Network Capability Incentive Parameter Action Plan (2014-2019)- Replacement Project

Project Number	35
Project Priority	9
Transmission Circuit / Injection Point	Transmission line substandard clearance compliance program
Project	Transmission line substandard clearance compliance for Waddamana–Liapootah No.1 220 kV, Waddamana–Tungatinah No 1 and 2 110 kV transmission circuits
Scope of works	Rectify identified substandard clearance on: i. TL 502:Waddamana–Liapootah No.1 220 kV transmission circuit ii. TL425:Waddamana–Tungatinah 110 kV transmission circuit (North) iii. TL426:Waddamana–Tungatinah 110 kV transmission circuit (South)
Reasons to undertake the project	Transmission circuit TL502 between Waddamana and Liapootah is designed to operate at 90^0C. Transmission circuits TL425 and TL426 between Waddamana and Tungatinah are designed to operate at 49^0C. A recent Light detection and Ranging (LiDAR) survey undertaken by TasNetworks identified that a number transmission sections of transmission circuits TL502, TL425 and TL426 have substandard ground clearances that presents safety and environmental risks. The identified substandard clearances will significantly constrain the flow during summer months as existing under clearances will only allow these circuits to operate as low as 21^0C conductor temperature for TL425, 10^0C conductor temperature for TL 426 and 21^0C conductor temperature for TL502 circuit respectively. Primary drivers to undertake this project are: • to increase transmission capacity by rectifying substandard clearances • to reduce TasNetworks safety and environment risks (bush fire) • to meet transmission line clearance compliance; and • to re-establish transmission circuit operateability to its design temperature.
Current value of the limit	Existing transmission line design temperature
Target limit	Increased transmission capacity as a result of transmission circuits restored to its design temperature by removing identified substandard clearances.
Priority project improvement target	Rectification of substandard clearances. Increase in line design temperature where possible.
Completion date	December 2016
Capital cost	$1,560,000
Operational cost	$0
Market benefit	It is estimated that this project potentially provide market benefit in the range of $163,010 and $978,779 per year
Project owner	Nicole Eastoe
Document number (Collaboration Zone)	R290483