

Independent Pricing and Regulatory Tribunal
New South Wales

Electricity networks audit guideline

Distribution reliability audits

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Tribunal Members

The Tribunal members are:

Dr Paul Paterson, Chair

Mr Ed Willet

Ms Deborah Cope

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

Darren Holder (02) 9290 8441

Sachin Singh (02) 9113 7784

Amendment record

Issue	Date issued	Summary of amendments made
ENRAG - original	June 2016	First release of final Audit Guideline.
ENRAG v2	May 2017	Addition of Ms Deborah Cope as a Committee member, replacing Ms Catherine Jones. Amendments to Chapter 3 and appendix A regarding audit process. Addition of section 3.5.5. Removal of section 3.7.1 from previous version. Amendments to chapter 7, mainly to reflect changes to Ausgrid's operating licence. Minor changes to Table D.1. Addition of Table D.2 reflect changes to Ausgrid's operating licence. Various further amendments unrelated to reliability and performance audits.
ENRAG v3	May 2017	Various amendments unrelated to reliability and performance audits.
ENRAG – Reliability and performance - draft	October 2017	Separate Audit Guidelines published. Minor wording changes on page 1. Addition of conditions 17.3, 17.4, 17.5 and 17.8 to the audit criteria in Table A.1 (Table D.1 in earlier versions). Updating table A.2 to reflect conditions in Endeavour Energy's new operating licence.
ENRAG – Reliability and performance	July 2019	Deletion of Table A.1 (previous version) Addition of conditions 5A and 7.3A to audit criteria in new Table A.1 (Table A.2 in previous versions).

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1 Reliability audit for licensed electricity distribution networks

These audit requirements apply to licensed electricity distribution networks only.

The Minister imposed additional licence conditions on electricity distribution networks relating to reliability and performance (referred to in this Guideline as 'the conditions'). The conditions were imposed pursuant to item 6(1)(b) of Schedule 2 of the *Electricity Supply Act 1995 NSW* (the ES Act), and are contained in:

- ▼ The *Schedule listing Ministerially imposed licence conditions for distribution network service providers* for Essential Energy.
- ▼ The *Schedule of Ministerially imposed licence conditions for the operator of a transacted distribution system* for Ausgrid.
- ▼ The *Schedule of Ministerially imposed licence conditions for the operator of a transacted distribution system* for Endeavour Energy.

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

1.1 Objective

The objective of a reliability and performance audit is to assess the licence holder's compliance with the specific licence conditions that relate to reliability and performance, over a given financial year.

1.2 Scope

This audit is to assess the licensed electricity distribution network's compliance with licence conditions relating to reliability and performance and to assess the accuracy of data and calculations used to report compliance with the conditions.

The audit also covers the quarterly reliability and customer satisfaction data that was reported to IPART over the preceding financial year.

1.3 Specific auditor expertise

An approved reliability auditor must have:

- ▼ Familiarity with the electricity supply industry in Australia, especially NSW.
- ▼ Familiarity with the IT and performance reporting systems used in the electricity supply industry to record and report information of the type that is the subject of this audit.

- ▼ Experience in verifying the integrity of data entry and data processing systems used in the electricity supply industry.
- ▼ Experience in, and detailed knowledge of operational or compliance auditing required on this assignment.

1.4 Audit timing

An independent audit must be conducted after the end of each financial year to audit the licence holder's performance against the performance and reliability licence conditions. The licence holder should nominate an auditor by 1 May each year and must provide a copy of the auditor's report by 30 September to IPART. Table 1.1 shows the proposed timeline for the audit process.


Table 1.1 Proposed timeline for reliability audits

Deadline	Indicative date	Steps
By 1 May		Auditor nomination received by IPART for approval, if the preferred auditor has not been pre-approved on the audit panel. It is at the ENO's discretion whether it submits the proposal at this stage or waits until the auditor is approved.
By 1 June		The auditor nomination and detailed audit proposal is submitted for approval if using a pre-approved auditor.
	Within 10 working days of receipt, unless more information is needed.	IPART approves auditor nomination and proposal (or requests further information, or does not approve).
By 1 July		IPART receives signed deed poll from the approved auditor and licensee. Audit can commence.
	1 September	Auditor's draft report due to IPART.
	15 September	Feedback on the draft audit report provided to auditors.
By 30 September		Final report submitted to the Minister and IPART.

1.5 Criteria

The auditor will review audit evidence to test against the audit criteria listed in Table A.1 of Appendix A. Where possible, the criteria should be tested as though the audit took place during the specified financial year ending June 30 to determine whether compliance was achieved during this period.

The licence holders must submit the first quarterly report on individual customer standards to IPART by 30 April 2020 as this will mark the passing of the first 12 month period where the condition applies. After submission of this first report, the licence holders must submit the following quarterly reports to IPART within a month of the end of March, June, September and December as noted under conditions 5A.2 and 5A.3.



These audits are independent audits. The evidence reviewed by the auditor should be sufficient for the auditor to form an opinion consistent with Table 4.1 in IPART's *Electricity Networks Audit Guideline – Audit fundamentals, process and findings*.

1.6 Findings

The audit opinion sought by IPART is 'limited assurance' that the licence holder has complied with the conditions (see *Electricity Networks Audit Guideline – Audit fundamentals, process and findings*).

1.6.1 Audit grades

The auditor is required to give a two-part grade for the assessment of data reliability and accuracy **in addition** to an overall accuracy grade for each licence condition. The data reliability and accuracy grades are explained and presented in Appendix B of IPART's *Electricity Networks Audit Guideline – Audit fundamentals, process and findings*.



Appendices

A Audit criteria for reliability audits

Table A.1 Reliability audit criteria – audits against compliance with the *Ministerially imposed licence conditions for the operator of a transacted distribution system (Applicable to Ausgrid, and Endeavour Energy)* and *Ministerially imposed licence conditions for distribution network service providers (Applicable to Essential Energy)*

Licence condition reference	Minimum criteria	Auditor's comments	Audit Grade
Network overall reliability standards			
4.1	The licence holder has not exceeded the SAIDI ^a average standards that apply to its feeder types in a financial year (when excluded interruptions are disregarded). Review in reference to Schedule 2, Table 1 of the licence.		
4.2	The licence holder has not exceeded the SAIFI ^b average standards that apply to its feeder types in a financial year (when excluded interruptions are disregarded). Review in reference to Schedule 2, Table 2 of the licence.		
Individual feeder performance			
5.1	The licence holder has complied with licence conditions 5.2(a) – (g) below in circumstances where one or more of the feeders of a licence holder exceed the relevant individual feeder standards for any 12 month period ending at the end of March, June, September or December (when excluded interruptions are disregarded).		
5.2 (a)	The licence holder has investigated the causes for each feeder exceeding the individual feeder standards.		
5.2 (b)	The licence holder has completed an investigation report identifying the causes and as appropriate, any action required to improve the performance of each feeder to the individual feeder standards, and such report was completed by the end of the quarter following the quarter in which the feeder first exceeded the individual feeder standards.		

Licence condition reference	Minimum criteria	Auditor's comments	Audit Grade
5.2 (c)	The licence holder has completed any operational actions identified in the investigation report to improve the performance of each feeder against the individual feeder standards by the end of the third quarter following the quarter in which each feeder first exceeded the individual feeder standards.		
5.2 (d)	Where the investigation report identifies actions (other than operational actions) that are required to improve the performance of each feeder to the individual feeder standards, the licence holder has developed a project plan including implementation timetable and commenced its implementation by the end of the second quarter following the quarter in which the feeder first exceeded the individual feeder standards (except as permitted by licence condition 5.2(e)).		
5.2 (e)	The licence holder has considered non-network strategies which provide reliable outcomes for customers, and adopted such strategies where found by the investigation report to be equal or more cost-effective than the lowest cost feasible network option.		
5.2 (f)	The licence holder has ensured that the implementation timetable for the project plan or alternative non-network solutions is as short as is reasonably practicable.		
5.2 (g)	Where all reasonable steps to improve supply reliability have been taken, the licence holder has subjected the costs of further actions to rectify the non-compliance to a cost-benefit analysis. Where such analysis did not provide a positive benefit, and no further action was undertaken to improve the feeder's performance, the ongoing non-conformance with the individual feeder standards has been reported by the licence holder to the Minister.		
5.3	The investigation report included a documented rectification plan where action was found to be justified in order to improve the performance of a feeder to the individual feeder standards.		
Individual customer standards			
5A.2	The licence holder has complied with licence condition 5A.4 in circumstances where the <i>minutes interrupted</i> exceed the relevant individual customer standards in any 12 month period ending at the end of March, June, September or December (when excluded interruptions are disregarded).		
5A.3	The licence holder has complied with licence condition 5A.4 in circumstances where the <i>number of interruptions</i> exceed the relevant individual customer standards in any 12 month period		

Licence condition reference	Minimum criteria	Auditor's comments	Audit Grade
	ending at the end of March, June, September or December (when excluded interruptions are disregarded).		
5A.4 (a)	The licence holder has investigated the causes for <i>minutes interrupted</i> or <i>number of interruptions</i> (as the case may be) exceeding the individual customer standards.		
5A.4 (b)	<p>The licence holder has completed an investigation report, by the end of the quarter following the quarter in which the minutes interrupted or number of interruptions (as the case may be) first exceeded the individual customer standards, that:</p> <ul style="list-style-type: none"> ▼ identifies the causes for exceeding the individual customer standards ▼ as appropriate, any action required to improve the performance against the individual customer standards, and ▼ consider terms of the connection contract (including network security arrangements) agreed with the customer of the affected connection point, including when the customer was connected to the distribution system 		
5A.4 (c)	The licence holder has completed any operational actions identified in the investigation report to improve performance against the individual customer standards by the end of the third quarter following the quarter in which the <i>minutes interrupted</i> or <i>number of interruptions</i> (as the case may be) first exceeded the individual customer standards.		
5A.4 (d)	Except as permitted by licence condition 5A.4(e), where the investigation report identifies actions (other than operational actions) that are required to improve performance against the individual customer standards, the licence holder has developed a project plan including implementation timetable and commenced its implementation by the end of the fourth quarter following the quarter in which the <i>minutes interrupted</i> or <i>number of interruptions</i> (as the case may be) exceeded the individual customer standards.		
5A.4 (e)	The licence holder has considered non-network strategies which provide reliable outcomes for customers, and adopted such strategies where found by the investigation report to be equal or more cost-effective than the lowest cost feasible network option.		

Licence condition reference	Minimum criteria	Auditor's comments	Audit Grade
5A.4 (f)	The licence holder has ensured that the implementation timetable for the project plan or alternative non-network solutions is as short as is reasonably practicable.		
5A.4 (g)	Where all reasonable steps to improve supply reliability have been taken, the licence holder has subjected the costs of further actions to rectify the non-compliance to a cost-benefit analysis. Where such analysis did not provide a positive benefit, no further action has been undertaken to improve <i>minutes interrupted</i> or <i>number of interruptions</i> (as the case may be) and the ongoing non-conformance with the individual customer standards has been reported by the licence holder to the Minister.		
5A.5	The investigation report included a documented rectification plan where action was found to be justified in order to improve the <i>minutes interrupted</i> or <i>number of interruptions</i> (as the case may be) against the individual customer standards. The action that is required...		
Customer service standards			
6.1	The licence holder has paid \$80 to a customer on each occasion when the licence holder has exceeded the interruption duration standard at a customer's premises and the customer has made a claim to the licence holder within three months of that interruption ceasing.		
6.2	The licence holder has paid \$80 to a customer where the licence holder has exceeded the interruption frequency standard at a customer's premises in a financial year and the customer has made a claim to the licence holder within three months of the end of the financial year to which the interruptions relate.		
6.3	Claims made under condition 6 were determined within 1 month of receipt, and the notice of determination included either: <ul style="list-style-type: none"> ▼ the amount to be paid, and manner and timing of payment, or ▼ reasons for the decision if the claim is not paid or only partially paid. 		
6.4	The licence holder has taken reasonable steps to make customers aware of the availability of payments on the terms set out in condition 6. Reasonable steps include.....		
6.5	The licence holder has made only one payment of \$80 to a customer per premises in a financial year for exceeding the interruption frequency standard.		

Licence condition reference	Minimum criteria	Auditor's comments	Audit Grade
6.6	The licence holder has paid no more than \$320 under condition 6 to a customer per premises in the financial year.		
Performance monitoring and reporting			
7.1, 7.2	<p>The licence holder has submitted a quarterly network overall reliability standards report within one month of the end of each quarter to the Tribunal, which includes:</p> <ul style="list-style-type: none"> ▼ an accurate statement of performance against SAIDI average standards and SAIFI average standards by feeder type for the previous 12 months, disregarding excluded interruptions ▼ adequate reasons for any non-compliance by the licence holder with the network overall reliability standards in the previous 12 months and plans to improve performance, and ▼ any other matter formally notified by the Tribunal in writing. 		
7.3	<p>The licence holder has submitted a quarterly individual feeder standards report on feeders that exceeded the relevant standard, within one month of the end of each quarter, to the Tribunal, which includes:</p> <ul style="list-style-type: none"> ▼ the date at which any feeder first exceeded the relevant individual feeder standard, together with the actual SAIDI and SAIFI performance of the feeder for the previous 12 month period ▼ details of the remedial action that the licence holder intends taking, or has taken, to improve the performance of those feeders, and ▼ either: <ul style="list-style-type: none"> – the date of completion, or the date of planned completion, of the remedial action plan, or – details of the investigation and action proposed or undertaken leading to the decision to advise the Tribunal that is not economically justifiable to bring the feeder performance into compliance with the individual feeder standards. ▼ any other matter notified by the Tribunal in writing 		
7.3A	<p>The licence holder has submitted a quarterly individual customer standards report on instances where conditions 5A.2 and/or 5A.3 applied to the Tribunal, together with the following details within one month of the end of each quarter, which includes:</p> <ul style="list-style-type: none"> ▼ the date at which <i>minutes interrupted</i> or <i>number of interruptions</i> (as the case may be) exceeded the relevant individual customer standard, together with the actual <i>minutes interrupted</i> or <i>number of interruptions</i> (as the case may be) for the affected connection point for the 12 month period 		

Licence condition reference	Minimum criteria	Auditor's comments	Audit Grade
	<ul style="list-style-type: none"> ▼ details of the remedial action that the licence holder intends taking, or has taken, to improve compliance with the individual customer standards, and ▼ either: <ul style="list-style-type: none"> – the date of completion, or the date of planned completion, of the remedial action plan, or – details of the investigation and action proposed or undertaken leading to the decision to advise the Tribunal that is not economically justifiable to bring the minutes interrupted or number of interruptions (as the case may be) for the affected connection point into compliance with the individual customer standards. ▼ any other matter notified by the Tribunal in writing 		
7.4	<p>The licence holder has submitted a quarterly customer service standards report to the Tribunal which includes:</p> <ul style="list-style-type: none"> ▼ the number of payments given under licence condition 6 to customers by each type of area and by type of standard as listed in Table 1 of Schedule 5 to the licence conditions ▼ the number of claims not paid (whether in part or full) under licence condition 6 to customers by each type of area and by type of standard as listed in Table 1 in Schedule 5 to the licence conditions, and ▼ any other matters notified by the Tribunal in writing. <p><i>Review this criterion by reference to Table 1 of Schedule 5 of the licence</i></p>		
7.5	<p>The licence holder has reported to the Tribunal on any incident in accordance with the most up-to-date Reporting Manual issued by the Tribunal.</p>		

a SAIDI is the system average interruption duration index

b SAIFI means the system average interruption frequency index

