Powerlink Queensland

Summary of Project Assessment Conclusions Report

27 August 2018

Addressing the secondary systems condition risks at Baralaba Substation

Summary

Baralaba Substation is located in central Queensland, approximately six kilometres south-east of the Baralaba township, and forms part of the network that provides electricity supply for Central Queensland and the surrounding local area.

Several secondary systems at Baralaba Substation are nearing the end of their technical service lives and are increasingly at risk of failure. These secondary systems are obsolete (i.e. they are no longer supported by the manufacturer and have no spares available), or will become obsolete in the near future. This presents Powerlink with operational and compliance issues, requiring resolution. Since consideration for this investment is driven by an obligation in the Rules, it is a 'reliability corrective action' under the RIT-T.

This Project Assessment Conclusions Report (PACR) represents the final step of the Regulatory Investment Test for Transmission (RIT-T) process prescribed under the National Electricity Rules (NER) undertaken by Powerlink to address the condition risks arising from ageing secondary systems at Baralaba Substation. It contains the results of the planning investigation and cost-benefit analysis of credible options. In accordance with the RIT-T, the credible option that maximises the present value of net economic benefits is recommended for implementation.

Credible options considered

Powerlink identified two credible network options to address the identified need, as presented in Table 1.

Table 1: Summary of credible options

Option	Description	Indicative capital cost ($million, 2017/18)	Indicative annual O&M costs ($million, 2017/18)
Base option: Full in-situ replacement	Replace obsolete secondary system panels and associated wiring within the existing secondary systems building, beginning early 2019 and completed by December 2020.	8.67	0.02
Option 1: Full replacement with prefabricated building	Replace all secondary systems using a modular prefabricated building with new secondary systems installed. Installation on site and commissioning to occur by December 2020.	7.79	0.02

Evaluation and conclusion

The RIT-T requires that the proposed preferred option maximises the present value of net economic benefit to all those who produce, consume and transport electricity in the market compared to other credible options.

In accordance with the expedited process for this RIT-T, the PSCR made a draft recommendation to implement Option 1, full replacement with prefabricated building by December 2020. The estimated capital cost of the proposed preferred option is $7.79 million in 2017/18 prices. Powerlink is the proponent of the proposed network project.

As the outcomes of the economic analysis contained in this PACR remain unchanged from those published in the PSCR, the draft recommendation has been adopted without change as the final recommendation, and will now be implemented.

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