



# Maintaining Reliability of Supply and Addressing Condition Risks at Ashgrove West

## Summary Project Specification Consultation Report



## Summary

### *Ageing and obsolete secondary systems and specific primary plant at Ashgrove West Substation require Powerlink to take action*

Ashgrove West Substation was established in 1979 to provide an injection point into the Energex distribution network (part of the Energy Queensland Group) to supply power to the Brisbane area. Planning studies confirm there is an enduring need for Ashgrove West Substation to maintain the supply of electricity to the Brisbane area and meet legislative requirements.

The secondary systems and some capacitive voltage transformers at Ashgrove West Substation have been identified as being in poor condition or at the end of their technical service lives with identified obsolescence issues and condition risks which may experience premature failures.

Secondary systems are the control, protection and communications equipment that are necessary to operate the transmission network and prevent damage to primary systems when faults on the network occur. Many of the secondary systems at Ashgrove West Substation are nearing the end of their technical service lives and have become or are becoming obsolete. They are no longer supported by the manufacturer and have only limited, or no, spares available. Under the National Electricity Rules (NER), Powerlink is required to provide sufficient secondary systems, including redundancy, to ensure the transmission system is adequately protected.

Capacitive voltage transformers perform functions such as revenue metering, power system monitoring, telemetry and system protection. Some capacitive voltage transformers at the substation have reached an age and condition where risks to the reliability of the network call for their replacement before any premature failure.

Powerlink must therefore take action to avoid the increasing likelihood of loss of power arising from failure of the aging secondary systems equipment and those capacitive voltage transformers prone to early failure at Ashgrove West Substation. In doing so, this ensures customers are provided with a reliable and safe supply of electricity.

### *Powerlink is required to apply the Regulatory Investment Test for Transmission*

The estimated capital cost of the most expensive credible option to address secondary system and specific primary plant risks at Ashgrove West Substation meets the minimum threshold (currently \$8 million) to apply the Regulatory Investment Test for Transmission (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 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 preferred option may therefore have a net economic cost.

Powerlink will adopt the expedited process for this RIT-T, as the estimated capital cost of the preferred option is below \$54 million – the upper threshold for applying the expedited process. The credible options are unlikely to result in any material market benefits other than those arising from a reduction in involuntary load shedding. This is included in the monetised risk modelling and represented in the economic analysis of the options.

### *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 and added to the ongoing maintenance costs to form the base case.

*Powerlink has developed two credible network options to address the identified need*

The table below details the credible network options and shows that all options have a negative Net Present Value (NPV) relative to the non-credible base case, as allowed for under the NER for reliability corrective actions. Of the credible network options, Option 1 has the highest NPV relative to the base case.

**Summary of Credible Options**

Option	Description	Total Costs (\$m, 2025)	NPV relative to non-credible base case (\$m)	Ranking
1	Replace all secondary systems in existing panels (in situ) in existing control building by 2029. Replace certain capacitive voltage transformers with contemporary replacement. Replace metering to current standard.	18.92	-5.51	1
2	Replace all secondary systems in new panels in new building by 2029. Replace certain capacitive voltage transformers with contemporary replacement. Replace metering to current standard.	26.07	-11.06	2

*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](#).

A non-network option that avoids the proposed replacement of the ageing assets would need to provide supply to the 33 kilovolt network of up to a peak of 220 megawatts, and up to a peak of 2,500 megawatt hours per day on a continuous basis. 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.

*Lodging a submission with Powerlink*

Powerlink seeks written submissions on this Project Specification Consultation Report (PSCR), on or before **30 June 2026**, particularly on the credible options presented in this PSCR. Submissions should be addressed to:

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