

Independent Pricing and Regulatory Tribunal
New South Wales

Draft Electricity networks reporting manual

Safety management system performance measurement

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Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by 10 July 2018

We would prefer to receive them electronically via our online submission form <www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission>.

You can also send comments by mail to:

Energy network performance measures review

Independent Pricing and Regulatory Tribunal

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Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au> as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission - for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. However, it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 Purpose

This Reporting Manual and other Reporting Manuals issued by IPART set out the reporting requirements for electricity network operators (network operators). IPART will review and amend these 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.¹ 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 the 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 these Reporting Manuals 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 information gathered through the reporting arrangements outlined in this document will allow IPART to:

- ▼ determine whether network operators are consistently and effectively meeting statutory obligations,
- ▼ identify immediate 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. We may amend the Reporting Manual from time to time.

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

¹ 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.

² More information about our audit process, including our Audit Guidelines are 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 provides 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.

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

The minimum reporting requirements identified in this Reporting Manual replace those in two of IPART's previous electricity network Reporting Manuals *Safety management system Reporting*, April 2018, and *Bushfire risk management reporting*, April 2018.

2.1 Who these requirements apply to

Network operators with assets in NSW include³:

- ▼ 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.

³ 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 there is a transition from the previous Reporting Manuals, 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 ones⁴ that this Reporting Manual replaces. Therefore, the reports due are as follows:

- ▼ Due 31 August 2018 – report for 2017-18 using the 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 the *Bushfire risk management reporting*, April 2018, or Appendix B/C from this Reporting Manual.
- ▼ Due 31 October 2019
 - Report for the period 1 October 2018 to 30 September 2019 using this manual, and
 - report for the three months July-September 2018 using either *Safety management systems reporting*, April 2018 or Appendix A of this report.
- ▼ Thereafter, report in accordance with this manual or the most current updated version.

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. 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.

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 the Tribunal.

⁴ *Electricity network reporting manual - Safety management systems reporting*, April 2018, and *Electricity network reporting manual - Bushfire risk management reporting*, April 2018.

Where a network operator seeks to be exempt from the publication of information in accordance with this manual, it must submit an exemption request to IPART with the performance report submitted to IPART 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 safety⁵.

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) are to contain details of compliance with the network operator's SMS as well as performance measures for the network operator's electricity network.

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.

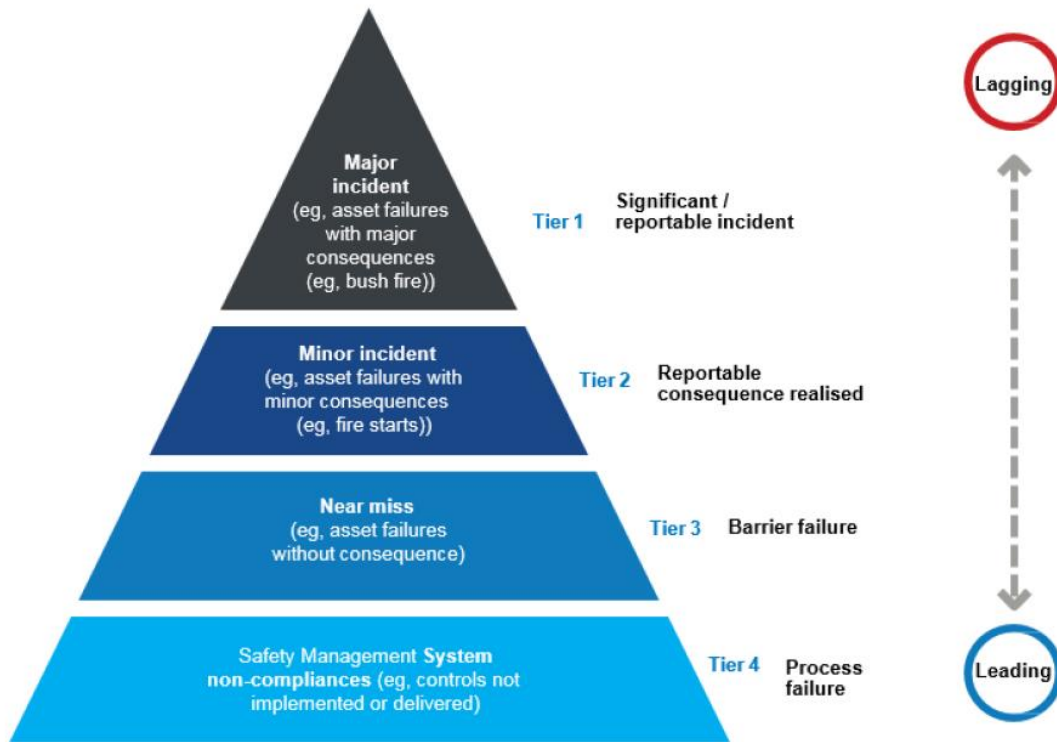
Leading measures monitor the strength of the preventative barriers (controls) by measuring performance in maintaining robust controls. Lagging measures record the number of events or actual consequences where preventative barriers (or controls) have failed.

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.

⁵ *Electricity Supply Act*, s 3(d).

Figure 2.1 Dual assurance performance monitoring framework



Tier 1 and Tier 2 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 intended to monitor the risk controls that each network operator has put in place as articulated through the ENSMS Formal Safety Assessments. Tier 4 measures are leading indicators and 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 Appendix A, Appendix B and Appendix C.



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 Reporting manual – Incident Reporting. 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 ^a	
Safety risks arising from the protection of the environment ^b		
Safety risks arising from loss of electricity supply ^c		

a Network property losses are not reportable under IPART’s Incident Reporting Requirements. For the purpose of this Reporting Manual, the loss of property / damage financial values within the Incident Reporting Manual are to be applied to network property.

b Major pollution events involving an immediate threat to human health or property, reportable to emergency services for an immediate response

c As defined for major reliability incidents in IPART’s Incident Reporting Requirements

A.2 Tier 2 – Incidents

Tier 2 incidents are defined as an ‘Incident’ in accordance with the Reporting manual – 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 property	Third party property	
	Network property ^a	
Safety risks arising from the protection of the environment ^b		
Safety risks arising from loss of electricity supply ^c		

a Network property losses are not reportable under IPART’s Incident Reporting Requirements. For the purpose of this Reporting Manual, the loss of property / damage financial values within the Incident Reporting manual are to be applied to network property.

b Reportable non-emergency environmental incidents to EPA– as defined by the NSW Office of Heritage and the Environment.

c As defined for reliability incidents in IPART’s 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					
			Unassisted ^a			Assisted ^a		
			No fire	Fire		No fire	Fire	
				Contained	Escaped		Contained	Escaped
Towers								
Poles (including street lighting columns/poles & stay poles)								
Pole-top structures								
Conductor – Transmission OH ^b								
Conductor – Transmission UG ^b								
Conductor – HV ^c (including sub-transmission) OH								
Conductor – HV (including sub-transmission) UG								
Conductor – LV ^c OH								
Conductor – LV UG								
Service wire OH								
Service wire UG								
Power transformers								
Distribution transformers								
Reactive plant								
Switchgear – zone / subtransmission/transmission substation.								

Switchgear –distribution (Overhead)								
Switchgear – distribution (Underground supplied)								
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 functional failures, assisted functional failures.

b OH means 'overhead'; and UG means 'underground'.

c LV means 'low voltage'; and HV mean 'high voltage'.

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 ^a	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 ^b – grow in						
Interruption – fall-in and blow in						

a Vegetation hazard definitions as per the ISSC 3 *Guide for the Management of Vegetation in the Vicinity of Electricity Assets*.

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
Electric shock ^a and arc flash incidents ^b originating from network assets including those received in customer premises						
Public						
Public worker						
Network worker ^c						
Animal						
Contact with energised overhead network asset ^d (eg, conductor strike)						
Public road vehicle ^e						
Plant and equipment ^f						
Agricultural and other ^g						
Network vehicle						
Contact with energised underground network asset ^h (eg, conductor strike)						
Plant and equipment						
Person with hand held tool						
Unauthorised network access (intentional) ⁱ						

Zone / BSP / Transmission substation / switching station						
Distribution substation						
Towers / poles						
Other (eg, communication sites)						
Safe Approach Distance (SAD)						
Network worker						
Public or Public Worker						

- a** All reported electric shocks 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** Includes all classes of authorised persons (network worker, network contractor, Accredited Service Provider employee).
- d** Would not normally include contact with a pole, pillar, distribution substation etc, unless the contact results in subsequent contact with an energised asset.
- e** Including plant and equipment packed up for travel (ie, plant and equipment travelling on a public road to or from worksite).
- f** Cranes, elevated work platform, cherry picker, excavator, hand held tools, etc.
- g** Examples include agricultural equipment, aircraft, watercraft.
- h** Would not normally include contact with a pole, pillar, distribution substation etc, unless the contact results in subsequent contact with an energised asset.
- i** Including encroachment into Safe Approach Distance.

Table A.6 Reliability and Quality of Supply

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
NECF ^a TYPE 1 – Life Support Breaches						
High voltage into Low voltage ^b						
Sustained voltage excursions outside emergency range ^c						
Reverse polarity						
Neutral integrity due to poor workmanship or incorrect procedure						
Neutral integrity due to asset defect or failure						

a NECF means the National Energy Customer Framework.

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

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 ^a (eg, hospital, tunnel)	Minutes of supply lost ^b	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 associated with 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 Property damage

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
Third party property (assets including vehicles, buildings)						
Fire damage						
Physical impact damage						
Electrical damage						
Network property (including non-electrical assets including vehicles, buildings)						
Fire damage						
Physical impact damage						
Electrical damage						
Agricultural property (eg, livestock, crops, buildings)						
Fire damage						
Physical impact damage						
Electrical damage						

Table A.9 Safety impacts associated with protection of the environmental

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
Oil leak incidents reported to the EPA ^a						
EMF ^b enquires registered (justified)						
Noise complaints reported (justified)						
SF6 ^c gas leaks reported (within network operator)						
Other (network operator to specify)						

^a EPA is the Environmental Protection Agency.

^b EMF means electromagnetic fields.

^c SF6 means sulphur hexafluoride.

A.4 Tier 4 Control implementation

Table A.10 Amendments and improvements to Formal Safety Assessments (FSA) or Associated Risk Treatments^a

FSA	Amendments / improvements
(insert additional rows as required)	

^a 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.11 Design, construction and commissioning

Performance measure	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					
Contestable installations reviewed					
Project closeout reports completed					
Project closeout reports audited					

Table A.12 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.13 Inspections (vegetation) Aerial/Ground based

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

^a a network operator to provide description of risk categories, including a category for areas where there is no bushfire risk.

Table A.14 Authorised Persons Training and competency

	RTO Unit of competence	Number of personnel requiring training / competency	Competency assessment completed or refreshed	Competency assessment Incomplete	Comment
Company Induction					
Training in network operator’s Electrical Safety Rules					
Environmental Awareness					
Perform CPR	HLTAID001				
Apply ESI ^a safety rules, codes of practice and procedures for work on or near electrical apparatus	UETDRRF01B				

Perform pole top rescue	UETDRRF02B				
Perform EWP ^b rescue	UETDRRF03B				
Perform tower rescue	UETDRRF04B				
Perform rescue from a live LV panel	UETDRRF06B				
Perform EWP ^b controlled descent escape	UETDRRF08B				
Apply access procedures to work on or near electrical network infrastructure	UETDRRF09B				
Provide first aid in an ESI ^a environment	UETDRRF10B				
Confined space entry and gas detection	(See note a)				
Working safely near live electrical apparatus as a non-electrical worker	UETDREL14A				
Planning live work Planning de-energised work and asset commissioning (access permits, network alteration orders) Performing live work (overhead, underground, switchboard) System operation					
(insert additional rows as required)					

a ESI means electricity supply industry.

b EWP means elevated work platform.

Note: Confined Spaces training must meet as a minimum the national units of competency for Safe Working in Confined Spaces With Breathing Apparatus, which includes the following units of competency MSAPMOHS216A - Operate breathing apparatus, MSAPMOHS217A - Gas test atmospheres, MSAPMPER200C - Work in accordance with an issued permit and MSAPMPER205C - Enter confined space.

Table A.15 Public electrical safety plans and activities^a

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

^a 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.16 Internal audits performed on any aspect of the ENSMS (as per AS 5577^a clause 4.5.4)

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

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

Table A.17 External audits performed on any aspect of the ENSMS (as per AS 5577^a clause 4.5.4)

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

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

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 Private lines and poles (HV and LV)

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

Table B.1 Private lines and poles (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 lines checked by the network operator.										
Number of directions for bushfire risk mitigation issued to private 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 private 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 ISSC 31.										
HV customers (metering point count) providing statements of compliance in accordance with ISSC 31.										
HV customers (metering point count) requiring inspection prior to start of the reporting year.										

Note: A private installation has the same meaning as electrical installation as defined by the *Electricity Supply Act 1995* (NSW).

Table B.2 Pre-Summer bushfire inspections

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

Table B.3 Vegetation tasks^a

Bushfire risk category	Status	A1	A2	A3	A4	Hazard trees
(insert additional rows as required)	Open					
	Outstanding					
Total	Open					
Total	Outstanding					

^a Network operator to define task priority (A1, A2, A3, A4, and hazard trees)

Table B.44 Asset tasks

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

a Network operator to define bushfire risk category, including at a minimum, bushfire prone areas.

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

C Bushfire preparedness (TransGrid only)

C.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]

C.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]

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	A1	A2	A3	A4	Hazard trees
(insert additional rows as required)	Open (within due date)					
	Outstanding					
Total						

Table C.3 Asset tasks

Asset category	Status	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 (within due date)										
	Outstanding										
Transmission Line	Open (within due date)										
	Outstanding										
Automation	Open (within due date)										
	Outstanding										
Network Property	Open (within due date)										
	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.
Conditional failure	A failure where inspections and analysis shows a piece of equipment (component of an asset or asset) required for service is at risk of functional failure and the consequence of that failure could impact safety, property, the environment or reliability.
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 (eg, 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.

