid these cultural heritage sites. Further consultation and engagement with the identified cultural heritage parties - the Iman People - will be undertaken by Powerlink to determine the extent and nature of other Indigenous cultural heritage that may be present within the final corridor.

Economic

Table 5: Table of changes to final 1km-wide corridor when compared to recommended 1km-wide corridor

Criteria	Final corridor
Economic criteria	
Criteria 1: Length of corridor (km)	Decrease by 0.1
Criteria 2: Area with a slope greater than 20% (%)	Increase by 0.2
Criteria 3: Co-location (km)	No change

Table 6: Summary of considered economic criteria associated with the final corridor

Assessment criteria	Final corridor assessment outcome
Economic	
Corridor length	The final corridor is approximately 82.6km in length, which is marginally shorter than the recommended corridor by approximately 100m. The final corridor maintains a relatively direct route between the proposed Bungaban Wind Farm and the existing Wandoan South Substation.
Slope	Steep topography limits vehicle and machinery access and significantly increases the required earthworks at each tower site. Additional easements and access routes are generally required in steep country and with potential for environmental impacts. The final corridor is relatively consistent with slightly undulating hills and valleys. Only 0.4% of the final corridor intersects terrain with a slope greater than 20%. The corridor selection process adopts a balanced approach, giving equal consideration to all assessment criteria when determining the final corridor. In this instance, a shorter and more direct corridor route that maximised co-location opportunities with proposed renewable energy projects, and reduced overall social and visual amenity impacts, was deemed more beneficial to the project than prioritising slope alone. Contrary to the above, there are also opportunities to refine tower locations to benefit from ridge top locations to increase the distance between towers.
Co-location	Final corridor length remains unchanged within the co-location area near Wandoan South Substation.

Appendix C – Summary of legislative considerations

A summary of legislation potentially applicable to the project is provided below in Table 7 below. Further design and detailed site investigations and assessment will be required to confirm potential legislative requirements for the project.

Table 7: Summary of legislation

Legislation	Summary
Commonwealth legislation	
Environment Protection and Biodiversity Conservation Act 1999	The EPBC Act is the centrepiece of Commonwealth environmental laws. It provides a legal framework to protect, and manage nationally, and internationally important flora, fauna, ecological communities and heritage places — defined in the EPBC Act as Matters of National Environmental Significance (MNES). MNES include: • The world heritage values of a declared world heritage property • The national heritage values of a declared national heritage place • The ecological character of a declared Ramsar wetland (wetlands of international importance) • Listed threatened species and ecological communities • Listed migratory species • Nuclear actions (including uranium mining) • Commonwealth marine areas • The Great Barrier Reef Marine Park • A water resource, in relation to coal seam gas development and large coal mining development. The EPBC Act is administered by the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) and establishes a process for environmental assessment and approval of proposed actions that have, will have, or are likely to have a significant impact on MNES. If a project may cause a significant impact on an MNES, the project must be referred to DCCEEW for assessment of the potential impacts. The Minister will decide whether the project is: • Not a controlled action: the project does not need to be assessed further • Not a controlled action 'particular matter': the project does not need to be assessed further, providing the action is completed in accordance with conditions that are supplied with the decision • A controlled action: the project will need to be assessed against the EPBC Act, through one of several processes available. Ecological investigations and subsequent significant impact assessment will be completed to understand the presence of, and potential impacts on, MNES from the project. Outcomes of these investigations will determine the requirement for referral to the Commonwealth Minister for the Environment.

Legislation	Summary
Native Title Act 1993	The *Native Title Act 1993* (NT Act) (Cth) establishes a national framework for the protection and recognition of Native Title, including by conferring on Indigenous people who hold (or claim to hold) Native Title rights and interests in respect of any land or waters, the right to be consulted with and in some cases to participate in decisions about activities proposed to be undertaken. Under the NT Act (Cth), Native Title cannot be claimed on freehold land as it is extinguished over the area. Where the corridor intersects roads that were declared as roads on or before 23 December 1996, Native Title is extinguished and is not required to be considered. On land where native title exists, Powerlink must comply with the requirements of the NT Act (Cth) to secure an easement for the transmission line. Construction of the transmission line is covered by processes under section 24KA or possibly by an Indigenous Land Use Agreement. Section 24KA validates future acts that consist of the construction, and operation of public infrastructure and suspend the native rights over the land for the duration of the easement. Therefore, the legislative requirements under the NT Act (Cth) are low risk to the project.
State legislation	
Aboriginal Cultural Heritage Act 2003	The *Aboriginal Cultural Heritage Act 2003* is administered by Department of Women, Aboriginal and Torres Strait Islander Partnerships and Multiculturalism (DWATSIPM) and aims to provide effective recognition, protection, and conservation of Aboriginal cultural heritage. It establishes the processes for managing activities that may cause potential harm to Aboriginal cultural heritage, which is identified through the Aboriginal and Torres Strait Islander Cultural Heritage (ATSICH) Database and Register and the *Aboriginal Cultural Heritage Act 2003Duty of Care Guidelines*. Should the project be considered to pose a high risk to Aboriginal cultural heritage, engagement with the relevant cultural heritage parties for the area is likely to be required. It may also necessitate preparation of a Cultural Heritage Management Plan (CHMP) or Cultural Heritage Management Agreement (CHMA). Activities which pose a high risk of impact to Aboriginal cultural heritage that may apply to this project include: • Works in, or within proximity to registered Aboriginal cultural heritage sites or objects • Works in areas with little or no previous ground disturbance • Works in proximity to water features. Powerlink is in the process of undertaking engagement with the relevant Traditional Owner groups to discuss the project and its potential impacts.
Acquisition of Land Act 1967	The *Acquisition of Land Act 1967* is administered by Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development (DRMMRRD) and sets out the processes for compulsory and voluntary acquisition of land for a public purpose by a constructing authority. Powerlink may acquire freehold land or register an easement over land for the transmission line. Land may be acquired either by voluntary agreement for easements or other tenures required or, where agreement cannot be reached, by compulsory resumption of land.

Legislation	Summary
Biosecurity Act 2014	The *Biosecurity Act 2014* (Biosecurity Act) is administered by the Department of Primary Industries (DPI) and provides a biosecurity system framework which aims to minimise biosecurity risk, and facilitate responses to biosecurity impacts, to ensure the safety, and quality of agricultural inputs, and to align the state's management of biosecurity risk and other requirements for plant and animal responses to biosecurity risk with federal and international obligations. The Biosecurity Act also aims to manage emerging endemic, and exotic pests, and diseases as well as the transfer of diseases between humans and animals and contaminants in carriers. Under the Biosecurity Act, a general biosecurity obligation is placed on all persons to undertake all reasonable and practicable measures to prevent or minimise biosecurity risk. Additionally, the movement of biosecurity matter must comply with movement restrictions associated with each relevant biosecurity zone, and biosecurity instrument permits are required for the movement of biosecurity matter which cannot comply with movement restrictions.
Environmental Offsets Act 2014	The purpose of the *Environmental Offsets Act 2014* (EO Act) is administered by Department of Environment, Tourism, Science and Innovation (DETSI) and is to counterbalance the significant residual impacts of particular activities on prescribed environmental matters through the use of environmental offsets. Prescribed environmental matters are described under the EO Act as a MNES, Matters of State Environmental Significance (MSES) and Matters of Local Environmental Significance (MLES). An environmental offset may be required as a condition of development approval, where following consideration of avoidance and mitigation measures, a prescribed activity is likely to result in a significant residual impact on a prescribed environmental matter. Once the administering authority has decided that a prescribed activity is required to provide an offset, the environmental offset is required to be delivered in accordance with the EO Act, the *Environmental Offsets Regulation 2014* and the Queensland Environmental Offsets Policy. The desktop assessment has identified that MNES and MSES are potentially present within the final corridor, however this will be confirmed during ecological field surveys for the project. To avoid duplication between jurisdictions, State and Local Governments can only impose an offset condition in relation to a prescribed activity if the same, or substantially the same impact, or substantially the same matter has not been subject to assessment under the EPBC Act. It is important to note that advice from DETSI is that the EO Act does not apply to the designation of premises for development of infrastructure, however the designation decision can still apply compensatory measures/requirements akin to an offset.
Electricity Act 1994	The *Electricity Act 1994* is administered by the Queensland Treasury, requires that all electricity industry participants must ensure a safe, efficient, and reliable supply of electricity, as well as ensure that the supply of electricity is carried out in an environmentally sound manner. Section 31 of the *Electricity Act 1994* states that the transmission entity must properly account for the environmental effect of its activities under the transmission authority. Powerlink holds a transmission licence in Queensland and is required to develop its network to meet the security, and reliability standards of the National Electricity Rules, the *Electricity Act 1994* and the terms of its transmission licence. The legislative requirements of the *Electricity Act 1994* are standard to Powerlink projects and pose a low risk to the construction and operation of the transmission line.
Electrical Safety Act 2002	The *Electrical Safety Act 2002* is administered by the Department of State Development, Infrastructure and Planning (DSDIP) and seeks to regulate electricity works to prevent death, injury or destruction caused by electricity. The transmission line must be designed in compliance with the requirements outlined under the *Electricity Safety Act 2002*. These requirements are standard to Powerlink processes and are considered to have a low risk to the project.

Legislation	Summary
Environmental Protection Act 1994	The *Environmental Protection Act 1994* (EP Act) is administered by DETSI and aims to protect Queensland's environment, while allowing for development that improves the total quality of life, both now and in the future. The EP Act regulates activities that will or may have the potential to cause environmental harm and prescribes several mechanisms to ensure that objectives are met. The two primary environmental duties that apply to everyone in Queensland are: • General environmental duty – a person must not carry out any activity that causes, or is likely to cause environmental harm, unless all reasonable and practicable measures to prevent or minimise the harm have been taken. Environmental harm is defined in Section 14 of the EP Act as any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value and includes environmental nuisance. • Duty to notify of environmental harm – a person must inform the administering authority and landowner or occupier when an incident has occurred that may have caused or threatens serious or material environmental harm that is not authorised. The EP Act also provides the power to administering authorities to order the actions to be taken to improve environmental performance, conduct audits, and environmental evaluations of activities, approve environmental management programs and impose penalties or prosecute persons for non-compliance with the requirements of the EP Act. The EP Act is supported by the following subordinate legislation: • *Environmental Protection Regulation 2019* (EP Regulation) • *Environmental Protection (Air) Policy 2019* (EPP (Air)) • *Environmental Protection (Noise) Policy 2019* (EPP (Noise)) • *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* (EPP (Water and Wetland Biodiversity)).
Fisheries Act 1994	The *Fisheries Act 1994* (Fisheries Act) is administered by DPI and governs the management of fisheries, declared fish habitat areas and marine plants. Works which may cause disturbance to 'waterways' as defined under the Fisheries Act can be subject to assessable operational work for waterway barrier works, unless construction complies with the conditions under the 'Accepted development requirements for operational work that is constructing or raising waterway barrier works. Should any works within a waterway not comply with the accepted development requirements, a development permit is ordinarily required under the Planning Act. However, if the project is granted an Infrastructure Designation, operational work for waterway barrier works will be considered accepted development and will not require a development permit.
Human Rights Act 2019	The *Human Rights Act 2019* is administered by the Department of Justice and requires Powerlink to act or make decisions that are compatible with human rights, including property rights and cultural rights, as well as to give proper consideration to human rights in making decisions.
Land Act 1994	The *Land Act 1994* is administered by the Department of Natural Resources and Mines, Manufacturing and Rural and Regional Development (DRMMRRD) and governs the allocation and management of land for development. The *Electricity Act 1994* provides exemptions to the *Land Act 1994* for works by transmission entities. Transmission entities are entitled to take necessary action in publicly controlled places (such as unallocated State land) to provide or supply electricity under section 101 of the *Electricity Act 1994*, as well as undertake works on road reserves through written agreement from the road authority under section 102.

Legislation	Summary
Nature Conservation Act 1992	The *Nature Conservation Act 1992* (NC Act) is administered by DETSI and is the primary legislation governing the protection and management of native wildlife, habitat and protected areas in Queensland. Where clearing is required in an area containing a protected plant species, a clearing permit must be obtained from DESI.
Planning Act 2016	The Planning Act is administered by the Department of State Development, Infrastructure and Planning (DSDIP) and establishes a system of land use planning and development assessment prescribed under the Planning Regulation 2017 (Planning Reg). The proposed project is considered 'Electricity Operating Works', which is considered 'infrastructure' and therefore prescribed development under the Planning Reg. Under the Planning Act, the Planning Minister is the only minister with the power to designate land for infrastructure. The 'Minister's Guidelines and Rules' outlines the process for making a ministerial designation. An approval for a MID will require submission of an environmental assessment that includes requirements about works for the infrastructure (such as the height, shape, bulk, landscaping, or location of works), the use of premises including access and ancillary uses, or lessening the impact of the works or use (such as environmental management procedures). Under section 44 of the Planning Act, infrastructure that is designated is considered accepted development and will not require further approvals under the Planning Act; with the exception of building work approval under the *Building Act 1975*. A MID will be required for construction of the transmission line.
Queensland Heritage Act 1992 (QLD)	In accordance with Part 1 of the *Queensland Heritage Act 1992*, 'historical' (i.e. non-Aboriginal or Torres Strait Islander places) cultural heritage is provided conservation for the benefit of the community and future generations. Under Parts 4 and 11 of this Act, historical cultural heritage places considered to hold state significance are entered in the Queensland Heritage Register, while places of local heritage significance may be listed by local governments in their respective local heritage register and/or planning schemes. A desktop assessment will be conducted to identify if historical cultural heritage places are present within the final corridor.
State Planning Policy	The State Planning Policy (SPP) identifies matters of State interest requiring protection and enhancement. The SPP is at the top of the planning hierarchy in Queensland and is the overarching policy for all other regional and local planning instruments. The SPP States that the SPP applies to the extent relevant, when designating premises for infrastructure under the Planning Act and development applications.

Legislation	Summary
Transport Infrastructure Act 1994	The *Transport Infrastructure Act 1994* is administered by the Department of Transport and Main Roads (DTMR) and regulates the management of State-controlled road networks across Queensland. Under section 50 of the *Transport Infrastructure Act 1994*, construction, maintenance, and operation of ancillary works and encroachments within State-controlled roads (e.g. placement of a transmission line over the road) can only be completed where written approval has been granted from the DTMR. Under section 33 of the *Transport Infrastructure Act 1994*, written approval is required from the DTMR to carry out road works on a State-controlled Road (SCR) or interfere with a SCR or its operation. This may include where road works to a Council Road interferes with a SCR or its operations. Under section 62 of the *Transport Infrastructure Act 1994*, written approval is required from DTMR to locate a permitted access on a SCR. A decision of access approval may include conditions or restrictions on the location or use of the permitted road access, type or number of vehicles to use the permitted road access location. Under the *Transport Infrastructure (Rail) Regulation 2006* permission from the railway manager (Queensland Rail) is required to take over dimensional road loads across Queensland Rail infrastructure (e.g. rail level crossings and rail bridges).
Vegetation Management Act 1999	The *Vegetation Management Act 1999* (VM Act) is governed by the DRMMRRD and seeks to manage native vegetation across Queensland. Regulated Vegetation Mapping identifies categorised areas of remnant vegetation in Queensland and is used to establish whether clearing of native vegetation is considered assessable development requiring a permit. Clearing of any relevant remnant or regulated regrowth vegetation constitutes operational work under schedule 10 of the *Planning Regulation 2017*, which will require development approval unless a vegetation clearing code or exemption applies. Under Section 22A of the VM Act, an application for operational work, including applications where DRMMRRD is a concurrence agency, cannot be accepted as properly made unless the Chief Executive is satisfied that the development is for a relevant purpose. Exemptions exist for electricity infrastructure were associated with an infrastructure designation. Any infrastructure designation or development application will need to demonstrate that Powerlink has sought to reduce the impacts of vegetation clearing through the hierarchy of avoid, minimise and mitigate. Where a significant residual impact remains, an offset, or compensatory measures may be required.
Water Act 2000	The *Water Act 2000* (Water Act) is administered by the Department of Local Government, Water and Volunteers (DLGWV) and provides a legislative framework for the sustainable use, allocation, and management of water resources in Queensland and regulates activities occurring within designated watercourses under the Water Act. The Watercourse Identification Map categorises water features as either a designated watercourse, drainage feature, downstream limit of a watercourse or lake and is used to determine the assessment requirements for undertaking activities within a watercourse. Activities including excavating, filling, or destroying native vegetation within a watercourse may require approval under the Water Act in the form of a riverine protection permit. Powerlink is an approved entity exempt from requiring a permit if the self-assessment guidelines under DRMMRRD's 'Riverine protection permit exemption requirements' are followed.

Legislation	Summary
Regional Plans	The final corridor is subject to the Central Queensland Regional Plan 2013. The plan was implemented in 2013 to provide policy responses to resolve the region's most important issues affecting its economy and the liveability of its towns. The plan specifically provides direction to resolve competing state interests relating to the agricultural and resources sectors, and to enable the growth potential of the region's towns. The plan's regional policies address the emerging regional issues of land use competition between the agricultural and resources sectors, and the need to protect areas required for the growth of towns. The plan also discusses other state interests relevant to land use planning in the region, including housing and liveable communities, economic growth, environment and heritage, and hazards and safety. The transmission line and substation are consistent with the intent of the plan, to provide continued distribution capacity for the region.
Local Laws	The project is located within Western Downs Regional Council Local Government Area. Local Government Areas are subject to individual Local Planning Instruments under the Planning Act, as well as a range of local laws under the *Local Government Act 2009*. Local laws under the *Local Government Act 2009* are used to regulate matters specific to LGAs, particularly relating to pests and weeds, use of Local Government roads and nuisances such as noise and dust. While the approvals framework for this project gives rise to legislative and regulatory exemptions, the local laws imposed by the relevant LGAs will still apply and may trigger permits required to be obtained for certain activities. The local laws that may apply to the project are provided as follows: • Local Law No. 3 (Community and Environmental Management); and • Local Law No. 4 (Local Government Controlled Areas, Facilities and Roads). Once the land becomes designated as part of the MID process, development relevant to the designation becomes accepted development under the local planning scheme, and, further planning approval is not required. However, the Minister may have regard to the Local Government assessment framework and decisions may be influenced by zoning, land-use intent, and local ordinances and by-laws. Additionally, the local council will be consulted with during the MID process with regards to impacts on Local Government-controlled roads, prior to the commencement of construction.

Appendix D – Acronyms

ATSICH	Aboriginal and Torres Strait Islander Cultural Heritage
Biosecurity Act	*The Biosecurity Act 2014*
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DESI	Department of Environment, Science, and Innovation
DSITI	Department Science, Information Technology and Innovation
DNRM	Department of Resource Management
DoR	Department of Resources
DTMR	Department of Transport and Main Roads
DTATSIPCA	Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts
EO Act	*Environmental Offsets Act 2014*
EP Act	*Environmental Protection Act 1994*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
Ergon Energy	Energy Queensland
Fisheries Act	*Fisheries Act 1994*
ha	*Hectare*
km	*Kilometre*
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance
Native Title Act	Native Title Act 1993
NER	National Electricity Rules
NC Act	*Nature Conservation Act 1992*
MID	Ministerial Infrastructure Designation
Planning Act	*Planning Act 2016*
Powerlink	Powerlink Queensland
PMST	Protected Matters Search Tool
SCL	Strategic Cropping Land
SMP	Species Management Program
SPP	State Planning Policy
RE	Regional Ecosystem
Renewable Energy Target	RET
REZ	Renewable Energy Zone
SMP	Species Management Program

TECs	Threatened Ecological Communities
VM Act	*Vegetation Management Act 1999*
Water Act	*Water Act 2000*
WSP	WSP Australia Pty Ltd

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