

# Network Capability Incentive Parameter Action Plan (2014-2019)

<b>Project Number</b>	11
<b>Project Priority</b>	14
<b>Transmission Circuit / Injection Point</b>	LI-WA-PM 1 220kV LI-CL-RE-CS 1 220kV LI-CS 2 220kV GT-CO 4&5 220kV HA-NW 1&2 110kV
<b>Project</b>	Upgrade of dead end fittings on selected transmission lines.
<b>Scope of works</b>	Dead end assembly rating upgrade
<b>Reasons to undertake the project</b>	<p>Compression dead end fittings installed on five 220 kV and two 110 kV transmission circuits have a lower rating than that of the conductors to which the fittings are attached. The lower rating is due to the insufficient surface area at the point of connection between the fitting and the conductor palm, hence limiting current flow.</p> <p>This issue can impact on the 220 kV transmission corridor south of Palmerston during Basslink import, particularly under N-1 contingency situations. Under such circumstances, the power flow could be restricted to the firm capacity of the under rated dead end fittings. This will severely impact north-south power flow during winter months to supply southern loads.</p>
<b>Current value of the limit</b>	<p>The present Winter limits are:</p> <p>LI-WA-PM 1 220 kV – 840 A LI-CL-RE-CS 1 220 kV – 851 A LI-CS 2 220 kV – 851 A GT-CO 4&amp;5 220 kV – 938 A HA-NW 1&amp;2 110 kV – 840 A</p>
<b>Target limit</b>	<p>The target Winter limits are:</p> <p>LI-WA-PM 1 220 kV – 987 A LI-CL-RE-CS 1 220 kV – 873 A LI-CS 2 220 kV – 873 A GT-CO 4&amp;5 220 kV – 1032 A HA-NW 1&amp;2 110 kV – 949 A</p>
<b>Priority project improvement target</b>	Increased power transfer capability.
<b>Completion date</b>	June 2017
<b>Capital cost</b>	\$840K
<b>Operational cost</b>	\$0
<b>Market benefit</b>	<p>Increased power transfer capability on critical 220 kV and 110 kV transmission lines.</p> <p>The annualised market benefit of this project is approximately \$175,000.</p>