

# **ESV Validation Report**

AusNet Services 2019-2020 Fire Start Report Final Report



# **Executive summary**

The Victorian Governor in Council made the Order In Council for the F-Factor Scheme Order 2016 under section 16C of the *National Electricity (Victoria) Act 2005*. This was gazetted on 22 December 2016.

AusNet Services provided its fire start report to the Australian Energy Regulator (AER) on 29 September 2019. This report covered the period 1 July 2019 to 30 June 2020.

The AER forwarded the fire start report to Energy Safe Victoria (ESV) on 30 September 2020 for validation by 30 November 2020. ESV undertook the validation process in a staged manner as follows:

- A preliminary review to ensure the information provided was complete and in a satisfactory form
- A completeness assessment to determine whether all fires previously reported to ESV had been included in the fire start report and to ensure all incidents in the fire start report had been previously reported as fires to ESV
- A comparative analysis of IRU-specific factors to identify any material differences between the
  information reported by AusNet Services in its fire start report and previously to ESV in relation to
  those aspects of the fire start report pertinent to the calculation of the total Ignition Risk Units (IRU)
  amount
- A comparative analysis of non-IRU factors to identify any differences between the information reported by AusNet Services in its fire start report and previously to ESV in relation to those aspects of the fire start report not pertinent to the IRU calculation.

Except for the analysis of non-IRU factors, ESV consulted with AusNet Services regarding any discrepancies identified to clarify the reasons for the discrepancies and to provide an opportunity to amend the fire start report.

Further detail on the methodology used for the validation analysis is provided herein.

On completion of the validation analysis, ESV issued the draft "ESV Validation Report: AusNet Services 2019-2020 Fire Start Report" to the AER on 8 December 2020. The AER provided a copy of this report to AusNet Services on 9 December 2020 and invited AusNet Services to respond with any comments within 15 business days.

AusNet Services wrote to the AER on 16 December 2020 confirming its agreement with the findings of the draft validation report and issuing an updated fire start report.

Following the validation process, ESV can confirm that the total IRU amount of 200.90 provided in the final AusNet Services 2019-2020 fire start report<sup>1</sup> is correct.

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<sup>&</sup>lt;sup>1</sup> AST 2019-20 Electricity Distribution F Factor Data (11Dec20 resubmit).xlsm

# **Contents**

Executive summary	3
Introduction	7
Background	7
Request from the AER	7
Validation process	8
Scope	8
Methodology applied	8
Caveats	10
Accuracy of information provided	11
Preliminary review	11
Completeness assessment	11
Comparative analysis — IRU-specific factors	11
Comparative analysis — non-IRU factors	14
Verification of the IRU amount	16
Note on EM-COP Fire Danger Ratings data	16
Conclusion	16

# Introduction

### **Background**

The Victorian Governor in Council made the Order In Council for the F-Factor Scheme Order 2016 under section 16C of the *National Electricity (Victoria) Act 2005*. This was gazetted on 22 December 2016.

The F-factor scheme is managed by the Australian Energy Regulator (AER). Section 7 of the Order In Council identifies that the AER may request Energy Safe Victoria (ESV) to validate the fire start reports submitted to the AER by the Distribution Network Service Providers. Each fire start report will have an individual validation report.

The Order In Council stipulates that each Distribution Network Service Provider (DNSP) will provide a fire start report to the AER by 30 September each year. The Order In Council also stipulates that, if requested by the AER, ESV will provide a validation report to the AER by 30 November each year.

The Order In Council also identifies that the AER may refer any submissions regarding the validation reports to ESV in order to provide a revised validation that responds to the submissions by 15 February in the following year.

# Request from the AER

On 30 September 2020, the AER provided ESV with the AusNet Services 2019-2020 fire start report for validation. This comprised the following documents:

•	Attachment 1 – AST 2019-20 Electricity Distribution F Factor Data	Excel spreadsheet
•	Attachment 2 – AST F-Factor Statutory Declaration 2020	PDF document
•	Attachment 3 – SOP 30-05.v3	PDF document
•	Attachment 4 – WSP audit report 20200921	PDF document

These documents consider the AusNet Services distribution system separately from other systems managed by the service provider.

As per previous practice, ESV would seek additional information directly from the DNSPs where ESV deemed it necessary for the purposes of validation. This is in line with clause 7(4) of the Order In Council. Where additional information was sought, ESV ensured that the AER was copied into any correspondence.

# Validation process

While the scope of the fire start report and the validation process are detailed in the Order In Council (as outlined below), the approach to be undertaken in assessing the accuracy of information provided is not specified. This section describes the process that ESV applied to the validation assessment; the results are provided later in this report.

### Scope

In reviewing the information provided in a DNSP's fire start report, clause 7(3) of the Order In Council stipulates that ESV's validation report:

- (b) must include an assessment of the accuracy of the information provided in the fire start report pursuant to clauses 6(3)(d)-(f) and (h), specifically:
- (c) must verify the estimate of the ignition risk unit (IRU) amount for the financial year provided under clause 6(3)(g).

These specific items are detailed in clause 6(3) of the Order In Council, which states that a DNSP's fire start report must, among other things:

- (d) if the Distribution Network Service Provider is the service provider in relation to more than one distribution system, distinguish between distribution systems;
- (e) list all fire starts for a financial year, stating in each case and where known;
  - (i) what kind of fire start it was;
  - (ii) the date, time and latitude and longitude for each fire;
  - (iii) the unique identification number of the pole and polyphase electric line nearest to the fire start;
  - (iv) the voltage of the electric line in which the ignition occurred;
  - (v) the estimated value of the fire start expressed in IRUs, calculated in accordance with this Order;
- (f) state whether the fire was reported to a relevant entity;
- (g) calculate the total IRU amount for the financial year on the basis of the information contained in the fire start report, in accordance with this Order;
- (h) include such other information as the AER may from time to time specify;

Clause 6(3) of the Order In Council also requires that the DNSP's fire start report:

- (i) include an independent audit of the fire start report undertaken by an external auditor;
  - (i) stating, in the auditor's opinion, whether the information contained in the fire start report is accurate and reliable; and
  - (ii) which is acceptable to the AER.

# Methodology applied

For its validation assessment, ESV broke these items into the two categories:

IRU-specific factors

These comprise those factors within the fire start report that are directly relevant to the calculation of the IRUs for the incident. Specifically these are the date, time and latitude and longitude for the fire and the distribution business' estimate of the IRUs for the fire [items (e)(ii) and (e)(v) in the Order In Council].

Non-IRU factors

These comprise all other information reported in the fire start report [items (e)(i), (e)(iii) and (e)(iv)].

A more detailed analysis was undertaken of the IRU-specific factors than of the non-IRU factors.

ESV validated the DNSP fire start reports as follows:

#### Preliminary review

The purpose of the preliminary review was to determine that the information provided to ESV was complete and in a satisfactory form for ESV to undertake its validation analysis.

ESV started by reviewing the documentation provided by the AER to ensure that all relevant information was provided and readable.

The DNSP's fire start spreadsheet was then subject to a preliminary, high-level review to ascertain whether there were any obvious issues with the information contained therein. If the preliminary review identified any issues, ESV would contact the DNSP so that the DNSP could provide an updated spreadsheet.

#### Completeness assessment

The purpose of the completeness assessment was to determine whether:

- all fires in the DNSP's fire start report are listed as fires in OSIRIS<sup>2</sup>
- all network-related fires listed in OSIRIS are included in the DNSP's fire start report.

Where there were differences identified, ESV contacted the DNSP to confirm the reasons for the difference.

The DNSP then provided a rationale for the differences and, where there was a change to the information in the fire start spreadsheet, the DNSP provided an updated spreadsheet reflecting any changes and, in some instances, additional supporting information.

We reviewed the rationale and information subsequently provided by the DNSP to confirm we were satisfied with the reasons for the inclusion or exclusion of specific incidents.

#### Comparative analysis — IRU-specific factors

The purpose of the comparative analysis of IRU-specific factors was to identify any material differences between the information reported by the DNSP in its fire start report and through OSIRIS. In determining materiality, ESV considered whether:

- any differences in the location were sufficient to result in a change to the location multiplier being applied to the fire start
- any differences in the location were sufficient to result in an incorrect CFA region being used for determining the applicable Fire Danger Rating for the fire start
- any differences in the date and time were sufficient to result in an incorrect Fire Danger Rating being applied to the fire start.

Where potentially material differences were identified, ESV contacted the DNSP to confirm the reasons for the differences.

The DNSP then provided a rationale for the differences and, where there was a change to the information in the fire start spreadsheet, the DNSP provided an updated spreadsheet reflecting any changes and, in some instances, additional supporting information.

We reviewed the rationale and information subsequently provided by the DNSP to confirm we were satisfied with the rationale and information provided.

OSIRIS is ESV's incident reporting portal for the major electricity companies to report details of any serious electrical incidents to ESV. These incidents include a range of events that include fires involving network assets.

Comparative analysis — non-IRU factors

The purpose of the comparative analysis of non-IRU factors was to identify any differences between the information reported by the DNSP in its fire start report and through OSIRIS.

Where differences were identified, ESV identified these in this validation report. The DNSP was able to comment on these differences in its response to the draft validation report.

Following the validation process, ESV then used the final data to calculate an IRU amount for each fire start. We then compared these against the IRU amounts provided by the DNSP, and a total IRU amount was calculated.

#### **Caveats**

The following caveats apply to the validation process and the contents and findings of this report:

Accuracy of the fire start data

The validation process involves the comparison of two data sets — the DNSP's fire start report and incident data reported by the DNSP via ESV's OSIRIS. Where there are differences between the data reported in these two data sets, ESV has not sought to ascertain which data set provide the true and accurate record of each fire start for the purposes of this report beyond a desktop assessment.

ESV can only attest that the data provided in the fire start report is appropriate for the purposes of calculating the total IRU amount. The information provided in the DNSP's fire start report should not be used for other purposes without further analysis of the data to verify it is fit for such purposes.

Validation against third-party sources

ESV has not sought to validate or verify the data in the DNSP's fire start report in its entirety against third-party sources such as the Country Fire Authority (CFA) and Melbourne Metropolitan Fire Brigade (MFB).

This is not deemed to be a significant limitation on the validation process as any fires involving network assets should be reported by the CFA/MFB to the DNSP and these are, in turn, reportable to ESV.

Individual records may have been subject to confirmation with the CFA and/or MFB on a case-by-case basis. If this has occurred, it is noted within the report.

Independent verification of fire starts

ESV does not have the resources available to routinely undertake independent assessments of the DNSP's electricity network in order to ascertain whether the DNSP identifies all incidents, including fires. As such, the fire starts may be under-reported; however, we are confident that the number of such incidents is small and that no significant fires could have gone unreported.

Similarly ESV has not undertaken an independent audit of the DNSP's records to ensure their accuracy. In this regard, we have relied on this being undertaken as part of the independent audit commissioned by the DNSP, the details of which were submitted as part of the fire start report.

# Accuracy of information provided

ESV undertook an assessment of the accuracy of the information provided in the AusNet Services fire start report in accordance with clause 7(3)(b) of the Order In Council. The following sections outline the findings of the assessment.

Further details regarding the specific incidents reported in the fire start report are available upon request.

# **Preliminary review**

Upon receipt of AusNet Services' fire start spreadsheet, we undertook a preliminary review to ensure that the fire reporting spreadsheet had no obvious issues with regard to incomplete or incorrect data.

No high-level issues were identified with the documentation provided by AusNet Services.

### **Completeness assessment**

We compared the records provided in the AusNet Services fire start spreadsheet with those available from ESV's OSIRIS incident reporting portal. This comparison was undertaken to assess the completeness of the fire start report, with specific attention paid to identifying any records missing from either data set or classified differently between the data sets.

The analysis identified 12 incidents where there were differences between the AusNet Services fire start report and ESV's OSIRIS records:

- five that may need to be considered for inclusion in the fire start report
- six that are listed in OSIRIS as f-factor reportable but upon review are not reportable
- one that is reportable but is recorded as occurring on the transmission network (this was included in the fire start report).

Details are provided in Table 1.

ESV wrote to AusNet Services on 26 November seeking clarification regarding these differences.

On 26 November, AusNet Services provided further information on the five incidents in the topmost row of Table 1. After some further correspondence to clarify details, this resulted in two additional fires being added to the AusNet Services fire start report. An updated spreadsheet reflecting these changes was submitted to the AER and ESV on 1 December 2019 — AST 2019-20 Electricity Distribution F Factor Data (01Dec20 resubmit).xlsm.

In addition, all incidents requiring updates were re-opened in OSIRIS for amending the fire and network details.

Subsequent to this correspondence, ESV identified an additional incident (20190710SPN\_01) that was listed in OSIRIS as f-factor reportable but upon review is not reportable. This was re-opened in OSIRIS for the fire details to be amended.

Table 1: Variations between the fire start report and OSIRIS

OSIRIS report	Included in report	Listed as fire in OSIRIS	Comment
20200107SPN_12 20200211SPN_03	No	Yes	These incidents were recorded as fires in OSIRIS but were not listed in the fire start report.
20200416SPN_02 20200417SPN_01 20200519SPN_02			AusNet Services advised that 20200416SPN_02 had been updated in OSIRIS to note that the incident had only involved melting/overheating in a krone box, but this had not been submitted to ESV. There was no evidence of an f-factor reportable fire. The amended report was subsequently submitted to ESV.
			AusNet Services advised that 20200211SPN_03 also only involved melting/overheating in a krone box and there was no evidence of fire. As such, this is not f-factor reportable. The report was re-opened in OSIRIS for the fire details to be amended.
			AusNet Services also advised that 20200519SPN_02 was incorrectly listed as a pole fire in OSIRIS when the incident only involved an overheated connection. The report was re-opened in OSIRIS for the fire details to be amended.
			The AusNet Services review also identified that 20200107SPN_12 and 20200417SPN_01 were f-factor reportable events. The fire start report was amended to incorporate these incidents.
20191125SPN_03	No	Yes	This incident was recorded as a fire in OSIRIS but was not listed in the fire start report. Upon further review by ESV, it was noted that the incident occurred on a customer's installation and, as such, is not f-factor reportable.
			The report was re-opened in OSIRIS for the fire and location details to be amended.
20191127SPN_02 20200107SPN_01 20200504SPN_01	No	Yes	These incidents were recorded as fires in OSIRIS but were not listed in the fire start report. Upon further review by ESV, it was noted that these incidents only involved melting or charring and, as such, are not f-factor reportable.
20200611SPN_01 20200611SPN_02			These reports were re-opened in OSIRIS for the fire details to be amended.
20200629SPN_04	Yes	Yes	This incident was listed in the fire start report and OSIRIS, but the OSIRIS record incorrectly attributed to the AusNet Services transmission network.
			The report was re-opened in OSIRIS for the network details to be amended.
20190710SPN_01	No	Yes	This incident was recorded as a fire in OSIRIS but was not listed in the fire start report. Upon further review by ESV, it was noted that the fire did not originate from the electricity network and, as such, is not f-factor reportable.
			This incident was not mentioned in the email of 26 November 2020.
			The report was re-opened in OSIRIS for the fire details to be amended.

### Comparative analysis — IRU-specific factors

We compared the location (latitude and longitude) and timing (date and time) of each record in the fire start report with the record of the same incident in OSIRIS.

As we recognised that errors may be introduced into the location data due to rounding errors and other system-induced errors, we rounded all latitudes and longitudes to five decimal places to reduce the impact of such errors on the analysis.

We then checked the location area (used to determine the location multiplier) and the CFA fire district (used to determine the danger multiplier) using the DNSP and OSIRIS location data to ascertain whether these differed from the fire start report. As such, we only consider those differences in location that were material to the calculation of the IRU amount.

In undertaking its analysis, ESV focused on those records where the differences could materially affect the IRU calculated for the fire start.

ESV applied the following tests to determine if the differences between the data sets could be material:

• **Test 1 :** Is the difference in coordinates sufficient that a change in location may result in a change to the location multiplier?

The location area for each fire start was determined based on the coordinates in the fire start report and OSIRIS. This was done by identifying the location areas in which the coordinates were sited. If these differed from the location areas listed in the fire start report, the incident was investigated in more detail to identify the cause of the difference. Where necessary, the incident was referred back to the DNSP for further clarification.

• **Test 2**: Does the Fire Danger Rating applicable at the location and time for a record differ when based on the information specified in the fire start report and in OSIRIS?

The Fire Danger Rating is dependent on the location of the fire (which CFA region the fire occurred in) and the time of the fire (what was the applicable Bureau of Meteorology Fire Danger Rating at the time of the fire).

The CFA region for each fire start was determined based on the coordinates in the fire start report and OSIRIS. This was used to look up the Fire Danger Rating for that region in the spreadsheet of ratings available from the EM-COP website at the listed date and time of the fire.

The Fire Danger Rating was determined based on the coordinates and times in the fire start report and OSIRIS. If these differed from the ratings listed in the fire start report, the incident was investigated in more detail to identify the cause of the difference. Where necessary, the incident was referred back to the DNSP for further clarification.

Using these two tests, we identified one incident where the differences in information had the potential to materially affect the IRU for the incident. There were no issues associated with the location or timing data; the single difference related to the fire danger rating assigned to the incident. ESV then reviewed the records in EM-COP and confirmed that the AusNet Services fire start report did not use the correct fire danger rating for the incident time and location.

ESV wrote to AusNet Services on 27 November noting the fire danger rating discrepancy and the need to update the fire start report accordingly.

AusNet Services reviewed the incidents and confirmed that the fire danger rating data provided in the fire start report was incorrect. An update fire start report was issued on 1 December 2020 (see above).

# Comparative analysis — non-IRU factors

ESV undertook a comparison of the data in the AusNet Services fire start report and OSIRIS related to:

- the pole and polyphase electric line identification numbers
- · the voltage of the electric line
- · the kind of fire start.

A direct comparison was made of the details of the pole and line identification numbers and line voltage in the fire start report and OSIRIS. This did not require any subjective assessment. The comparison identified 45 incidents with differences in the asset identification number between the fire start report and OSIRIS. Of these, 44 related to asset numbers that had a prefix of "LIS" or "Pole LIS" in the OSIRIS record; only one had a substantively different asset number. Overall there were 15 incidents where there was a substantive difference between the fire start report and OSIRIS. Six related to typographic errors in either data set and nine were where the data was different between the data sets. The single incident involving a difference in the voltage was where the voltage reported in the fire start report was not the highest voltage reported in OSIRIS. Table 2 provides a breakdown of these findings.

Details from OSIRIS were used to determine whether the kind of fire start had been correctly identified. This involved a subjective assessment of the information.

The assessment of the kind of fire identified 123 fire starts where ESV would have classified the fire differently to AusNet Services. This included 118 incidents where AusNet Services classified the incidents as "otherwise started by a distribution system" and ESV classified these as "started in or originated from a distribution system". The classifications are essentially interchangeable and ESV accepts the classifications applied by AusNet Services.

These remaining five incidents were:

Incident 20191122SPN\_04

AusNet Services classified this incident as "started by any tree, or part of a tree, falling upon or coming into contact with a distribution system", but ESV's review identified that this incident was "started in or originated from a distribution system". The OSIRIS incident report attributed the incident to the electrical breakdown of a surge diverter; there was no mention of vegetation being involved.

Incident 20200113SPN\_01

AusNet Services classified these incidents as "otherwise started by a distribution system", but the OSIRIS records would indicate that this incident was "started by any person, bird, reptile or other animal coming into contact with a distribution system". While the OSIRIS report submitted by AusNet Services attributed to the incident to bird contact, further review by ESV would discount bird involvement and that the finding in the fire start report is correct. ESV will re-open the OSIRIS report for AusNet Services to update the cause of the incident.

Incident 20200115SPN\_01

AusNet Services classified this incident as "started by any person, bird, reptile or other animal coming into contact with a distribution system", but ESV's review identified that this incident was "started by any other thing forming part of or coming into contact with a distribution system". The incident resulted from a helium balloon contacting the overhead powerlines and, as such, the latter classification is more appropriate.

Incident 20200313SPN 01

AusNet Services classified these incidents as "otherwise started by a distribution system", but ESV's review identified that these incidents were "started by any person, bird, reptile or other

animal coming into contact with a distribution system". In reporting these incidents in OSIRIS, AusNet Services noted that the incident had resulted from wildlife contact, presumably bird contact.

#### Incident 20200611SPN\_03

AusNet Services classified this incident as "started by any other thing forming part of or coming into contact with a distribution system". In reviewing the OSIRIS records, ESV notes that AusNet Services had reported the incident as not reportable under the F-factor scheme since no evidence had been found linking any electrical assets with the fire. ESV would suggest that AusNet Services remove this incident from its fire start report.

Most of the differences above had no material impact on the total IRU calculation, although the potential removal of incident 20200611SPN\_03 would reduce the total IRUs.

AusNet Services reviewed these findings in preparing its response to the draft validation report. I concurred with the findings, including the removal of incident 20200611SPN\_03. A revised fire start report was issued with the response — AST 2019-20 Electricity Distribution F Factor Data (11Dec20 resubmit).xlsm.

Table 2: Variations in pole id, line id and voltage

OSIRIS report	Cause of the variation				
	typographic error	different data	data not in OSIRIS		
20190708SPN_04	line id				
20190708SPN_05	line id				
20190917SPN_07		line id			
20191008SPN_01	line id				
20200107SPN_11		line id			
20200108SPN_05		line id			
20200121SPN_04		line id			
20200130SPN_01	line id				
20200303SPN_01		line id			
20200401SPN_03		line id			
20200518SPN_02	line id				
20200602SPN_02	line id				
20200611SPN_03		asset id, line id, voltage			
20200625SPN_01		line id			
20200629SPN_04		line id			

# Verification of the IRU amount

Following the validation of individual records, ESV compiled any changes to the fire start records and assigned the corresponding location and danger multipliers. The individual and total IRU amounts were then calculated.

We then compared our location and danger multipliers with those of AusNet Services to determine whether AusNet Services had correctly assigned the multipliers for each fire start. There were no differences in the multipliers or IRU amounts.

As part of the validation process, ESV identified differences in the fire start report that had a material impact on the total IRU amount; AusNet Services subsequently issued an amended fire start report. ESV then identified one incident (20200611SPN\_03) that may not be reportable under the F-factor scheme.

ESV has identified that the total IRU amount of 200.92 as reported in the final fire start report (FY19 Ffactor RIN AusNet Services (Final) 20191101Resubmission.xlsm) may need to be reduced to 200.90.

### Note on EM-COP Fire Danger Ratings data

The EM-COP website provides a function whereby users can download a spreadsheet of the historic Fire Danger Ratings for use in the F-factor reporting process. The DNSPs use this data to determine the appropriate Fire Danger Ratings to attach to their fire start reports.

In undertaking the validation process, ESV identified that the spreadsheet included several types of suspect data:

repeated rows
 new data
 the time stamp is the same as the previous row and the FDR data is duplicated the time stamp is the same as the previous row but the FDR data has been altered, generally to include a row of zeroes that is interpreted as "no forecast"
 backward step
 the time stamp for the row pre-dates the previous row, generally without changing the data

Repeated rows and backward steps generally do not affect the fire start reporting exercise. The insertion of new rows with "no forecast" data potentially can have a significant impact on the fire start reports.

In a review of records from 1 July 2014 to 27 November 2020, ESV identified 46 suspect entries in the data broken down as follows:

- two instances that occur in the 2017-2018 financial year
- 41 instances in the 2018-2019 financial year
- three instances in the 2019-2020 financial year.

Fortunately the issue observed last year seems to have been largely, although not completely, addressed. This issue has been brought to the attention of the AER. It has also been raised with DELWP Powerline Bushfire Safety Program as the client for the EM-COP reporting.

Any errors in the 2019-2020 data were removed from the dataset used for the validation analysis.

These errors have not affected the AusNet Services F-factor reporting.

# **Conclusion**

As noted earlier, the Order In Council stipulates that this validation report:

- (b) must include an assessment of the accuracy of the information provided in the fire start report pursuant to clauses 6(3)(d)-(f) and (h), specifically:
- (c) must verify the estimate of the ignition risk unit (IRU) amount for the financial year provided under clause 6(3)(g).

Table 3 identifies where these items have been assessed within this report and summarises the key findings of the validation assessment.

**Table 3: Summary of findings** 

Statistic	Relevant report section	Key findings
Clause 6(3)(d)	Request from AER	The fire start report addressed the AusNet Services distribution system separately from other systems managed by the service provider.
Clause 6(3)(e)(i)	Comparative analysis — non-IRU factors	There were 123 differences between the assessment of the fire type made by AusNet Services and that made by ESV. Of these, 118 related to the application of interchangeable classifications, with either classification being appropriate. A further five were due to differences in the classification of events, including one that ESV has identified as potentially not being reportable under the F-factor scheme.  The single incident that is potentially not reportable is material to the calculation of the total IRU amount. This was amended in the final AusNet Services fire start report.
Clause 6(3)(e)(ii)	Comparative analysis — IRU-specific factors	There were no material differences in the date and time of incidents in the AusNet Services fire report.  There were one difference that was material to the calculation of the total IRU amount. AusNet Services subsequently updated its fire start report and ESV confirmed the updated details.
Clause 6(3)(e)(iii)	Comparative analysis —	There was one substantive difference between the fire start report and OSIRIS in relation to pole identification numbers.
	HOIFING Tactors	There were 15 differences between the fire start report and OSIRIS in relation to polyphase electric line identification numbers.
		These differences were not material to the calculation of the total IRU amount.
Clause 6(3)(e)(iv)	Comparative analysis — non-IRU factors	There was one difference between the fire start report and OSIRIS in relation to voltage of the line involved in the fire.  This difference was not material to the calculation of the total IRU amount.
Clause 6(3)(e)(v)	Verification of IRU amount	The total IRU amount of 200.90 provided in the fire start report (AST 2019-20 Electricity Distribution F Factor Data (11Dec20 resubmit).xlsm) is correct.
Clause 6(3)(f)	Completeness assessment	AusNet Services had reported all fires to ESV as the relevant entity.