



Independent Pricing and Regulatory Tribunal
New South Wales

Electricity networks audit guideline – Transmission reliability standard



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1 Transmission reliability standard

Audit requirements outlined in this document apply to TransGrid¹ only.

TransGrid is required, under condition 3 of its operating licence, to comply with any transmission reliability and performance standard issued by the Minister. The *NSW Electricity Transmission Reliability and Performance Standard 2017* (Standard) was issued by the Minister for Energy and Utilities on 1 June 2017, to apply from 1 July 2018.

All audits must be carried out in accordance with this Guideline and IPART's *Audit Guideline - Audit fundamentals, process and timing*.

1.1 Objective

The objective of this audit is to assess the network operator's compliance with the Standard.

1.2 Scope

The audit must be comprehensive in assessing the network operator's compliance in accordance with any particulars as may be requested by the Independent Pricing and Regulatory Tribunal (IPART) from time to time.

TransGrid will be compliant with the Standard if it can demonstrate that the transmission system is designed such that each bulk supply point (BSP):

1. meets the redundancy category specified in the Standard, and
2. does not exceed the annual allowance for expected unserved energy specified in the Standard, where the annual expected unserved energy is to be calculated using the methodology available on IPART's website.

As an alternative to complying with (1) (clause 3 of the Standard), TransGrid can seek and obtain IPART's written approval in respect of a plan or plans under clause 5(a) of the Standard and implement the plan or plans to IPART's satisfaction. As an alternative to complying with (2) (clause 4 of the Standard), TransGrid can seek and obtain IPART's written approval in respect of a plan or plans under clause 6(a) of the Standard and implement the plan or plans to IPART's satisfaction.

1.3 Interpretation

Clauses 3 and 4 of the Standard require the licence holder to "ensure that the transmission system is designed such that" it meets the levels of redundancy and expected unserved energy allowances prescribed in clause 8. For the avoidance of any doubt, that means that

¹ NSW Electricity Networks Operations Pty Limited (ACN 609 169 959) as trustee for the NSW Electricity Networks Operations Trust.



the existing physical assets must be designed to meet those requirements; it is not sufficient that there is a plan on paper for the transmission system to meet those requirements.

Clause 7(d) of the Standard requires the licence holder to submit a proposal to the Tribunal “at least 90 days before entering into any contract for the construction of a new bulk supply point...”. For the purposes of clause 7(d) of the reliability standard, we consider “any contract for the construction” refers to “any contract for the civil and electrical construction works”.

1.4 Specific auditor expertise

The auditor must be approved by IPART. This can be achieved by the auditor being on our audit panel or being approved by IPART following a request from TransGrid. When assessing whether to approve the auditor, we will consider their auditing skills and experience as well as their qualifications and experience with network planning.

More information about obtaining auditor approval is included in a separate document - *Audit Guideline - Audit fundamentals, process and findings* available on IPART’s website.

1.5 Audit timing

Audit timing will be at the discretion of IPART and will be included in any request to undertake an audit.

1.6 Criteria

The auditor will review audit evidence to test against the audit criteria listed in Table A.1 in Appendix A, as it applies to the scope provided by IPART in its request.



Appendices



A Audit criteria for transmission reliability audits

Table A.1 Minimum audit criteria for audits of compliance with the reliability standard

Reference – the Reliability Standard	Minimum audit criteria	Auditor’s comments	Audit Grade
Clause 3	The transmission system must be designed such that, for each bulk supply point listed in the table in clause 8, the transmission system achieves the level of redundancy category specified for that bulk supply point in the table in clause 8, except to the extent that the Licence Holder is not required to comply with clause 3 of the Standard due to clause 5(a) of the Standard.		
Clause 4	The transmission system must be designed such that the annual expected unserved energy in respect of a bulk supply point listed in the table in clause 8 does not exceed the allowance for expected unserved energy specified for that bulk supply point in the table in clause 8.		
Clause 4	The annual expected unserved energy has been calculated using a methodology consistent with IPART’s methodology (as published on IPART’s website).		
Clause 4	The inputs used by the Licence Holder in their methodology are correct and free of errors. See the full list in Table B.1 in IPART’s <i>Electricity Networks Reporting Manual for the Transmission Reliability Standard</i> .		
Clause 5(b)	If IPART has advised the Licence Holder in writing that it is satisfied that one or more plans submitted under clause 5(a)(i) would, if implemented, be likely to provide a greater net-benefit than would be provided by the Licence Holder complying with clause 3 in relation to the bulk supply point or points that are the subject of the plan or plans, and to the extent that clause 5(d)(i) does not apply to the plan or plans, the Licence Holder must implement the plan or plans within a time specified by IPART and to the reasonable satisfaction of IPART.		
Clause 6(b)	If, in respect of one or more plans submitted under clause 6(a)(i), IPART has advised the Licence Holder in writing that it is satisfied of the matters set out in clause 6(a)(iii), and to the extent that clause 6(d)(i) does not apply to the plan or plans, the Licence Holder must implement the plan or plans within a time specified by IPART and to the reasonable satisfaction of IPART.		