



Powerlink Queensland

Summary of Project Assessment Conclusions Report

14 December 2018

Addressing the secondary systems condition risks at Palmwoods Substation

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Summary

Located in Sunshine Coast hinterland, Palmwoods substation is approximately 18 kilometres west of Mooloolaba and is part of Powerlink's 275kV transmission network between generators and the main South East Queensland load centre. Palmwoods Substation also provides the major injection point into Energex's (part of the Energy Queensland Group) distribution network for the Sunshine Coast and north Caboolture areas.

Several secondary systems at the Palmwoods Substation are reaching the end of their technical service life and are facing obsolescence with no manufacturer support for repairs and few spares available.

This Project Assessment Conclusions Report (PACR) represents the final step of the RIT-T process prescribed under the Rules undertaken by Powerlink to address the condition risks arising from ageing and obsolete secondary systems at Palmwoods 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 three 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: Staged replacement in existing building	Replace all obsolete secondary systems using new pre-wired panels installed in free space of the existing building in two stages between 2019 and October 2024.	8.1	0.198
Option 1: Single stage replacement in existing building	Replace all secondary systems using new pre-wired panels installed in free space of the existing building by July-2021	7.2	0.190
Option 2: Single stage replacement in prefabricated building	Replace all secondary systems using a modular prefabricated building with new secondary systems installed by July-2021.	7.3	0.190

Evaluation and conclusion

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

In accordance with the expedited process for this RIT-T, the Project Specification Consultation Report (PSCR), published in August 2018, made a draft recommendation to implement Option 2, replacement of the secondary systems in a new prefabricated building by July 2021. The estimated capital cost of the proposed preferred option is \$7.3 million in 2017/18 prices. Powerlink is the proponent of the proposed network project.

There were no submissions received in response to the PSCR.

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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