

Independent Pricing and Regulatory Tribunal  
New South Wales

# Electricity networks reporting manual

## **Safety management system performance measurement**

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ISBN 978-1-76049-244-1

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## Amendment Record

Issue	Date issued	Amendments made
ENRM first issue up to version 4	June 2016 to May 2017	See previous issues for related amendments.
ENRM – Safety management systems reporting	October 2017	Separate Reporting Manuals published for reporting requirements. Inserting Chapter 1 – The purpose and status of this reporting manual. Minor wording changes to improve clarity.
ENRM – Safety management systems reporting	April 2018	Inserting sign-off requirements on reports. Minor edits and formatting improvements.
ENRM – Safety management systems reporting	August 2018	Significant updates to safety management systems reporting after consultation. Inclusion of requirements from the electricity networks reporting manual - <i>Bushfire risk management reporting</i> , April 2018. These requirements have been updated.

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# 1 Purpose

Reporting Manuals issued by IPART set out the reporting requirements for electricity network operators (network operators). IPART will review and amend Reporting Manuals from time to time.

Licence conditions for the licensed network operators require that the licence holder complies with any Reporting Manuals issued by the Tribunal.<sup>1</sup> Although no regulatory requirement to comply with a Reporting Manual exists for non-licensed network operators, IPART expects that all network operators will comply with Reporting Manuals where applicable to their specific reporting obligations. Each document may not apply to all network operators, and this is specified where relevant.

The reporting requirements specified in Reporting Manuals could not and do not replace any requirements identified in licence conditions, legislation, statutory instruments or codes that apply to network operators. Compliance with Reporting Manuals is required in addition to, not in substitution for, compliance with other applicable obligations.

The performance report published by a network operator in accordance with this Reporting Manual should assist stakeholders including the public and customers to assess a network operator's performance against its electricity network safety management system (ENSMS).

The information gathered through the reporting arrangements outlined in this Reporting Manual would allow IPART to:

- ▼ determine whether network operators are consistently and effectively meeting statutory obligations
- ▼ identify significant risks and long-term trends, and
- ▼ identify trends that signify emerging issues across the industry with a view to developing safety measures or supporting industry safety initiatives where appropriate.

We will periodically review the reporting requirements to accommodate any changes to statutory requirements and licence conditions. As mentioned above, we may amend this Reporting Manual from time to time.

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<sup>1</sup> These are:

- *Schedule listing ministerially imposed licence conditions for distribution network service providers*, licence condition 7;
- the Transmission Operator's Licence under the *Electricity Supply Act 1995* (NSW), issued by the Minister for Industry, Resources and Energy, 7 December 2015, condition 11;
- the Schedule of Ministerially imposed licence conditions for the operator of a transacted distribution system issued to the Ausgrid Operator partnership on 1 December 2016, condition 14; and
- the Schedule of Ministerially imposed licence conditions for the operator of a transacted distribution system issued to the Endeavour Energy Operator partnership on 7 June 2017, condition 14.

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IPART has also issued Audit Guidelines to guide networks on how to maintain compliance with their obligations. These are available on IPART's website.<sup>2</sup>

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<sup>2</sup> More information about our audit process, including our Audit Guidelines is available on our webpage, here: <https://www.ipart.nsw.gov.au/Home/Industries/Energy/Energy-Networks-Safety-Reliability-and-Compliance/Electricity-networks/Auditing>

## 2 Reporting requirements

IPART requires that performance reporting provide sufficient information for IPART or members of the public and customers to assess a network operator's performance against its electricity network safety management system.

In accordance with Clause 10 of the *Electricity Supply (Safety and Network Management) Regulation 2014* (the ESSNM Regulation), each network operator is to publish the results of its performance measurements against its Safety Management System (SMS) annually.

The minimum reporting requirements identified in this Reporting Manual replace those requirements in IPART's Electricity networks Reporting Manual – *Safety management system reporting*, April 2018, and Electricity networks Reporting Manual – *Bushfire risk management reporting*, April 2018 (together the April 2018 Reporting Manuals).

### 2.1 Who these requirements apply to

Network operators with assets in NSW include:<sup>3</sup>

- ▼ Ausgrid
- ▼ Endeavour Energy
- ▼ Essential Energy
- ▼ TransGrid
- ▼ Sydney Trains
- ▼ Metro Trains Sydney
- ▼ APA Group (Directlink)
- ▼ Lord Howe Island Board
- ▼ EvoEnergy (ACT)
- ▼ Ausnet Services (Victoria)
- ▼ PowerCor (Victoria), and
- ▼ Energy Queensland operating as Energex and Ergon (Queensland).

As discussed in section 1, licence conditions for the licensed network operators require that the licence holder complies with any Reporting Manuals issued by the Tribunal. Reporting in accordance with this Reporting Manual would also assist non-licensed network operators to meet their performance reporting requirements under the ESSNM Regulation.

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<sup>3</sup> Note that the requirements only apply to the extent that assets are in New South Wales.

## 2.2 When and how to lodge and publish reports

The annual performance report is to cover the period of 1 October up to and including 30 September of the following year.

As a transition from the April 2018 Reporting Manuals to this Reporting Manual, network operators are required to submit an interim report on the safety management system performance reporting excluding bushfire preparedness when reporting in 2019. This will cover the three months 1 July 2018 to 30 September 2018, and can be prepared using either this Reporting Manual or the former one<sup>4</sup> that this Reporting Manual replaces. Therefore, the reports due are as follows:

- ▼ Due 31 August 2018 – report for the period 1 July 2017 to 30 June 2018 using the Electricity networks reporting manual - *Safety management systems reporting*, April 2018.
- ▼ Due 31 October 2018 – report for the period 1 October 2017 to 30 September 2018 on bushfire preparedness, using either:
  - a) the Electricity networks reporting manual - *Bushfire risk management reporting*, April 2018, or
  - b) Appendix B or C from this Reporting Manual.
- ▼ Due 31 October 2019:
  - report for the period 1 October 2018 to 30 September 2019 for safety management systems (including bushfire risk management) using this Reporting Manual, and
  - report for the three months 1 July 2018 to 30 September 2018 using either the Electricity networks reporting manual - *Safety management systems reporting*, April 2018 or Appendix A of this Reporting Manual for safety management system reporting.
- ▼ Thereafter, report in accordance with this Reporting Manual, as amended from time to time.

### 2.2.1 How to lodge a report to IPART

Each network operator must notify IPART on or before 31 October following the period covered by the report, to:

- ▼ confirm that the report has been completed, and
- ▼ the date that it intends to publish the report.

The network operator must also attach a copy of the report to the notice, for IPART's information.

The network operator must lodge the report by email to [energy@ipart.nsw.gov.au](mailto: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.

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<sup>4</sup> For example, it could either be *Electricity networks reporting manual - Safety management systems reporting*, April 2018 or *Electricity networks reporting manual - Bushfire risk management reporting*, April 2018.



## 2.2.2 Publication, and how to seek an exemption to publication requirements

Each network operator must publish the report on its website by 30 November, in a way which makes it accessible to the public. It must also publish a media release advising of the report's publication to bring it to the attention of the public. Publication is subject to any exemption granted by IPART.

Where a network operator seeks to be exempt from the publication of information in accordance with this Reporting Manual, it must submit an exemption request to IPART when submitting the performance report in accordance with section 2.2. The exemption can be sought for a discrete section or sections of the report, or the entire report.

In considering whether to grant an exemption under cl 10(4) of the ESSNM Regulation, IPART will have regard to all matters relevant to the public interest in the circumstances of the case.

In deciding what is relevant to the public interest, IPART will consider the objects of the *Electricity Supply Act 1995* and ESSNM Regulation, such as promoting network safety of persons and property.<sup>5</sup>

IPART will then consider the impact that publication would have on matters relevant to the public interest. Depending on the circumstances, this could include the impact of publication on matters such as regulatory investigations, law enforcement and current and future legal proceedings.

IPART will provide a written response to the request either agreeing or disagreeing with each item in the request and the justification for each decision.

## 2.3 Minimum content requirements of the performance report

Annual performance reports for the SMS (including bushfire preparedness) must contain details of compliance with the network operator's SMS as well as performance measures for the network operator's SMS.

IPART adopts a dual assurance approach to monitoring network operator performance. Dual assurance considers both the leading and lagging measures of performance that enables a pro-active, predictive and focussed approach to preventing adverse events.

Leading measures monitor the strength of the preventative barriers (controls) by measuring performance in maintaining robust controls. Lagging measures record the number of events or actual consequences where preventative barriers (or controls) have failed.

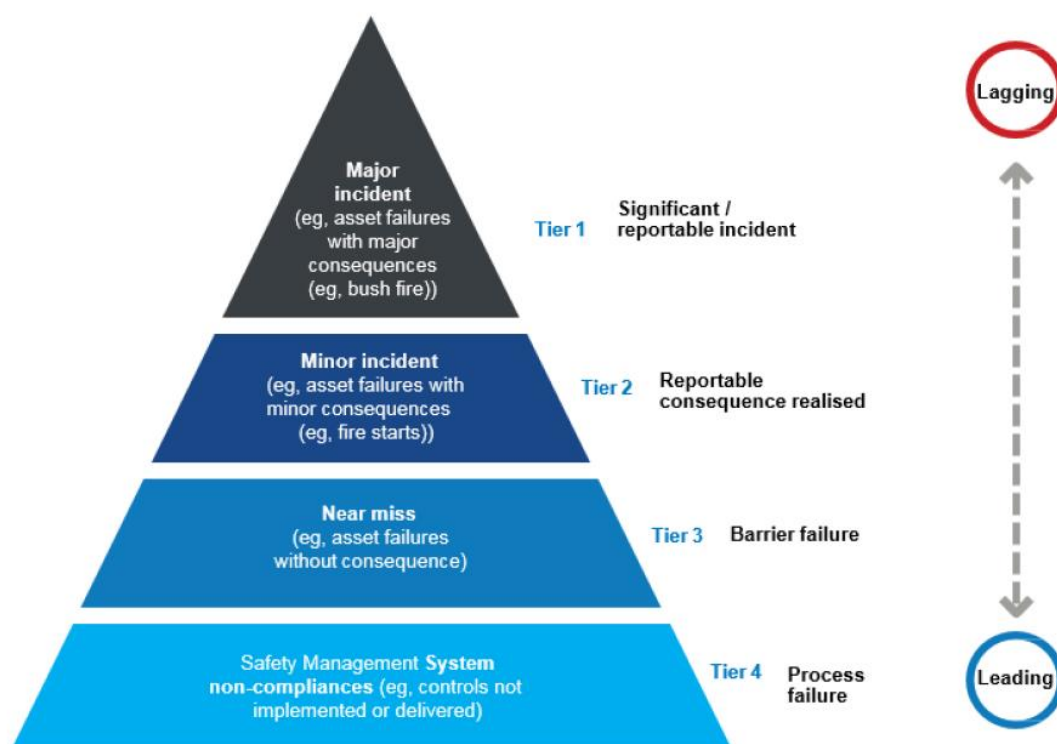
Leading and lagging measures are complementary tools. Leading measures are forward-looking, and input based; lagging measures are retrospective and outcomes based. Near misses and low consequence events can be used as both leading and lagging measures of performance as they can help inform the likelihood of more severe consequences.

IPART's dual assurance approach to performance monitoring is diagrammatically outlined in Figure 2.1.

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<sup>5</sup> *Electricity Supply Act 1995*, s 3(d).

**Figure 2.1 Dual assurance performance monitoring framework**



Tier 1 and Tier 2 performance measures align with the network operator's incident reporting requirements and the objectives of the ESSNM Regulation. They are relevant to all network operators and reflect the outcomes achieved from the actions taken to manage risks associated with the regulatory objectives.

Tier 3 and Tier 4 performance measures are also aligned with incident reporting requirements (where applicable), and are intended to monitor the risk controls that each network operator has put in place as articulated through its SMS Formal Safety Assessments. Tier 4 measures are leading indicators that monitor operational activities associated with maintaining the control environment. Tier 3 measures are leading indicators that signal the potential for a Tier 1 or 2 incident to occur.

Full details of reporting requirements are included in the annual performance report templates in Appendices A, B and C. The networks should populate the data for previous periods required in the templates as the data becomes available over time.



## Appendices

## A Annual performance reporting framework

### A.1 Tier 1 – Major incidents

Tier 1 incidents are defined as a ‘Major Incident’ in accordance with the Electricity networks reporting manual – *Incident reporting* (Incident reporting).<sup>6</sup> Table A.1 provides a template for the minimum reporting requirements.

**Table A.1 Major incidents**

ESSNM Objective		Description of each major incident reported under the Incident reporting requirements
Safety of members of the public		
Safety of persons working on network		
Protection of property	Third party property	
	Network property <sup>a</sup>	
Safety risks arising from loss of electricity supply <sup>b</sup>		

**a** Network property losses are not reportable under IPART’s Reporting Manual Incident reporting requirements. For the purpose of this Reporting Manual, a network operator is to report each event in which losses exceed \$500,000 in relation to damage caused to *electricity works* as defined in the *Electricity Supply Act 1995*.

**b** As defined for major reliability incidents in IPART’s Reporting Manual Incident reporting requirements.

<sup>6</sup> More information about Incident reporting is available on our webpage, here:

<https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/energy-network-regulation-administrative-energy-licensing-website-documents/electricity-networks-reporting-manual-incident-reporting-april-2018.pdf>

## A.2 Tier 2 – Incidents

Tier 2 incidents are defined as an 'Incident' in accordance with Incident Reporting. Table A.2 provides a template for the minimum reporting requirements.

**Table A.2 Incidents**

ESSNM Objective	Description of each incident reported under the Incident reporting requirements
Safety of members of the public	
Safety of persons working on network	
Protection of third party property	
Safety risks arising from loss of electricity supply <sup>a</sup>	

<sup>a</sup> As defined for reliability incidents in IPART's Reporting Manual Incident reporting requirements.

### A.3 Tier 3 – control failure near miss

**Table A.3 Network assets failures**

Performance measure	Population	5-year average annual functional failures	Annual functional failures (for reporting period)					
			Unassisted <sup>a</sup>			Assisted <sup>a</sup>		
			No fire	Fire		No fire	Fire	
				Contained	Escaped		Contained	Escaped
Towers								
Poles (including street lighting columns/poles & stay poles)								
Pole-top structures <sup>b</sup>								
Conductor – Transmission OH <sup>c</sup>								
Conductor – Transmission UG <sup>c</sup>								
Conductor – HV <sup>d</sup> (including sub-transmission) OH								
Conductor – HV (including sub-transmission) UG								
Conductor – LV <sup>d</sup> OH								
Conductor – LV UG								
Service line <sup>e</sup> OH								
Service line <sup>e</sup> UG								
Power transformers <sup>f</sup>								
Distribution transformers								
Reactive plant <sup>g</sup>								
Switchgear – zone / subtransmission/transmission substation								

Switchgear –distribution (Overhead)								
Switchgear – distribution (Ground based)								
Protection relays or systems								
Zone / subtransmission/transmission substation SCADA system								
Zone / subtransmission/transmission substation Protection Batteries								
(insert additional rows as required)								

**a** See the glossary for definitions of unassisted failures and assisted failures.

**b** Pole top structures/components are any structure that is attached to a pole to support electricity mains and apparatus.

**c** OH means 'overhead'; and UG means 'underground'. Transmission and sub-transmission voltages are generally 33kV AC nominal and above. Transmission conductors form part of a transmission network. Sub-transmission conductors form part of a distribution network.

**d** HV mean 'high voltage', and LV means 'low voltage'. High voltage are voltages 1kV AC nominal and above. Low voltage are voltages below 1kV AC nominal.

**e** Overhead service and underground service as defined in the NSW Service and Installation Rules.

**f** Power Transformers are transformers where the secondary/output voltage is 5kV nominal or above.

**g** Reactive plants are reactors and capacitors.

**Note:** The network operator may provide more detailed information when reporting failures. These can be added under the headline metrics.

**Table A.4 Vegetation contact with conductors**

Performance measure <sup>a</sup>	Event count - Current reporting period	Event count - Last reporting period	Event count - Two periods ago	Event count - Three periods ago	Event count - Four periods ago	Comments
Fire starts – grow in						
Fire start – fall in and blow in						
Interruption <sup>b</sup> – grow in						
Interruption – fall-in and blow in						

**a** Vegetation hazard definitions as per the Industry Safety Steering Committee *Guide for the Management of Vegetation in the Vicinity of Electricity Assets* (ISSC3).

**b** Includes momentary interruptions.

**Table A.5 Unintended contact, unauthorised access and electric shocks**

Detail	Event Count Current reporting period	Event Count Last reporting period	Event Count Two periods ago	Event Count Three periods ago	Event Count Four Periods ago	Comments
<b>Electric shock<sup>a</sup> and arc flash incidents<sup>b</sup> originating from network assets<sup>c</sup> including those received in customer premises</b>						
Public						
Public worker						
Network employee / network contractor <sup>d</sup>						
Accredited Service Provider						
Livestock or domestic pet						
<b>Contact with energised overhead network asset<sup>e</sup> (e.g. conductor strike)</b>						
Public road vehicle <sup>f</sup>						
Plant and equipment <sup>g</sup>						
Agricultural and other <sup>h</sup>						
Network vehicle						
<b>Contact with energised underground network asset<sup>e</sup> (e.g. conductor strike)</b>						
Plant and equipment						
Person with hand held tool						
<b>Unauthorised network access (intentional)</b>						
Zone / BSP / Transmission substation / switching station						
Distribution substation						
Towers / poles						
Other (e.g. communication sites)						
<b>Safe Approach Distance (SAD)<sup>i</sup></b>						
Network employee / network contractor						



Accredited Service Provider						
Public						
Public Worker						

**a** All electric shocks are to be reported except those resulting from static discharge, defibrillators, where the system is nominally extra low voltage or involving the DC rail traction system.

**b** Incidents that result in a burn or other injury requiring medical treatment and result from exposure to an arc.

**c** Events caused by network assets, network asset defects or network activities, including shocks received inside customer installations, are to be reported. Customer installation events not associated with network assets are not to be reported.

**d** Includes all classes of authorised persons (network employee and network contractor). Accredited Service Provider employees are not included.

**e** Would not normally include contact with a pole, pillar, distribution substation etc, unless the contact results in subsequent contact with an energised asset.

**f** Including plant and equipment packed up for travel (ie, plant and equipment travelling on a public road to or from worksite).

**g** Cranes, elevated work platforms, cherry pickers, excavators, hand held tools, etc.

**h** Examples include agricultural equipment, aircraft, watercraft.

**i** Encroachment into the applicable Safe Approach Distance for the type of individual involved.

**Table A.6 Reliability and Quality of Supply<sup>a</sup>**

Performance measure	Event count - current reporting period	Event count - last reporting period	Event count - two periods ago	Event count - three periods ago	Event count - four periods ago	Comments
High voltage into Low voltage <sup>b</sup>						
Sustained voltage excursions outside emergency range <sup>c</sup>						
Reverse polarity						
Neutral integrity due to poor workmanship or incorrect procedure						
Neutral integrity due to asset defect or failure						

**a** Reporting is required by distribution network operators only.

**b** May also be referred to as HV LV intermix or HV injection.

**c** As defined by network operator with reference to the measurement methodologies used in Australian Standard AS61000.3.100.

**Table A.7 Reliability and Quality of Supply – Critical infrastructure incidents**

Type of critical infrastructure <sup>a</sup> (e.g. hospital, tunnel)	Minutes of supply lost <sup>b</sup>	Cause	Consequential safety impacts associated with supply issue
(insert additional rows as required)			

**a** Critical infrastructure as identified in the network operator's formal safety assessment in relation to the safety risks associated with loss of supply.

**b** Number of minutes that the critical infrastructure was without a network supply.

**Note:** Incidents include outages and supply quality events that adversely impact critical infrastructure.

**Table A.8 Network-initiated Property damage events**

Detail	Event count - current reporting period	Event count - last reporting period	Event count - two periods ago	Event count - three periods ago	Event count - four periods ago	Comments
<b>Third party property (assets including vehicles, buildings, crops, livestock)</b>						
Damage (e.g. Fire, Physical impact or Electrical)						
<b>Network property (including non-electrical assets including vehicles, buildings)</b>						
Damage (e.g. Fire, Physical impact or Electrical)						

**Note:** Event counts should include any event where there is a reasonable likelihood that damage was caused by *electricity works*.

## A.4 Tier 4 Control implementation

**Table A.9 Amendments and improvements to Formal Safety Assessments (FSA) or Associated Risk Treatments<sup>a</sup>**

FSA	Amendments / improvements
(insert additional rows as required)	

<sup>a</sup> Adjustment or modifications made by the network operator to formal safety assessments, or risk treatment action plans, including those changes informed by consideration of the results of the investigation and analysis of incidents, near misses or asset failures, where the network operator has assessed that existing assessments or risk treatments do not eliminate or reduce risk so far as is reasonably practicable.

**Table A.10 Design, construction and commissioning**

Performance measure <sup>a</sup>	Current reporting period	Last reporting Period	Two reporting periods ago	Three reporting periods ago	Four reporting periods ago
Designs for which Safety in Design (SiD) Reports have been completed					
Designs for which Safety in Design (SiD) Reports have been audited					
Contestable designs certified <sup>b</sup>					
Contestable installations reviewed <sup>b</sup>					
Project closeout reports completed					
Project closeout reports audited					

**a** The unit of measure is the number of designs.

**b** The network operator is to advise where no contestable designs have been performed.

**Table A.11 Inspections (assets)**

Performance measure	Inspection tasks		Corrective action tasks			Comments
	Annual target	Achieved	Tasks identified (all categories)	Open	Outstanding	
Transmission Substations						
Zone Substations						
Distribution Substations						
Transmission OH						
Transmission UG						
Distribution OH						
Distribution UG						

**Note:** The network operator may provide more detailed information when reporting tasks. These can be added under the headline metrics.

**Table A.12 Inspections (vegetation) Aerial/Ground based**

Bushfire risk category	Population (spans / poles)	Target	Achieved	Outstanding	Comments
<b>Aerial</b>					
(insert additional rows as required)					
Total					
<b>Ground-based</b>					
(insert additional rows as required)					
Total					

**Table A.13 Public electrical safety plans and activities<sup>a</sup>**

Network operator public safety programs / campaigns	Details
(insert additional rows as required)	

<sup>a</sup> Network operator to provide details on the plans and other activities that the network operator undertook to provide safety information to the public. Examples may include a publication of a Public Electrical Safety Awareness Plan, advertisements associated with electrical safety and awareness, publication of a bushfire risk management plan, shocks and tingles awareness program, etc.

**Table A.14 Internal audits performed on any aspect of the ENSMS (as per AS 5577<sup>a</sup> clause 4.5.4)**

Audit scope	Identified non-compliances	Actions
(insert additional rows as required)		

<sup>a</sup> AS 5577 is the Australian Standard *Electricity network safety management systems, 2013*, published by Standards Australia.

**Table A.15 External audits performed on any aspect of the ENSMS (as per AS 5577<sup>a</sup> clause 4.5.4)**

Audit scope	Identified non-compliances	Actions
(insert additional rows as required)		

<sup>a</sup> AS 5577 is the Australian Standard *Electricity network safety management systems, 2013*, published by Standards Australia.

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## B Bushfire preparedness (Ausgrid, Endeavour Energy and Essential Energy only)

### B.1 Bushfire risk profile across network operator's supply area

*[Network operator to provide map or link to reference documentation available on their website. Include relevant commentary (such as local climatic considerations) from Bushfire Risk Management Committee for the forthcoming bushfire season]*

### B.2 Permanent / temporary declaration of areas by RFS and network operator's actions

*[Network operator to identify the fire risk declarations for areas across their network and any specific actions taken to prepare accordingly]*

### B.3 Aerial consumer mains on bushfire prone private land (HV and LV)

Briefly describe the scope of private line and pole inspections and risk mitigation for both HV and LV assets

**Table B.1 Aerial consumer mains on bush fire prone private land (HV and LV)**

Performance measure	Current reporting period		Last reporting Period		Two periods ago		Three periods ago		Four periods ago	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Private LV lines <sup>a</sup> checked by the network operator										
Number of directions for bushfire risk mitigation issued to LV customers by the network operator	N/A		N/A		N/A		N/A		N/A	
Number of directions for bushfire risk mitigation issued to LV customers by the network operator that are outstanding by more than 60 days	N/A		N/A		N/A		N/A		N/A	
HV customers (metering point count) advised to undertake pre-season bushfire checks in accordance with ISSC31 <sup>b</sup>										
HV customers (metering point count) providing statements of compliance in accordance with ISSC31										
HV customers (metering point count) requiring additional risk mitigation prior to start of the reporting year <sup>c</sup>										
HV customers (metering point count) where additional risk mitigation has been completed prior to start of the reporting year										

**a** Private lines means aerial consumers mains on bush fire prone private land. Network operators may report in terms of numbers of LV installations or the numbers or percentage of areas targeted and checked.

**b** Industry Safety Steering Committee *Guideline for the Management of Private Overhead Lines* (ISSC31).

**c** Includes the number of high voltage customers who did not provide a statement of compliance or had identified defects requiring mitigation, where the network operator is ensuring appropriate risk mitigation (e.g. inspection by the network operator).



**Table B.2 Pre-Summer bushfire inspections**

Pre-summer bushfire inspections	Population (spans / poles)	Target	Achieved	Outstanding	Comments
Inspections					

**Table B.3 Vegetation tasks<sup>a</sup>**

Bushfire risk category	Status	Encroachment Classification A1 <sup>a</sup>	Encroachment Classification A2 <sup>b</sup>	Encroachment Classification A3 <sup>c</sup>	Encroachment Classification A4 <sup>d</sup>	Hazard trees <sup>e</sup>
(insert additional rows as required)	Open <sup>f</sup>					
	Outstanding <sup>f</sup>					
Total	Open					
Total	Outstanding					

**a** A1 – vegetation has encroached as far as 75-100% into the minimum vegetation clearance.

**b** A2 – vegetation has encroached as far as 50-75% into the minimum vegetation clearance.

**c** A3 – vegetation has encroached as far as 25-50% into the minimum vegetation clearance.

**d** A4 – vegetation has encroached as far as 0-25% into the minimum vegetation clearance.

**e** Hazard trees are blow-in vegetation hazards as defined in ISSC3 *Guide for the Management of Vegetation in the Vicinity of Electricity Assets*.

**f** See glossary for definitions of open and outstanding.

**Table B.4 Asset tasks**

Bushfire risk category	Status	Category 1 <sup>a</sup>	Category 2	Category 3	Category 4 (insert additional columns as required)	Totals
(insert additional rows as required)	Open <sup>b</sup>					
	Outstanding <sup>b</sup>					
Total	Open					
Total	Outstanding					

**a** Network operator to define task priority (Categories 1-4).

**b** See glossary for definitions of open and outstanding.

## C Bushfire preparedness (TransGrid only)

### C.1 Bushfire risk profile across TransGrid's supply area

*[TransGrid to provide map or link to reference documentation available on its website. Include relevant commentary (such as local climatic considerations) from Bushfire Risk Management Committee for the forthcoming bushfire season]*

### C.2 Permanent / temporary declaration of areas by RFS and TransGrid's actions

*[TransGrid to identify the fire risk declarations for areas across its network and any specific actions taken to prepare accordingly]*

**Table C.1 Pre-summer bushfire inspections**

Pre-summer bushfire inspections	Population (spans / poles)	Target	Achieved	Outstanding	Comments
Inspections					

**Table C.2 Vegetation tasks**

Bushfire risk category	Status	Encroachment Classification A1 <sup>a</sup>	Encroachment Classification A2 <sup>b</sup>	Encroachment Classification A3 <sup>c</sup>	Encroachment Classification A4 <sup>d</sup>	Hazard trees <sup>e</sup>
(TransGrid to define – insert additional rows as required)	Open <sup>f</sup>					
	Outstanding <sup>f</sup>					
Total						

**a** A1 – vegetation has encroached as far as 75-100% into the minimum vegetation clearance.

**b** A2 – vegetation has encroached as far as 50-75% into the minimum vegetation clearance.

**c** A3 – vegetation has encroached as far as 25-50% into the minimum vegetation clearance.

**d** A4 – vegetation has encroached as far as 0-25% into the minimum vegetation clearance.

**e** Hazard trees are blow-in vegetation hazards as defined in ISSC3 *Guide for the Management of Vegetation in the Vicinity of Electricity Assets*.

**f** See glossary for definitions of open and outstanding.

**Table C.3 Asset tasks**

Asset category		Within bushfire prone areas					Outside bushfire prone areas				
		Work order priority 1 24 hours	Work order priority 2 1 month	Work order priority 3 3 months	Work order priority 4 12 months	Work order priority 5 Next outage / maintenance	Work order priority 1 24 hours	Work order priority 2 1 month	Work order priority 3 3 months	Work order priority 4 12 months	Work order priority 5 Next outage / maintenance
Substation	Open										
	Outstanding										
Transmission Line	Open										
	Outstanding										
Automation	Open										
	Outstanding										
Network Property	Open										
	Outstanding										

## Glossary

Assisted failure	Any functional failure of a piece of equipment (component of an asset or asset) where the equipment was subject to an external force or energy source against which the network operator's standards for design and maintenance do not attempt to control.
Fire	<p>A state, process, or instance of combustion in which fuel or other material is ignited and combined with oxygen, giving off light, heat and flame. This includes 'smouldering' or 'smoke' events, and LV wires down events resulting in burning around the point of contact on a combustible surface. Excludes LV wires down arcing events on non-combustible surfaces.</p> <p>Network Scope: Applicable to any fire caused by, or impacting, a network asset.</p>
Functional failure	<p>Performance of a piece of equipment (or component of an asset or asset) that represents a reduction below acceptable limits of the specification for a piece of equipment resulting in reduced capability required for service. In general, a functional failure is represented by a defect condition where the equipment that is required for service can no longer perform its expected function and which results in an unplanned maintenance action to restore condition to an acceptable limit.</p> <p>Note: operation of protection equipment (e.g. fuse) within its design characteristics is not a functional failure.</p>
Incident	Defined in accordance with IPART's <i>Electricity networks reporting manual - Incident reporting</i> , available on the IPART website.
Major incident	Defined in accordance with IPART's <i>Electricity networks reporting manual - Incident reporting</i> , available on the IPART website.
Network worker	A person who has been authorised by the network operator to plan or conduct work on or near the network. Includes persons employed by the network, persons engaged under a contract by the network operator, and persons authorised by the network operator and working for an Accredited Service Provider.
Open (with respect to defects / tasks)	A defect / task that has not been rectified by the Network Operator but where the time that has elapsed since being identified has not exceeded the standard time that the Network Operator has set for having the defect rectified.
Outstanding (with respect to defects / tasks)	A defect / task that has not been rectified by the Network Operator where the time that has elapsed since being identified has exceeded the standard time that the Network Operator has set for having the defect rectified.
Public worker	A party or parties that are conducting work that is not directly associated with the electricity network such as building work, landscaping, landfill work, excavations, road works and includes the construction, maintenance, adjustment or dismantling of mobile plant and scaffolding.

#### Unassisted failure

Any functional failure of a piece of equipment (component of an asset or asset) where the cause of the failure is of a type for which the network operator's design and maintenance standards include specific controls to mitigate against the risk of failure and which is neither an assisted failure nor a maintenance induced failure. These failures are generally caused by a deterioration of the condition of the equipment and also include overhead connection failures and vegetation within the mandatory vegetation clearance window.