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

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| **Project Number** | 31 |
| **Project Priority** | 9 |
| **Transmission Circuit / Injection Point** | Basslink Tasmania – Victoria interconnector |
| **Project** | George Town Automatic Voltage Control Scheme (GTAVCS) 2.0 |
| **Scope of works** | The reduction in 220 kV fault level at George Town has resulted in issues associated with the switching of the 98 MVAR Basslink filter.<br>This project achieves reengineering of the GTAVCS for improved voltage control during low fault levels at George Town to allow for increased transfer from TAS to VIC. |
| **Reasons to undertake the project** | Export to Victoria is limited to less than 300 MW if George Town 220 kV fault level is less than 2540 MVA.<br>Beyond 300 MW export levels, the 98 MVAR Basslink filter bank may need to be in service, and beyond 500 MW the filter must be in service. However, switching this filter bank with low fault levels causes voltage quality issues at George Town and nearby customers. |
| **Current value of the limit** | After the commissioning of Basslink the GTAVCS was implemented to reduce the amount of manual intervention required to manage the steady state George Town 220 kV voltage. This scheme was tuned on the basis that the combined cycle gas turbine connected to George Town would be a base load generator.<br>With the change in operating patterns of this generator and the connection of more non synchronous generation the GTAVCS needs to be reengineered to take better account of the changed operating conditions.<br>The objective will be to enable a refinement of the new Basslink 300 MW export fault level constraint and to remove the requirement for manual intervention in the control of 220 kV voltage levels at George Town Substation. |
| **Target limit** | GTAVCS makes better use of the available generation through a refinement of the Basslink 300 MW export fault level constraint.<br>Removal of the requirement for manual intervention in the control of 220 kV voltage levels at George Town Substation. |
| **Priority project improvement target** | Improved, automated voltage control at George Town 220 kV bus at times of low fault level and Basslink export levels 300 MW or higher. |
| **Completion date** | June 2015 |
| **Capital cost** | $480K |
| **Operating cost** | $0 |
| **Market Benefit** | Increased interregional transfers between Tasmania and Victoria, and reduced requirement for Tasmanian generation to run in synchronous condenser mode.<br>Removal of the requirement for manual intervention in the control of 220 kV voltage levels at George Town Substation, freeing up control room resources for other higher priority activities.<br>Efficiency gains resulting from these improvements will provide approximately $424,000 benefit annually. |