23 DECEMBER 2025

Maintaining Reliability of Supply at Townsville South

Project Specification Consultation Report

Preface

Powerlink Queensland is a Transmission Network Service Provider (TNSP) that owns, develops, operates and maintains Queensland's high-voltage electricity transmission network. The network transfers bulk power from Queensland generators to electricity distributors Energex and Ergon Energy (part of the Energy Queensland Group), and to a range of large industrial customers.

This Project Specification Consultation Report has been prepared in accordance with version 236 of the National Electricity Rules (NER), and the Regulatory Investment Test for Transmission (RIT-T) Instrument (November 2024) and RIT-T Application Guidelines (November 2024). The RIT-T Instrument and Application Guidelines are made and administered by the Australian Energy Regulator.

The NER requires Powerlink to carry out forward planning to identify future reliability of supply requirements, which may include replacement of network assets or augmentations of the transmission network. Powerlink must then identify, evaluate and compare network and non-network options (including, but not limited to, generation and demand side management) to identify the preferred option which can address future network requirements at the lowest net cost to electricity customers.

Powerlink also has obligations under the NER to address power system security requirements identified by the Australian Energy Market Operator in its annual System Security Reports.

The main purpose of this document is to provide details of the identified need, credible options, technical characteristics of non-network options, and categories of market benefits likely to impact selection of the preferred option. In particular, it encourages submissions from potential proponents of feasible non-network options to address the identified need.

This document also provides customers, stakeholders and communities with information on the potential investment/s (network and non-network) that are required in the near-term to meet an identified need and offers the opportunity to provide input into the future development of the transmission network in Queensland.

More information on how Powerlink applies the RIT-T process is available on Powerlink's website.

A copy of this report will be made available to any person within three business days of a request being made. Requests should be directed to the Manager Network and Alternate Solutions by phone ((07) 3860 2111) or email (networkassessments@powerlink.com.au).

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.

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Executive Summary

The Townsville South Substation is located approximately 11 kilometres south-east of the Townsville central business district and is a major injection point into the Ergon Energy distribution network for southern and eastern Townsville. The substation is also a transfer point for enabling the flow of electricity between Clare to the south and Townsville to the north. The substation was established in 1977, and the age and condition of its primary plant places the network at risk of being unable to meet current and forecast energy needs.

Powerlink is reapplying the Regulatory Investment Test for Transmission to maintain reliability of supply at Townsville South

In 2018/19, Powerlink undertook a Regulatory Investment Test for Transmission (RIT-T) to address the condition risks arising from ageing primary plant at Townsville South Substation. The preferred option in the Project Assessment Conclusions Report (PACR) was staged replacement of selected primary plant using live tank circuit breakers. The PACR indicated completion was planned by December 2022 at an estimated capital cost of $4.94 million in 2018/19 prices.

Following completion of the RIT-T, constrained availability of field resources, during the COVID-19 pandemic, delayed project delivery. During this time, the condition of the primary plant further deteriorated, resulting in Powerlink implementing a number of Restricted Access Zones (RAZs) to maintain safety at the substation. Powerlink also encountered early failures in equipment at the substation, including particular current transformer and voltage transformer models. Powerlink has mitigated the increased asset risk through operational measures, including additional inspections and maintenance.

The original scope of the project has been expanded, predominantly driven by the need to replace equipment prone to premature failure. Initially, the project scope involved replacing seven circuit breakers with live tank models, while retaining the existing current transformers in those bays. However, it has since been identified that these current transformers are prone to premature failure and now require replacement. As a result, the preferred option has shifted to installing dead tank circuit breakers, which integrate current transformers within the unit. Additionally, the scope has been expanded to include the replacement of further voltage transformers that have also demonstrated premature failure.

Powerlink considers the change in preferred option to be a material change of circumstances under the RIT-T framework set out in the National Electricity Rules (NER) and is reapplying the RIT-T to maintain reliability of supply to Townsville South.

Powerlink intends to adopt the expedited RIT-T process

The estimated capital cost of the most expensive credible option to address primary plant risks at Townsville South Substation exceeds the minimum threshold (currently $8 million) to apply the RIT-T. As the identified need for the proposed investment is to meet reliability and service standards specified within Powerlink's Transmission Authority, guidelines and standards published by the Australian Energy Market Operator (AEMO), and Powerlink's ongoing compliance with Schedule 5.1 of the NER, it is classified as a reliability corrective action under the NER. The identified need is not discussed in AEMO's most recent Integrated System Plan (ISP) and is therefore subject to the application and consultation process for RIT-T projects that are not actionable ISP projects. As the identified need is a reliability corrective action, the preferred option may have a net economic cost.

Powerlink intends to adopt the expedited process for non-ISP projects for this RIT-T, as the estimated capital cost of the preferred option is below $54 million, and is unlikely to result in any material market benefits other than those arising from a reduction in involuntary load shedding. The reduction in involuntary load shedding under the credible network option is included in the cost benefit analysis.

Powerlink has developed a non-credible base case against which to compare credible options

Powerlink has modelled a non-credible option where the asset condition issues are managed via operational maintenance or operational measures only. This would result in an increase in overall risk levels due to continuing deterioration of asset condition and increasing failure rectification timeframes due to obsolescence issues. These increasing risk levels are assigned a monetary value using Powerlink's Risk Cost framework and added to the ongoing maintenance costs to form the base case.

Powerlink has developed one credible network option to address the identified need

The table below details the credible network option and shows that this option has a positive Net Present Value (NPV) relative to the base case. Further credible options were initially considered in Powerlink's first RIT-T, however given the difficulties in delivering these other options, only one credible option remains.

Summary of Credible Options

Option	Description	Total Costs ($m, 2025)	NPV relative to base case ($m)	Ranking
1	Single stage replacement utilising dead tank circuit breakers by 2027.	20.23	27.28	1

Note: Total costs exclude risk and contingency.

Powerlink welcomes the potential for non-network options to form part or all of the solution

To enhance engagement outcomes, Powerlink proactively applies an engagement strategy to each RIT-T consultation. The scope of engagement activities undertaken is dependent upon various considerations, such as the characteristics and complexity of the identified need and potential credible options outlined in the RIT-T stakeholder engagement matrix.

Powerlink welcomes submissions from proponents who consider they could offer a potential non-network option that is both economically and technically feasible, on an ongoing basis. To mitigate the impact of a single 132 kilovolt feeder outage, a non-network solution would need to provide supply to major customers in the area of up to a peak of 70 megawatts (MW), and up to a peak of 1160 megawatt hours per day on a continuous basis. To maintain supply to major customers in the area and the Ergon Energy distribution network, a non-network solution would need to provide up to a peak of 150MW, and up to a peak of 2,700 megawatt hours per day on a continuous basis.

Lodging a submission with Powerlink

Powerlink seeks written submissions on this Project Specification Consultation Report (PSCR), on or before **Friday, 10 April 2026**, particularly on the credible options presented in this PSCR. Submissions should be addressed to:

Manager Network and Alternate Solutions
Powerlink Queensland
PO Box 1193
VIRGINIA QLD 4014
Telephone: (07) 3860 2111
Email: networkassessments@powerlink.com.au

1. Introduction

1.1. Powerlink asset management and obligations

Powerlink's asset management approach ensures assets are managed in a manner consistent with overall corporate objectives to deliver safe, reliable and cost-effective transmission services. Powerlink's approach to asset management delivers value to customers and stakeholders by optimising whole of life cycle costs, benefits and risks, while ensuring compliance with relevant legislation, regulations and standards. This is underpinned by Powerlink's corporate risk management framework and international risk assessment guidelines and methodologies.

1.2. Overview of the Regulatory Investment Test for Transmission

The purpose of a Regulatory Investment Test for Transmission (RIT-T) is to identify the preferred investment option that meets the identified network need. The preferred option maximises the present value of economic benefits, taking into account changes to Australia's greenhouse gas emissions where relevant. If the identified need is for a reliability corrective action, the preferred option may have a net economic cost.[1]

Powerlink applies the RIT-T to potential prescribed (regulated) investments in the transmission network where the estimated capital cost of the most expensive option exceeds $8 million.[2] The identified need referred to in this RIT-T – to maintain reliability of supply to Townsville South – is not included in the Australian Energy Market Operator's (AEMO) most recent Integrated System Plan (ISP), published in June 2024. As such, this RIT-T is subject to the application and consultation process for RIT-T projects that are not actionable ISP projects.[3]

This Project Specification Consultation Report (PSCR) is the first step in the RIT-T process.[4] The PSCR:

- describes the reasons why Powerlink has determined that investment is necessary (the identified need), together with the assumptions used in identifying this need, including whether the need is as an actionable project in AEMO's latest ISP;
- provides potential proponents of non-network options with information on the technical characteristics that a non-network solution would need to deliver, in order to assist proponents to consider whether they could offer an alternative solution;
- describes the credible option(s) that Powerlink currently considers may address the identified need;
- explains which (if any) categories of market benefit Powerlink expects to be material, or not material, for this RIT-T;
- describes how customers and stakeholders have been engaged with regarding the identified need; and
- provides stakeholders with the opportunity to comment on the credible option(s) presented.[5]

More information on the RIT-T process is provided in Appendix 1. Powerlink's compliance with RIT-T requirements in the National Electricity Rules (NER) and the RIT-T Application Guidelines is set out in Appendix 2.

[1] National Electricity Rules (NER), clause 5.15A.1(c) and chapter 10, glossary ('net economic benefit').
[2] NER, clauses 5.15.3(a) and (b)(2) set the threshold at $5 million. The Australian Energy Regulator's (AER) latest cost threshold review increased the value to $8 million for three years from 1 January 2025.
[3] NER, rule 5.16.
[4] This RIT-T consultation process has been prepared in accordance with clauses 5.16.4(b) to (g) of the National Electricity Rules and AER, *Regulatory Investment Test for Transmission Application Guidelines*, November 2024.
[5] NER, clause 5.16.4(b).

2. Customer, non-network and community engagement

More than five million Queenslanders and 241,000 Queensland businesses depend on Powerlink's performance. Powerlink recognises the importance of engaging with a diverse range of customers and stakeholders who have the potential to affect, or be affected by, Powerlink activities and/or investments.

Together with our industry counterparts from across the electricity and gas supply chain, Powerlink has committed to the Energy Charter. The charter is a national CEO-led collaboration that supports the energy sector towards a customer-centric future. Powerlink joins other signatories in committing to progress the culture and solutions needed to deliver more affordable, reliable and sustainable energy systems. Powerlink's Energy Charter Disclosure Statement for 2023/24 shows Powerlink's achievements against the principles of the Energy Charter.

2.1. Powerlink takes a proactive approach to engagement

Powerlink regularly hosts a range of activities to provide timely and transparent information to customers and stakeholders within the broader community.

Powerlink's annual Transmission Network Forum (TNF) is a primary vehicle used to engage with the community, understand broader customer and industry views and obtain feedback on key topics. It also provides Powerlink with an opportunity to further inform its business network and non-network planning objectives. TNF participants include customers, landholders, environmental groups, Traditional Owners, government agencies, and industry bodies.

Engagement activities such as the TNF help inform the future development of the transmission network and assist Powerlink in providing services that align with the long-term interests of customers. Powerlink also incorporates feedback from these activities into a number of publicly available reports.

2.2. Working collaboratively with Powerlink's Customer Panel

Powerlink's Customer Panel provides a face-to-face opportunity for customer representatives to give their input and feedback about Powerlink's decision-making, processes and methodologies. The panel also provides Powerlink with a valuable avenue to keep customers and stakeholders better informed, and to receive feedback about topics of relevance, including RIT-Ts.

The Customer Panel is regularly advised on the publication of Powerlink's RIT-T documents and is briefed quarterly on the status of current RIT-T consultations as well as upcoming RIT-Ts. This provides an ongoing opportunity for the Customer Panel to ask questions and provide feedback to further inform RIT-Ts, and for Powerlink to better understand the views of customers when undertaking the RIT-T consultation process.

Powerlink will continue to provide updates to and request input from the Customer Panel throughout the RIT-T consultation process.

2.3. Transparency on future network requirements

Powerlink's annual planning review findings are published in the Transmission Annual Planning Report (TAPR) and TAPR templates (available via the TAPR portal). It provides early information and technical data to customers and stakeholders on potential transmission network needs over a 10-year outlook period. The TAPR plays an

important part in planning Queensland's transmission network and helping to ensure it continues to meet the needs of Queensland electricity customers and participants in the National Electricity Market (NEM).[6]

2.4. Powerlink applies a considered approach to RIT-T engagement

Powerlink undertakes a considered and consistent approach to ensure an appropriate level of stakeholder engagement is undertaken for each individual RIT-T consultation. The scope of engagement activities is dependent upon various considerations, such as the characteristics and complexity of the identified need and potential credible options.

For all RIT-Ts, members of Powerlink's Non-network Engagement Stakeholder Register receive email notifications of publication of RIT-T reports. For projects where Powerlink identifies material or significant market benefits, additional activities such as webinars or dedicated engagement forums may be appropriate. For more information, see Powerlink's RIT-T stakeholder engagement matrix.

2.5. Community engagement

Powerlink recognises the importance of engaging with stakeholders who may reasonably be expected to be affected by the works required to meet the identified need described in this PSCR.

The engagement frameworks and strategies that underpin Powerlink's engagement approach include:

- The International Association for Public Participation (IAP2) spectrum[7], noting each stakeholder group has unique needs and requires an individual assessment on the spectrum;
- Powerlink's Community Engagement Approach | Powerlink
- the Energy Charter Landholder and Community Better Practice Engagement Guide; and Better Practice Social Licence Guideline.

2.5.1. Powerlink assesses the requirement for community engagement based on the identified need

Powerlink undertakes an assessment of the potential for social and environmental impacts of anticipated replacement or augmentation projects well in advance of the identified need timing. Understanding if and when community engagement may be required, as well as the appropriate engagement approach, is an integral component of the early planning analysis needed to inform option identification, consideration of statutory processes (e.g. Ministerial Infrastructure Designation if required) and subsequent project development strategy and engagement plans.

Powerlink's engagement approach is tailored to maximise the accessibility of the proposed project's information to the stakeholder groups and/or communities affected by the project once the need to undertake community engagement is identified. Key stakeholders may include, but are not limited to, directly impacted and adjacent landholders, Traditional Owner groups, local residents, businesses and other organisations such as schools, community organisations and environmental groups as well as local government authorities and elected representatives within local and state governments.

[6] The 2025 TAPR indicated the proposed commissioning date for primary plant replacement at the Townsville South Substation was July 2026. Powerlink, *2025 Transmission Annual Planning Report*, October 2025, page 141.
[7] Refer to IAP2's website.

2.5.2 Assessment and basis of assessment on the need for community engagement

Powerlink has assessed that minimal community engagement is required given the scope of works under consideration for any proposed network options to meet the identified need. This is due to all network options including replacement of equipment being within the existing site boundary of Townsville South substation and no appreciable impact to visual amenity of the substation. Powerlink will provide notifications to nearby residents to ensure all affected parties are appropriately informed of project activities.

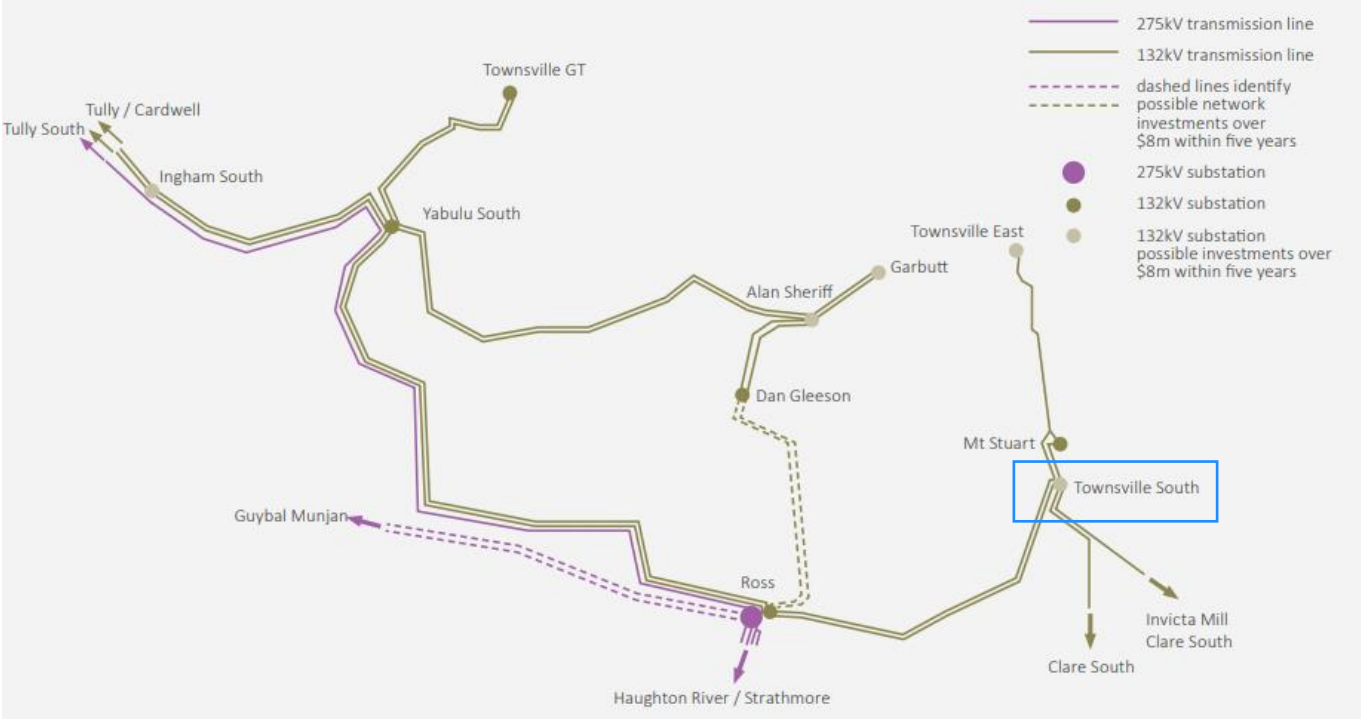
3. Identified need

The identified need is the objective Powerlink seeks to achieve by investing in the network in accordance with the NER.[8] Network and non-network options can address the identified need in a RIT-T.[9]

3.1. Overview

Townsville South Substation was established in 1977 to replace the 132 kilovolt (kV) equipment at Stuart Substation. Townsville South Substation serves multiple functions, including as a bulk supply point for Ergon Energy load in the southern and eastern suburbs of Townsville.

Figure 3.1: Northern Ross Zone Transmission Network



[8] NER, chapter 10 (definition of 'identified need').
[9] AER, *Application Guidelines, Regulatory Investment Test for Transmission*, November 2024, page 13.

3.2. Description of identified need

Powerlink's Transmission Authority requires it to plan and develop the transmission network in accordance with good electricity industry practice, having regard to the value that end users of electricity place on the quality and reliability of electricity services. It allows load to be interrupted during a critical single network contingency, provided the maximum load and energy will not exceed 50 megawatts (MW) at any one time, or will not be more than 600 megawatt hours (MWh) in aggregate.[10] The Transmission Authority is also subject to a broader obligation under the *Electricity Act 1994* (Qld) (the Electricity Act) that Powerlink operate, maintain (including repair and replace if necessary) and protect its transmission grid to ensure the adequate, economic, reliable and safe transmission of electricity.[11]

The primary switchgear at Townsville South Substation – the equipment through which the electrical power passes – has been identified as being at risk of premature failure or is at the end of its technical service life with identified defects and obsolescence issues. Both factors increase the risk to supply in the Townsville area.

Powerlink must therefore take action to avoid the increasing likelihood of loss of power supply arising from failure of the primary equipment at the substation and to ensure customers are provided with a safe and reliable supply of electricity.

As the proposed investment is to meet reliability and service standards arising from Powerlink's Transmission Authority and to ensure Powerlink's ongoing compliance with Schedule 5.1 of the NER, the identified need is a reliability corrective action under the NER.[12] A reliability corrective action differs from that of an increase in producer and consumer surplus (market benefit) driven need in that the preferred option may have a negative net economic outcome because it is required to meet an externally imposed obligation on the network business.[13]

3.3. Assumptions and requirements underpinning the identified need

Planning studies have confirmed that in order to continue to meet the reliability standard in Powerlink's Transmission Authority, the services currently provided by Townsville South Substation are required into the foreseeable future to meet ongoing customer requirements.

Powerlink's condition assessment of the primary plant has highlighted that they are operating in a deteriorated condition. The consequence of the deteriorated primary plant remaining in service beyond 2027, without corrective action, would result in Powerlink being exposed to potential risk of failure and loss of power supply to the local area. This could lead to a breach of Powerlink's obligations under the *Electrical Safety Act 2002* (Qld) and Regulations, *Work Health and Safety Act 2011* (Qld), and *Environmental Protection Act 1994* (Qld), as well as service standards under the Electricity Act and Regulations, and Powerlink's Transmission Authority. The failure of the primary plant to operate or clear faults in sufficient time to avoid damage to the power system may leave Powerlink unable to meet its public safety and supply obligations to its customers.

Removing the deteriorated assets from service will in many cases eliminate the risk of breaching these safety obligations. However, removing the assets from the Powerlink network without a suitable network or non-network alternative would result in risk to reliable power supply, with Powerlink not complying with the NER or its Transmission Authority. This would result in the need for load shedding to ensure that the system is able to be operated without breaching the satisfactory operating state provisions in clause 4.2.2(d) of the NER.

[10] Transmission Authority No. T01/98, section 6.2(c).
[11] *Electricity Act 1994* (Qld), section 34(1)(a).
[12] NER, clause 5.10.2 (definition of 'reliability corrective action').
[13] NER, clause 5.15A.1(c).

The load shedding requirement under an intact system, as well as for a credible contingency, would result in breaches of Powerlink's Transmission Authority.

3.4. Description of asset condition and risks

Powerlink has undertaken a comprehensive condition assessment of the primary plant at Townsville South Substation. This assessment has identified that a significant amount of equipment is exhibiting age-related deterioration issues and reaching the end of its technical service life, with an increasing risk of failure.

In addition, Powerlink has experienced premature failures in certain equipment models installed throughout Powerlink's network, including particular current transformer and voltage transformer models installed at Townsville South.

At-risk Townsville Substation primary plant comprises circuit breakers, current and voltage transformers, isolators, earth switches, surge arrestors and capacitor banks.

Notwithstanding the assessed condition of the asset, Powerlink's ongoing operational maintenance practices are designed to monitor plant condition and ensure any emerging safety risks are proactively managed.

3.5. Consequences of failure of primary plant

Poor asset condition increases the risk and frequency of faults, while obsolescence increases the time needed for Powerlink to undertake any necessary repairs, prolonging the return to service time.

The potential in-service failure of ageing primary plant at Townsville South presents Powerlink with a range of safety, network and financial risks, and the inability to meet legislative obligations and customer service standards. The condition and consequences of failure of the main at-risk items of equipment is summarised in the table below.

Table 3.3: Summary of primary plant condition issues and potential consequences of failure

Equipment	Condition / Issue	Potential Consequences of Failure
Circuit Breakers	• Loss of pneumatic pressure • Limited availability of spares	• Failure to operate to clear a fault, resulting in slower clearance times and additional plant being taken out of service to clear the fault, increasing supply risk. • Extended time to restore supply to customers due to a limited availability of spares • Environmental impacts from Sulfur Hexaflouride (SF_6) gas release • Increased maintenance resulting in less reliable and more costly supply to customers
Voltage Transformers	• Degraded oil and paper insulation inside porcelain housings • Oil leaks and overheating	• Significant financial, environmental and loss of supply risks • Loss of protection signals resulting in disconnection of supply • Breach of metering requirements[14]
Current Transformers	• Degraded oil and paper insulation inside porcelain housings • Oil leaks	• Significant safety, financial, environmental and loss of supply risks • Potential for failure modes leading to damage of other equipment and extended loss of supply
Isolators and Earth Switches	• Corrosion of operating arms and associated structures • High resistance of contacts	• Failure to operate leading to network outages to rectify before maintenance and project work can be conducted • Heating from the high resistance causing potential fire and relevant safety risks
Surge Arrestors	• Moisture ingress • Corrosion • Dielectric breakdown	• Unable to protect equipment from overvoltage surges resulting in failure of downstream equipment
Capacitor Banks	• Corrosion of capacitor cans • Failure of capacitors within capacitor cans	• Load/generation shedding when power factor correction or voltage stability is required in the network • Safety risks associated with catastrophic failure of capacitor cans

[14] Chapter 7, Part D, Metering Installation and Schedule 7.2 Metering Provider, AER

4. Required technical characteristics for non-network options

The information provided in this section is intended to enable interested parties to formulate and propose genuine and practicable non-network solutions.

Powerlink welcomes submissions from proponents who consider that they could offer a non-network solution in full or in part by December 2027 on an ongoing basis and will investigate the feasibility of any potential non-network option proposed or otherwise identified.

4.1. Criteria for proposed network support services

Non-network solutions would need to replicate, in part or full, the support that Townsville South Substation delivers to customers in the area on a cost-effective basis.

To mitigate the impact of a single 132 kilovolt feeder outage, a non-network solution would need to provide supply to major customers in the area of up to a peak of 70 megawatts (MW), and up to a peak of 1160 megawatt hours per day on a continuous basis. To maintain supply to major customers in the area and the Ergon Energy distribution network, a non-network solution would need to provide up to a peak of 150MW, and up to a peak of 2,700 megawatt hours per day on a continuous basis.

Powerlink has identified the following common criteria that must be satisfied if proposed network support services are to meet supply requirements.[15]

Size and location

- Proposed solutions must be large enough, individually or collectively, to provide the size of injection or demand response set out above. However, the level of support is dependent on the location, type of network support and load forecasts.
- Due to the bulk nature of the transmission network, aggregation of sub 10MW non-network solutions will be the sole responsibility of the non-network provider.
- Notwithstanding the location of any solution, each proposal would require assessment in relation to technical constraints pertinent to the network connection, such as impacts on intra-regional transfer limits, fault level, system strength, maintaining network operability and quality of supply.

Operation

- A non-network option would need to be capable of operating on a continuous basis over a period of years and would be required to provide notice of cessation of network support services several years in advance to allow Powerlink to address the identified need in time to meet its reliability of supply obligations.
- If a generation service is proposed (either standalone or in conjunction with other services), such operation will be required regardless of the market price.
- Proponents of generation services are advised that network support payments are intended for output that can be demonstrated to be additional to the plant's normal operation in the NEM.

[15] Powerlink's Network Support Contracting Framework provides a general guide to assist potential non-network solution providers. This framework outlines the key contracting principles that are likely to appear in any network support agreement.

- Where there are network costs associated with a proposed non-network option, including asset decommissioning, these costs form part of the scope of a non-network option and will be included in the overall cost of a non-network option as part of the RIT-T cost-benefit analysis.

Reliability

- Proposed services must be capable of reliably meeting electricity demand under a range of conditions and, a generator must meet all relevant NER requirements related to grid connection.
- Powerlink has obligations under the NER, its Transmission Authority and connection agreements to ensure supply reliability is maintained to its customers. Failure to meet these obligations may give rise to liability. Proponents of non-network options must also be willing to accept any liability that may arise from its contribution to a reliability of supply failure.

Timeframe and certainty

- Proposed services must be able to be implemented in sufficient time to meet the identified need, using proven technology and, where not already in operation, provision of information in relation to development status such as financial funding and development timeline to support delivery within the required timeframe must be provided.

Duration

- The agreement duration for any proposed service will provide sufficient flexibility to ensure that Powerlink is pursuing the most economic long term investment to address the identified condition risks.

5. Potential credible network options to address the identified need

5.1. Credible network option

Powerlink has developed one credible network option to maintain reliability of supply and to address condition risks at Townsville South Substation. Further credible options were initially considered in Powerlink's first RIT-T, however given the difficulties in delivering these other options, only one credible option remains.

Option 1 seeks to address the risks associated with the primary plant at Townsville South by undertaking a single stage replacement utilising dead tank circuit breakers. Under Option 1, it is planned to complete commissioning works by December 2027.

A summary of this option is shown in Table 5.1.

Table 5.1: Summary of credible options

Option	Description	Total costs ($m, 2025)	Indicative annual O&M costs ($m, 2025)
1	Single stage replacement utilising dead tank circuit breakers by 2027.	20.23	0.04

Note: O&M denotes operations and maintenance.

The credible option addresses the risks resulting from the of ageing primary plant at Townsville South Substation to allow Powerlink to meet its reliability of supply and safety obligations under its Transmission Authority, the Electricity Act and Schedule 5.1 of the NER, by the replacement of the deteriorated equipment.

Powerlink does not consider that any of the credible options being considered will have a material inter-network impact, based on AEMO's screening criteria.[16]

5.2. Options considered but not progressed

In 2018/19, Powerlink undertook a RIT-T to address the condition risks arising from ageing primary plant at Townsville South Substation and the following two additional options were developed as follows:

Table 5.2: Options considered but not progressed

Option	Description
Staged replacement utilising live tank circuit breakers completed by 2045	Staged replacement of selected equipment in existing bays utilising live tank circuit breakers by: • December 2022 • December 2030 • December 2045
Staged replacement utilising dead tank circuit breakers completed by 2045	Staged replacement of selected equipment in existing bays utilising dead tank circuit breakers by: • December 2022 • December 2030 • December 2045

The preferred option in the Project Assessment Conclusions Report (PACR) was staged replacement of selected primary plant using live tank circuit breakers.

Project works commenced following completion of the RIT-T, however, project delivery was delayed due to the constrained availability of field resources. The condition of the primary plant further deteriorated, resulting in Powerlink implementing a number of Restricted Access Zones (RAZs) to maintain safety at the substation, resulting in further delays to the project.

During this time, Powerlink encountered early failures in certain equipment models installed throughout Powerlink's network. This included current transformer and voltage transformer models installed at Townsville South.

The increased risk of early failure of these models presents Powerlink with a range of reliability of supply, safety and compliance risks which put at risk Powerlink's ongoing compliance with the reliability and service standards set out in the NER, Powerlink's Transmission Authority and applicable regulatory instruments. For this reason, replacement of these models is required to be brought forward, and the staged replacement options are no longer considered to be technically feasible. The preferred option has also changed from utilising live tank circuit

[16] NER, clause 5.16.4(b)(6)(ii). AEMO has published guidelines for assessing whether a credible option is expected to have a material inter-network impact.

breakers to dead tank circuit breakers due to the need to replace the current transformers in the same bays as the circuit breakers (dead tank circuit breakers include current transformers as part of their design).

5.3. Material Change in Circumstances

Powerlink considers the change in preferred option since the RIT-T completed in 2018/19 to be a material change of circumstances under the RIT-T framework set out in the NER and is reapplying the RIT-T to maintain reliability of supply to Townsville South.[17]

6. Materiality of market benefits

The NER requires RIT-T proponents to quantify a number of classes of market benefits for each credible option, unless the proponent can demonstrate that a specific category(ies) is/are unlikely to materially affect the outcome of the assessment of credible options.[18]

6.1. Market benefits that are material for this RIT-T assessment

Powerlink considers that changes in involuntary load shedding – that is, the reduction in expected unplanned power outages, otherwise known as unserved energy (USE) – between options, set out in this PSCR, may impact the ranking of the credible options under consideration and that this class of market benefit could be material. Powerlink has quantified and included these benefits in the cost-benefit and risk cost analysis as network risk.

6.2. Market benefits that are not material for this RIT-T assessment

A discussion of each market benefit under the RIT-T that Powerlink considers not to be material is presented below.

- **Changes in patterns of generation dispatch**: replacement of ageing assets under the credible options by itself does not affect transmission network constraints or affect transmission flows that would change patterns of generation dispatch. It follows that changes through different patterns of generation dispatch are not material to the outcome of the RIT-T assessment.
- **Changes in voluntary load curtailment**: replacement of ageing assets under the credible options by itself does not affect prices in the wholesale electricity market. It follows that changes in voluntary load curtailment will not be material for the purposes of this RIT-T.
- **Changes in costs for other parties**: the effect of replacement of ageing assets under the credible options considered are localised to the substation they are located at and do not affect the capacity of transmission network assets and therefore are unlikely to change generation investment patterns (which are captured under the RIT-T category of 'costs for other parties')
- **Differences in the timing of expenditure**: credible options for asset replacement do not affect the capacity of transmission network assets, the way they operate, or transmission flows. Accordingly, differences in the timing of expenditure of unrelated transmission investments are unlikely to be affected.
- **Changes in network losses**: credible options are not expected to provide any changes in network losses as replacing secondary systems does not affect the characteristics of primary transmission assets.
- **Changes in ancillary services cost**: there is no expected change to the costs of Frequency Control Ancillary Services (FCAS), Network Control Ancillary Services (NCAS), or System Restart Ancillary Services (SRAS) due to

[17] NER, clause 5.16.4(z3). See Appendix 3 for more detail regarding requirements for reapplication of the RIT-T.
[18] NER, clauses 5.15A.2(b)(4), (5) and (6). See also AER, *Regulatory Investment Test for Transmission*, November 2024, paragraphs 10 to 13.

credible options under consideration. These costs are therefore not material to the outcome of the RIT-T assessment.

- **Changes in Australia's greenhouse gas emissions**: Powerlink does not consider that any of the credible options will materially affect Australia's greenhouse gas emissions, and the cost of quantifying any greenhouse gas emission benefits would involve a disproportionate level of effort compared to the additional insight it would provide.
- **Competition benefits:** Powerlink does not consider that any of the credible options will materially affect competition between generators, and generators' bidding behaviour and, consequently, considers that the techniques required to capture any changes in such behaviour would involve a disproportionate level of effort compared to the additional insight it would provide.
- **Option value**: Powerlink does not consider that the identified need for the options considered in this RIT-T is affected by uncertain factors about which there may be more clarity in future. As a consequence, option value is not a relevant consideration for this RIT-T.
- **Costs associated with social licence activities:** Powerlink does not consider that the cost of social licence activities is materially different between the credible options under consideration in this RIT-T. These costs are therefore not material to the outcome of the RIT-T assessment.

6.3. Consideration of market benefits for non-network options

Powerlink notes that non-network options may impact the wholesale electricity market (for example by displacing generation output). Accordingly, it is possible that several of the above classes of market benefits will be material where there are credible non-network options, depending on the specific form of the option.

Where credible non-network options are identified as part of the consultation process on this PSCR, Powerlink will assess the materiality of market benefits associated with these options. Where the market benefits are considered material, these will be quantified as part of the cost-benefit analysis.

7. Base Case

7.1. Modelling a base case under the RIT-T

In a RIT-T that is not an actionable ISP project, the base case is the situation in which the RIT-T proponent does not implement a credible option to meet the identified need and continues with business-as-usual (BAU) activities.[19]

The assessment undertaken in this PSCR compares the costs and benefits of the credible option to address the risks arising from an identified need with a base case. As characterised in the RIT-T Application Guidelines, the base case reflects a situation in which the condition and obsolescence issues arising from the ageing assets are only addressed through standard operational activities, with escalating safety, financial and network risks.[20]

To develop the base case, the existing condition and obsolescence issues are managed by undertaking operational maintenance or operational measures only. This results in an increase in overall risk levels as the condition and availability of the asset deteriorates over time. These increasing risk levels are assigned a monetary value that is used to evaluate the credible options designed to offset or mitigate these risk costs.

[19] AER, *Regulatory Investment Test for Transmission*, November 2024, glossary ('base case').
[20] AER, *Application Guidelines, Regulatory Investment Test for Transmission*, November 2024, page 21.

The base case therefore includes the costs of work associated with operational maintenance and the risk costs associated with the failure of the assets. The costs associated with equipment failures are modelled in the risk cost analysis and are not included in the operational maintenance costs.

The base case acts as a benchmark and provides a clear reference point in the cost-benefit analysis to compare and rank the credible options against each other over the same timeframe.

7.2. Townsville South base case risk costs

Powerlink has developed a risk modelling framework consistent with the RIT-T Application Guidelines. An overview of the framework is available on Powerlink's website and the principles of the framework have been used to calculate the risk costs of the Townsville South base case. The framework includes the modelling methodology and general assumptions underpinning the analysis. The output is a "risk cost" that represents the monetised value of the risks in terms of benefits to the national electricity market.

Table 7.1: Source of Risk Category Data

Risk Category	Consequence	Source	Input
Safety	Safety impacts	Department of Prime Minister and Cabinet Office of Best Practice Regulation (OBPR)	Value of safety improvement with a disproportionality factor to reflect the So Far As Is Reasonably Practical risk obligation on Powerlink.
Network	Loss of supply to customers	Australian Energy Regulator (AER)	Value of Customer Reliability (VCR) related to the types of customers that are connected to the impacted network.
Financial	Damage to equipment and emergency restoration	Powerlink	Dependent on asset type and failure. Typically use historic unit rate replacement costs, with a premium added to reflect the increased costs associated with replacing under emergency condition.

7.3. Base case assumptions

To calculate the economic and social costs that result from a failure of the equipment at Townsville South Substation, Powerlink has made the following modelling assumptions that are site specific:

- Historical load profiles have been used when assessing the likelihood of unserved energy under concurrent failure events.
- Unserved energy generally accrues under concurrent failure events, and consideration has been given to potential feeder trip events within the wider area.
- Townsville South Substation supplies a mixture of residential, industrial and agricultural load types. Historical load data has been analysed to approximate the ratio of the load types, resulting in VCR of $36,090/MWh.

The 20-year forecast of risk costs for the base case and option 1 is shown in Figure 7.1 and Figure 7.2.

Figure 7.1: Modelled risk costs for the base case

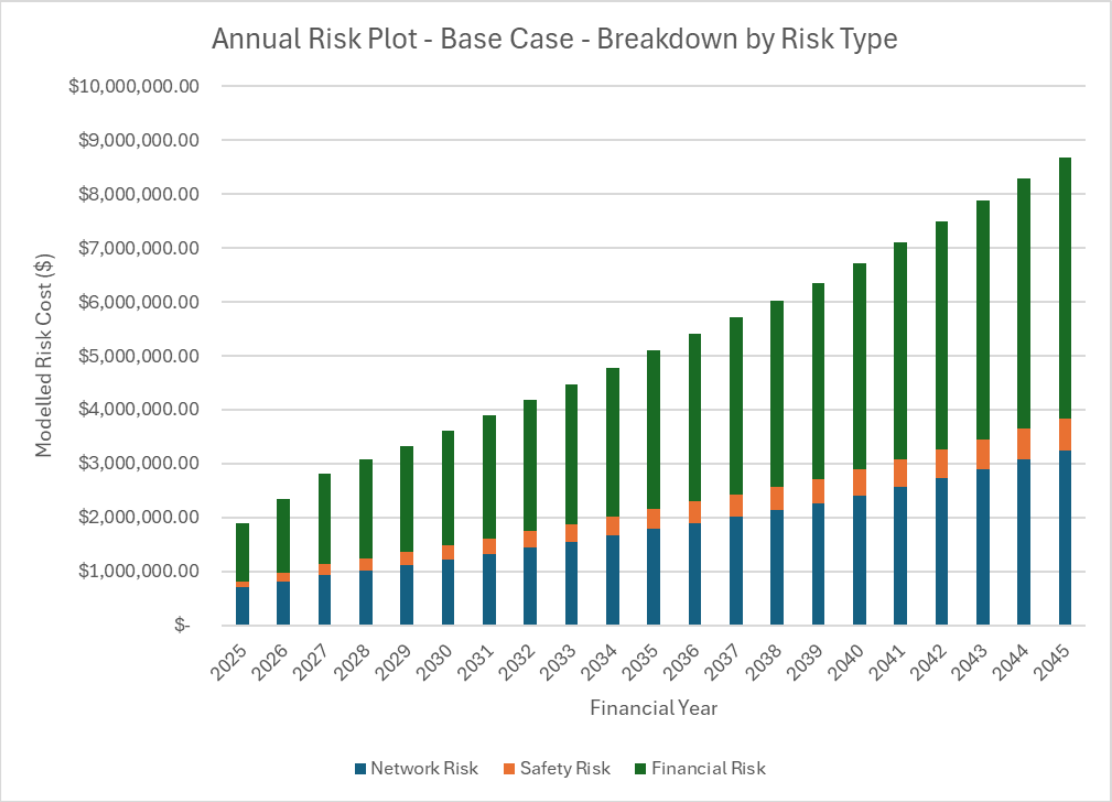
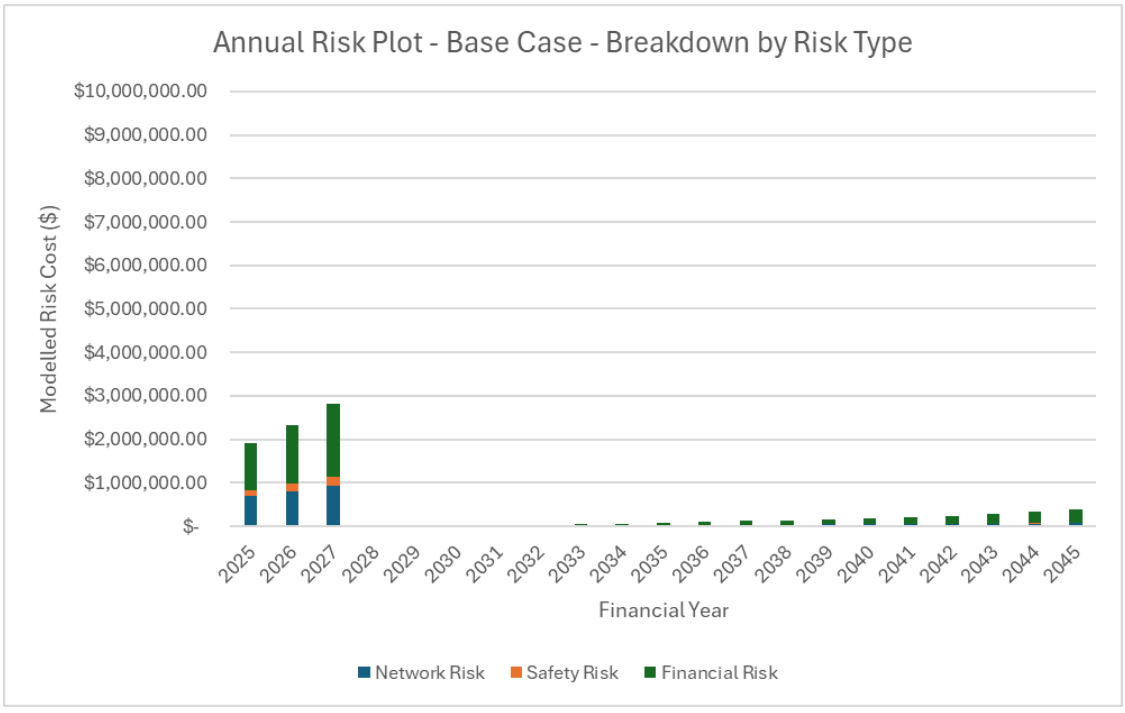


Figure 7.2 Modelled risk costs for Option 1



As shown in Figure 7.1, around 50% of the risk cost is financial risk, based on having to replace the existing equipment in emergency situations through continued operation of the existing equipment. Based upon the assessed condition of the ageing primary plant at Townsville South, the total risk costs are projected to increase from around $1.90 million in 2025 to $8.68 million in 2045, with Option 1 significantly reducing this risk through replacing these assets.

7.4. Modelling of risk in options

Each option is scoped to manage the major risks arising in the base case and to maintain compliance with all statutory requirements, the NER and AEMO standards. The residual risk is calculated for each option based upon the individual implementation strategy of the option. This is included with the capital and operational maintenance cost of each option to develop the Net Present Value (NPV) inputs.

8. Cost estimation

8.1. Basis of Estimation

The basis for the estimation for the credible option presented in Table 5.1 of this PSCR is outlined in the methodologies and processes used to derive cost estimates as described in Powerlink's Cost Estimation Methodology. The estimates are informed by the level of specific project information available across the program of work and to the extent practicable for individual sites at the time of PSCR publication and will be updated accordingly in the PADR.

The Powerlink Cost Estimating Methodology also provides context to the classes of estimate discussed in this section.[21]

8.2. Key inputs and assumptions

Option 1: Single stage replacement utilising dead tank circuit breakers by December 2027

A Class 2 Estimate has been produced for Option 1 (see Table 5.1) with an accuracy range of -15% to +20%.

Powerlink has made the following scope assumptions in producing this estimate:

- All existing equipment is in good condition and working order, the site is accessible and there are no RAZs;
- All resources will be available including necessary resources to complete construction, testing and commissioning activities;
- Availability of site access for works as required;
- Existing ground conditions are suitable for the construction of standard foundations;
- Laydown area is located within the substation yard;
- Outages will be available, based on appropriate contingency arrangements being put in place to ensure Return to Service requirements are met.

[21] The methodology is available on the RIT-T Consultations page of Powerlink's website.

9. Cost-benefit Analysis and Identification of Preferred Option

9.1. Analysis period

Powerlink has undertaken the RIT-T analysis over a 30-year period, from 2025 to 2055. A 30-year period takes into account the size and complexity of the primary plant replacement options. There will be remaining asset life by 2055, at which point a terminal value is calculated to account for capital costs under each credible option.

9.2. Discount rate

Under the RIT-T Instrument:

- RIT-T proponents must adopt the discount rate from AEMO's most recent Inputs, Assumptions and Scenarios Report unless the proponent can demonstrate why variation is necessary; and
- the present value calculations of the costs and benefits of credible options must use a commercial discount rate appropriate for the analysis of a private enterprise investment in the electricity sector.[22]

In this RIT-T Powerlink has adopted a real, pre-tax commercial discount rate of 7% as the central assumption for the NPV analysis.[23]

Powerlink has tested the sensitivity of the results to changes in this discount rate assumption, and specifically to the adoption of a lower bound discount rate of 3% and an upper bound discount rate of 10%.[24]

9.3. Description of reasonable scenarios

The RIT-T analysis is required to incorporate a number of different reasonable scenarios, which are used to estimate market benefits and rank options.[25] The number and choice of reasonable scenarios must be appropriate to the credible options under consideration and reflect any variables or parameters that are likely to affect the ranking of the credible options, where the identified need is reliability corrective action.[26]

Based on the minor differences between the options in terms of operational outcomes, Powerlink has chosen to present a single reasonable scenario for comparison purposes. The detailed market modelling of future generation and consumption patterns required to assess alternative scenarios relating to connection of renewable generation represents a disproportionate cost in relation to the scale of the proposed network investment.

Notwithstanding this, we have considered capital cost, discount rate and risk cost sensitivities individually and in combination and found that none of the parameters has an impact on ranking of results. Hence, Powerlink has chosen to present a 'central scenario' illustrated in Table 9.1.

[22] AER, *Regulatory Investment Test for Transmission*, November 2024, paragraphs 18 and 19.
[23] This indicative commercial discount rate of 7% is based on AEMO, *2025 Inputs, Assumptions and Scenarios Report,* August 2025, page 158.
[24] A discount rate of 3% real pre-tax Weighted Average Cost of Capital is based on AEMO, *2025 Inputs, Assumptions and Scenarios Report,* August 2025, page 158.
[25] AER, *Regulatory Investment Test for Transmission*, November 2024, paragraph 22.
[26] AER, *Regulatory Investment Test for Transmission*, November 2024, paragraph 23.

Table 9.1: Reasonable scenario parameters

Key parameter	Central Scenario
Capital cost	100% of base capital cost estimate
Maintenance cost	100% of base maintenance cost estimate
Discount rate	7%
Risk cost	100% of base risk cost forecast

9.4. NPV analysis

Table 9.2 outlines the NPV and the corresponding ranking of each credible option relative to the base case.

Table 9.2: NPV of credible options relative to the base case

Option	Description	NPV relative to base case ($m)	Ranking
1	Single stage replacement utilising dead tank circuit breakers by 2027.	27.28	1

Option 1 will address the identified need on an enduring basis.

Figure 9.1 sets out the breakdown of capital cost, operational maintenance cost and risk cost for option 1 in NPV terms under the central scenario. Note that the non-credible base case consists of operational maintenance and total risk costs and does not include any capital expenditure.

Figure 9.1: NPV component of option under central scenario (NPV $m)

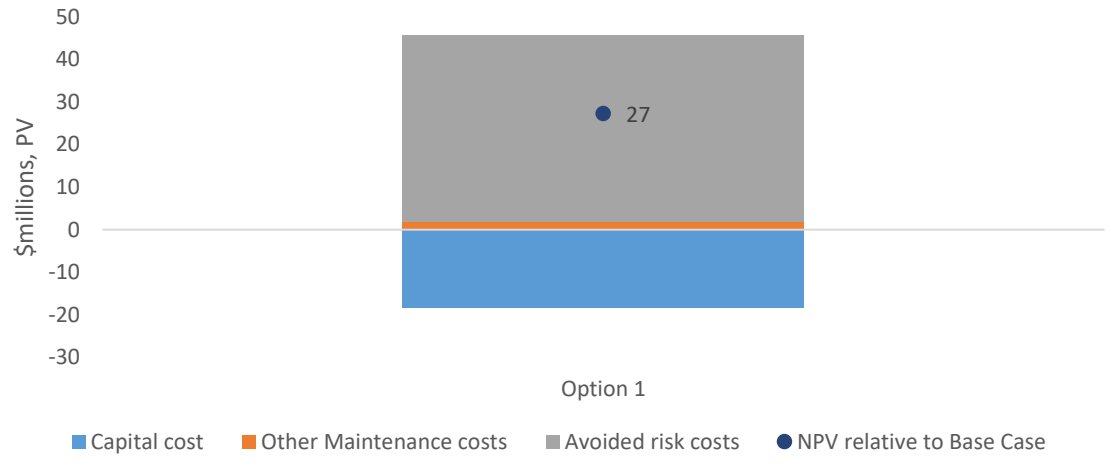


Figure 9.1 illustrates that Option 1 will reduce the risk cost compared to the base case and results in a positive NPV outcome relative to the base case. Sensitivity analysis also concluded that the NPV outcome relative to the base case will remain positive for varying levels of discount rate, capital expenditure, operation maintenance expenditure and risk cost.

9.5. Draft recommendation

The result of the cost-benefit analysis indicates that Option 1, the only credible option, provides a positive net economic benefit over the 30-year analysis period. Sensitivity testing shows the analysis is robust to variations in the capital cost, risk cost and discount rate assumptions. Powerlink therefore considers that Option 1 satisfies the requirements of the RIT-T and is the proposed preferred option.

Based on the conclusions drawn from the NPV analysis and regulatory requirements relating to the proposed replacement of transmission network assets, Powerlink's draft recommendation is that Option 1 be implemented to address the risks associated with the deteriorated condition of the aged and obsolete primary plant infrastructure at Townsville South Substation. Implementing this option will also ensure ongoing compliance with relevant standards, applicable regulatory instruments and the NER.

Option 1 involves the single stage replacement of primary plant at Townsville South substation utilising dead tank circuit breakers by 2027. The indicative capital cost of this option is $20.23 million in 2024/25 prices.

Under Option 1, it is planned to complete commissioning of the new primary plant by December 2027.

10. Submission requirements and next steps

Powerlink invites submissions and comments in response to this PSCR from Registered Participants, AEMO, potential non-network providers and any other interested parties.

This RIT-T is not a tender process – submissions are requested so that Powerlink can fulfil its regulatory obligations to analyse non-network options. In the event that a non-network option appears to be a genuine and practicable alternative that could satisfy the RIT-T, Powerlink will engage with that proponent or proponents to confirm cost inputs and commercial terms.

10.1. Submissions from non-network providers

Submissions should be presented in a written form and should clearly identify the author of the submission, including contact details for subsequent follow-up if required. If parties prefer, they may request to meet with Powerlink ahead of providing a written response.

Submissions from potential non-network providers should contain the following information:

- details of the party making the submission (or proposing the service);
- technical details of the project (capacity, proposed connection point if relevant, etc.) to allow an assessment of the likely impacts on future supply capability;
- sufficient information to allow the costs and benefits of the proposed service to be incorporated in a comparison in accordance with AER's RIT-T Application Guidelines;
- an assessment of the ability of the proposed service to meet the technical requirements of the NER;
- timing of the availability of the proposed service; and
- other material that would be relevant in the assessment of the proposed service.

Powerlink will publish submissions on the PSCR, subject to any claim of confidentiality by the person making the submission. Where confidentiality over part or all of a submission is made, this should be clearly identified. Powerlink may also explore whether a redacted or non-confidential version of the submission can be made available.[27]

[27] AER, *Application Guidelines, Regulatory Investment Test for Transmission*, November 2024, page 70.

Powerlink is required to use all reasonable endeavours not to disclose any confidential information it receives. The obligation is subject to a number of exceptions, including that disclosure may be made:

- with the consent of the person providing the information; or
- to the AER, Australian Energy Market Commission or any other regulator having jurisdiction over Powerlink under the NER or otherwise.[28]

It should be noted that Powerlink is required to publish the outcomes of the RIT-T analysis. If parties making submissions elect not to provide specific project cost data for commercial-in-confidence reasons, Powerlink may rely on cost estimates from independent specialist sources.

10.2. Next steps

Powerlink intends to carry out the following process to assess what action, if any, should be taken to address future supply requirements.

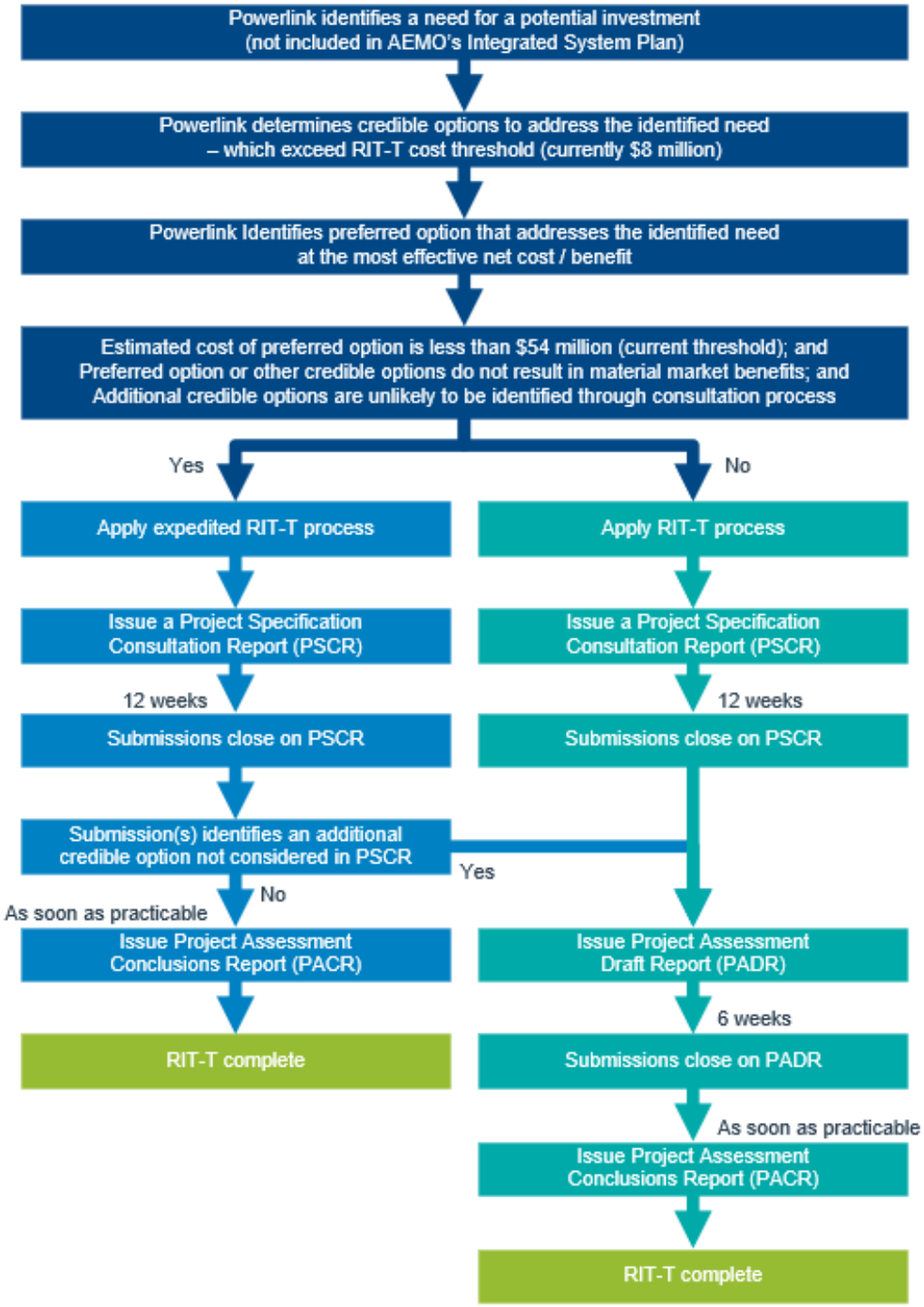
Part 1	PSCR Publication	December 2025
Part 2	Submissions due on PSCR Have your say on the credible options and propose non-network options	April 2026
Part 3	Publication of PACR Powerlink's response to any submissions received and final recommendation on the preferred option for implementation	May/June 2026

Powerlink reserves the right to amend the timetable at any time. Amendments to the timetable will be made available on the Powerlink website (www.powerlink.com.au/rit-t-consultations).

[28] NER, rule 8.6.

Appendix 1: RIT-T process

The flow chart below illustrates the RIT-T process where the need is not an actionable project in AEMO's ISP.



As stated, this PSCR is the first step in the RIT-T process. The PSCR:

- describes the reasons why Powerlink has determined that investment is necessary (the identified need), together with the assumptions used in identifying this need, including whether the need is as an actionable project in AEMO's latest ISP;
- provides potential proponents of non-network options with information on the technical characteristics that a non-network solution would need to deliver, in order to assist proponents to consider whether they could offer an alternative solution;
- describes the credible options that Powerlink currently considers may address the identified need;
- discusses why Powerlink does not expect specific categories of market benefit to be material for this RIT-T;
- presents the NPV assessment of each of the credible options compared to a base case, as well as the methodologies and assumptions underlying these results;
- identifies and provides a detailed description of the credible option that satisfies the RIT-T, and is therefore the preferred option;
- provides information about Powerlink's estimation of costs for each credible option;
- describes how customers and stakeholders have been engaged with regarding the identified need; and
- provides stakeholders with the opportunity to comment on this assessment so that Powerlink can refine the analysis (if required) as part of the PACR.

Powerlink will adopt the expedited process for this RIT-T, as allowed for under the NER for investments of this nature[29]. Specifically, Powerlink will publish a PACR following public consultation on this PSCR and apply the exemption from publishing a PADR as:

- the preferred option has an estimated capital cost of less than $54 million[30];
- none of the credible options have material market benefits, other than benefits associated with changes in involuntary load shedding, which have been catered for in the risk cost modelling and consequentially represented in the economic analysis of the options;
- Powerlink has identified its preferred option in this PSCR (together with the supporting quantitative cost-benefit analysis);
- Powerlink does not envisage that additional credible options, which could deliver material market benefits, will be identified through the submission process given the nature of this secondary systems replacement project; and
- Powerlink is currently not aware of any non-network options that could be adopted. This PSCR provides a further opportunity for providers of feasible non-network options to submit details of their proposals for consideration.

As stated, Powerlink will however publish a PADR if submissions to this PSCR identify other credible options that have not yet been considered, and which could provide a material market benefit or a more cost-efficient outcome for customers.

[29] NER, clause 5.16.4(z1).
[30] NER, clause 5.16.4(z1)(1) sets the threshold at $35 million. The AER's latest cost threshold review increased the value to $54 million for three years from 1 January 2025.

Appendix 2: Sensitivity analysis

Powerlink has investigated the following sensitivities on key assumptions:

- a range from 3% to 10% discount rate;
- a range from 75% to 125% of base capital expenditure estimates; and
- a range from 75% to 125% of base risk cost estimates.

As illustrated in Figures A2.1 – A2.3, sensitivity analysis for the NPV relative to the base case shows that varying the discount rate, capital expenditure, operational maintenance expenditure and total risk costs has no impact on the sign of the Option 1 NPV relative to the Base Case. Option 1 has a positive NPV relative to the Base Case under all scenarios tested.

Figure A2.1: Discount rate sensitivity

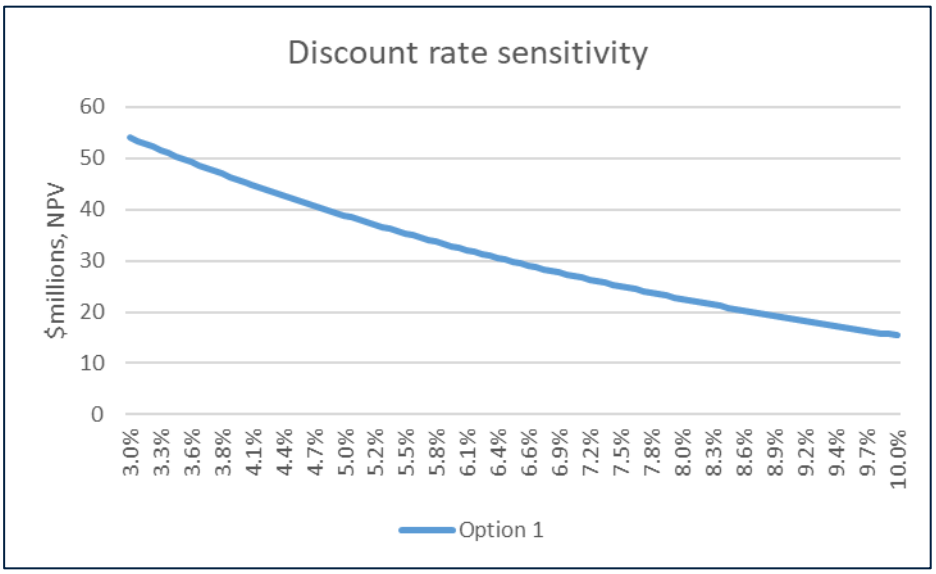


Figure A2.2: Capital cost sensitivity

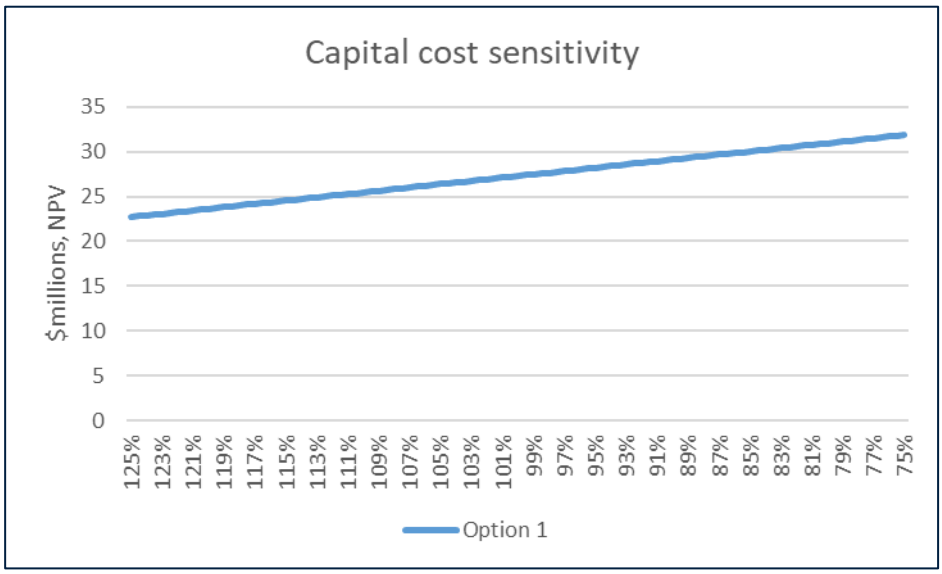
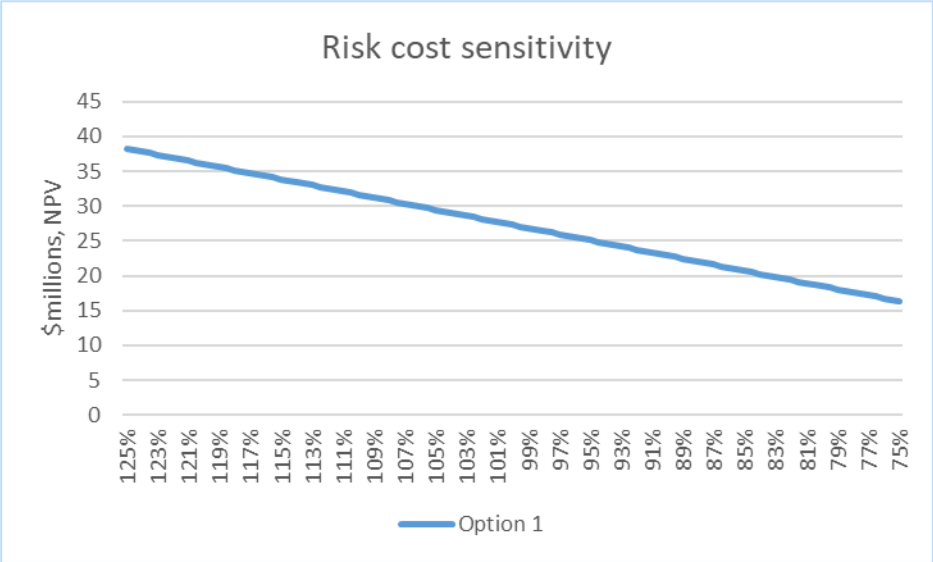
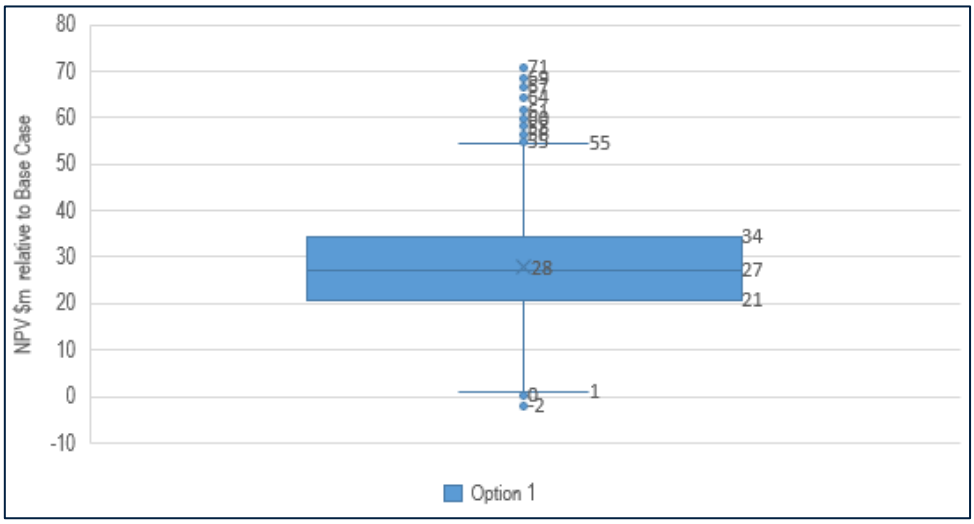


Figure A2.3: Risk cost sensitivity



Powerlink also performed a Monte Carlo simulation with multiple input parameters (including capital cost, discount rate and total risk cost) generated for the calculation of the NPV for each option. This process was repeated over 5,000 iterations, each time using a different set of random variables from the probability function. The sensitivity analysis output is presented as a distribution of possible NPVs for each option, as illustrated in Figure A2.5.

Figure A2.5: NPV sensitivity analysis of multiple key assumptions relative to the base case



Note: The box represents the interquartile interval, where 50% of the data is found. The horizontal line through the box is the median and the mean is represented by the cross (X). The two lines outside the box extend to 1.5 times the interquartile range. Data points that are outside of this interval are shown as dots on the graph.

Appendix 3: Compliance checklists

NER requirements for RIT-T

Table A2.1 outlines Powerlink's compliance with PSCR content requirements set out in sub-paragraphs (1) to (6) of clause 5.16.4(b) of the NER.

Table A2.1: NER Compliance Checklist

Sub-para	Requirement	Section of PSCR
(1)	Description of identified need	3.2
(2)	Assumptions used to identify the identified need	3.3
(3)	Technical characteristics of the identified need that a non-network option would be required to deliver	4.1
(4)	Discussion of identified need or credible options to meet the identified need in most recent ISP	N/A
(5)	Description of credible options	5.1
(6)	For each credible option, information about:	
	(i) technical characteristics of the option;	5.1
	(ii) whether the option is reasonably likely to have a material inter-network impact;	5.1
	(iii) the classes of market benefit that are likely / not likely to be material	6.1 – 6.2
	(iv) estimated construction timetable and commissioning date	5.1
	(v) indicative capital and operating and maintenance costs	5.1

N/A denotes not applicable.

Powerlink assessment regarding reapplication of the RIT-T to maintain reliability of supply at Townsville South

The process in clause 5.16.4(z3) of the NER for a RIT-T proponent to reapply the RIT-T project in response to a material change in circumstances was expanded in version 203 of the NER, which took effect on 9 October 2023. Prior to 9 October 2023, if a material change in circumstances occurred, the RIT-T proponent had to reapply the RIT-T unless otherwise determined by the AER.

The expanded process does not apply to a RIT-T project if, prior to 9 October 2023, the RIT-T proponent had prepared a PADR for the project (clause 11.154.2(b) of the NER). Powerlink issued a PSCR to maintain reliability at Townsville South Substation in October 2018 and applied the exemption to publishing a PADR (clause 5.16.4(z1) of the NER). As Powerlink issued the PACR in March 2019, Powerlink is reapplying the RIT-T as per clause 5.16.4(z3) of the NER in force before October 2023.

RIT-T Application Guidelines

Table A2.2 outlines Powerlink's compliance with binding requirements included in the RIT-T Application Guidelines.

Table A2.2: RIT-T Application Guidelines Compliance Checklist

Section of Guidelines	Topic	Requirements	Section of PSCR
3.2.5	Social licence principles	Consider social licence issues in the identification of credible options and include information about when and how social licence considerations have affected the identification and selection of credible options.	2.5
3.4.3	Value of emissions reduction	The VER, reported in dollars per tonne of emissions (CO2 equivalent), is used to value emissions within a state of the world. A RIT-T proponent is required to use the then prevailing VER under relevant legislation or, otherwise, in any administrative guidance.	N/A
3.5	Valuing costs	Costs are the present value of the following direct costs: • Constructing or providing the credible option; • Operating and maintenance costs; • Costs of complying with relevant laws, regulations and administrative requirements; and Costs of removing and disposing of existing assets (particularly for asset replacement programs).	5.1
3.5.3	Social licence costs	Provide the basis for any social licence costs, including any reference to best practice	N/A
3.5A.1	Cost estimation accuracy	Outline cost estimation process (as applicable to stage of the RIT-T)	8.2
3.5A.2	Cost estimation information	Details of inputs, assumptions and methodologies for each credible option (as applicable to the stage of the RIT-T)[31]	8.3
3.6	Market benefit classes	Apply market benefit classes consistently across all credible options	N/A
3.7.3	Market benefits	Calculation of changes in Australia's greenhouse gases	N/A
3.8.2	Sensitivities	Sensitivity analysis on all credible options	Appendix 2

[31] Although the provisions in section 3.5A.2 of the RIT-T Application Guidelines are not included in the table of binding requirements at Appendix C of the Guidelines, Powerlink has added them to the compliance checklist as the provisions are expressed as being binding in section 3.5A.2 of the Guidelines.

Section of Guidelines	Topic	Requirements	Section of PSCR
3.9.4	Contingency allowance	Details of any contingency allowance included in a cost estimate for a credible option	N/A
3.11.2	Concessional finance	Provide sufficient detail about a concessional finance agreement	N/A
4.1	Community engagement	Description of assessment of requirement for community engagement and, as applicable, how engagement has been undertaken and any relevant concerns sought to be addressed, and how the proponent plans to engage with stakeholder groups.	2.5

Notes:

N/A denotes not applicable.

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