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Tasmania - Minimum Network Performance Requirements

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Overview

- Introduction
- Objective of Regulations
- Key Points
- Background
- Reliability and Network Planning Panel Report
- Key Provisions – Regulation 5
- Key Provisions – Regulation 6
- Summary



Objective of Regulations

Electricity Supply Industry (Network Performance Requirements) Regulations 2007

- The objective of the regulations is to specify the minimum network performance requirements that a planned power system of a transmission network service provider must meet in order to satisfy the reliability limb of the regulatory test in the National Electricity Rules.

Key Points

- Standards are an important judgement - trade off between cost and quality – those affected should have a say.
- The regulations set the standards that Transend as the transmission network service provider in Tasmania needs to meet in “planning” the transmission system.
- The MNPRs are not directly related to the current operational status of the system. i.e. Transend must plan to meet them.

Key Points

- Regulations apply to the prescribed transmission system.
- Prescribed transmission system is a National Electricity Rules defined term.
- Review on Minimum Network Performance Requirements (MNPRs) in 5 years.

Background

- Drivers
 - National Electricity Rules
 - Licence conditions imposed by the Office of the Tasmanian Energy Regulator (OTTER).
- Reliability and Network Planning Panel (RNPP) expert advisory body to the Tasmanian Energy Regulator.
- RNPP requested to review and make recommendations on “transmission planning and security criteria”.

Background

- November 2005 - consultation paper released.
- Forum and submissions on paper - December 2005 to February 2006.
- Draft report, March 2006 - MNPRs developed.
- Consultation on draft report.
- Final report of the RNPP released in July 2006.
- Legislation implemented December 2007.

Reliability and Network Planning Panel (RNPP) Report

- The RNPP report provided the policy framework for the development of the *Electricity Supply Industry (Network Performance Requirements) Regulations 2007*.
- The Regulations implement the recommendations of the RNPP report.

RNPP Report

- RNPP considered Deterministic (N-x) and Probabilistic approaches.
- RNPP view that neither optimal for Tasmania:
 - Deterministic approach - doesn't encourage innovative solutions, inflexible, transmission focused.
 - Probabilistic approach - data intensive analysis, complex methodology.

RNPP Report

- RNPP viewed that criteria should be:
 - Performance based
 - Not discriminate against certain technical solutions
 - Non-prescriptive as to how outcomes achieved

RNPP Report

- RNPP reports states that MNPRs:
 - Draw on historical experience of Tasmania's transmission system where use of “good industry practice” has delivered a secure and reliable transmission system.
 - Apply to shared transmission network and that part of the network that supplies the distribution system.

RNPP Report

RNPP reports states that MNPRs:

– Have two elements:

1. Local interruptions during normal operating conditions.

2. Exposure where a network element has been withdrawn.

– Allow transmission network service providers to determine the least cost solution.

Key Provisions – Regulation 5

A planned power system must meet:

- (a) in respect of an intact transmission system –
 - no more than 25 MW of load is to be capable of being interrupted by a credible contingency event; and
 - no more than 850 MW of load is to be capable of being interrupted by a single asset failure; and
 - load that is interrupted by a single asset failure is not to be capable of resulting in a black system; and
 - the unserved energy to load that is interrupted consequent on damage to a network element resulting from a credible contingency event is not to be capable of exceeding 300 MWh at any time; and
 - the unserved energy to load that is interrupted by a single asset failure is not to be capable of exceeding 3000 MWh at any time.

Key Provisions – Regulation 5

A planned power system must meet:

- (b) in respect of a transmission system that is not an intact transmission system, the active energy exposed to interruption by a credible contingency event is not to be capable of exceeding 18 000 MWh at any time.

For the purpose of calculating unserved energy any replacements or repairs undertaken must be taken to not exceed:

- (a) 48 hours to repair a transmission line; or
- (b) 8 days to replace a transformer; or
- (c) 18 days to replace an autotransformer.

Key Provisions – Regulation 6

A transmission network service provider must seek Ministerial approval for proposed augmentations to the transmission system to meet the MNPRs where the present value of the costs of constructing, operating and maintaining the proposed augmentation exceeds **\$15 million**.

Key Provisions – Regulation 6

Reasoning

- Public policy objective - ensure that wider benefits and costs of investments in the transmission network are considered by transmission network service providers.
- The Minister seeking to ensure that large capital projects are delivering benefits to the Tasmanian community and the risk of over investment in the network is minimised.

Summary

- Important basis for capex approval
- Tasmania has developed what we expect to be a practical middle path between deterministic and probabilistic approaches
- Some extra assurances for the larger projects.



Thank you

Questions ?