



Independent Pricing and Regulatory Tribunal
New South Wales

Electricity networks reporting manual – Transmission reliability standard

© Independent Pricing and Regulatory Tribunal (2018)

With the exception of any:

- (a) coat of arms, logo, trade mark or other branding;
- (b) third party intellectual property; and
- (c) personal information such as photos of people,

this publication is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia Licence.



The licence terms are available at the Creative Commons website:
<https://creativecommons.org/licenses/by-nc-nd/3.0/au/legalcode>

IPART requires that it be attributed as creator of the licensed material in the following manner: © Independent Pricing and Regulatory Tribunal ([Year of Publication]).

The use of any material from this publication in a way not permitted by the above licence or otherwise allowed under the *Copyright Act 1968* (Cth) may be an infringement of copyright. Where you wish to use the material in a way that is not permitted, you must lodge a request for further authorisation with IPART.

Disclaimer

IPART does not guarantee or warrant, and accepts no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained in this publication.

Information in this publication is provided as general information only and is not intended as a substitute for advice from a qualified professional. IPART recommends that users exercise care and use their own skill and judgment in using information from this publication and that users carefully evaluate the accuracy, currency, completeness and relevance of such information. Users should take steps to independently verify the information in this publication and, where appropriate, seek professional advice.

Nothing in this publication should be taken to indicate IPART's or the NSW Government's commitment to a particular course of action.

ISBN 978-1-76049-187-1

The Independent Pricing and Regulatory Tribunal (IPART)

IPART provides independent regulatory decisions and advice to protect the ongoing interests of the consumers, taxpayers and citizens of NSW. IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website: <https://www.ipart.nsw.gov.au/Home>.

Tribunal Members

The Tribunal members for this review are:

Dr Peter J Boxall AO, Chair
Mr Ed Willett
Ms Deborah Cope

Enquiries regarding this document should be directed to a staff member:

Christine Allen (02) 9290 8412
Nadja Daellenbach (02) 9290 8407

Amendment record

Issue	Date issued	Amendments made
ENRM – Transmission reliability standard	October 2017	First issue of the new reporting manual for transmission reliability.
ENRM – Transmission reliability standard	April 2018	Inserting sign-off requirements on reports. Minor formatting improvements.

Contents

1	Compliance with transmission reliability standard	1
1.1	Annual reports	1
1.2	Ad hoc information submissions to IPART	3
1.3	Additional information on asset risk profiles	4
	Appendices	5
A	Annual Compliance Report Pro-Forma	7
B	Summary of obligations in the transmission reliability standard	8

1 Compliance with transmission reliability standard

Reporting 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.

Condition 11 of the Transmission Operator's Licence under the *Electricity Supply Act 1995* (NSW), requires TransGrid to prepare and submit reports in accordance with any applicable Reporting Manuals issued by the Independent Pricing and Regulatory Tribunal (IPART). The reporting requirements outlined in this Reporting Manual will assist IPART to determine whether or not the licence holder is complying with the Standard.

From time to time, IPART might request further information from TransGrid to assist in determining compliance or for another purpose.

1.1 Annual reports

TransGrid is required to report on its compliance with the Standard annually. Annual reports should include the information set out below.

1.1.1 Information regarding compliance with clause 3 of the Standard – level of redundancy

For each bulk supply point (BSP), TransGrid is required to:

- ▼ report on the level of redundancy achieved in respect of that BSP, and
- ▼ provide a network/circuit diagram depicting how that level of redundancy is achieved.

For a BSP where non-network solutions are relevant to the level of redundancy achieved, TransGrid is required to provide evidence of how the non-network solutions contribute to achieving the level of redundancy, such as any relevant third party agreements. For third party agreements, we will consider what the arrangement is and how it will impact on compliance with the redundancy requirements of the reliability standard. We will also have regard to minutes from joint planning meetings that evidence the network arrangement, and the term of the arrangement.

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

1.1.2 Information regarding compliance with clause 4 of the Standard – Expected Unserved Energy (EUE)

TransGrid is required to report its levels of EUE for each of its BSPs. IPART assesses TransGrid's compliance using the methodology available on our website.

For each BSP, TransGrid is also required to report the inputs used to calculate the amount of unserved energy. Numerical inputs will be required to be provided prior to the commencement of a new regulatory period to allow a review of EUE allowances. These inputs are:

- ▼ failures per transformer per annum
- ▼ failures per annum per 100km overhead line
- ▼ failures per annum per 100km underground cable
- ▼ mean hours to replace/repair transformer
- ▼ mean hours to repair overhead line
- ▼ mean hours to repair cable.

1.1.3 Evidence of agreement to share assets

Where the EUE calculation includes the usage of assets controlled by someone other than TransGrid, TransGrid should submit evidence of an agreement to use these assets and include the agreed availability. For third party agreements, we will consider evidence establishing:

- ▼ the network arrangement, and the duration of that arrangement, where the agreement is for compliance with redundancy requirements, or
- ▼ an asset's contribution to the EUE calculations of a BSP.

Such evidence could include signed meeting minutes of joint planning meetings between TransGrid and Ausgrid (or another network operator) or an exchange of letters. Evidence should be submitted to IPART as an attachment to the annual report.

Non-network solutions

For a BSP where non-network solutions are relevant to the calculation of EUE, TransGrid is required to provide evidence of how the non-network solutions affect the level of EUE, such as any relevant third party agreements. As above, this evidence would need to confirm how the non-network solution will contribute to the EUE calculations of a BSP.

1.1.4 Network/circuit diagrams relevant to compliance with the Standard

TransGrid is required to report network/circuit diagrams in the annual compliance self-report, where a permanent change to the network is made that impacts compliance with the Standard. TransGrid is not required to submit all network/circuit diagrams when a change has been made, only those that have been altered by the change. Such changes include the commissioning or decommissioning of a line or BSP that is relied upon to meet redundancy requirements, EUE allowances, or plans that have been approved by the Tribunal.

1.1.5 Declaration of compliance

TransGrid must provide a declaration with its annual compliance report, that TransGrid complies with the obligations in this standard except to the extent disclosed in its report. Appendix A provides a template for this statement.

The CEO or equivalent (eg, Managing Director if there is no CEO), must sign the statement of compliance. Where the CEO (or equivalent) has delegated this responsibility, IPART may request evidence of the delegation.

The annual report must disclose all instances where TransGrid fails to comply with any obligations in the Standard, describing:

- ▼ the extent and nature of the non-compliance including whether and how many customers and/or other network operators are affected
- ▼ the reasons for non-compliance
- ▼ the actions taken, or proposed, to rectify the non-compliance and to prevent it reoccurring, and
- ▼ the anticipated date of full compliance and the state of the remedial action as at 30 June of the reporting year.

Appendix B provides a summary of the obligations to report against.

1.1.6 Timing and lodgement

TransGrid must report annually in compliance with this manual, covering a financial year from 1 July each year.

The report is due to IPART no later than 31 August each year, or at an alternate date approved by IPART. It must be included as part of TransGrid's annual licence compliance report.

TransGrid must lodge annual compliance reports by email to energy@ipart.nsw.gov.au. It should provide contact details (phone, email) of the primary contact as well as an alternative contact for those times when the primary contact is unavailable.

1.2 Ad hoc information submissions to IPART

From time to time, IPART may request further information from TransGrid to assist in determining compliance or for another purpose. For instance, we may request the asset risk register to inform a review of the reliability standard. A separate information request would be issued and would include a reasonable timeframe for TransGrid to respond.

IPART may also request the estimated EUE for a new BSP where there is insufficient historical information for the load the BSP is expected to supply. In this case, IPART will consider the use of a load duration curve from an existing BSP with a similar load type, scaled to the anticipated maximum demand.

Clause 7 of the Standard requires TransGrid to comply with a request from IPART, within a reasonable timeframe nominated by IPART, for information which IPART considers to be necessary or convenient for monitoring compliance with the Standard.

Clause 7(d) of the Standard requires TransGrid to:

- ▼ submit a proposal for any new BSP that proposes a level of redundancy and EUE for the new BSP
- ▼ provide reasons justifying the proposal, and
- ▼ submit the proposal at least 90 days before entering into any contract for the construction of the new BSP.

For clarity, we consider the relevant construction contracts to be those associated with the civil and electrical construction works.

1.3 Additional information on asset risk profiles

TransGrid must provide IPART with reports it requests from time to time containing information on annual asset failure rates and risk profiles for major asset classes.



Appendices



A Annual Compliance Report Pro-Forma

Annual Compliance Report for 20

Submitted by *[Name of network]* ACN:

To: The Chief Executive Officer
Independent Pricing and Regulatory Tribunal of NSW
PO Box K35
Haymarket Post Shop NSW 1240

[Name of network] reports as follows:

1. This report documents compliance at 1 July *[year]* with all obligations to which *[Utility]* is subject by virtue of its Transmission Operator Licence.
2. This report has been prepared by *[Name of network]* with all due care and skill in full knowledge of conditions to which it is subject and in compliance with IPART's *[current Electricity networks reporting manual – Transmission reliability standard]*.
3. Schedule A provides information on all obligations with which *[Name of network]* did not fully comply at 1 July *[year]*.
4. Other than the information provided in Schedule A, *[Name of network]* has complied with all conditions to which it is subject.

DATE:

Signed:

Name:

Designation:.....

Note: The signatory must be CEO or equivalent (eg, Managing Director if there is no CEO), or a duly authorised staff member. Where the CEO (or equivalent) has delegated this duty, IPART may request evidence of the delegation.

B Summary of obligations in the transmission reliability standard

Table B.1 Minimum reporting requirement against the reliability standard

IPART Code	Condition number	Name of reporting requirement	Brief description of obligation in the Standard
RS1	3	System designed to achieve prescribed level of redundancy	The Licence Holder must ensure that the transmission system is designed such that, for each BSP listed in the table in clause 8, the transmission system achieves the level of redundancy category specified for that BSP 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.
RS2	4	System designed so as not to exceed prescribed allowances for EUE	The Licence Holder must ensure that the transmission system is designed such that the annual EUE in respect of a BSP listed in the table in clause 8 does not exceed the allowance for EUE specified for that BSP in the table in clause 8, except to the extent that the Licence Holder is not required to comply with clause 4 of the Standard due to clause 6(a) of the Standard.
RS3	5(b)	Implementation of approved plans – level of redundancy	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 BSP 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.
RS4	6(b)	Implementation of approved plans – EUE	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.
RS5	7(a) and 7(b)	Provide information to IPART	The Licence Holder must comply with any request by IPART made under clause 7(a), within a reasonable timeframe notified to the Licence Holder by IPART.

IPART Code	Condition number	Name of reporting requirement	Brief description of obligation in the Standard
RS6	7(c)	Audit compliance	<p>If reasonably requested to do so by IPART, the Licence Holder must commission an audit of its compliance with the Standard (or specified aspects of the Standard). The audit must be conducted:</p> <ul style="list-style-type: none"> a) by an auditor approved by IPART in writing; b) at the expense of the Licence Holder; and c) such that a report on the audit by the auditor is provided to IPART within a reasonable timeframe notified to the Licence Holder by IPART.
RS7	7(d)	Planning for new BSP	<p>At least 90 days before entering into any contract for the civil and electrical construction works of a new BSP intended to form part of the transmission system (or within a different timeframe proposed by the Licence Holder and agreed to in writing by IPART), the Licence Holder must submit a proposal regarding the new BSP to IPART. The proposal must:</p> <ul style="list-style-type: none"> a) propose a level of redundancy category that this standard should specify for the new BSP; b) propose a level of EUE that this standard should specify for the new BSP; and c) set out reasons justifying the level of redundancy category and level of EUE proposed.

Note: TransGrid should also refer to the complete wording in the transmission reliability standard

