energysafe VICTORIA

Creating a safer state with electricity and gas

Energy Safe Victoria Validation Report

Powercor Fire Start Report 2023–24

Final report V1.0

VICTORIA State Government

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. On 20 July 2023, the Victorian Government gazetted the F-Factor Scheme Amendment Order 2023 that brought into effect changes to the calculation of Ignition Risk Units resulting from the move to the new Australian Fire Danger Rating System.

The Australian Energy Regulator (**AER**) provided the Powercor 2023-24 fire start report to Energy Safe Victoria on 2 October 2024 for validation. A validation process was undertaken by Energy Safe 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 Energy Safe 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 Energy Safe.
- A **comparative analysis of IRU-specific factors** to identify any material differences between the information reported by Powercor in its fire start report and previously to Energy Safe 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 Powercor in its fire start report and previously to Energy Safe in relation to those aspects of the fire start report not pertinent to the IRU calculation.

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

Upon completing the validation analysis of the draft 'Energy Safe Victoria Validation Report: Powercor 2023–24 Fire Start Report' was sent to the AER, who provided the report to Powercor for comment.

Powercor responded to the AER on 23 December 2024, with a revised IRU amount as required by Energy Safe's draft report.

The total IRU amount of 186.1012 reported by Powercor in its revised submission is confirmed as correct by Energy Safe.

Contents

Introduction

Background

The Victorian Governor in Council made the Order in Council for the F-Factor Scheme Order 2016 (the Order) under section 16C of the *National Electricity (Victoria) Act 2005*. This was gazetted on 22 December 2016. On 20 July 2023, the Victorian Government gazetted the F-Factor Scheme Amendment Order 2023 that brought into effect changes to the calculation of Ignition Risk Units resulting from the move to the new Australian Fire Danger Rating System.

The F-factor scheme is administered by the AER. Section 7 of the Order identifies that the AER may request Energy Safe Victoria to validate the fire start reports submitted to the AER by the Distribution Network Service Providers (DNSP).

The Order stipulates that each DNSP will provide a fire start report to the AER by 30 September each year. The Order also stipulates that, if requested by the AER, Energy Safe will provide a validation report to the AER by 30 November each year.

The Order enables the AER to refer any submissions regarding the validation reports to Energy Safe in order to provide a revised validation that responds to the submissions by 15 February in the following year.

Request from the AER

On 2 October 2024, the AER provided Energy Safe with the Powercor 2023–24 fire start report for validation. This comprised the following documents:

- Powercor - F-Factor RIN 2023-24 (FINAL) — Excel spreadsheet
- Powercor - F-Factor Audit Opinion 2023-24 — PDF document
- Powercor - Stat Dec 2024-09-17 08_46_04 — PDF Document

The fire start report considers the Powercor distribution system separately from other systems managed by the service provider, pursuant to clause 6(3)(d) of the Order.

Energy Safe did not directly contact Powercor during the preparation of the draft validation report. Any queries identified during the drafting process have been addressed and resolved in this final report.

Validation process

While the scope of the fire start report and the validation process are detailed in the Order (as outlined below), the approach to be undertaken in assessing the accuracy of information provided is not specified. This section describes the process that Energy Safe 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 stipulates that Energy Safe'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 IRU amount for the financial year provided under clause 6(3)(g).

These specific items are detailed in clause 6(3) of the Order, 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 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, Energy Safe separated these items into 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].

- *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.

The DNSP fire start reports were validated by Energy Safe as follows:

- *Preliminary review*

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

  The process began with Energy Safe reviewing the documentation provided by the AER to ensure that all relevant information was included 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 that prevented the validation process from proceeding, Energy Safe 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[1]
  – all network-related fires listed in OSIRIS are included in the DNSP's fire start report.

  Where there were differences identified, these were detailed in the draft validation report by Energy Safe for the DNSP to address.

- *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, Energy Safe 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 Country Fire Authority (**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, these were detailed in the draft validation report by Energy Safe for the DNSP to address.

- *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, Energy Safe detailed these in the draft validation report. The DNSP was able to comment on these differences in its response.

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

Following the validation process, Energy Safe used the final data to calculate an IRU amount for each fire start. Energy Safe 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 Energy Safe's OSIRIS portal. Where there are differences between the data reported in these two data sets, no effort was made by Energy Safe to ascertain which data set provides the true and accurate record of each fire start for the purposes of this report beyond a desktop assessment.

  It can only be attested by Energy Safe 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*

  No effort was made by Energy Safe to validate or verify the data in the DNSP's fire start report in its entirety against third-party sources such as the CFA and Fire Rescue Victoria (**FRV**). 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/FRV to the DNSP and these are, in turn, reportable to Energy Safe.

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

- *Independent verification of fire starts*

  Independent audits of the DNSP's incident reporting processes to ascertain whether all incidents, including fires, are identified are not routinely undertaken by Energy Safe. As such, the fire starts may be under-reported; however, we are confident that the number of such incidents is small and that all significant fires have been reported.

  Similarly, an independent audit of the DNSP's records to ensure their accuracy has not been undertaken by Energy Safe. In this regard, Energy Safe has 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

An assessment of the accuracy of the information provided in the Powercor fire start report was undertaken by Energy Safe in accordance with clause 7(3)(b) of the Order. 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 receiving the Powercor fire start spreadsheet, a preliminary review was conducted by Energy Safe to confirm the accuracy and completeness of the data. A total of 31 incidents were flagged, with 9 requiring further follow-up. Details of these nine incidents are provided below. No additional issues with data completeness or accuracy were identified.

Completeness assessment

The records provided in the Powercor fire start spreadsheet were compared with those available from Energy Safe'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.

Energy Safe identified nine incidents requiring follow-up by Powercor which have now been addressed in table 1 below.

Energy Safe has accepted these incidents and the revised IRU amount.

Table 1 Completeness Summary

No	Reference	Powercor Comment	Energy Safe comment
1	20230911 PWA_01	Incident was listed in F-Factor RIN as reportable fire start. It was also listed as F-Factor reportable in OSIRIS. Fire size was also listed in OSIRIS. This incident was re-opened by ESV in OSIRIS. Incident to be closed in OSIRIS.	Energy Safe accepts comment Powercor to update OSIRIS No impact on IRU amount No further action required.
2	20230911 PWA_06	Incident was listed in F-Factor RIN as reportable fire start. It was also listed as F-Factor reportable in OSIRIS. Fire size was also listed in OSIRIS. This incident was re-opened by ESV in OSIRIS. Incident to be closed in OSIRIS.	Energy Safe accepts comment Powercor to update OSIRIS. No impact on IRU amount No further action required.
3	20231219 PWA_01	Incident was listed in F-Factor RIN as reportable fire start. It was also listed as F-Factor reportable in OSIRIS. Fire size was also listed in OSIRIS. No further action required.	Energy Safe accepts comment Report accepted in OSIRIS No further action required
4	20240223 PWA_01	Incident was listed in F-Factor RIN as reportable fire start. It was also listed as F-Factor reportable in OSIRIS. Fire size was listed in OSIRIS. No further action required.	Energy Safe accepts comment Report accepted in OSIRIS No further action required
5	20240725 PWA_07	Incident was listed in F-Factor RIN. Listed as F-Factor in OSIRIS. Date is correct in F-Factor RIN and OSIRIS. Report is closed in OSIRIS. Details are correct. No further action required.	Energy Safe accepts comment Report accepted in OSIRIS No further action required
6	20240216 PWA_03	Incident was recorded in Cintellate however no indication was noted of any fire starts. Incident information noted in OSIRIS indicates no fires were started by network assets due to lightning strikes, only widespread outages due to storm damage. There is a comment in OSIRIS incident description that: "Multiple Lightning initiated fires" however no indication or evidence that the fires were due to lightning strikes on network assets. No evidence of fires due to lightning strikes on network assets was found for 20240216PWA_03. No further action required.	Energy Safe accepts comment Report accepted in OSIRIS No further action required

No	Reference	Powercor Comment	Energy Safe comment
7	20240312 PWA_11	20240312PWA_11: Fire was started by 3rd party interference with overhead assets during 3rd party tree trimming. The incident was reported to ESV as a 48hour fire start event, however it was not designated as an f-factor incident. Incident has been added to the F-Factor RIN. Refer to 'Powercor F-Factor RIN 2023-24 (FINAL) V2.xlsm'. OSIRIS will also require to be updated to reflect this amendment.	Energy Safe accepts comment Report accepted in OSIRIS No further action required
8	20240313 PWA_01	20240313PWA_01: Not recorded as F-Factor in Cintellate due to cause of fire not being attributed to network assets. Cintellate comments read: "Both original and day crew conducted inspection attempting to identify cause of the fire however nothing obvious was found." No further action required.	Energy Safe accepts comment Report accepted in OSIRIS No further action required
9	20240718 PWA_07	20240718PWA_07: The incident was reported to ESV as a 48hr fire start event, however the F-factor details were not entered. Incident has been added to the F-Factor RIN. Refer to 'Powercor F-Factor RIN 2023-24 (FINAL) V2.xlsm'. OSIRIS will also require to be updated to reflect this amendment.	Energy Safe accepts comment No further action required

Comparative analysis — IRU-specific factors

The location (latitude and longitude) and timing (date and time) of each record in the fire start report were compared with the corresponding record of the same incident in OSIRIS by Energy Safe.

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

The following tests were applied by Energy Safe 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.

- **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 Emergency Management Common Operating Picture (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.

Test Summary

Applying the two IRU calculation tests, we identified the following

Test 1 – No incidents that had differences in date and time information.

Test 2 – There were two fire starts (92 and 235) with discrepancies: one regarding the fire danger rating and the other concerning the IRU multiplier information. These differences were observed between the data reported to the AER and the information sourced from OSIRIS.

Energy Safe identified two incidents requiring follow-up by Powercor which have now been addressed in table 2 below.

Energy Safe has accepted these incidents and the revised IRU amount.

Table 2: Incidents with discrepancy

fire report no.	OSIRIS incident no.	Powercor Comment	Energy Safe comment
92	20240123PWA_01	Location data of fire incident was checked and was found to be correct in the RIN. Fire start was in REFCL area indicated by photos of fire start location. Please note that pole GPS coordinates are located in LBRA however fire location was midspan away from pole, across the LBRA and REFCL boundary, as indicated by photos of fire start location. No further action required.	Energy Safe accepts comment No further action required
235	20240628PWA_01	Location data of fire incident was checked and was found to be correct in the RIN. Fire started on pole mounted streetlight in LBRA. Location of street light pole was confirmed to be in LBRA by using both EM-COP and internal bushfire risk area maps.	Energy Safe accepts comment No further action required

Comparative analysis — non-IRU factors

A comparison of the data in the Powercor fire start report, and OSIRIS was undertaken by Energy Safe, 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 no incidents with differences in the asset identification number, polyphase line identification number or the voltage between the fire start report and OSIRIS.

The assessment of fire origins identified 13 incidents where Energy Safe would have classified the fire differently from Powercor. However, Energy Safe accepts Powercor's classifications, as these differences do not materially impact the overall IRU calculation.

Verification of the IRU amount

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

The location and danger multipliers calculated by Energy Safe were compared with those of Powercor to determine whether Powercor 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, Energy Safe identified no difference in the date and time of the incidents between the DNSP fire start report and OSIRIS however differences were identified in two incidents that impact the IRU amount.

Upon completing the validation analysis of the draft ‘Energy Safe Victoria Validation Report: Powercor 2023–24 Fire Start Report’ was sent to the AER, who provided a copy of this report to Powercor and invited them to respond with any comments.

Powercor responded to the AER on 23 December 2024, with a revised IRU amount as required by Energy Safe’s draft report.

The total IRU amount of 186.1012 reported by Powercor is confirmed as correct by Energy Safe.

Conclusion

As noted earlier, clause 7(3) of the Order 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 2 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 Powercor distribution system separately from other systems managed by the service provider.
Clause 6(3)(e)(i)	Comparative analysis — non-IRU factors	There were 13 differences between the assessment of the fire type made by Powercor and that made by Energy Safe. These differences were not material to the calculation of the total IRU amount.
Clause 6(3)(e)(ii)	Comparative analysis — IRU-specific factors	There were no material differences in the date and time of all incidents in the Powercor fire report. There were two incidents where differences could be material to the calculation of the total IRU amount and have been investigated and agreed by Energy Safe
Clause 6(3)(e)(iii)	Comparative analysis — non-IRU factors	There were no material differences between the fire start report and OSIRIS in relation to pole identification numbers and polyphase electric line identification numbers.
Clause 6(3)(e)(iv)	Comparative analysis — non-IRU factors	There were no differences between the fire start report and OSIRIS in relation to voltage of the line involved in the fire.
Clause 6(3)(e)(v)	Verification of IRU amount	The total IRU amount was revised to 186.1012 and confirmed as correct by Energy Safe in the final fire start report (*Powercor - 2023-24 Electricity Distribution F factor data v2*).
Clause 6(3)(f)	Completeness assessment	Powercor has reported all fires to Energy Safe as the relevant entity. .