



Generation Scenarios

Purpose of generation scenarios:

A set of generation scenarios to be used for SFT constraint assessments has been agreed by the constraint information working group, this is a living document and will be updated based on experience. The aim of the list is to ensure scenarios which will identify unique constraints are studied, while keeping scenarios to a minimum so that studies are performed efficiently and turn around for requests is as quick as possible.

Application of generation scenarios:

The methodology applied to the generation scenarios is that where the scenario specifies high the generation is increased until the first constraint binds within 90%. If the scenario specifies low then the generation is decreased until the first constraint binds within 90%. If the generation scenario specifies medium then the generation is left at a moderate value. The moderate generation scenario is applied when changing that generation is not expected to identify unique constraints in the given scenario.

Updating the scenarios:

The SO may amend scenarios from time to time based on experience from studies or real-time occurrences of constraints. If a participant would like a scenario added then email: OPS.Planner@transpower.co.nz and include the following information:

- Region of the scenario
- GIP of Stations to be modified in the scenario
- The level to set the generation (high, low, medium)
- Any examples of unique constraints that this scenario has produced in the past or that you expect the scenario to produce, as well as the grid configuration you expect such constraints to be produced under.

The generation scenario will then be studied by the SO and will be updated in consultation with the requesting party if the scenario is found to identify unique constraints not already identified by existing scenarios.

Upper North Island:

STN	Scenario 1	Scenario 2	Scenario 3
SWN	Off	Off	High
HLV	Low	Low	High
ARI	High	Low	Med
KPO	High	Low	Med

Waikato:

STN	Scenario 1	Scenario 2	Scenario 3
OHK	Low	High	Low
ATI	High	Low	Low
WRK	High	High	High
WKM	High	High	High
KAG	On	On	Low

Hawkes Bay:

STN	Scenario 1	Scenario 2
TUI	High	Low

Lower North Island:

STN	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
DC	North	North	North	South	South
SPL/SFD	Off	On	On	On	Off
TKU	High	High	Low	High	Low



<i>RPO</i>	High	Low	High	High	Low
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Upper South Island:

STN	Scenario 1	Scenario 2
<i>COL</i>	High	Low
<i>COB</i>	High	Low
<i>TKA</i>	Off	Off
<i>TKB</i>	Off	Off

Waitaki:

STN	Scenario 1	Scenario 2	Scenario 3
<i>Southland</i>	High	High	Low
<i>WTK</i>	Low	High	High
<i>AVI</i>	Low	High	High
<i>BEN</i>	Low	High	High
<i>OHA-C</i>	High	Low	High

Southland:

STN	Scenario 1	Scenario 2
<i>MAN</i>	High	Low
<i>ROX 110</i>	High	Low
<i>ROX 220</i>	High	High
<i>CYD</i>	High	High