

Jemena Electricity Networks Pty Ltd

Audit of Jemena's 2014 F-Factor RIN

16 March 2015




**PARSONS
BRINCKERHOFF**

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Independent Assurance Statement

Parsons Brinckerhoff audited the RIN information prepared by Jemena Electricity Networks Pty Ltd (JEN) for the Australian Energy Regulator for the period 1 January 2014 to 31 December 2014 in respect of the Victorian *F-Factor Scheme Order 2011*.

JEN's responsibility

JEN's responsibility in relation to the F-Factor RIN audit information is to:

- Prepare and report the F-Factor information in accordance with the RIN (dated 15 November 2012).

Parsons Brinckerhoff's responsibility

Our responsibility is to make an assessment of the processes, procedures and systems employed by JEN to prepare, maintain and provide the information required by the F-Factor RIN (dated 15 November 2012). This included assessing whether the processes, procedures and systems are reliable, were correctly used and applied by the relevant staff, and whether they can identify and correct for errors or missing information. Accordingly, Parsons Brinckerhoff has assigned a compliance grade to each parameter relating to the F-Factor RIN.

Parsons Brinckerhoff meets the requirements of "Class of person to conduct the audit" as outlined in Appendix D, paragraph 2.1 of the RIN. This report has been prepared in accordance with the requirements outlined in Appendix D of the RIN.

The audit was undertaken as a reasonable assurance audit in accordance with the requirements of the F-Factor RIN and in accordance with ASAE 3000. In doing this, the auditor performed procedures to obtain evidence about the information. The procedures used and samples reviewed depended on the auditor's judgment, including the assessment of the risks of material misstatement at the disclosure level, whether due to fraud or error. In making the risk assessments, the auditor considered the systems and procedures used, system controls and verification procedures relating to the preparation of the data and disclosures made in the RIN in order to design review procedures that are appropriate in the circumstances.

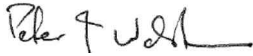
Independence and ethics

We have complied with the independence and other ethical requirements relating to assurance engagements through adherence to Parsons Brinckerhoff's values and our Code of Conduct.

Conclusion

In our opinion JEN has reported the assessed F-Factor Scheme information in all material respects in accordance with the RIN requirements and the F-Factor Scheme Order for the audit period 1 January 2014 to 31 December 2014.

Yours sincerely



Peter Walshe

Principal Consultant

Parsons Brinckerhoff Australia Pty Limited

In preparing this report, Parsons Brinckerhoff has relied upon documents, data, reports and other information provided by third parties including, but not exclusively, jurisdictional regulators as referred to in the report. Except as otherwise stated in the report, Parsons Brinckerhoff has not verified the accuracy or completeness of the information. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in this report are based in whole or part on the information, those conclusions are contingent upon the accuracy and completeness of the information provided. Parsons Brinckerhoff will not be liable in relation to incorrect conclusions should any information be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Parsons Brinckerhoff. The assessment and conclusions are indicative of the situation at the time of preparing the report. Within the limitations imposed by the scope of services and the assessment of the data, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable consultants under similar circumstances. No other warranty, expressed or implied, is made.

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Abbreviations

AER	Australian Energy Regulator
CFA	Country Fire Authority
CMOS	Customer Minutes off Supply
GIS	Geographic Information System
JEN	Jemena Electricity Networks Pty Ltd
NEL	National Electricity (Victoria) Law
OMS	Outage Management System
RIN	Regulatory Information Notice

1. Introduction

This section of the report provides background on the need for reporting F-Factor information, describes the scope of the audit and the approach undertaken by Parsons Brinckerhoff.

1.1 Background

The F-Factor Scheme was established in June 2011 as an *'incentive scheme that provides incentives for Distribution Network Service Providers to reduce the risk of fire starts and reduce the risk of loss or damage caused by fire starts'*¹. The incentive scheme must provide a revenue adjustment determination as described in the F-Factor Scheme Order 2011. The scheme covers any fire:

- that starts in or originates from a distribution system
- started by any tree, or part of a tree, falling upon or coming into contact with a distribution system
- started by any person, bird, reptile or other animal coming into contact with a distribution system
- started by lightning striking a distribution system or a part of a distribution system, and
- started by any other thing forming part of or coming into contact with a distribution system, or
- otherwise started by a distribution system.

On the 15th November 2012, the AER issued a Regulatory Information Notice (RIN) under Division 4 of Part 3 of the *National Electricity (Victoria) Law (NEL)* to Jemena Electricity Networks Pty Ltd (JEN). The RIN requires JEN to prepare, maintain and provide the information in the manner and form specified in the RIN so that the AER can define an F-Factor amount determination, pursuant to section 16C(b) of the *National Electricity (Victoria) Act 2005*.

Section 28M of the NEL requires that the information provided to the AER, in relation to the F-Factor Scheme, be audited.

1.2 Scope of work

JEN engaged Parsons Brinckerhoff to undertake an audit of the information required by the RIN for the period 1 January 2014 to 31 December 2014. The auditable information is made up of the following tables:

- Table 1: Summary of total fire starts (generally based on ESV definition)
- Table 2: Summary of total fire starts by F-Factor order definition
- Table 3: Individual Fire Starts
- Table 4: Information on reporting systems

As required by Section 3.2 of Appendix D of the RIN, the focus of the audit is on the reliability of the systems, processes and procedures used to prepare, maintain and provide the information. The auditor must assess whether the processes, procedures and systems are reliable, were correctly used and applied by the relevant staff, and whether they can identify and correct for errors or missing information.

¹ Victoria Government Gazette, No G 25, 23 June 2011, www.gazette.vic.gov.au

1.3 Persons conducting the audit

Appendix D of the RIN sets out requirements for the class of person to conduct the audit. Parsons Brinckerhoff's attests that it meets these requirements, specifically:

- Parsons Brinckerhoff is independent from JEN and all of its related bodies corporate.
- A trained lead auditor managed the audit process and is responsible for the audit.
- Members of the audit team have audit experience gained through conducting performance audits of electricity businesses, including data sampling in the electricity industry.
- Members of the audit team have the relevant technical knowledge of the areas audited and the associated engineering, IT systems, asset management and customer service aspects. They also understand the procedures and methodologies underlying the data and the AER's relevant definitions for all information.

1.4 Overview of audit methodology

The auditor's audit approach was conducted in compliance with the audit requirements outlined in Appendix D of the RIN. The audit approach reflects a reasonable or positive level of assurance.

Audited items were assessed for their reliability as determined from the review of the processes, procedures and systems used to generate the data. The audit focused on assessing the systems and procedures that have been put in place to ensure quality control and data verification have been undertaken.

The audit methodology involved the following steps:

- Develop audit procedures
- Review existing material
- On-site review
- Draft report
- Final report.

This is the second time Parsons Brinckerhoff has undertaken the audit of JEN's RIN. ASAE 3000 allows the auditor to rely on the results of previous audit findings and focus on changes that occurred between audit periods. Clauses 3.2(b)(v) and 3.2(b)(vi) in Appendix D of the RIN require the auditor to assess for changes since the last audit was conducted and if the data correlates to the previous audit. To comply with these requirements, Parsons Brinckerhoff was able to rely on the previous audit and focus on assessing any changes to the systems and procedures.

1.5 Audit grades

The grading system used to assess the information provided was designed to align to the assessment criteria specified in Appendix E of the RIN and requirements of ASAE 3000.

The grading system assesses each input to the RIN against six criteria using a three part scale – green, orange and red. The criteria and scale are described in Table 1.1 and Table 1.2. The assessments of each of the criteria are then considered together to apply an overall compliance grade to the data input. The four possible compliance grades are described in Table 1.3. The final result for each item assessed will be a 'sum' of the 6 criteria based on the following guidelines:

- If only 'green' is assigned, then the item will be compliant.
- If there is one or more 'orange' assigned, a judgment will be made on the overall materiality of any errors introduced by the identified gaps to determine if the item is mostly-compliant or non-compliant. Reasons will be provided for the judgement.
- If there is one or more 'red' assigned, then the result will be non-compliant. Reasons will be provided for the judgement.




The auditor notes that an assessment of the accuracy of the information presented in the RIN was not required to be assessed under the Appendix D of the RIN issued by the AER for JEN.

Table 1.1 Reliability assessment levels and descriptions

Criteria	Description
1	Reliability: Reliable systems have been established to provide, prepare and maintain the information.
2	Documentation: The processes and procedures are complete, well documented, approved, subject to regular review, and are accessible by staff.
3	Understanding: Staff have a good understanding of the processes, systems and procedures and applied them correctly during the audit period.
4	Definitions: The correct parameter and calculation definitions, as defined by the AER, were applied.
5	Error correction: The systems and procedures used are able to competently identify and correct errors or unusual trends that suggest errors in information entry or manipulation.
6	Repeatability: The systems provide information that corresponds to previously provided information.

Source: Parsons Brinckerhoff

Table 1.2 Reliability assessment levels and descriptions

Grade	Description
	Criteria is met
	Criteria is not met but the gaps have an immaterial effect
	Criteria is not met and the gaps result in material error(s)

Source: Parsons Brinckerhoff

Table 1.3 Compliance assessment levels and descriptions

Grade	Description
Compliant	<p>All definitions are consistent with the requirements.</p> <p>Systems, processes and procedures have been implemented for all aspect of data gathering and reporting.</p>
Mostly-Compliant	<p>Most definitions are consistent with the requirements. Those definitions that are not consistent have an immaterial impact on the reported information.</p> <p>Systems, processes and procedures have been implemented for most aspect of data gathering and reporting. Those aspects that are not cover by systems, processes or procedures have an immaterial impact on the reported information.</p>
Non-Compliant	<p>Not all definitions are consistent with the requirements.</p> <p>Systems, processes and procedures have not been implemented for data gathering and reporting.</p>
N/A	<p>There are no definitions that need to be complied with for this particular process.</p>

Source: Parsons Brinckerhoff

2. F-Factor Scheme Audit

This section outlines the auditor's assessment of the reliability of JEN's system, processes and procedures used to gather and record data required for annual reporting of F-Factor information.

2.1 Summary of F-Factor information

The auditable information is made up of the following tables:

- Table 1 Summary of total fire starts (generally based on ESV definition)
- Table 2: Summary of total fire starts by F-Factor order definition
- Table 3: Individual Fire Starts
- Table 4: Information or reporting systems

Tables 1, 2 and 4 from Templates 1 and 3 of the RIN are shown in Table 2.1, Table 2.2 and Table 2.3 consecutively. Table 3 in Template 2 of the RIN shows detailed information for each fire start. Due to its size, it has been included in Appendix B Individual Fire Start Information, Table B-1.

The tables show a breakdown of fire starts by fire category, asset type and definitions contained in the F-Factor Scheme Order 2011.

Table 2.1 Summary of total fire starts (generally based on ESV definitions)

Fire Start by Category	Fire Start by Asset	Year 2014
Asset failures resulting in grass/vegetation fire	Pole and cross arm failure or Pole and cross arm fire	3
	Oil-filled plant	1
	HV Fuse	0
	Other Assets	10
	Any fire triggered by any asset failure caused by Lightning	0
Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from animal contact with network assets	0
	Fire starts in grass/vegetation resulting from trees contacting network assets	3
	Fire starts in grass/vegetation resulting from other causes (vehicle strikes, vandalism etc)	5
Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and cross arm fire (including 'smouldering' or 'smoke')	55
	Oil-filled plant fire	2
	HV Fuse Failure (including 'hang-ups' and 'candling')	1
	Other Assets	4
	Any fire triggered by any asset failure caused by Lightning	0
Any other Fire Start	Any additional fires, caused by any asset failure, not reported to the ESV and required to be reported by the f-factor Order	0
Total		84

Source: RIN Template 1. F-Factor summary, Table 1: Summary of total fire starts (generally based on ESV definitions)

Table 2.2 Summary of total fire starts by F factor Order definition

Kind of Fire Start by definition of fire start under clause 4 of F-factor Order	Year 2014
Started by any tree, or part of a tree, falling upon or coming into contact with a distribution system	4
Started by any person, bird, reptile or other animal coming into contact with a distribution system	0
Started by lightning striking a distribution system or a part of a distribution system	0
Started by any other thing forming part of or coming into contact with a distribution system	80
Otherwise started by a distribution system	0
Total	84

Source: RIN Template 1. F-Factor summary, Table 2: Summary of total fire starts by F factor Order definition

Table 2.3 Information or reporting systems

Information or reporting systems	Name	System Audited	Relevant Standards
System 1	SAP Plant Maintenance Module	Yes	None
System 2	Outage Management System (OMS/CMOS)	Yes	None
System 3	ESV Reports and Confirmation Register 2014	Yes	None
System 4			
System 5			

Source: RIN Template 3. Systems and Audit, Table 4: Information or reporting systems

2.2 Overview of the fire start reporting systems

The following section outlines the systems, processes and procedures used by JEN to record and report F-Factor information.

The key systems used to report outage and network information have also been used to record and report fire starts and F-Factor information. An overview is provided in Appendix A.

Figure 2-1 shows the flow diagram of the systems used to capture fire start information.

Fires related to the JEN network are identified in one of three ways:

- The call centre receives a call identifying there is a fire related to the JEN network. The operator will use the GIS interface to locate the network asset associated with the fire, raise a Trouble Order in the Outage Management System (OMS) and enter basic details then submit the Trouble Order to the dispatcher at the control centre.
- Either the Country Fire Authority (CFA) or the Metropolitan Fire Brigade (MFB) receives a call regarding a fire related to the JEN network. They will respond to the fire and also notify JEN by calling the JEN Coordination Centre. The Dispatcher will then raise a Trouble Order in OMS.
- If a fault is detected by the SCADA system, it is automatically entered into OMS and the operator raises a Trouble Order.

In the case of a fault, once the Trouble Order has been raised, the dispatcher will send a field crew out to the location of the network fault to determine the reason for the fault and complete any repairs required.

If a fire start is identified, the following reporting is carried out:

- The field crew will notify the dispatcher that a fire start occurred. The dispatcher will update the Trouble Order with the details of the fire start included in the description.

- The dispatcher will raise a SAP Notification for the affected asset with the cause codes Asset Burnt (AB) or Asset Charred (AC).
- Once a significant incident has been logged in OMS, an automated text message is sent to relevant staff to notify them of the incident.
- If the event which resulted in a fire also caused an outage of the network, then the event will also be captured in the Daily Situation Report and HV Incident Summary Report.
- If no outage occurred, then the event will not be captured by the Daily Situation Report or the HV Incident Summary Report.
- Upon confirmation of a fire start, a report must be made to the ESV Reporting Register in the Schedule 1 report format (also known as the Electrical Incident Confirmation Form) as defined by ESV. This is also emailed to the Senior Asset Performance and Bushfire Mitigation Engineer.
- An Incident Investigator is dispatched to the site and must produce an Asset Incident Investigation report within 20 business days. While in the field, the Incident Investigator will also complete a Fire Ignition Report which is sent to the Network Integrity and Performance Team.

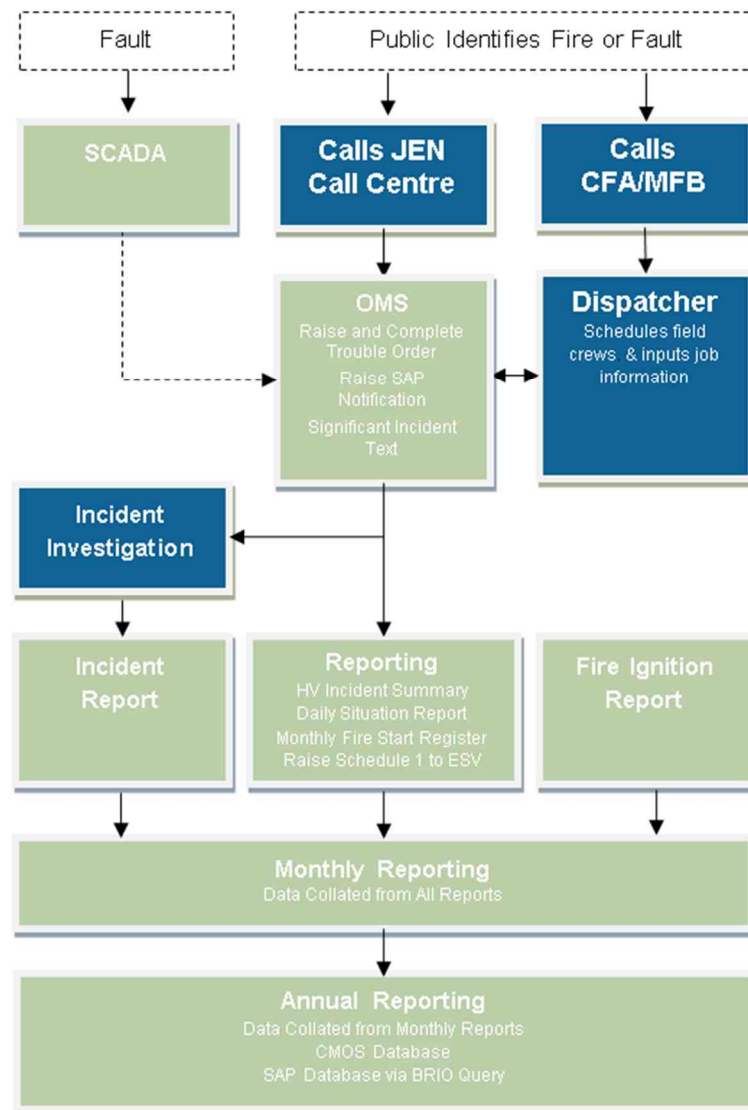


Figure 2-1 Flow Diagram of Fire Start Reporting System

To capture all data required for the RIN reporting, additional data sources used include:

- the classification of the Bushfire Risk Area is mapped into GIS based on data obtained from the CFA
- the CFA fire danger rating is obtained from the Bureau of Meteorology for the day of the fire and recorded by CFA region
- the Fire Danger Period declared field is obtained from the CFA for the day of the fire.

JEN has established a monthly process to review all documentation, as listed above, pertaining to fire starts. This information is used to populate the Fire Start Register.

An annual process has been established at the end of each year where all the data in the CMOS and SAP databases is analysed for fire starts. CMOS is filtered to find any outage that resulted in a fire. A BRIO Query is run on SAP to interrogate all notifications for any instances of key words including burn, fire, smoke and char. During the annual process, all results are compared to the monthly registers to ensure all fire starts have been correctly identified and recorded.

2.3 Objective evidence

The following evidence supports the findings.

2.3.1 Documents reviewed

Table 2.4 Documents reviewed for F-Factor parameters

Document title	Document reference
JEN AER F-factor Reporting Procedure	JEN PR 0505 (Rev 1.0 1/3/13)
F-factor ongoing reporting RIN template 2014.xlsm	
2014 CMOS Final (Jan – audit).xlsx	
Firestarts December 2014v5.xlsx	
CMOS 2014.xlsx	
04_01_2014.docx	Daily Situation Report (4 Jan 2014)
29_01_2014.docx	Daily Situation Report (29 Jan 2014)

The auditor completed a desktop review of documents, interviewed key staff from JEN who manage the process, and conducted data sampling to ensure the information was consistent between the documentation and systems.

The auditor found the following:

- A procedure, JEN PR 0505, documents the processes used to gather information from all information sources available from the JEN systems and for reporting in the RIN. This document has been revised (revision 2) on 3/2/2015 and as such changes made are not applicable to the reporting period. The previous revision 1 was applicable for the reporting period, which had not changed since the 2012 audit.
- The procedure includes monthly reporting with an annual verification process. The annual verification process relies upon an independent interrogation of the two key network outage and asset databases, CMOS and SAP, which contain the base data for all network outages and assets.
- For the 2014 audit period, the annual verification process identified 4 fire starts that had not been reported in the monthly reports / had been investigated. The auditor considers that the annual

verification process is effective, represents good practice and provides for a robust process. The auditor witnessed records of the outcomes of the monthly verification process and therefore the running of the process, however, auditable evidence is not available to show the verification process itself. The verification process has improved, however the reliability and repeatability of the process remains questionable.

- The auditor considers that the data sources used to populate the required data fields for the RIN reporting are appropriate.
- The area burnt is identified during the fire investigation process. Standard measures have been established for the burnt area on some network assets; for example, JEN uses 0.2 square metres as standard for a burnt cross arm. The auditor considers this an appropriate approach.
- RIN reporting has become routine within the incident reporting system. One Incident Investigator develops the incident report, which is reviewed by a Senior Manager. The process is highly reliant on a single staff member; the auditor notes that a transition plan has been developed to train two junior staff members in incident reporting before the planned retirement of the Incident Investigator.
- Incident reports are not written for pole or cross arm fires, but they are captured through other reports including SAP notifications and the Daily Situation Report. The auditor considers that the reporting practices applied represent an efficient process.
- The auditor undertook data sampling to track an incident that included a fire start from the data reported in the RIN to the daily reporting. The auditor found that, based on the samples selected, the data was consistent between the systems and the documentation. The events sampled were related to fire starts 1, 11, 12, 13, 14, 15, 16 and 17.
- The auditor undertook data sampling to investigate errors that may be attributed to misspelling of inputs in CMOS and therefore may be missed during the verification process of searching for key words including burn, fire, smoke and char. A spell check of the raw CMOS data for January was undertaken with a considerable number of spelling errors found. Specific to words related to 'fire' the following alternative spellings were noted:
 - ▶ Burnt – burt (repeated) however this was not specifically related to fires:
 - “replaced 2 core service neutral screen copper burt out at roller..”
 - “repaired burt out active at pole end”

Although this did not relate in this case specifically to fires, it does demonstrate the potential for key word searches potentially missing misspelled variations. The auditor found no evidence to suggest that the misspellings actually resulted in misreporting.

2.4 Audit findings

For the 2014 audit period, JEN's reported F-Factor Scheme information has been found to comply with the F-Factor Scheme Order and reporting requirements of the F-Factor Scheme Notice. The data has been assigned the audit grades outlined in Table 2.5.

Table 2.5 JEN Compliance Grade for F-Factor Scheme

Item	Criterion 1 Reliability	Criterion 2 Documentation	Criterion 3 Understanding	Criterion 4 Definitions	Criterion 5 Error Correction	Criterion 6 Repeatability	Result	Comment
Fire Start by Category	●	●	●	●	●	●	Compliant	
Fire Start by Asset	●	●	●	●	●	●	Compliant	
Fire Start by F-Factor Order definition	●	●	●	●	●	●	Compliant	
Individual Fire Start Information	●	●	●	●	●	●	Compliant	Some records of the verification process were available to the auditors, but this was insufficient to show that the process was run as per the procedure. Potential for key word searches (burnt, fire etc) missing misspelled variations.
Information reporting systems	●	●	●	●	●	●	Compliant	

Source: Parsons Brinckerhoff analysis

2.5 List of personnel met during the audit

Table 2.6 Personnel Interviewed

Staff member	Position title	Area
Tom Ruzeu	Senior Bushfire Mitigation and Asset Performance Engineer	Network Integrity and Performance
Pawel Zielinski	Asset Performance Engineer	Network Integrity and Performance

Source: JEN

Appendix A

OMS



A1. OMS

Outages on the electricity network are recorded using a suite of data bases, with inputs from the network model and operators mostly in real time. A flow diagram of JEN's data collection, recording and reporting process is outlined in Figure 2-1.

The key systems are described below.

The Outage Management System (**OMS**) was implemented in June 2010. It records switching data directly from SCADA and receives data from non-telemetered devices from operators changing status of switches. Customer numbers are built into OMS via the Network Model. Complex switching records can be cancelled and recreated (if corrections are required) and logs of all corrections are retained.

The Operation Instruction Writer (**OIW**) is used by operators to develop switching procedures and record actual open/close times for non-telemetered devices when dealing with field crews. Actual open and close times are manually recorded on an OIW form for each isolation or restoration of customers.

COGNOS is a front-end reporting tool/application used to extract data from OMS, using prewritten filters/scripts to produce defined report formats, and output the data into various formats including PDF, Excel and text files. COGNOS is not a database and therefore does not store data.

CMOS is the database that stores information extracted from OMS by COGNOS. The data is stored in an Access data base and can be modified by JEN staff.

The Supervisory Control and Data Acquisition (**SCADA**) system inputs operations of all telemetered equipment directly into OMS. Each open/close signal input by SCADA is time stamped.

The **Network Model** shows the configuration of the network, which is updated daily, and allows OMS to calculate the number of customers affected by each outage. Customer information is input into the network model by three systems: GIS, CIS+ and AMI.

The **Daily Situation Report** is a report produced daily that includes the output of the OIW which identifies any manual switching events and the actual times that the switching occurred.

The **Monthly Change Log** captures any changes to data in CMOS. It is reviewed for anomalies and for verification against the Daily Situation Reports.

GIS and SAP are the sources of customer number data, including customer geographical locations and network connection points that is input into the Network Model and used by OMS to calculate the number of customers affected by each outage. SAP is the database of customers having smart meters installed as part of the Advanced Metering Infrastructure program.

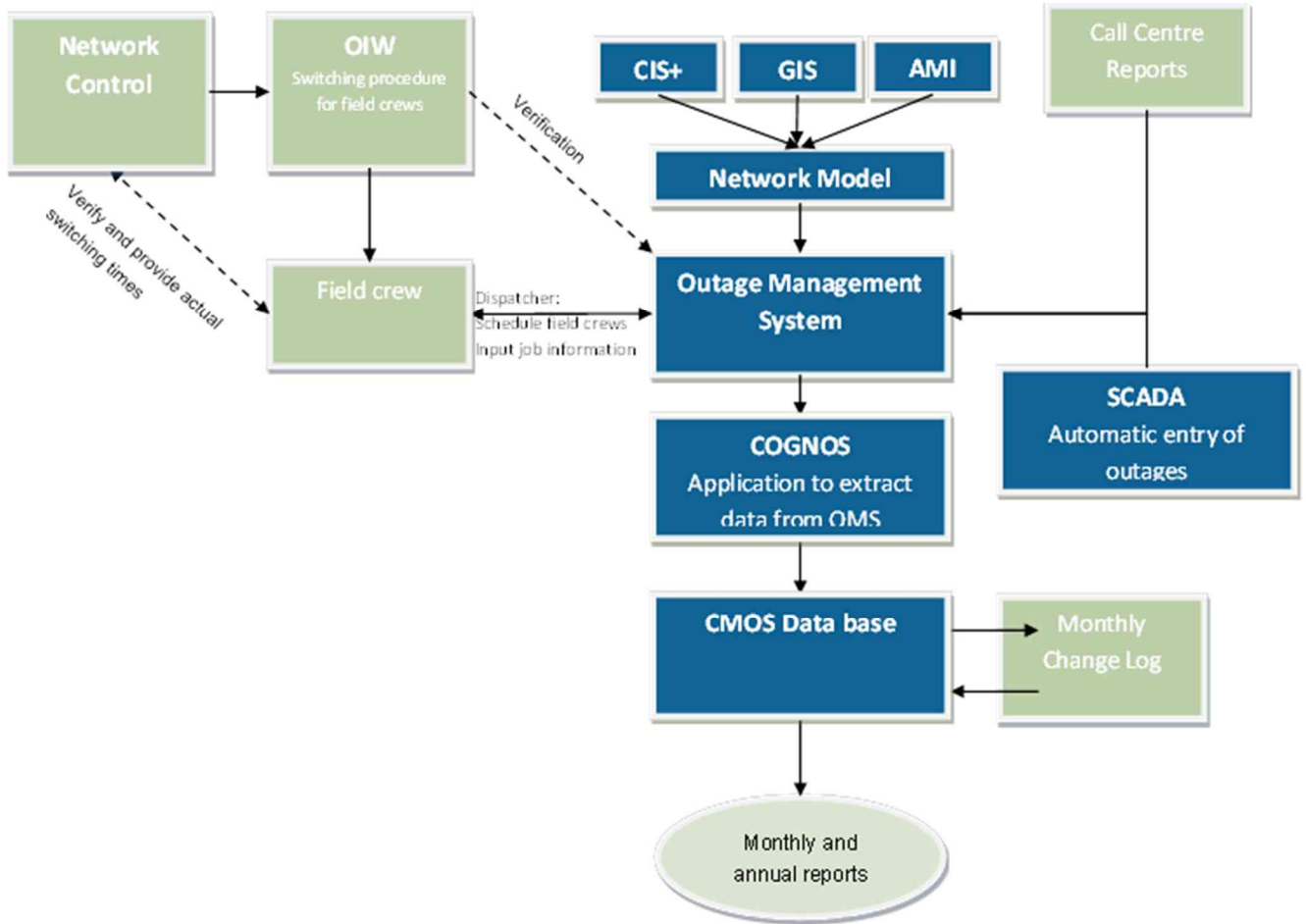


Figure A1.1 Flow diagram of JEN's reliability data reporting systems

Appendix B

Individual Fire Start Information



B1. RIN Template 2 Individual fire start info

Table B-1: Individual fire starts

Fire Start No	Date	Time	Location	Feeder ID	Network categorisation	High Bushfire Risk Area	Fire Start by ESV category	Fire Start by Asset	Kind of Fire Start by F-factor Order - Clause 4	CFA fire danger rating	Fire Danger period declared?	Estimated area burnt (m ²)	Description of types of property damaged	Reported to a relevant entity?	Record Number	Additional evidence available?	Fault description
Fire Start 1	4/01/2014	10:24	37 Martins Ln Viewbank	NH2	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Low-Moderate	Yes	<0.2	Confined to pole top	Yes	86610	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 2	5/01/2014	03:31	13 Capital Link Dr Campbellfield	BD13	Urban	No	Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from other causes (vehicle strikes, vandalism etc)	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	1	Minor grass fire	Yes	86625	Yes	Vandals threw fence wire over HV which resulted in a grass fire.
Fire Start 3	5/01/2014	21:54	271 Edwardes St Reservoir	CN9	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Street light fire	Yes	86693	Yes	Public lighting lantern caught fire. Lantern replaced.
Fire Start 4	13/01/2014	01:37	23 Sylvester Gr Preston	P59	Urban	No	Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from other causes (vehicle strikes, vandalism etc)	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Tree fire	Yes	87040	Yes	Vehicle impact with assets resulted in a vegetation fire.
Fire Start 5	14/01/2014	15:54	76-82 Fillo Dr Somerton	ST13	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Severe	Yes	900	Grass and tree fire	Yes	87189	Yes	Cable termination failure caused an arc flash and resulted in a grass and tree fire.
Fire Start 6	14/01/2014	15:54	110 Hume Hwy Somerton	ST13	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Severe	Yes	20	Minor grass fire	Yes	87189	Yes	HV bridge failure resulted in a grass fire.
Fire Start 7	16/01/2014	18:24	53 Waldemar Rd Eaglemont	HB22	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	1	Minor grass fire	Yes	87695	Yes	Transformer isolator failed and resulted in a grass fire. Isolator replaced on the day.
Fire Start 8	21/01/2014	08:00	598 Geelong Rd Brooklyn	TH21	Urban	No	Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from other causes (vehicle strikes, vandalism etc)	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	1	Minor grass fire	Yes	87994	Yes	Vehicle impact with assets resulted in a grass fire.
Fire Start 9	22/01/2014	05:39	43 Roberts St West Footscray	FW17	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	88090	Yes	Cross arm fire. Cross arm replaced with a new arm.

Fire Start No	Date	Time	Location	Feeder ID	Network categorisation	High Bushfire Risk Area	Fire Start by ESV category	Fire Start by Asset	Kind of Fire Start by F-factor Order - Clause 4	CFA fire danger rating	Fire Danger period declared?	Estimated area burnt (m ²)	Description of types of property damaged	Reported to a relevant entity?	Record Number	Additional evidence available?	Fault description
Fire Start 10	27/01/2014	20:30	10-12 McNab Way Greenvale	COO21	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	5	Minor grass fire	Yes	88523	Yes	Transformer isolator failed and resulted in a grass fire. Isolator replaced on the day.
Fire Start 11	29/01/2014	08:37	48 Chapman St Macleod	NH20	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	88687	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 12	29/01/2014	08:56	28 Sturdee St Reservoir	TT11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	88692	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 13	29/01/2014	09:24	168 Grandview Gr Rosanna	NH9	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	88698	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 14	29/01/2014	09:30	1 Delaware St Reservoir	TT10	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	88700	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 15	29/01/2014	10:54	21 North Rd Reservoir	TT3	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	88735 & 88695	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 16	29/01/2014	11:05	31 Dunvegan Crescent Macleod	NH2	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	88694	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 17	29/01/2014	11:49	123 Porter Rd Heidelberg Heights	NH3	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	88743	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 18	1/02/2014	17:49	Cnr Lantana St & Waterdale Rd Ivanhoe	EP36	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Minor grass fire	Yes	89014	Yes	Krone switch failure caused small grass fire at base of pole. Krone switch replaced.
Fire Start 19	2/02/2014	02:05	Mitchells Lane Sunbury (CVT at SBY zone sub)	SBY32	Rural	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Oil-filled plant fire	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to transformer	Yes	89025	Yes	Transformer fire. Transformer replaced with new transformer
Fire Start 20	2/02/2014	20:55	21 Maude Ave Glenroy	PV23	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89085	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 21	3/02/2014	20:22	199 Sussex St Pascoe Vale	CN05	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89780	Yes	Cross arm fire. Cross arm replaced with a new arm.

Fire Start No	Date	Time	Location	Feeder ID	Network categorisation	High Bushfire Risk Area	Fire Start by ESV category	Fire Start by Asset	Kind of Fire Start by F-factor Order - Clause 4	CFA fire danger rating	Fire Danger period declared?	Estimated area burnt (m ²)	Description of types of property damaged	Reported to a relevant entity?	Record Number	Additional evidence available?	Fault description
Fire Start 22	3/02/2014	20:46	1/48 Moorna Dr Airport West	AW08	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89785 & 89782	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 23	3/02/2014	20:47	Essex Rd Pascoe Vale	CN05	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89786	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 24	3/02/2014	20:56	8 Glencairn Ave Coburg	CS5	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89800	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 25	3/02/2014	21:01	Cnr Wirraway Rd & Vaughan St Essendon Airport	AW01	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89797	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 26	3/02/2014	21:06	Cnr Elmhurst Rd & Carrick Dr Tullamarine	AW02	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89798 & 89795	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 27	3/02/2014	21:22	47 Edwardes St Reservoir	CN11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89803	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 28	3/02/2014	22:16	7 Mountain View Pde Rosanna	NH05	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	89808	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 29	4/02/2014	00:50	25 Raes Road Subury	SBY14	Rural	Yes	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	89819	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 30	4/02/2014	16:36	6 Murtoa St Tullamarine	BD11	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	< 3	Minor grass fire	Yes	89913	Yes	Service failure resulted in a grass fire.
Fire Start 31	4/02/2014	16:48	28 Leander St Footscray	FW08	Urban	No	Asset Failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Minor grass fire	Yes	89917	Yes	Strong winds caused the LV to clash and resulted in a grass fire.
Fire Start 32	6/02/2014	21:30	Cnr Ballarat Rd & Burke St Braybrook	BY11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	90134	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 33	9/02/2014	11:28	Cnr Gaffney St & Kinross St Pascoe Vale	CS02	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any tree, or part of a tree, falling upon or coming into contact with a distribution system	Extreme	Yes	<0.2	Minor grass fire	Yes	90297	Yes	PG clamp failed causing a small grass fir.

Fire Start No	Date	Time	Location	Feeder ID	Network categorisation	High Bushfire Risk Area	Fire Start by ESV category	Fire Start by Asset	Kind of Fire Start by F-factor Order - Clause 4	CFA fire danger rating	Fire Danger period declared?	Estimated area burnt (m ²)	Description of types of property damaged	Reported to a relevant entity?	Record Number	Additional evidence available?	Fault description
Fire Start 34	9/02/2014	11:43	2 Adamson St Braybrook	FW09	Urban	No	Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from trees contacting network assets	Started by any tree, or part of a tree, falling upon or coming into contact with a distribution system	Extreme	Yes	<9	Minor grass fire	Yes	90299	Yes	Tree contact with LV mains has resulted a grass fire.
Fire Start 35	9/02/2014	11:51	9 Mount St Preston	CS03	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Extreme	Yes	<4	Minor grass fire	Yes	90303	Yes	Burnt out connection on an LV bus fused isolator resulted in a grass fire
Fire Start 36	9/02/2014	14:35	127 McKell Ave Sunbury	SBY11	Rural	No	Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from trees contacting network assets	Started by any tree, or part of a tree, falling upon or coming into contact with a distribution system	Extreme	Yes	<4	Minor grass fire	Yes	90352	Yes	Tree contact with HV mains has resulted a grass fire.
Fire Start 37	11/02/2014	07:52	78 Foster Rd Keilor Park	AW08	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	90534	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 38	11/02/2014	08:57	1 McNamara Ave Macleod	NH03	Urban	No	Asset failures resulting in grass / vegetation fire	Pole and crossarm failure or Pole and crossarm fire	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<9	Pole top and minor grass fire	Yes	90542	Yes	Cross arm and grass fire. Cross arm replaced with a new arm.
Fire Start 39	13/02/2014	13:02	2/32 Ashley St Reservoir	CN11	Urban	No	Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from other causes (vehicle strikes, vandalism etc)	Started by any other thing forming part of or coming into contact with a distribution system	Low-Moderate	Yes	<4	Minor grass fire	Yes	90744	Yes	Vehicle impact with assets resulted in a grass fire.
Fire Start 40	15/02/2014	02:49	1/41 Quinn Gr Keilor East	AW06	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Low-Moderate	Yes	<0.2	Confined to pole top	Yes	90851	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 41	16/02/2014	01:52	51 Hood St Airport West	AW01	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90902	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 42	16/02/2014	03:52	Cnr Brown St & Robson Ave Avondale Heights	BY11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90916	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 43	16/02/2014	04:49	12 The Circuit Gladstone Park	AW02	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90924	Yes	Cross arm fire. Cross arm replaced with a new arm.

Fire Start No	Date	Time	Location	Feeder ID	Network categorisation	High Bushfire Risk Area	Fire Start by ESV category	Fire Start by Asset	Kind of Fire Start by F-factor Order - Clause 4	CFA fire danger rating	Fire Danger period declared?	Estimated area burnt (m ²)	Description of types of property damaged	Reported to a relevant entity?	Record Number	Additional evidence available?	Fault description
Fire Start 44	16/02/2014	05:29	Cnr Chandos St & Victoria St	SHM21	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90928	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 45	16/02/2014	05:30	Cnr Woorite & Milleara Keilor East	AW08	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90917	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 46	16/02/2014	05:33	2 Kalang Rd Glenroy	PV21	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90929	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 47	16/02/2014	05:55	111 Middle St Hadfield	PV15	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90932	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 48	16/02/2014	07:00	Cnr North Rd & Arcade Way Avondale Heights	BY11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	10217440 (Notification #)	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 49	16/02/2014	07:42	Cnr Newlands Rd & Henty St Reservoir	CN01	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90945	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 50	16/02/2014	10:40	Cnr Brooklyn Court & Hume Hwy Campbellfield	BD15	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	91605	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 51	16/02/2014	10:43	Cnr Herring Ave & Mackay Rd Yallambie	WT04	Urban	No	Asset failures resulting in grass / vegetation fire	Pole and crossarm failure or Pole and crossarm fire	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<1	Pole top and tree canopy fire	Yes	90973	Yes	Cross arm and tree canopy fire. Cross arm replaced with a new arm.
Fire Start 52	16/02/2014	11:27	11 Amis Cr Avondale Heights	BY11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90978	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 53	16/02/2014	12:54	Cnr Stubbs Rd & Robertson St	FT14	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90986	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 54	16/02/2014	13:37	26 Louisa St Coburg	CS03	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	90908	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 55	16/02/2014	16:23	80 Northern Rd Heidelberg West	NH09	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	91007	Yes	Cross arm fire. Cross arm replaced with a new arm.

Fire Start No	Date	Time	Location	Feeder ID	Network categorisation	High Bushfire Risk Area	Fire Start by ESV category	Fire Start by Asset	Kind of Fire Start by F-factor Order - Clause 4	CFA fire danger rating	Fire Danger period declared?	Estimated area burnt (m ²)	Description of types of property damaged	Reported to a relevant entity?	Record Number	Additional evidence available?	Fault description
Fire Start 56	16/02/2014	19:22	248 Whitehall St Yarraville	YVE14	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	91010	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 57	18/02/2014	15:15	35 Elmhurst Rd Gladstone Park	AW02	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	10217578 (Notification)	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 58	20/02/2014	11:41	Cnr Silvia St & Graham Rd Viewbank	NH08	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	91578	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 59	4/03/2014	11:00	Brooklyn Terminal Station Kyle Rd Brooklyn	BLTS-YVE	Urban	No	Asset failures resulting in grass / vegetation fire	Pole and crossarm failure or Pole and crossarm fire	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	1800	Pole and grass fire	Yes	92407	Yes	Tracking caused a pole and grass fire.
Fire Start 60	4/03/2014	13:15	19 Strathallan Rd MacLeod	NH02	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Confined to pole top	Yes	92392	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 61	4/03/2014	16:58	89 Edwin St Heidelberg Heights	NH17	Urban	No	Asset failures resulting in grass / vegetation fire	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Very High	Yes	<0.2	Minor grass fire	Yes	92409	Yes	Service failure resulted in a grass fire.
Fire Start 62	5/03/2014	16:18	250 Hume Hwy Craigieburn	ST11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Low-Moderate	Yes	<0.2	Confined to pole top	Yes	92487	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 63	7/03/2014	10:15	84 Railway Place Williamstown	NT17	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	92595	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 64	21/03/2014	21:32	18 Annesley St Braybrook	BY15	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	94556	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 65	22/03/2014	10:56	369 Barry Rd Dallas	BD08	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Low-Moderate	Yes	<0.2	Confined to pole top	Yes	94575	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 66	3/04/2014	03:22	84 Derby St Pascoe Vale	CS12	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Low-Moderate	Yes	<0.2	Confined to pole top	Yes	95225	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 67	24/04/2014	13:45	354 Yallambie Rd Yallambie	NH02	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	HV Fuse Failure (including 'hang-ups' and 'candling')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to fuse	Yes	96354	Yes	Candled fuse.

Fire Start No	Date	Time	Location	Feeder ID	Network categorisation	High Bushfire Risk Area	Fire Start by ESV category	Fire Start by Asset	Kind of Fire Start by F-factor Order - Clause 4	CFA fire danger rating	Fire Danger period declared?	Estimated area burnt (m ²)	Description of types of property damaged	Reported to a relevant entity?	Record Number	Additional evidence available?	Fault description
Fire Start 68	7/05/2014	07:08	80 Millers Rd Brooklyn	FW06	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Street light fire	Yes	97147	Yes	Public lighting lantern caught fire. Lantern replaced.
Fire Start 69	18/05/2014	16:07	41 Wattle St West Footscray	FW17	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Confined to pole top	Yes	97706	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 70	24/05/2014	14:00	131 Murray Rd Gisborne	SBY11	Rural	Yes	Asset failures resulting in grass / vegetation fire	Oil-filled plant fire	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<1	HV bushing and minor grass fire	Yes	98137	Yes	Substation and grass fire. Substation replaced.
Fire Start 71	24/06/2014	12:05	2/398 Sydney Rd Coburg	CS08	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Confined to pole top	Yes	99911	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 72	29/06/2014	09:24	Cnr Hartley st & Camp Rd Broadmeadows	BD11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Street light fire	Yes	100534	Yes	Public lighting caught fire. Lantern replaced.
Fire Start 73	22/07/2014	18:00	13 Reo Cres Campbellfield	BD01	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Confined to pole top	Yes	102725	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 74	4/08/2014	16:00	37 Kiewa St Broadmeadows	BD11	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Confined to pole top	Yes	103430	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 75	18/08/2014	04:25	11 Mackay Street Yarraville	FE09	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Confined to pole top	Yes	104015	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 76	18/08/2014	11:38	61 Charles St Coburg	CS12	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Confined to pole top	Yes	Inst 53886 (Switching instruction)	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 77	28/09/2014	12:45	20 McGeorge Rd Gisborne South	SBY32	Rural	Yes	Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from trees contacting network assets	Started by any tree, or part of a tree, falling upon or coming into contact with a distribution system	Unavailable	No	<0.2	Tree fire	Yes	106236	Yes	Tree branch fell on HV conductors and started a vegetation fire
Fire Start 78	30/09/2014	13:53	55 Market Rd Brooklyn	TH022	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	Unavailable	No	<0.2	Confined to pole top	Yes	106353	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 79	8/11/2014	16:47	91 Link Drive Campbellfield	BD01	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Oil-filled plant fire	Started by any other thing forming part of or coming into contact with a distribution system	Very High	No	<0.2	Confined to kiosk substation	Yes	108138	Yes	Substation LV board fire. Substation LV board replaced.

Fire Start No	Date	Time	Location	Feeder ID	Network categorisation	High Bushfire Risk Area	Fire Start by ESV category	Fire Start by Asset	Kind of Fire Start by F-factor Order - Clause 4	CFA fire danger rating	Fire Danger period declared?	Estimated area burnt (m ²)	Description of types of property damaged	Reported to a relevant entity?	Record Number	Additional evidence available?	Fault description
Fire Start 80	9/11/2014	00:32	41 Conifer Ave Brooklyn	FW06	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	No	<0.2	Confined to pole top	Yes	108150	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 81	9/11/2014	00:34	Cnr Louis St & Parer Rd Niddrie	AW01	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	No	<0.2	Confined to pole top	Yes	108151	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 82	12/12.2014	11:00	160 Nicholson St Footscray	FE08	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Other Assets	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to cable	Yes	110670	Yes	Fault current caused an underground asset fire.
Fire Start 83	18/12/2014	21:04	46 Rokewood Cres Meadow Heights	BD01	Urban	No	Asset failures resulting in asset fire (no grass/vegetation fire)	Pole and crossarm fire (including 'smouldering' or 'smoke')	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Confined to pole top	Yes	111118	Yes	Cross arm fire. Cross arm replaced with a new arm.
Fire Start 84	31/12/2014	19:37	Cnr Henty St & Spratling St Reservoir	CN07	Urban	No	Grass/vegetation fires from assets (non-asset failures)	Fire starts in grass/vegetation resulting from other causes (vehicle strikes, vandalism etc)	Started by any other thing forming part of or coming into contact with a distribution system	High	Yes	<0.2	Minor grass fire	Yes	111511	Yes	Balloon contacted HV insulator and started a grass fire.

Source: RIN Template 2, Table 3. Individual fire starts