Appendix H

Project assessment against applicable State interests and local planning zone outcomes

H1 Applicable State interests

H1.1 Economic growth

H1.1.1 Agriculture

The purpose of this State interest is to ensure that the 'resources that agriculture depend on are protected to support the long-term viability and growth of the agricultural sector'.

The Project area is primarily located across land used for grazing (Class C agricultural land) under the agricultural land classification scheme, and on the most part, avoids impacts to land highly suitable for cropping (Class A agricultural land).

An assessment of the Project against the SPP Agricultural benchmarks is provided in Table H.1.

Table H.1 Assessment of the Project against SPP Agricultural benchmarks

SPP Agriculture assessment benchmarks	**Project assessment**
The resources that agriculture depends on are protected to support the long-term viability and growth of the agricultural sector.	
Agriculture and agricultural development opportunities are promoted and enhanced in important agricultural areas (IAAs).	**Complies** Most of the Project area is located over land suitable for stock grazing, avoiding large areas of cropping land that are located to the west of the Project. The Project may lead to minor and temporary impacts to grazing land during construction but once construction is complete, livestock will be able to return to the grazing land in the Project area.
Agricultural Land Classification (ALC) Class A and Class B land is protected for sustainable agricultural use by: — avoiding fragmentation of ALC Class A or Class B land into lot sizes inconsistent with the current or potential use of the land for agriculture — avoiding development that will have an irreversible impact on, or adjacent to, ALC Class A or Class B land — maintaining or enhancing land conditions and the biophysical resources underpinning ALC Class A or Class B land.	**Complies** The Project avoids Class A and B agricultural land to the greatest extent possible. Land classified as Class A agricultural land is intersected by a northern section of the easement alignment (Lot 11 FN293) and one existing off-easement access track. Approximately 4.5 ha of Class A agricultural land are within the Disturbance footprint and subject to direct impacts from the Project. The Project avoids more extensive areas of Class A agricultural land to the west. As the Project is situated on the edge of the mapped Class A agricultural land fragmentation of this land into lot sizes inconsistent with the use of the land is avoided.
Fisheries resources are protected from development that comprises long-term fisheries productivity, sustainability and accessibility	**Not applicable** Fisheries resources will not be impacted by the Project.

SPP Agriculture assessment benchmarks	Project assessment
Growth in agricultural production and a strong agriculture industry is facilitated by: — promoting hard to locate intensive agricultural land uses, such as intensive animal industries, aquaculture, and intensive horticulture in appropriate locations — protecting existing intensive agricultural land uses, such as intensive animal industries, aquaculture, and intensive horticulture, from encroachment by development that is incompatible and/or would compromise the safe and effective operation of the existing activity — locating new development (such as sensitive land uses or land uses that present biosecurity risks for agriculture) in areas that avoid or minimise potential for conflict with existing agricultural uses through the provision of adequate separation areas or other measures — facilitating opportunities for co-existence with development that is complementary to agricultural uses that do not reduce agricultural productivity (e.g. on-farm processing, farm gate sales, agricultural tourism etc) — considering the provision of infrastructure and services necessary to support a strong agriculture industry and associated agricultural supply chains — ensuring development on, or adjacent to, the stock route network does not compromise the network's primary use for moving stock on foot, and other uses and values including grazing, environmental, recreational, cultural heritage, and tourism values.	**Complies** The Project is not located in proximity to any intensive animal industries, aquaculture or intensive horticulture. One tertiary stock route reserve is intersected by the Project. The Project does not preclude the future use of this stock route. The proposed transmission line and substation will change the current land use from agricultural to infrastructure. However, as most of the Project area is located across Class C pastureland, which is not suitable for crop production, it is unlikely the Project will significantly impact agricultural land and operations. Grazing can still occur under the transmission line, and modifications, such as increasing the height of transmission wires, can be made to minimise any potential impact the transmission line has on the farming practices. Stakeholder engagement has enabled collaborative design iterations to occur with landholders to minimise impacts on existing practices on agricultural land. Construction and operation of the Project will be managed in accordance with Powerlink's standard environmental controls, particularly the EMP (Appendix D) and Land Access Protocol (a copy of which can be found on the Powerlink Website at Land Access Protocol | Powerlink).

H1.2 Environment and heritage

H1.2.1 Biodiversity

This State interest provides that 'matters of environmental significance are valued and protected, and the health and resilience of biodiversity is maintained or enhanced to support ecological processes'.

Development of the Project area and Disturbance footprint has considered avoiding and minimising impacts to biodiversity values, where possible. The Project area is mapped as containing the following MNES and MSES:

- MNES:
  - threatened ecological communities
  - threatened species
  - migratory species

- MSES:
  - regulated vegetation (Category B)
  - regulated vegetation (Category C)
  - regulated vegetation (Category R)
  - regulated vegetation (defined watercourse)
  - threatened species records.

An assessment of the Project against SPP Biodiversity assessment benchmarks is provided in Table H.2.

Table H.2 Assessment of the Project against SPP Biodiversity assessment benchmarks

SPP Biodiversity assessment benchmarks	Project assessment
Matters of environmental significance are valued and protected, and the health and resilience of biodiversity is maintained or enhanced to support ecological processes	
Development is located in areas to avoid significant impacts on Matters of National Environmental Significance and considers the requirements of the *Environment Protection and Biodiversity Conservation Act 1999.*	**Complies** Determination of the Disturbance footprint has avoided impacting MNES values to the greatest extent possible by incorporating design measures such as siting structure locations outside of remnant vegetation and scalloping or spanning over sensitive vegetation. Where vegetation clearing is unavoidable, clearing activities will be managed in accordance with the measures outlined in the EMP (Appendix D). Significant impact assessments determined that the Project will not result in a significant impact threatened species, within the meaning of the EPBC Act Significant Impact Guidelines. The Project has however been referred to the Commonwealth Government Minister for the Environment. Further information regarding MNES is provided in Chapter 11 (Matters of National Environmental Significance) and the Ecological Assessment Report (Appendix E).
Matters of State Environmental Significance Matters of State Environmental Significance are identified and development is located in areas that avoid adverse impacts; where adverse impacts cannot be reasonably avoided, they are minimised.	**Complies** The transmission line alignment has been selected strategically, both for ease of construction, and to minimise the Project's impact on MSES values. Project-related impacts on MSES values were identified through both desktop assessments and field surveys. Findings were summarised in the Ecological Assessment Report (Appendix E). The Disturbance footprint has avoided impacting remnant vegetation and habitats to the greatest extent possible by incorporating design measures such as siting structures outside of remnant vegetation and scalloping or spanning over sensitive vegetation to the greatest extent possible. Where habitat clearing is unavoidable, clearing activities will be managed in accordance with the measures outlined in the EMP (Appendix D). Further information regarding MSES is provided in Chapter 9 (Flora) and Chapter 10 (Fauna).

SPP Biodiversity assessment benchmarks	Project assessment
Matters of local environmental significance are identified and development is located in areas that avoid adverse impacts; where adverse impacts cannot be reasonably avoided, they are minimised.	**Complies** Matters of local environmental significance mapped by the Banana Shire Planning Scheme are all MSES.
Ecological processes and connectivity are maintained or enhanced by avoiding fragmentation of matters of environmental significance.	**Complies** The Project is located over land where potential remnant habitats are degraded and fragmented as a result of grazing. Development of the Project has considered siting the infrastructure within already cleared areas and minimising vegetation clearing wherever possible. Clearing of areas of greatest wildlife connectivity within the Study area, such as riparian corridors along waterways are likely to be largely minimised or avoided. The current design includes, where possible, longer spans over gullies and low-lying areas such as waterways and floodplains. Where the transmission line spans such gullies steep enough that tree clearing within these areas of the easement is not required, the remaining vegetation retains some level of wildlife connectivity. In areas where woody vegetation requires clearing, opportunities for vegetation scalloping have been considered, whereby clearing within the 60 m easement is reduced. A detailed assessment of the impacts to ecological processes and connectivity is provided in the Ecological Assessment Report (Appendix E).
Viable koala populations in South East Queensland are protected by conserving and enhancing koala habitat extent and condition.	**Complies** The Project is not located in South-East Queensland. Further information regarding the Project's impacts to Koalas is provided in Chapter 10 (Fauna) and Chapter 11 (Matters of National Environmental Significance) and the associated Ecological Assessment Report (Appendix E). The Project incorporates design measures to ensure that impacts to Koala habitat are minimised.

H1.2.2 Cultural heritage

The State Interest provides that 'the cultural heritage significance of heritage places and heritage areas, including places of Aboriginal and Torres Strait Islander cultural heritage, is conserved for the benefit of the community and future generations.'

An assessment of the Project against the SPP cultural heritage assessment benchmarks is provided in Table H.3.

Table H.3 Assessment of the Project against SPP cultural heritage assessment benchmarks

SPP cultural heritage assessment benchmarks	Project assessment
The cultural heritage significance of heritage places and heritage areas, including places of Aboriginal and Torres Strait Islander, is conserved for the benefit of the community and future generations.	
Aboriginal and Torres Strait Islander Cultural Heritage	
Matters of Aboriginal cultural heritage and Torres Strait Islander cultural heritage are appropriately conserved and considered to support the requirements of the *Aboriginal Cultural Heritage Act 2003* and the *Torres Strait Islander Cultural Heritage Act 2003*.	**Complies** The Project area is within the traditional lands of the Wulli Wulli and Gaangalu people, as recognised through their native title claims over the Project area and surrounds. Further information regarding the impact from the Project on cultural heritage values is provided in Chapter 16 (Indigenous cultural heritage) and the associated Cultural Heritage Due Diligence Assessment (Appendix F).
World and national cultural heritage	
Adverse impacts on the cultural heritage significance of world heritage properties and national heritage places prescribed under the *Environment Protection and Biodiversity Conservation Act 1999* are avoided.	**Not applicable** No world heritage properties or national heritage places are present in the Project area.
State Cultural Heritage	
Adverse impacts on the cultural heritage significance of state heritage places are avoided.	**Not applicable** No state heritage places are present in the Project area.
Local Cultural Heritage	
Local heritage places and local heritage areas important to the history of the local government area are identified, including a statement of the local cultural heritage significance of the place or area.	**Not applicable** No local heritage places or areas are present in the Project area.
Development of local heritage places or local heritage areas does not compromise the cultural heritage significance of the place or area by: — avoiding adverse impacts on the cultural heritage significance of the place or area; or — minimising and mitigating unavoidable adverse impacts on the cultural heritage significance of the place or area.	**Not applicable** No local heritage places or areas are present in the Project area.
The conservation and adaptive reuse of local heritage places and local heritage areas are facilitated so that the cultural heritage significance is retained.	**Not applicable** No local heritage places or areas are present in the Project area.

H1.2.3 Water quality

This State interest provides that 'the environmental values and quality of the Queensland waters are protected and enhanced.'

The proposed transmission line will traverse across multiple mapped waterways for waterway barrier works under the Fisheries Act, and one defined watercourse under the Water Act. Water quality impacts during the construction phase of the Project relate primarily to erosion and sediment issues. It is expected that the potential risks for impacts to surface water quality will decrease once disturbed areas have stabilised and ground surface cover, through rehabilitation, has been established.

An assessment of the Project against the SPP water quality assessment benchmarks is provided in Table H.4.

Table H.4 Assessment of the Project against SPP water quality assessment benchmarks

SPP water quality benchmarks	Project assessment
The environmental values and quality of Queensland water are protected and enhanced	
Development facilitates the protection or enhancement of environmental values and the achievement of water quality objectives for Queensland waters.	**Complies** The location of the Project area has been selected to minimise the crossing of waterways. An EMP has been developed for the Project, which outlines the measures to ensure the values of waterways are protected (refer Appendix D). The measures outlined in the EMP will inform development of a CEMP for implementation during construction. The CEMP will include an erosion and sediment control plan (ESCP) to ensure sediment runoff to waterways is appropriately managed and the Queensland water quality objectives are achieved.
Land zoned for urban purposes is located in areas that avoid or minimise the disturbance to: — high risk soils — high ecological values aquatic ecosystems — groundwater dependent ecosystems — natural drainage lines and landform features.	**Not applicable** The Project does not contain land zoned for urban purposes.

SPP water quality benchmarks	Project assessment
Development is located, designed, constructed and operated to avoid or minimise adverse impacts on environmental values of receiving waters arising from: — altered stormwater quality and hydrology — wastewater (other than contaminated stormwater and sewage) — the creation or expansion of non-tidal artificial waterways — the release and mobilisation of nutrients and sediments.	**Complies** Powerlink transmission line structures are designed to span watercourses, and the Project has been designed to set back transmission towers and the substation from the bank of watercourses and drainage lines. Due to the transmission line traversing predominantly upper catchment creeks with relatively small catchments, out of bank flows are infrequent. An EMP has been developed for the Project, which outlines the measures to ensure the values of waterways are protected (refer Appendix D). The measures outlined in the EMP will inform development of a CEMP for implementation during construction. The CEMP will include an erosion and sediment control plan (ESCP) to ensure sediment runoff to waterways is appropriately managed and the Queensland water quality objectives are achieved.
At the construction phase, development achieves the applicable stormwater management design objectives in table A (appendix 2).	**Complies** A stormwater management plan will be prepared prior to construction. The plan will ensure adherence to the stormwater management design objectives provided in Table A (Appendix 2).
At the post-construction phase, development: Achieves the applicable stormwater management design objectives on-site, as identified in Table B (Appendix 2); or Achieves an alternative locally appropriate solution off-site that achieves an equivalent or improved water quality outcome to the relevant stormwater management design objectives in Table B (Appendix 2).	**Complies** A stormwater management plan will be prepared prior to construction. The plan will ensure adherence to the stormwater management design objectives provided in Table B (Appendix 2).
Development in water resource catchments and water supply buffer areas avoids potential adverse impacts on surface waters and groundwaters to protect drinking water supply environmental values.	**Complies** The Project is not being developed within a water resource catchment or water supply buffer.

H1.3 Safety and resilience to hazards

H1.3.1 Emissions and hazardous activities

This State interest provides that the "community health and safety, and the natural and built environment, are protected from potential adverse impacts of emissions and hazardous activities. The operation of appropriately established industrial development, major infrastructure, and sport and recreation activities is ensured."

It is expected that there will be dust and noise emissions generated from the construction of the transmission line. Once the transmission line is operational, there are not expected to be any emissions released into the surrounding environment.

An assessment of the project against the SPP water quality assessment benchmarks is provided in Table H.5.

Table H.5 Assessment of the Project against SPP emissions and hazardous activities benchmarks

SPP natural hazards, risk, and resilience benchmarks	Project assessment
Community health and safety, and the natural and built environment, are protected from potential adverse impacts of emissions and hazardous activities. The operation of appropriately established industrial development, major infrastructure, and sport and recreation activities is ensured.	
Protection from emissions and hazardous activities	
Industrial development, major gas, waste and sewerage infrastructure, and sport and recreation activities are located, designed and managed to avoid or mitigate adverse impacts of emissions on sensitive land uses and the natural environment.	Not applicable The Project does not propose industrial development, major gas, waste and sewerage infrastructure, and sport and recreation activities.
Activities involving the use, storage and disposal of hazardous materials and prescribed hazardous chemicals, dangerous goods, and flammable or combustible substances are located and managed to minimise the health and safety risks to communities and individuals.	**Complies** The chemicals used during the construction, operation and decommissioning phases of the Project will include fuel (predominantly diesel), unleaded petrol, electrical equipment transformer oil, lubricants, oils, minor quantities of solvents and acids, degreasers and domestic cleaning agents. All handling of hazardous chemicals will be undertaken in accordance with the EMP. All chemicals will be stored, handled and used in according to their Safety Data Sheet and managed in accordance with the applicable Australian Standards.
Prescribed hazardous chemicals, stored in a flood hazard area (where exceeding the hazardous chemicals flood hazard threshold), are located to minimise the risk of inundation and dispersion.	**Complies** The Project does not propose to store chemicals within a flood hazard area.
Sensitive land uses are protected from the impacts of previous activities that may cause risk to people or property including: **a** former mining activities and related hazards (e.g. disused underground mines, tunnels, and shafts) **b** former landfill and refuse sites **c** contaminated land.	**Complies** Design of the transmission line has maximised the distance to sensitive land uses. The closest sensitive land use (residential dwelling) is approximately 340 m from the proposed transmission line.

SPP natural hazards, risk, and resilience benchmarks	Project assessment
Protection of industrial development, major infrastructure, and sport and recreation facilities from encroachment	
Protect the following existing and approved land uses or areas from encroachment by development that would compromise the ability of the land use to function safely and effectively: **a** medium-impact, high-impact, and special industries **b** extractive industries **c** hazardous chemical facilities **d** explosives facilities and explosives reserves **e** high pressure gas pipelines **f** waste management facilities **g** sewage treatment plants **h** industrial land in a state development area, or an enterprise opportunity area or employment opportunity area identified in a regional plan **i** major sport, recreation, and entertainment facilities **j** shooting facilities **k** motor sport facilities	**Complies** The land traversed by the Project is zoned as 'rural' and is mostly used for grazing. As such, there are no existing and approved land uses, as listed in the SPP benchmark, in proximity to the Project. Grazing will still be able to occur under the transmission line, and modifications, such as increasing the height of transmission wires, can be made to minimise any potential impact a new transmission line has on the farming practices. Therefore, the Project will not compromise the ability of the land use to function safely and effectively.
Mitigation of adverse impacts from emissions and hazardous activities	
Development that is incompatible with the existing and approved land uses or areas included in policy 5 above, is located to avoid adverse impacts of environmental emissions, or health and safety risks, and where the impacts cannot be practicably avoided, development is designed to minimise the impacts.	**Complies** The Project alignment has been selected to minimise and mitigate potential adverse effects on people and the environment and will have minimal impacts on existing land uses. Through the landholder and stakeholder engagement and infrastructure design processes, Powerlink is committed to reducing and mitigating impacts to the surrounding land use. Powerlink will continue to collaborate with all landholders and stakeholders throughout the construction and operation of the Project. Grazing can still occur under the transmission line, and modifications, such as increasing the height of transmission wires, can be made to minimise any potential impact a new transmission line has on the farming practices. Therefore, the Project will have minimal impacts on existing land uses.

SPP natural hazards, risk, and resilience benchmarks	Project assessment
Acid sulfate soil affected areas	
Protect the natural and built environment, and human health from potential adverse impacts of acid sulfate soils by: **a** identifying areas with high probability of containing acid sulfate soils **b** providing preference to landuses that will avoid, or where avoidance is not practicable, minimise the disturbance of acid sulfate soils **c** including requirements for managing the disturbance of acid sulfate soils to avoid or minimise the mobilisation and release of acid, iron or other contaminants.	**Complies** Risk of the Project encountering acid sulfate soils has been assessed as low as the general topography of the area is above 100 m AHD. Acid sulfate soils will be managed in line with Powerlink's standard environmental controls for acid sulfate soils (refer to the EMP (Appendix D)).

H1.3.2 Natural hazards, risk. and resilience

This State interest provides that 'the risks associated with natural hazards, including the projected impacts of climate change, are avoided or mitigated to protect people and property and enhance the community's resilience to natural hazards.'

The Project area intersects a number of waterways and watercourses. In the event of a 1 percent annual exceedance probability (AEP) flooding event, there will be localised flooding throughout the Project area.

Significant portions of the Project area contain areas mapped as being bushfire prone. Prior to the commencement of construction, a bushfire management plan will be prepared to ensure the risk of bushfire from construction activities is appropriately managed.

An assessment of the Project against the SPP natural hazards, risk, and resilience assessment benchmarks is provided in Table H.6.

Table H.6 Assessment of the Project against SPP natural hazards, risk, and resilience assessment benchmarks

SPP natural hazards, risk, and resilience benchmarks	Project assessment
The risks associated with natural hazards, including the projected impacts of climate change, are avoided or mitigated to protect people and property and enhance the community's resilience to natural hazards.	
Natural hazard areas are identified, including: — bushfire prone areas — flood hazard areas — landslide hazard areas — storm tide inundation areas — erosion prone areas.	**Complies** Natural hazards that potentially affecting the Project area include bushfire and localised flooding. Mitigation measures and safeguards will be established to minimise the risk to the community, property, and environment. All risks will be managed through measures outlined in the EMP (Appendix D) as well as Powerlink' risk management framework and procedures. Natural hazards are identified and discussed in Chapter 20 (Hazards, health and safety) and Chapter 22 (Bushfire risk).

SPP natural hazards, risk, and resilience benchmarks	Project assessment
A fit-for-purpose risk assessment is undertaken to identify and achieve an acceptable or tolerable level of risk for personal safety and property in natural hazard areas.	**Complies** A fit-for-purpose risk assessment for potential natural hazards is provided in Chapter 20 (Hazards, health and safety) and Chapter 22 (Bushfire risk).
Bushfire, flood, landslide, storm tide inundation, and erosion prone areas	
Land in an erosion prone area is not to be used for urban purposes, unless the land is located in: — an urban area in a planning scheme; or — an urban footprint identified in a regional plan.	**Not applicable** The Project does not propose land for urban purposes.
Development in bushfire, flood, landslide, storm tide inundation or erosion prone natural hazard areas: — avoids the natural hazard area; or — where it is not possible to avoid the natural hazard area, development mitigates the risks to people and property to an acceptable or tolerable level.	**Complies** While the proposed substation site and most of the transmission line are located outside of an identified bushfire risk area, there are some locations towards the northern extent which have been mapped as being located within very high, high and medium bushfire prone areas. Large areas at risk of high to very high intensity bushfires occur to the east of the Project associated with the Banana Range. Bushfire risks during construction will be managed in accordance with Powerlink's standard measures as outlined in the EMP (Appendix D). Design of the transmission line and substation has considered the potential hazards and risks from landslides and erosion and will manage these to minimise impact to the health, safety and environment to so far as is reasonably practicable. Landslide and erosion risks will be managed in accordance with Powerlink's standard environmental controls for erosion and sediment control (refer to the EMP (Appendix D)).

SPP natural hazards, risk, and resilience benchmarks	Project assessment
Development in natural hazard areas: — supports, and does not hinder disaster management capacity and capabilities — directly, indirectly and cumulatively avoids an increase in the exposure or severity of the natural hazard and the potential for damage on the site or to other properties — avoids risks to public safety and the environment from the location of the storage of hazardous materials and the release of these materials as a result of a natural hazard — maintains or enhances the protective function of landforms and vegetation that can mitigate risks associated with the natural hazard.	**Complies** The Project is not anticipated to hinder disaster management capacity and capabilities and is not expected to increase the severity of natural hazards. Design of the Project has considered the potential natural hazard risks and will manage these to minimise impact to the health, safety and environment to so far as is reasonably practicable. Management of natural hazards will be done in accordance with Powerlink's existing safety management systems and the EMP (Appendix D). The EMP (Appendix D) requires that there is no contamination of land or water as a result of a spill or release of hazardous material. In line with the general requirements for hazardous materials management, all chemicals will be stored, handled and used according to provisions in their Safety Data Sheet (SDS). The storage and handling, including first aid and clean up response of chemicals will be incorporated into the Emergency Response Plan for the Project.
Community infrastructure is located and designed to maintain the required level of functionality during and immediately after a natural hazard event.	**Not applicable** At the completion of construction, the transmission line will operate unmanned, therefore no community infrastructure is required.
Coastal protection work in an erosion prone area is undertaken only as a last resort where coastal erosion or inundation presents an imminent threat to public safety or existing buildings and structures, and all of the following apply: — The building or structure cannot reasonably be relocated or abandoned. — Any erosion control structure is located as far landward as practicable and on the lot containing the property to the maximum extent reasonable. — Any increase in coastal hazard risk for adjacent areas from the coastal protection work is mitigated.	**Not applicable** The Project is not located within an erosion prone area within a coastal management district.

SPP natural hazards, risk, and resilience benchmarks	Project assessment
Erosion prone areas within a coastal management district	
Development does not occur unless the development cannot feasibly be located elsewhere and is: — coastal-dependent development; or — temporary, readily relocatable or able to be abandoned development; or — essential community infrastructure; or — minor redevelopment of an existing permanent building or structure that cannot be relocated or abandoned.	**Not applicable** The Project is not located within an erosion prone area within a coastal management district.
Development permitted in policy 8 above, mitigates the risks to people and property to an acceptable or tolerable level.	**Not applicable** The Project is not located within an erosion prone area within a coastal management district.

H1.4 Infrastructure

H1.4.1 Energy and water supply

This State interest provides that 'the timely, safe, affordable, and reliable provision and operation of electricity and water supply infrastructure is supported, and renewable energy development is enabled.'

The Project will enable the distribution of renewable energy that will be generated at the Theodore Wind Farm.

An assessment of the Project against the SPP energy and water supply assessment benchmarks is provided in Table H.7.

Table H.7 Assessment of the Project against SPP energy and water supply assessment benchmarks

SPP infrastructure integration benchmarks	Project assessment
The timely, safe, affordable, and reliable provision and operation of electricity and water supply infrastructure is supported and renewable energy development is enabled.	
Existing and approved future major electricity infrastructure locations and corridors (including easements and electricity substations), and bulk water supply infrastructure locations and corridors (including easements) are protected from development that would compromise the corridor integrity, and the efficient delivery and functioning of the infrastructure.	**Complies** The Project has been designed to not impact existing infrastructure. The north-eastern portion of the Project traverses the proposed Banana Range Wind Farm. The Mt Benn Substation proposed as part of Powerlink's Banana Range Wind Farm Connection Project (currently in the planning and approvals phase) and has become a common connection to both projects. Sawpit Solar Farm (European Energy) is another proposed renewable energy project, traversed by the easement alignment. The Project's close proximity to three renewable energy projects warranted further consideration during the corridor selection process to ensure a coordinated and integrated approach to corridor selection. In this regard, emphasis was placed on the potential to co-locate the corridor with already proposed renewable energy projects to reduce the physical, environmental and social impacts of the transmission corridor.
Major electricity infrastructure and bulk water supply infrastructure such as pump stations, water quality facilities and electricity substations, are protected from encroachment by sensitive land uses where practicable.	**Complies** The Project will not encroach on major electricity infrastructure and bulk water supply with sensitive land uses.
Development of major electricity infrastructure and bulk water supply infrastructure avoids or otherwise minimises adverse impacts on surrounding land uses and the natural environment.	**Complies** The Project has been designed not to impact on the surrounding land uses and impacts to the natural environment have been minimised where possible.
The development and supply of renewable energy at the regional, local and individual scale is enabled in appropriate locations.	**Complies** The Project will connect the Theodore Wind Farm to the grid within an appropriate location.

H1.4.2 Infrastructure integration

This State interest provides that 'the benefits of past and ongoing investment in infrastructure and facilities is maximised through integrated land use planning'.

The Project will enable the connection of the Theodore Wind Farm to the national electricity network and minimise the impacts to surrounding land uses through concise corridor selection.

An assessment of the Project against the SPP infrastructure integration assessment benchmarks is provided in Table H.8.

Table H.8 Assessment of the Project against SPP infrastructure integration assessment benchmarks

SPP Benchmarks	Project assessment
The benefits of past and ongoing investment in infrastructure and facilities are maximised through integrated land use planning.	
The outcomes of significant infrastructure plans and initiatives by all levels of government are considered and reflected, where relevant.	**Complies** All levels of government have been considered and reflected in the planning of the Project. The infrastructure designation will affirm the Project as a site for electricity operating works and will provide a streamlined, considered whole-of-government response. Active engagement has occurred with the relevant local governments regarding this State-level proposal. Elected Federal, State and Local representatives are identified stakeholder groups that have been engaged throughout various phases of the Project.
Development achieves a high level of integration with infrastructure planning to: — promote the most efficient, effective and flexible use of existing and planned infrastructure — realise multiple economic, social and environmental benefits from infrastructure investment — ensure consideration of future infrastructure needed to support infill and greenfield growth areas — optimise the location of future infrastructure within communities to provide greater access to facilities and services and enable productivity improvements.	**Complies** The Project has been coordinated in accordance with infrastructure planning to ensure the efficient and beneficial delivery of the Project. In March 2025, the Theodore Wind Farm was included in the Commonwealth Governments inaugural Renewable Energy Priority List. The priority list aims to provide coordinated support through Commonwealth, state and territory regulatory and environmental approval processes on a case-by-case basis and provide a faster approach to regulatory approvals. Approval for the Project is being sought via the ministerial infrastructure designation (MID) process under the *Planning Act 2016* (Planning Act). The process provides infrastructure entities a streamlined, considered whole-of government response on a request for infrastructure.
Development occurs: — in areas currently serviced by state and/or local infrastructure and associated services; or — in a logical and orderly location, form and sequence to enable the cost-effective delivery of state and local infrastructure to service development.	**Complies** The operation will utilise existing State and local road infrastructure during construction and maintenance. Powerlink is working closely with Banana Shire Council to identify any external road dedications/works required to support the construction process.
Existing and planned infrastructure is protected from development that would compromise the ability of infrastructure and associated services to operate safely and efficiently.	**Complies** The Project is designed to protect existing infrastructure and its ability to function safely and efficiently.

H1.4.3 Transport infrastructure

This State interest provides that "the safe and efficient movement of people and goods is enabled, and land use patterns that encourage sustainable transport are supported."

An assessment of the project against the SPP transport infrastructure benchmarks is provided in Table H.9.

Table H.9 Assessment of the Project against SPP transport infrastructure assessment benchmarks

SPP Benchmarks	Project assessment
The safe and efficient movement of people and goods is enabled, and land use patterns that encourage sustainable transport are supported.	
Transport infrastructure and existing and future transport corridors are reflected and supported through compatible land uses.	**Complies** This Project will not impact on the operation or efficiency of existing and future transport infrastructure.
Development is located in areas currently serviced by transport infrastructure, and where this cannot be achieved, development is facilitated in a logical and orderly location, form and sequence to enable cost-effective delivery of new transport infrastructure to service development.	**Complies** Access to the Project site will primarily be via the state-controlled road network, with key transport routes including the Leichhardt Highway and the Dawson Highway. Where state-controlled roads are unable to be used, local roads will also be utilised. Therefore, the development is located in areas currently serviced by transport infrastructure. Powerlink is working closely with Banana Shire Council to identify any external road dedications/works required to support the construction process.
Development achieves a high level of integration with transport infrastructure and supports public passenger transport and active transport as attractive alternatives to private transport.	**Not applicable** Due to the rural nature of the area, the Project is not currently serviced by any public transport services and there is no dedicated active transport infrastructure in the immediate vicinity of the Project site.
Development is located and designed to mitigate adverse impacts on development from environmental emissions generated by transport infrastructure.	**Complies** The greenhouse gas emissions assessments prepared for the Project (refer Chapter 5 (Climate and greenhouse gas emissions)) determined that vehicle emissions were not a significant contributor to total greenhouse gas emissions generated by the Project (contributing 2.3% during construction and 0.03% during operations).
A road hierarchy is identified that reflects the role of each category of road and effectively manages all types of traffic.	**Complies** A Traffic Impact Assessment has been undertaken for the Project and is located in Appendix G of the MID proposal.

SPP Benchmarks	Project assessment
State transport infrastructure	
Development in areas surrounding state transport infrastructure, and existing and future state transport corridors, is compatible with, or support the most efficient use of, the infrastructure and transport network.	**Complies** The Project does not adversely impact the operation or efficiency of the state transport network. A Traffic Impact Assessment has been undertaken for the Project and is located in Appendix G of the MID proposal.
The safety and efficiency of existing and future state transport infrastructure, corridors, and networks is not adversely affected by development.	**Complies** The Project will generate minimal traffic during both construction and operation, with no significant impacts expected on the state-controlled road network, intersections and pavement conditions. Although some increases in traffic volumes and turning movements are anticipated, particularly during construction, these are considered negligible due to low existing traffic levels and will not affect operational performance. Road safety risks can be effectively mitigated through temporary signage during construction.

H2 Rural zone outcomes compliance

Table H.10 Project compliance with the overall outcomes for the Rural Zone for the Banana Shire Planning Scheme

Purpose	Response
1 Intensive animal industries minimise or avoid adverse impacts on surrounding land uses	**Complies** The Project is not located in proximity to any intensive animal industries. The proposed transmission line and substation will change the current land use from agricultural to infrastructure. However, as most of the Project area is located across Class C pastureland, which is not suitable for crop production, it is unlikely the Project will significantly impact agricultural land and operations. Grazing can still occur under the transmission line, and modifications, such as increasing the height of transmission wires, can be made to minimise any potential impact a new transmission line has on the farming practices. Stakeholder engagement has enabled collaborative design iterations to occur with landholders to minimise impacts on existing practices on agricultural land. Construction and operation of the Project will be managed in accordance with Powerlink's standard environmental controls, particularly the EMP (Appendix D) and Land Access Protocol (a copy of which can be found on the Powerlink Website at Land Access Protocol | Powerlink).
2 Development is sensitive and responsive to the rural character and scenic amenity and maintains vegetation cover in significant areas	**Complies** While introducing new infrastructure to a rural landscape, the undulating terrain helps to conceal the transmission line within the landscape. The Project also acknowledges the evolving landscape and shift towards renewable energy development. The visual sensitivity of most of the area surrounding the transmission line and substation site is considered minor due to the separation distance between visual receptors and the Project area. While the visual sensitivity is considered high in the central and southern section of the Project area, the recommended corridor was positioned as far as practicable away from visual receptors and took advantage of screening by existing vegetation and topography where possible. Minor impacts associated with visual amenity are discussed in Chapter 14 (Visual amenity).

Purpose	Response
3 Development, having regard to its location and design, protects people and premises from natural hazards and contamination	**Complies** The easement and Project access tracks will act as a firebreak if a fire occurs. Transmission line access tracks may also be used by fire crews in the event of fire. The Project design is unlikely to impose restrictions upon existing bushfire management techniques. Transmission lines are designed to be compatible with the impacts of potential natural hazards that may occur within the proposed easement and potential fire impacts to the transmission lines are limited. Impacts from natural hazards and contamination during construction will be managed in accordance with the general requirements outlined in the EMP (Appendix D).
4 Extractive industries and associated processing occur in a way that significant environmental impacts are contained within the site and provides for the effective site rehabilitation	**Not applicable** No extraction of resources will occur in this Project.
5 Development adjacent to an extractive resource or transport route permits the efficient extraction of the entire resource, the safe and efficient transport of materials to and from the site and provides effective and on-going separation of extractive industry activity from any sensitive uses	**Not applicable** Development will not occur adjacent to an extractive resource or transport route.
6 Non-resident workforce accommodation is incompatible with the purpose of the Rural Zone and are located in a more suitable zone	**Not applicable** Workforce accommodation is not anticipated for the Project.
7 Tourism uses only locate where they have a nexus with the surrounding rural activities or places with high environmental values	**Not applicable** The Project will not involve use for tourism.

Purpose	Response
8 Infrastructure is provided at a standard normally expected in rural locations and is allowed to operate safely and efficiently without interference by incompatible uses or works	**Complies** While the construction of the Project will have temporary impacts on the existing grazing activities, agricultural activities will resume once operational. Modifications, such as increasing the height of transmission wires, can be made to minimise any potential impact a new transmission line has on the farming practices. Therefore, the Project will not compromise the ability of the land use to function safely and effectively. Stakeholder engagement has enabled collaborative design iterations to occur with landholders to minimise impacts on existing practices on agricultural land.
9 Development is separated from existing and potential industry land uses located in rural areas including established uses identified in the Special Industry Zone	**Complies** The Project does not intersect industry land uses located in rural areas.
10 Agricultural land: **a** the productive viability of agricultural land is not reduced due to the intrusion of incompatible land uses or unnecessary fragmentation or alienation **b** development is compatible with the viability, integrity, operation and maintenance of the stock route network	**Complies** The Project will not impact the productive viability of agricultural land, the stock route network or cause fragmentation. While the construction of the Project will have temporary impacts on the existing grazing activities, agricultural activities will resume once operational. There is one tertiary stock route reserve that is intersected by the Project. The Project does not preclude the future use of this stock route.

Purpose	Response
11 Biodiversity: **a** adverse impacts on ecological features and processes are avoided or minimised through the location, design and management of development and activities **b** development retains the biodiversity and ecological connectivity functions of natural features such as waterways, wetlands and bushland **c** areas of significant ecological and environmental value are protected from the intrusive impacts of adjacent development **d** development includes effectual biosecurity management practices	**Complies** The Project is located over land where potential remnant habitats are degraded and fragmented as a result of grazing. Development of the Project has considered siting the infrastructure within already cleared areas and minimising vegetation clearing wherever possible by scalloping or spanning over sensitive vegetation. Clearing of areas of greatest wildlife connectivity within the Study area, such as riparian corridors along waterways are likely to be largely minimised or avoided. The current design includes, where possible, longer spans over gullies and low-lying areas such as waterways and floodplains. Where the transmission line spans such gullies steep enough that tree clearing within these areas of the easement is not required, the remaining vegetation retains some level of wildlife connectivity. In areas where woody vegetation requires clearing, opportunities for vegetation scalloping have been considered, whereby clearing within the 60 m easement is reduced to a width of 40 m. Where vegetation clearing is unavoidable, clearing activities will be managed in accordance with the measures outlined in the EMP (Appendix D). The Project will comply with Powerlink's standard environmental controls for Biosecurity including development and implementation of a Biosecurity Management Plan (refer Chapter 12 (Biosecurity).

Purpose	Response
12 Bushfire or flood risk: **a** the use and works support and do not unduly burden disaster management response or recovery activities, providing for access for evacuation resources and efficient evacuation of sites during emergency events **b** development minimises the exposure of people or property to unacceptable risk from exposure to natural hazards and environmental constraints affecting the land through consideration of location, siting, design, construction and operation **c** development that intensifies occupancy of a site in Theodore responds to the elevated flood risk hazard by ensuring that emergency management plans allow appropriate responses to emergency measures having consideration to the numbers and capabilities of existing and future users of the development **d** works do not contribute to an increase in the severity of natural hazard events and are designed, located and operated to minimise risk to people and damage to property, disruption to development function and re-establishment time following an event **e** development involving the manufacture or storage in bulk of hazardous materials does not adversely impact on public safety or the environment **f** works retain the natural processes and protective function of landforms and vegetation in natural hazard areas;	**Complies** The Project ensures that its design supports disaster management by providing adequate access for emergency response and evacuation resources. The easement and Project access tracks will act as a firebreak if a fire occurs. Transmission line access tracks may also be used by fire crews in the event of fire. The Project design is unlikely to impose restrictions upon existing bushfire management techniques. Transmission lines are designed to be compatible with the impacts of potential natural hazards that may occur within the proposed easement and potential fire impacts to the transmission lines are limited. Impacts from natural hazards and contamination during construction will be managed in accordance with the general requirements outlined in the EMP. The development will not intensify occupancy of a site in Theodore. The Project is not anticipated to hinder disaster management capacity and capabilities and is not expected to increase the severity of natural hazards. Design of the Project has considered the potential natural hazard risks and will manage these to minimise impact to the health, safety and environment to so far as is reasonably practicable. Management of natural hazards will be done in accordance with Powerlink's existing safety management systems and the EMP (Appendix D). The EMP (Appendix D) requires that there is no contamination of land or water as a result of a spill or release of hazardous material. In line with the general requirements for hazardous materials management, all chemicals will be stored, handled and used according to provisions in their Safety Data Sheet (SDS). The storage and handling, including first aid and clean up response of chemicals will be incorporated into the Emergency Response Plan for the Project. By minimising vegetation clearing to the largest extent possible, particularly riparian vegetation corridors adjacent to waterways, the natural processes and protective function is retained.

Purpose	Response
13 Extractive or mining resources: **a** the establishment, continuation and productivity of mining tenements and designated Key Resource Areas is facilitated and protected from irreversible alienation **b** uses and works for extractive industry are located, designed and managed to contain significant environmental impacts within the site, maintain safety on and off the site, avoid significant adverse effects on the natural environment and minimise impacts on existing incompatible uses in the surrounding area **c** development for mining tenements or extractive resources provides access from transport infrastructure of a standard suitable to the volume and weight of traffic generated by the development **d** existing or future development of mining tenements and within designated Key Resource Areas and their identified transport routes is not prejudiced by the intrusion of incompatible uses **e** land used for extractive industry is effectively rehabilitated on cessation of extraction activities so the environmental, social and economic value of the land is restored	**Not applicable** The Project will not involve extracting or mining resources.

Purpose	Response
14 Heritage: **a** the cultural heritage values, the context and setting of a heritage place are conserved and (where feasible) enhanced **b** development on a heritage place facilitates the appropriate use (including adaptive reuse) of the place **c** demolition of identified buildings and structures only occurs where there is no prudent and feasible alternative to the demolition or removal **d** development adjoining a heritage place is sympathetic to the cultural heritage significance of that place and does not have an adverse impact in terms of visibility, public accessibility or physical change	**Complies** Within the Commonwealth, State, or Local Government heritage databases there are no registered historical heritage sites located in or within 100 m from the Project area. A search of the Project area boundary in DWATSIPM revealed that there are no previously recorded Aboriginal sites in or within 100 m from the Project area. Powerlink intends to address any Aboriginal cultural heritage risks and meet its Duty of Care through the development and implementation of Cultural Heritage Management Agreements (CHMAs) with each of the Aboriginal Parties, in accordance with the ACH Act.
15 Historical subdivisions: **a** land included in the Historic Subdivisions Overlay remains undeveloped for non-rural purposes where it is unable to access a reasonable level of service without direct intervention from Council	**Not applicable** The Project does not involve land included in the Historic Subdivisions Overlay.

Purpose	Response
16 Infrastructure: **a** the viability of essential community infrastructure is protected by requiring on-site buffering and separation of new development on adjoining sites that could limit the on-going operation of existing infrastructure **b** an appropriate level of amenity is maintained for development in the vicinity of identified infrastructure **c** the interaction between transport infrastructure and sensitive land uses is managed to maintain the efficiency of the transport network and to protect community health and amenity	**Complies** The Project area contains local roads, Ergon high voltage distribution lines and one transmission line. Powerlink will work closely with Ergon to determine a suitable methodology for the line crossing, including whether a brief supply interruption is required. The transmission line will be designed and constructed in line with the *Electricity Safety Act 2000* such that it does not cross the existing Powerlink transmission line. During the corridor selection process, the recommended corridor was positioned as far as practicable away from visual receptors and took advantage of screening by existing vegetation and topography where possible to maintain an appropriate level of amenity.
17 Water resources: **a** water supply catchments are protected from activities that may endanger the quality of drinking water supplies and the groundwater management areas **b** development does not adversely impact on the recharge capacity of the groundwater management areas	**Complies** The location of the Project area has been selected to minimise the crossing of waterways. The EMP outlines the measures to ensure the values of waterways are protected (refer Appendix D). The measures outlined in the EMP will inform development of a CEMP for implementation during construction. The CEMP will include an erosion and sediment control plan (ESCP) to ensure sediment runoff to waterways is appropriately managed and the Queensland water quality objectives are achieved. Minimal impact or interference with groundwater resources is expected to occur as a result of the Project.
18 For land in the Muirs Road Precinct: **a** development does not result in an increase to unacceptable risk to people or property as a result of exposure to flood hazard associated with Callide Dam water releases;	**Not applicable** The Project is not located within the Muirs Road Precinct.

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