

Network Capability Incentive Parameter Action Plan (2014-2019)

Project Number	19
Project Priority	10
Transmission Circuit / Injection Point	All 220/110kV Network Transformers.
Project	Dynamic rating of all 220/110kV Network Transformers.
Scope of works	<p>Purchase and install dynamic rating, monitoring, control and communication units on 220/110kV network transformers at Farrell (T1 & T2), Sheffield (T1 & T2), Hadspen (T1 & T2) and Palmerston (T1) substations and implement dynamic rating functionality.</p> <p>Implement dynamic rating functionality on all other existing network transformers in system, ie. Burnie (T2), George Town (T1, T2 & T3), Chapel St (T1, T2, T3 & T4) and Lindisfarne (T4 & T5) as these transformers already have DRMCC's installed.</p>
Reasons to undertake project	The network transformers are presently rated based on the condition level degrading over time due to various factors including loading, fault current, and age based asset condition factors. Typically time based test and maintenance will provide an overview of the asset condition. Engineering knowledge and analysis tools are utilised in ascertaining remaining life of these transformers.
Current value of the limit	Existing continuous and emergency static ratings.
Target limit	The transformers listed above will have dynamic rating capability continuously monitored, reported and applied in real time operation.
Priority project improvement target	Dynamic ratings (and life expectancy) of network transformers will be continuously monitored and reported.
Completion date	June 2018
Capital cost	\$900K
Operating cost	\$58K
Market Benefit	Increased and full utilisation of transformer capacity and capability, extending asset life and deferring capital investment for the replacement of these transformers. The annualised market benefit is \$750k.