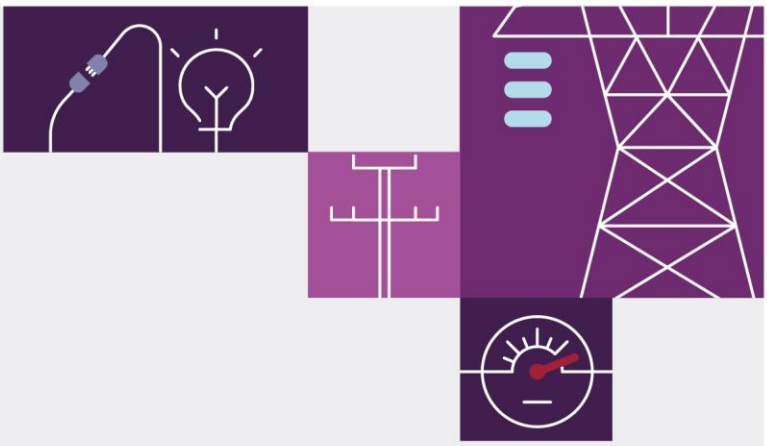
Review of Power System Reclassification Events – 1 May 2021 to 31 October 2021

February 2022

A report for the National Electricity Market



Important notice

Purpose

AEMO has prepared this report on its power system reclassification decisions in the National Electricity Market for the period 1 May 2021 to 31 October 2021 in accordance with clause 4.2.3A(i) of the National Electricity Rules.

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1 Introduction

This report sets out AEMO's reasons for decisions to reclassify *non-credible contingency events* as *credible contingency events* under clause 4.2.3A(g) of the National Electricity Rules (NER).

AEMO is required by clause 4.2.3A(i) of the NER to report on reclassification decisions every six months. This report covers the period from 1 May 2021 to 31 October 2021 (reporting period). The report includes:

1. An explanation of how AEMO applied the criteria established in accordance with clause 4.2.3B for each of these decisions.
2. AEMO's analysis of reclassification trends during the reporting period, and its appraisal of the appropriateness of the relevant criteria applied in the case of each reclassification decision.

In this document, a word or phrase in *this style* has the same meaning as given to that term in the NER.

References to times in this report, unless otherwise specified, are to Australian Eastern Standard Time (AEST).

2 Overview

There was a total of 373 reclassification events in this reporting period, compared to 333 reclassification events during the previous winter reporting period (1 May 2020 to 31 October 2020). The total number of reclassification events was higher than for last winter period, and also higher than the historical winter period average (average of 229 reclassification events since 2013).

All reclassifications in this reporting period were appropriately determined in accordance with the reclassification criteria in AEMO's Power System Security Guidelines SO_OP_3715[1], for bushfires, lightning, severe weather, or other reasons.

AEMO notified *Market Participants*, via Market Notices (MNs)[2], of the reasons for reclassifying each of these *non-credible contingency events*.

[1] AEMO, Power System Security Guidelines. Power system operating procedures are available at http://aemo.com.au/Electricity/National–Electricity–Market–NEM/Security–and–reliability/Power–system–operation.

[2] Market Notices are issued through the Market Management System. They are updated in real time by AEMO to notify market participants of events that have an impact on the market. Market Notices are also published on AEMO's website at https://www.aemo.com.au/Electricity/National–Electricity–Market–NEM/Market–notices–and–events.

3 AEMO's role

In general terms, the *power system* is operated such that it will remain in a *satisfactory operating state*[3] following the loss of a single major *transmission* or *generation* element. These events are defined as *credible contingency events*[4] and include:

- Unexpected loss of a single transmission line, transformer, or reactive plant.
- Unexpected loss of a single generating unit.

AEMO considers the occurrence of these events to be reasonably possible.

A *non-credible contingency event* is a *contingency event* other than a *credible contingency event*. Examples include:

- Three phase electrical faults.
- The trip of any busbar in the transmission network.
- The trip of more than one transmission element.
- The trip of transmission plant in a manner not considered likely (for example, a transmission line that trips at one end only).
- The trip of multiple generating units.

AEMO is not required to operate the *power system* with the capability to remain in a *satisfactory operating state* following *non-credible contingency events* (other than any *protected events*), as the likelihood of their occurrence is low.

AEMO must reclassify a *non-credible contingency event* as a *credible contingency event* if the likelihood of this event impacting the *power system* has become reasonably possible due to *abnormal conditions*. *Abnormal conditions* may include severe weather conditions, lightning, and bushfires[5].

[3] Refer to clause 4.2.2 of the NER.

[4] Refer to clause 4.2.3 of the NER.

[5] Refer to clause 4.2.3A (a) of the NER.

4 Reclassification criteria

AEMO has developed criteria for determining whether a *non-credible contingency event* should be reclassified as a *credible contingency event* (reclassification criteria). The reclassification criteria are specified in AEMO's Power System Security Guidelines SO_OP_3715[6]. The reclassification criteria apply to:

- Bushfires.
- Lightning.
- Severe weather (the majority of "Severe weather" reclassifications were due to weather warnings from the Bureau of Meteorology [BoM]. These warnings covered weather events like high winds or cyclone).
- Occurrence of a non-credible contingency event.
- Other events (this includes events that do not fall into the other categories; examples include events with the potential to impact multiple generating units, vulnerable transmission elements due to a planned outage nearby, or pollution impacting transmission line insulators).

The following section analyses how AEMO reclassified *non-credible contingency events* using the reclassification criteria for the reporting period.

[6] AEMO published a new version of Power System Security Guidelines SO_OP_3715 on 23 September 2019, which introduced two new reclassification criteria, *severe weather conditions* and *non-credible contingency event*.

5 Reclassification events, 1 May 2021 to 31 October 2021

AEMO reclassified 373 events during the reporting period, an increase of 40 events from the same period in 2020. Table 1 summarises these events.

Refer to Appendix A1 for a complete list of events.

Table 1 Reclassification events for period 1 May 2021 to 31 October 2021

Criteria	Number of reclassification events	Incidence of contingency occurring during reclassification
Bushfires	0	0
Lightning	338	0
Severe weather	24	0
Other[A]	11	0
Total for period	373	0

A. This includes any reclassifications due to occurrence of n*on-credible contingency events* or other reasons.

AEMO reclassified all lightning events in accordance with the reclassification criteria specified in Section 8.4 of SO_OP_3715.

There were 35 events reclassified under the 'severe weather' and 'other' criteria according to Sections 8.5, 8.6, and 8.7 of SO_OP_3715. Most of these were reclassified due to either:

- Forecast abnormal weather conditions (such as severe weather warnings due to high wind or cyclones), or
- Occurrence of a non-credible contingency event following which AEMO considered there was a reasonable possibility of reoccurrence.

There were no occurrences of events while they were reclassified as credible.

Figure 1 shows the number of reclassification events per region for the reporting period, and Figure 2 shows the historical trend of reclassification events by event criteria.

The total number of reclassification events in this reporting period was higher than the historical winter period average (average of 229 reclassification events since 2013).

The number of reclassified transmission elements decreased in this reporting period compared to the previous reporting period (1 November 2020 to 30 April 2021) from 44 to 33. The number of reclassified transmission elements decreased compared to the last winter period (1 May 2020 to 31 October 2020), from 39 to 33.

The number of reclassifications increased by 12% overall, from 333 in the previous winter to 373 this reporting period. Compared to the previous winter the largest increase was observed for reclassifications due to lightning, which increased from 300 to 338.

Tasmania experienced the largest increase in reclassifications compared to last winter period (51 to 86). The Farrell – John Butters 220 kilovolt (kV) line and Farrell – Rosebery Tee Queenstown – Newton 110 kV line in Tasmania were reclassified 10 times due to lightning during last winter period and were reclassified 30 times

during this reporting period. The Farrell – Reece No. 1 and No. 2 220 kV lines were also reclassified 10 times due to lightning during last winter period and 30 times during this reporting period.

Victoria experienced the largest decrease in reclassifications compared to last winter period (92 to 74). The Eildon – Mt Beauty No. 1 and No. 2 220 kV lines were reclassified 39 times due to lightning during last winter period and were reclassified 28 times during this reporting period.

The number of reclassifications in New South Wales, Queensland and South Australia during this reporting period was similar to the previous winter period.

There were 24 instances of events reclassified due to "Severe weather" in this reporting period compared to 18 instances from the previous winter period. Reclassifications due to "Other events" decreased by four (from 15 to 11) compared to the previous winter period.

Figure 1 Reclassifications per region, 1 May 2021 to 31 October 2021

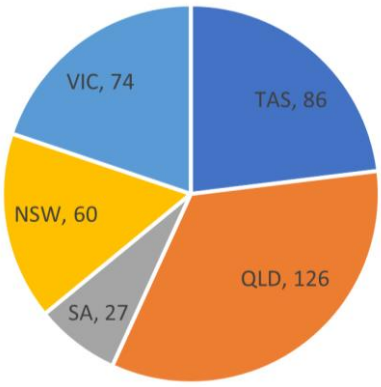
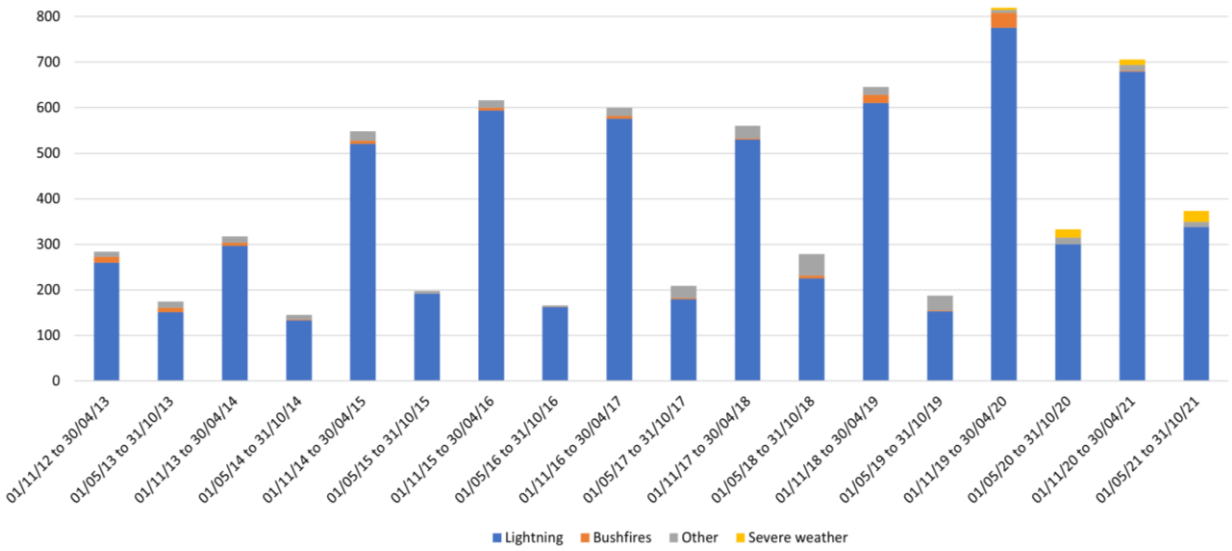


Figure 2 Historical reclassification events, 2012-13 to 2021



Note: Figure 2 does not include "Severe weather" for the reclassification periods prior to 1 November 2019 as it was previously included in "Other" category. "Severe Weather" became a new category and was only included from the report covering 1 November 2019 to 30 April 2020.

Appendix A2 lists all the reclassified elements and the number of times they were reclassified during the period 1 May 2021 to 31 October 2021.

6 Non-credible contingency events, 1 May 2021 to 31 October 2021

During the reporting period, 29 *non-credible contingency events* occurred. By the end of this reporting period, AEMO had reclassified eight of these events as *credible contingency events*, after assessing there was a risk of the event reoccurring.

Note that the following reclassification events cancelled within this reporting period were initially reclassified before the period, so are not listed in Appendix A1:

- Trip of Dederang – Mount Beauty 1 and 2 220 kV lines, cancelled on 13 August 2021.
- Trip of Kareeya Power Station units 1, 2 and 4, cancelled on 9 September 2021.

Appendix A3 lists all *non-credible contingency events* that occurred during the reporting period and AEMO's assessment of whether to reclassify each event as credible. The rows highlighted in blue in Appendix A3 explain the contingency events corresponding to the reclassifications highlighted in blue in Appendix A1.

All the reclassifications of *non-credible contingency events* that occurred in the reporting period have been cancelled at the time of publishing this report.

The transmission elements that were reclassified prior to the reporting period and remained reclassified at the end of the reporting period are not included in this report.

6.1 Trip of Wodonga Terminal Station No. 1 and No. 2 330 kV transformers in Victoria

At 0439 hrs on 3 May 2021, a lightning strike caused a fault on the Wodonga Terminal Station (WOTS) 22 kV system. Coincident with this lightning strike, the WOTS No. 1 and No. 2 330/66/22 kV transformer protection operated unexpectedly, resulting in de-energisation of the WOTS No. 1 and No. 2 330 kV busbars. This also disconnected the Dederang – Wodonga (DDTS – WOTS) 330 kV line and the WOTS – Jindera 330 kV line as there are no circuit breakers between the transformer HV windings and 330 kV busbars at Wodonga.

At 0450 hrs, WOTS No. 1 busbar, the DDTS – WOTS No.1 330 kV line and the No. 1 330/66/22 kV transformer were returned to service, and at 0451 hrs, the WOTS – Jindera No. 1 330 kV line was returned to service. The WOTS No. 2 busbar, DDTS – WOTS No. 2 330 kV line, WOTS – Jindera No. 2 330 kV line and No. 2 330/66/22 kV transformer were returned to service a short time later and all disconnected load was restored.

At the time of the incident, AusNet could not determine the cause(s) of the trip, so AEMO determined that the simultaneous trip of the No. 1 and No. 2 330/66/22 kV transformers was likely to re-occur and correctly reclassified the incident as a credible contingency from 0532 hrs on 3 May 2021.

Post-incident investigation determined that the WOTS No. 1 and No. 2 330/66/22 kV transformer Y protection unexpectedly operated for an out of zone lightning strike on the 22 kV system. The Y protection relays of No. 1 and No. 2 transformers at WOTS were triggered by the Rapid Earth Fault Current Limiter (REFCL) remote trip signal immediately after the lightning strike on the WOTS 22 kV system at 0439 hrs. AusNet advised that the Wodonga Terminal Zone Substation REFCL was not in-service at the time of the incident and the REFCL did not

record any trip initiate signals to the Y protection of both transformers. The protection mal-operation was likely due to the long-distance low voltage secondary cables between the REFCL in the 22 kV yard and the transformer relays control building. It is likely that due to the low voltage secondary cable's length, the lightning strike induced sufficient current to trigger the Y protection. The WOTS Y protection relays interpreted this induced current as a trip signal from the REFCL and tripped.

AEMO's reclassification was cancelled at 2055 hrs on 3 May 2021, after AusNet advised AEMO that the REFCL remote trip inputs of the Y protection relays of No. 1 and No. 2 transformer were isolated, and the non-credible contingency was unlikely to re-occur.

AusNet installed Active Burden Modules at the REFCL remote trip inputs of the Y protection relays of No. 1 and No. 2 transformer on 1 August 2021 to reduce risks associated with mal-operation of the protection relays during events such as lightning.

The published incident report[7] provides more details related to this event.

6.2 Trip of multiple generators and lines in Central Queensland

At 1340 hrs on 25 May 2021, CS Energy informed AEMO of a possible fire at Callide C4. At 1344 hrs, Callide C3 tripped from 417 megawatts (MW) and CS Energy contacted AEMO to confirm there was a fire in the Callide C turbine hall. At 1406 hrs, multiple events occurred in quick succession. Callide B2 tripped from approximately 347 MW. Stanwell Power Station units 1, 3, and 4 tripped to house load because of the low system voltage. Townsville Gas Turbine started ramping down to 0 MW. All 275 kV lines out of Calvale 275 kV substation tripped at the remote ends only. Callide C4 disconnected from the power system when the Calvale 275 kV substation was disconnected from the power system, thus clearing the sustained fault. Gladstone Power Station units 2, 3, and 4 tripped. Yarwun co-generator tripped.

The loss of the nine major generating units at 1406 hrs reduced supply in Central Queensland by approximately 2,300 MW, causing Queensland – New South Wales Interconnector (QNI) active power flow to rapidly increase import to Queensland, peaking at approximately 1,064 MW before tripping and subsequently reclosing automatically approximately 16 seconds later. In response, AEMO observed a net reduction in load of approximately 2,275 MW in Queensland and 25 MW in Northern New South Wales. Most of this load reduction was the expected result of the operation of automatic Under Frequency Load Shedding (UFLS) relays following the observed drop in frequency as generation and the interconnector tripped.

At 1410 hrs, AEMO gave permission to commence restoration of load interrupted by the UFLS operation. At 1504 hrs Calvale substation was re-energised, and all 275 kV transmission lines at Calvale substation that had tripped were returned to service by 1540 hrs.

According to CS Energy's initial investigations, there was a loss of primary and backup DC supplies, which seemed to have occurred during a switching sequence performed just prior to the incident at the Callide C Power Station. There was also a loss of AC power supplies at the same time due to the tripping of the 6.6 kV incoming circuit breaker following loss of DC supply. As a result, the generating unit lost excitation and steam supply to the turbine, and both X and Y protection lost supply, rendering primary and backup protection inoperable. There is evidence that the associated loss of supply to oil circulation pumps and cooling systems may have led to

[7] AEMO Reviewable Operating Incident Report – Trip of the Wodonga Terminal Station No. 1 and No. 2 330 kV transformers on 3 May 2021, available at https://aemo.com.au/-/media/files/electricity/nem/market_notices_and_events/power_system_incident_reports/2021/trip-of-wodonga-330kv-transformers.pdf?la=en.

overheating of the bearing oil. This may be an initiating cause of a fire at generating unit C4, although there would have likely been other issues with the generator. CS Energy's initial investigations indicated that subsequent damage to the unit, due to mechanical failure caused an electrical fault at Callide C4 Power Station.

AEMO was considering the reclassification of the Callide C Power Station upon receiving the notification of a possible fire at the station, however, generating unit C3 tripped before a conclusion was reached. The subsequent event at 1406 hrs was a fault of abnormally long duration. On this basis, no decisions on reclassification of contingencies were considered necessary or appropriate following the event.

At Stanwell Power Station, three generating units tripped to house load (TTHL) associated with the voltage disturbance. During review of this event, AEMO identified TTHL settings implemented at Stanwell Power Station that impacted its ability to remain connected to the power system following voltage disturbances. The undervoltage trigger was removed in September 2021 to reduce the likelihood of Stanwell Power Station disconnecting following network disturbances. AEMO will review with Stanwell whether to re-establish this trigger with revised settings.

At Gladstone Power Station, three generating units tripped due to operation of under excitation protection. AEMO had assessed a recurrence of multiple units tripping on this protection operation as not reasonably possible for a credible contingency event and thus reclassification was not appropriate. Both Townsville and Yarwun generating units reduced output during the period of underfrequency. A reclassification for these was not considered to be warranted at that time as investigations indicated that such behaviour was only likely to occur for severe underfrequency conditions which would be triggered only by non-credible contingency events.

AEMO has concluded that the constraints invoked were suitable for managing power system security following this incident.

The published incident report[8] provides more details related to this event.

6.3 Trip of Armidale – Sapphire 8E 330 kV line at Armidale end only in New South Wales

At 0847 hrs on 5 July 2021, the Armidale – Sapphire Wind Farm (WF) 8E 330 kV line tripped at the Armidale end only while Transgrid protection technicians were working on site. The line returned to service shortly after, at 0848 hrs.

Post-incident investigations indicated that technicians had installed temporary protective measures that were inadequate. Site personnel had accidentally shorted out Circuit Breaker (CB) 8E2 Blue Phase trip link to earth. This resulted in the blue phase pole opening, initiating a pole-discrepancy that opened all phases of the circuit breaker at the Armidale end.

Transgrid advised AEMO that the work on site was stopped immediately to investigate the incident. The CB 8E2 was closed and protective measures were reviewed and improved prior to the work resuming.

The cause of this non-credible contingency was not known to AEMO at the time of the event. As such, AEMO considered the single end trip of the Armidale – Sapphire WF 8E 330 kV line to be reasonably possible to re-occur and reclassified it as a credible contingency event.

[8] AEMO Reviewable Operating Incident Report – Trip of multiple generators and lines in Central Queensland and associated under-frequency load shedding on 25 May 2021, available at https://aemo.com.au/-/media/files/electricity/nem/market_notices_and_events/power_system_incident_reports/2021/final-report-trip-of-multiple-generators-and-lines-in-qld-and-under-frequency-load-shedding.pdf?la=en.

The reclassification was cancelled at 1050 hrs on 5 July 2021 as the cause was identified and rectified.

The published incident report[9] provides more details related to this event.

6.4 Trip of Muswellbrook – Tamworth 88 330 kV line at Tamworth end only in New South Wales

At 1642 hrs on 13 July 2021, the Muswellbrook – Tamworth 88 330 kV (MUS – TAM) line opened at the Tamworth end only while Transgrid technicians were working on site. The Voltage Transformer (VT) of MUS – TAM 88 330 KV line was being used as a reference input for VT Phase Out commissioning activities on the adjacent Tamworth – Armidale 86 330 kV line.

During these commissioning activities, site personnel unintentionally shorted the VT secondaries of the MUS – TAM 88 330 KV line to earth, which resulted in the No. 2 protection VT Fuses operating and tripping CB 882 at the Tamworth end only. The MUS – TAM 88 330 KV line returned to service at 1644 hrs on 13 July 2021.

The cause of the trip was not known to AEMO at the time of the event. AEMO therefore considered the single end trip of the MUS – TAM 88 330 KV line to be reasonably possible to re-occur. AEMO correctly reclassified this event as a credible contingency at 1716 hrs on 13 July 2021.

The reclassification was cancelled at 2030 hrs on 13 July 2021 as the cause was identified and rectified.

The published incident report[10] provides more details related to this event.

6.5 Trip of Gordon Power Station B 220 kV bus

At 1738 hrs on 9 September 2021, Gordon B 220 kV bus tripped offloading the Chapel Street – Gordon No. 2 220 kV line at the Gordon end only. The busbar trip also disconnected Gordon Hydro No. 2 unit from the system. TasNetworks confirmed that the Gordon B busbar "A" protection mal-operated due to the lightning strike on the red phase of Chapel Street – Gordon No. 2 circuit. The Gordon B busbar protection was found to have operated too quickly for the out of zone fault, clearing the fault before the Chapel Street – Gordon No. 2 circuit could operate. AEMO reclassified the loss of any one of the 220 kV busbars at Gordon as credible when there is lightning in the vicinity of the Gordon substation.

TasNetworks inspected the affected equipment at Gordon substation and no equipment damage or indications of flashovers were found. The Gordon B busbar was returned to service at 1846 hrs on 9 September 2021. TasNetworks has reviewed the protection settings and, on 26 November 2021, updated the firmware of affected busbar protection relays at Gordon 220 kV substation. TasNetworks has confirmed that with the firmware update applied, it is unlikely that Gordon 220 kV busbar protection will operate for similar out of zone lightning strikes in the future. The reclassification was cancelled at 1530 hrs on 7 December 2021 as the cause had been identified and rectified.

[9] AEMO Reviewable Operating Incident Report – Trip of Armidale – Sapphire 8E 330 kV line at Armidale end only on 5 July 2021, available at https://aemo.com.au/-/media/files/electricity/nem/market_notices_and_events/power_system_incident_reports/2021/trip-of-armidale-sapphire-wf-8e-line.pdf?la=en.

[10] AEMO Reviewable Operating Incident Report – Trip of Muswellbrook – Tamworth 88 330 kV line at Tamworth end only on 13 July 2021, available at https://aemo.com.au/-/media/files/electricity/nem/market_notices_and_events/power_system_incident_reports/2021/trip-of-muswellbrook-tamworth-88-line.pdf?la=en.

The published incident report[11] provides more details related to this event.

6.6 Trip of South East Substation No. 1 and No. 2 Static Var Compensators (SVCs) in South Australia

On 22 September 2021, ElectraNet staff onsite at South East substation were carrying out switching in order to isolate the South East transformer 1 (TF1) to allow the 132 kV East bus to be isolated. South East No. 1 and No. 2 SVC's 415 V supplies were being supplied from the transformer 1 auxiliary (TF1AUX) supply.

At 1133 hrs on 22 September 2021, the ElectraNet control room opened the last circuit breaker (CB) (CB6618) remotely, isolating South East TF1 from the power system. Approximately five seconds later, at 1134 hrs, the South East No.1 and No.2 SVCs tripped.

At the time of the incident, both SVCs' 415 volt (V) supplies were being provided by TF1AUX and the auto changeover system was expected to have automatically switched the 415 V supplies to South East Transformer 2's Auxiliary supply (TF2AUX). However, post incident investigations revealed that after approximately five seconds, neither 415 V supplies had switched to the South East TF2AUX. Subsequently, the No. 1 and No. 2 SVC's cooling system trip protection operated. This cooling system trip protection operated in line with its settings and tripped the 275 kV CBs associated with the South East No. 1 and No. 2 SVCs. South East No. 1 and No. 2 SVCs were returned to service at 1218 hrs and 1230 hrs respectively.

At the time of the incident, ElectraNet could not determine the cause so AEMO correctly reclassified the trip as a credible contingency from 1229 hrs on 22 September 2021. This reclassification was cancelled at 1935 hrs on 22 September 2021 as ElectraNet had identified the cause of the incident and informed AEMO that it was unlikely to re-occur.

ElectraNet has connected the AC supply of each South East SVC to separate transformer auxiliary supplies through the re-configuration of changeover boards. ElectraNet has confirmed that its control room has been advised of the affected AC changeover circuit breakers. The changeover circuit breakers impacted have been left in manual mode (preventing any automatic changeovers).

The event is still under review and findings and recommendations are subject to change.

6.7 Trip of the Davenport West 275 kV Bus, Davenport – Mt Lock 275 kV Line and Davenport No. 2 Synchronous Condenser

At 1555 hrs on 28 September 2021, a lightning strike caused a U phase fault on the Bungama – Davenport 275 kV line. Shortly afterwards, the Davenport 275 kV West bus, No. 2 synchronous condenser and Davenport – Mount Lock 275 kV line tripped.

Post incident investigation confirmed that the Bungama – Davenport 275 kV line distance and differential protection systems operated correctly clearing the fault caused by the lightning strike within 61 milliseconds (ms). Subsequently, circuit breaker Fail (CBF) protection on circuit breakers CB6564 and CB6565 operated unexpectedly. This CBF protection operation tripped the Davenport 275 kV West bus, the Davenport – Mt Lock 275 kV line and the Davenport No. 2 synchronous condenser.

[11] AEMO Reviewable Operating Incident Report – Gordon B 220 kV Busbar Trip on 9 September 2021, available at https://aemo.com.au/-/media/files/electricity/nem/market_notices_and_events/power_system_incident_reports/2021/gordon-power-station-b-220-kv-busbar-trip.pdf?la=en.

At the time of the fault, the Davenport No. 2 synchronous condenser was in service and supplied approximately 1,000 A into the single-phase fault on the Bungama – Davenport 275 kV line. The resultant fault current caused an overload element to unexpectedly pickup in the set 2 Davenport No. 2 synchronous condenser generator step-up transformer (GSUT) protection system. This transient overload element pickup caused the CBF protection on both CB6564 and CB6565 to erroneously pick up even though no trip signal had been sent to these circuit breakers.

At 1730 hrs, the Davenport 275 kV West Bus and the Davenport – Mount Lock 275 kV line were returned to service. AEMO correctly reclassified the event as a credible contingency as the cause of the trip had not been identified at this time. At 2025 hrs, ElectraNet advised that the cause of the trip had been identified and isolated. ElectraNet confirmed that the event was unlikely to re-occur, therefore AEMO cancelled the reclassification at 2025 hrs on 28 September 2021. At 2031 hrs on 28 September 2021, the Davenport No. 2 synchronous condenser was returned to service.

ElectraNet is reviewing the standard logic for this protection implementation to avoid this issue in future protection implementations that use the same logic.

The event is still under review and findings and recommendations are subject to change.

7 Reclassification constraints

When AEMO reclassifies an event, it seeks to operate the *power system* so it stays in a *satisfactory operating state* should the (now) *credible contingency event* occur. AEMO typically invokes constraint equations to manage the *power system* accordingly while an event is reclassified.

Appendix A4 lists the binding constraint equations during reclassification events over the reporting period.

There were 34 reclassified events that resulted in binding constraint equations. This means that in the 339 other instances, the reclassification constraint did not affect dispatch outcomes.

8 Conclusion

AEMO concludes that, during the reporting period 1 May 2021 to 31 October 2021:

1. AEMO's reclassification decisions were appropriate and consistent with the reclassification criteria.
3. AEMO notified Market Participants of the reasons for reclassifying non-credible contingency events.
4. The total number of reclassification events in the NEM was higher than for last winter period, and also higher than the historical winter period average.

A1. Reclassification events, 1 May 2021 to 31 October 2021

- **INDJI** – Indji Watch (INDJI) is a system that monitors live information feeds on hazards such as bushfires and displays their positions relative to the locations of transmission assets and is used to provide detection and location of cloud to ground lightning strikes across the National Electricity Market (NEM) transmission system.
- **BOM** – AEMO receives advice from the Bureau of Meteorology (BOM) when severe weather is forecast in regions that may impact the NEM transmission system.

The reclassification events highlighted in teal in Table 2 below were reclassified after a non-credible contingency event occurred. Further details on the reclassifications highlighted in teal can be found in Appendix A3.

Table 2 Reclassification events 1 May 2021 to 31 October 2021

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
85048	02/05/2021 1440 hrs	02/05/2021 1840 hrs	85051	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
85050	02/05/2021 1800 hrs	03/05/2021 0000 hrs	85056	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
85052	02/05/2021 1930 hrs	02/05/2021 2030 hrs	85053	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
85054	02/05/2021 2045 hrs	03/05/2021 1550 hrs	85064	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
85055	02/05/2021 2230 hrs	03/05/2021 0430 hrs	85065	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
85057	03/05/2021 0530 hrs	03/05/2021 0855 hrs	85071	Wodonga terminal station No. 1 and No. 2 330/66/22 kV transformers	VIC	Other	TNSP

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
85073	03/05/2021 2200 hrs	03/05/2021 2300 hrs	85075	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
85074	03/05/2021 2240 hrs	04/05/2021 0240 hrs	85079	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
85076	03/05/2021 2320 hrs	04/05/2021 0125 hrs	85077	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
85078	04/05/2021 0200 hrs	04/05/2021 0305 hrs	85080	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
85091	04/05/2021 1440 hrs	04/05/2021 2045 hrs	85129	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85101	04/05/2021 1610 hrs	04/05/2021 1815 hrs	85106	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
85128	04/05/2021 2040 hrs	05/05/2021 0035 hrs	85134	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
85130	04/05/2021 2145 hrs	04/05/2021 2325 hrs	85132	Liddell Power Station units 1, 2 and 4	NSW	Lightning	Generator
85131	04/05/2021 2315 hrs	05/05/2021 0020 hrs	85133	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
85135	05/05/2021 0305 hrs	05/05/2021 1635 hrs	85140	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85136	05/05/2021 0555 hrs	05/05/2021 0755 hrs	85137	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
85138	05/05/2021 0850 hrs	05/05/2021 1050 hrs	85139	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
85187	07/05/2021 1555 hrs	07/05/2021 1700 hrs	85188	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
85189	07/05/2021 1715 hrs	07/05/2021 1820 hrs	85190	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
85196	09/05/2021 1140 hrs	09/05/2021 1240 hrs	85198	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85199	09/05/2021 1335 hrs	09/05/2021 1705 hrs	85206	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85205	09/05/2021 1630 hrs	09/05/2021 1830 hrs	85207	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
85208	09/05/2021 1850 hrs	09/05/2021 2255 hrs	85215	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
85223	10/05/2021 0125 hrs	10/05/2021 0230 hrs	85225	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
85224	10/05/2021 0130 hrs	10/05/2021 0330 hrs	85226	Strathmore - Clare South 7208 132 kV line and Collinsville North - Tee King Creek - Clare South 7128 132 kV line	QLD	Lightning	INDJI
85286	10/05/2021 1535 hrs	10/05/2021 1640 hrs	85294	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
85287	10/05/2021 1540 hrs	10/05/2021 1645 hrs	85295	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
85313	10/05/2021 1940 hrs	10/05/2021 2340 hrs	85315	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
85314	10/05/2021 2225 hrs	11/05/2021 0025 hrs	85317	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85318	11/05/2021 0035 hrs	11/05/2021 0535 hrs	85325	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85319	11/05/2021 0045 hrs	11/05/2021 0245 hrs	85322	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
85320	11/05/2021 0135 hrs	11/05/2021 0240 hrs	85321	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
85326	11/05/2021 0615 hrs	11/05/2021 0715 hrs	85327	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85333	11/05/2021 1455 hrs	11/05/2021 1555 hrs	85334	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85336	11/05/2021 1605 hrs	12/05/2021 0035 hrs	85343	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85339	11/05/2021 1755 hrs	11/05/2021 2255 hrs	85341	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
85340	11/05/2021 2230 hrs	11/05/2021 2335 hrs	85342	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
85344	12/05/2021 0100 hrs	12/05/2021 0400 hrs	85347	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
85345	12/05/2021 0220 hrs	12/05/2021 0425 hrs	85348	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
85346	12/05/2021 0225 hrs	12/05/2021 0725 hrs	85354	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85349	12/05/2021 0450 hrs	12/05/2021 0650 hrs	85352	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
85350	12/05/2021 0515 hrs	12/05/2021 0715 hrs	85353	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
85357	12/05/2021 1035 hrs	12/05/2021 1640 hrs	85362	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
85359	12/05/2021 1155 hrs	12/05/2021 1630 hrs	85361	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
85360	12/05/2021 1610 hrs	12/05/2021 1910 hrs	85377	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
85375	12/05/2021 1750 hrs	12/05/2021 1855 hrs	85376	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
85378	13/05/2021 0005 hrs	13/05/2021 0105 hrs	85380	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
85379	13/05/2021 0055 hrs	13/05/2021 0530 hrs	85382	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
85448	15/05/2021 0135 hrs	15/05/2021 0240 hrs	85449	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
85450	15/05/2021 0805 hrs	15/05/2021 0905 hrs	85451	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
85533	16/05/2021 1750 hrs	16/05/2021 1915 hrs	85536	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
85534	16/05/2021 1755 hrs	16/05/2021 1915 hrs	85535	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
85737	21/05/2021 1030 hrs	03/06/2021 1620 hrs	86497	Wagga - Gadara No. 993 132 kV line CB at the Gadara end only	NSW	Other	TNSP
85904	24/05/2021 1740 hrs	24/05/2021 1750 hrs	85905	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
85906	24/05/2021 1805 hrs	25/05/2021 1745 hrs	85923	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
86062	26/05/2021 0045 hrs	26/05/2021 0145 hrs	86064	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
86065	26/05/2021 0350 hrs	26/05/2021 0450 hrs	86067	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
86189	28/05/2021 2040 hrs	28/05/2021 2140 hrs	86191	Sheffield - Wesley Vale 110 kV line and Sheffield - Devonport 110 kV line	TAS	Lightning	INDJI
86190	28/05/2021 2040 hrs	28/05/2021 2140 hrs	86192	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
86677	05/06/2021 1435 hrs	05/06/2021 1540 hrs	86681	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
86730	07/06/2021 1505 hrs	07/06/2021 2345 hrs	86759	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Lightning	INDJI
86737	07/06/2021 1710 hrs	07/06/2021 2300 hrs	86757	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
86741	07/06/2021 1710 hrs	07/06/2021 1100 hrs	86756	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
86742	07/06/2021 1720 hrs	07/06/2021 2305 hrs	86758	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
86760	07/06/2021 2350 hrs	08/06/2021 1730 hrs	86789	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
86770	08/06/2021 1105 hrs	08/06/2021 1210 hrs	86776	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
86777	08/06/2021 1215 hrs	08/06/2021 1320 hrs	86779	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
86763	08/06/2021 1255 hrs	08/06/2021 1740 hrs	86767	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
86806	08/06/2021 2120 hrs	08/06/2021 2225 hrs	86807	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
86808	08/06/2021 2245 hrs	08/06/2021 2350 hrs	86810	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
86811	09/06/2021 1235 hrs	09/06/2021 1440 hrs	86814	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
87031	12/06/2021 0235 hrs	12/06/2021 0340 hrs	87034	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
87032	12/06/2021 0235 hrs	12/06/2021 0340 hrs	87035	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
87030	12/06/2021 0235 hrs	12/06/2021 0335 hrs	87033	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
87038	13/06/2021 0710 hrs	13/06/2021 1110 hrs	87041	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
87039	13/06/2021 0905 hrs	13/06/2021 1005 hrs	87049	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
87127	14/06/2021 1955 hrs	14/06/2021 2155 hrs	87146	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
87147	14/06/2021 2255 hrs	15/06/2021 0100 hrs	87149	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
87148	14/06/2021 2315 hrs	15/06/2021 0120 hrs	87151	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
87152	15/06/2021 0320 hrs	15/06/2021 0420 hrs	87155	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
87153	15/06/2021 0355 hrs	15/06/2021 0600 hrs	87157	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
87154	15/06/2021 0415 hrs	15/06/2021 0615 hrs	87158	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
87156	15/06/2021 0505 hrs	15/06/2021 1010 hrs	87198	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
87196	15/06/2021 0950 hrs	15/06/2021 1050 hrs	87200	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
87199	15/06/2021 1030 hrs	15/06/2021 1140 hrs	87215	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
87217	15/06/2021 1435 hrs	15/06/2021 1835 hrs	87260	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
87218	15/06/2021 1435 hrs	15/06/2021 1535 hrs	87223	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
87231	15/06/2021 1740 hrs	15/06/2021 2140 hrs	87335	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
87261	15/06/2021 1840 hrs	15/06/2021 2140 hrs	87334	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
87336	16/06/2021 0620 hrs	16/06/2021 0820 hrs	87369	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
87386	16/06/2021 1305 hrs	16/06/2021 2110 hrs	87416	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
87387	16/06/2021 1400 hrs	16/06/2021 1600 hrs	87391	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
87390	16/06/2021 1600 hrs	16/06/2021 1900 hrs	87100	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
87392	16/06/2021 1620 hrs	16/06/2021 2120 hrs	87417	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
87395	16/06/2021 1735 hrs	16/06/2021 2035 hrs	87415	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
87397	16/06/2021 1755 hrs	17/06/2021 0300 hrs	87439	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
87414	16/06/2021 1945 hrs	16/06/2021 2340 hrs	87436	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
87418	16/06/2021 2125 hrs	16/06/2021 2225 hrs	87425	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
87419	16/06/2021 2130 hrs	16/06/2021 2335 hrs	87435	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
87434	16/06/2021 2250 hrs	16/06/2021 2355 hrs	87437	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
87438	17/06/2021 0250 hrs	17/06/2021 0455 hrs	87440	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
87570	22/06/2021 0155 hrs	22/06/2021 0255 hrs	87571	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
87596	22/06/2021 0945 hrs	15/07/2021 1630 hrs	88261	Darling Downs Power Station	QLD	Other	Generator

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
87609	23/06/2021 1045 hrs	24/06/2021 1800 hrs	87652	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
87631	24/06/2021 0340 hrs	24/06/2021 0445 hrs	87632	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
87647	24/06/2021 1105 hrs	24/06/2021 1800 hrs	87653	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
87778	01/07/2021 0000 hrs	01/07/2021 0310 hrs	87781	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
87779	01/07/2021 0200 hrs	01/07/2021 0305 hrs	87780	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
87853	02/07/2021 2005 hrs	02/07/2021 2345 hrs	87860	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
87855	02/07/2021 2035 hrs	02/07/2021 2340 hrs	87859	Sheffield - Wesley Vale 110 kV line and Sheffield - Devonport 110 kV line	TAS	Lightning	INDJI
87856	02/07/2021 2130 hrs	02/07/2021 2230 hrs	87857	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
87858	02/07/2021 2235 hrs	03/07/2021 0035 hrs	87861	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
87862	03/07/2021 0110 hrs	03/07/2021 0210 hrs	87864	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
87865	03/07/2021 0245 hrs	03/07/2021 0445 hrs	87866	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
87867	03/07/2021 0555 hrs	03/07/2021 0655 hrs	87869	Lindisfarne - Mornington Tee - Rokeby No. 1 110 kV line and Lindisfarne - Mornington Tee - Rokeby No. 2 110 kV line	TAS	Lightning	INDJI
87894	05/07/2021 1050 hrs	05/07/2021 1055 hrs	87895	Armidale - Sapphire WF 8E 330 kV at the Armidale end only	NSW	Other	TNSP
87945	07/07/2021 1905 hrs	07/07/2021 2005 hrs	87946	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
88126	13/07/2021 1720 hrs	13/07/2021 2055 hrs	88128	Tamworth - Muswellbrook 88 330 kV line CB at the Tamworth end only	NSW	Other	TNSP
88194	14/07/2021 1725 hrs	14/07/2021 1945 hrs	88209	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
88211	15/07/2021 0620 hrs	15/07/2021 0720 hrs	88213	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
88212	15/07/2021 0625 hrs	15/07/2021 0930 hrs	88215	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
88217	15/07/2021 1145 hrs	17/07/2021 1230 hrs	88306	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
88218	15/07/2021 1145 hrs	17/07/2021 1230 hrs	88307	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
88262	15/07/2021 1720 hrs	15/07/2021 2020 hrs	88269	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
88264	15/07/2021 1810 hrs	15/07/2021 2215 hrs	88271	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
88265	15/07/2021 1820 hrs	15/07/2021 2025 hrs	88270	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
88267	15/07/2021 1850 hrs	15/07/2021 1955 hrs	88268	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
88273	15/07/2021 2230 hrs	15/07/2021 2330 hrs	88274	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
88272	15/07/2021 2230 hrs	16/07/2021 0030 hrs	88275	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
88433	20/07/2021 0645 hrs	20/07/2021 1115 hrs	88469	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
88434	20/07/2021 0645 hrs	20/07/2021 1115 hrs	88468	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
88628	21/07/2021 2035 hrs	22/07/2021 1010 hrs	88717	Liddell - Muswellbrook 83 330 kV line and Liddell - Bayswater 33 330 kV line	NSW	Other	TNSP
88646	22/07/2021 0520 hrs	22/07/2021 0815 hrs	88689	Loss of multiple generating units	NSW	Other	Generator
88757	23/07/2021 0940 hrs	23/07/2021 1345 hrs	88760	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
88758	23/07/2021 1010 hrs	23/07/2021 1115 hrs	88759	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
88780	23/07/2021 1750 hrs	24/07/2021 1350 hrs	88795	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
88790	23/07/2021 1820 hrs	23/07/2021 2020 hrs	88791	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
88792	23/07/2021 2135 hrs	23/07/2021 2340 hrs	88793	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
88776	24/07/2021 1215 hrs	25/07/2021 1750 hrs	88862	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
88775	24/07/2021 1215 hrs	25/07/2021 0555 hrs	88835	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
88828	24/07/2021 1845 hrs	24/07/2021 2350 hrs	88831	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
88829	24/07/2021 2130 hrs	24/07/2021 2230 hrs	88830	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
88832	25/07/2021 0500 hrs	25/07/2021 0605 hrs	88836	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
88834	25/07/2021 0510 hrs	25/07/2021 0715 hrs	88838	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
88839	25/07/2021 0900 hrs	25/07/2021 1010 hrs	88844	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
88840	25/07/2021 0900 hrs	25/07/2021 1005 hrs	88842	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
88841	25/07/2021 0905 hrs	25/07/2021 1005 hrs	88843	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
88845	25/07/2021 1035 hrs	25/07/2021 1745 hrs	88861	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
88847	25/07/2021 1300 hrs	25/07/2021 1405 hrs	88848	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
88851	25/07/2021 1520 hrs	25/07/2021 1625 hrs	88854	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
88853	25/07/2021 1525 hrs	25/07/2021 1630 hrs	88856	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
88852	25/07/2021 1525 hrs	25/07/2021 1625 hrs	88855	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
88864	25/07/2021 1615 hrs	25/07/2021 1920 hrs	88865	Lindisfarne - Mornington Tee - Rokeby No. 1 110 kV line and Lindisfarne - Mornington Tee - Rokeby No. 2 110 kV line	TAS	Lightning	INDJI
88833	25/07/2021 0500 hrs	25/07/2021 0705 hrs	88837	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
88969	27/07/2021 1210 hrs	28/07/2021 1750 hrs	89087	Brinkworth - Templers West and Para-Templers West 275 kV lines	SA	Severe weather	BOM
88970	27/07/2021 1210 hrs	28/07/2021 1750 hrs	89088	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
88997	28/07/2021 0735 hrs	28/07/2021 0940 hrs	89010	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
88997	28/07/2021 0945 hrs	28/07/2021 1120 hrs	89010	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89013	28/07/2021 1030 hrs	28/07/2021 1230 hrs	89036	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
89044	28/07/2021 1315 hrs	28/07/2021 1620 hrs	89078	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
89050	28/07/2021 1415 hrs	28/07/2021 1820 hrs	89090	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
89049	28/07/2021 1415 hrs	28/07/2021 1620 hrs	89077	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
89089	28/07/2021 1815 hrs	28/07/2021 2020 hrs	89091	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89093	28/07/2021 2240 hrs	28/07/2021 2350 hrs	89097	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89094	28/07/2021 2255 hrs	28/07/2021 2350 hrs	89096	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89095	28/07/2021 2255 hrs	28/07/2021 2350 hrs	89098	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89099	29/07/2021 0010 hrs	29/07/2021 0110 hrs	89101	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
89100	29/07/2021 0050 hrs	29/07/2021 0250 hrs	89103	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
89105	29/07/2021 0625 hrs	29/07/2021 0830 hrs	89113	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89106	29/07/2021 0625 hrs	29/07/2021 0825 hrs	89112	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89107	29/07/2021 0630 hrs	29/07/2021 0830 hrs	89114	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89117	29/07/2021 1220 hrs	29/07/2021 1510 hrs	89127	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89118	29/07/2021 1235 hrs	29/07/2021 1510 hrs	89126	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89151	31/07/2021 1530 hrs	31/07/2021 1630 hrs	89156	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89154	31/07/2021 1550 hrs	31/07/2021 1650 hrs	89157	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89158	31/07/2021 2150 hrs	31/07/2021 2250 hrs	89159	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89160	01/08/2021 0120 hrs	01/08/2021 0320 hrs	89162	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89163	01/08/2021 0530 hrs	01/08/2021 0635 hrs	89164	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89228	02/08/2021 2235 hrs	03/08/2021 0140 hrs	89231	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
89229	02/08/2021 2310 hrs	03/08/2021 0415 hrs	89235	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
89230	03/08/2021 0105 hrs	03/08/2021 0210 hrs	89233	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
89232	03/08/2021 0145 hrs	03/08/2021 0345 hrs	89234	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
89236	03/08/2021 0625 hrs	03/08/2021 0725 hrs	89237	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
89240	03/08/2021 0955 hrs	03/08/2021 1300 hrs	89254	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
89320	03/08/2021 1935 hrs	03/08/2021 2035 hrs	89321	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
89385	11/08/2021 1600 hrs	11/08/2021 1700 hrs	89407	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
89390	11/08/2021 1620 hrs	11/08/2021 1920 hrs	89415	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
89414	11/08/2021 1730 hrs	11/08/2021 2035 hrs	89416	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
89417	11/08/2021 2040 hrs	11/08/2021 2140 hrs	89418	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89426	13/08/2021 1135 hrs	13/08/2021 1240 hrs	89427	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
89432	14/08/2021 1230 hrs	14/08/2021 1845 hrs	89440	Armidale No. 6 330 kV/132 kV transformer and Armidale No. 1 330 kV SVC	NSW	Lightning	TNSP
89493	15/08/2021 0615 hrs	15/08/2021 1630 hrs	89558	Armidale No. 6 330 kV/132 kV transformer and Armidale No. 1 330 kV SVC	NSW	Lightning	TNSP
89508	15/08/2021 1105 hrs	15/08/2021 1205 hrs	89514	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89538	15/08/2021 1430 hrs	15/08/2021 1530 hrs	89553	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89559	15/08/2021 1830 hrs	15/08/2021 2035 hrs	89560	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89567	15/08/2021 2120 hrs	15/08/2021 2320 hrs	89596	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89573	15/08/2021 2130 hrs	15/08/2021 2305 hrs	89594	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89577	15/08/2021 2140 hrs	15/08/2021 2310 hrs	89595	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89598	16/08/2021 0505 hrs	16/08/2021 0635 hrs	89599	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89597	16/08/2021 0610 hrs	16/08/2021 1740 hrs	89607	Armidale No. 3 330 kV/132 kV transformer and Armidale No. 1 330 kV SVC	NSW	Other	TNSP
89600	16/08/2021 0930 hrs	16/08/2021 1030 hrs	89602	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
89608	17/08/2021 0610 hrs	17/08/2021 1820 hrs	89611	Armidale No. 3 330 kV/132 kV transformer and Armidale No. 1 330 kV SVC	NSW	Lightning	TNSP
89768	21/08/2021 0255 hrs	21/08/2021 0630 hrs	89771	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89769	21/08/2021 0350 hrs	21/08/2021 0910 hrs	89774	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89770	21/08/2021 0415 hrs	21/08/2021 0915 hrs	89775	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89772	21/08/2021 0635 hrs	21/08/2021 0910 hrs	89773	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89801	22/08/2021 1410 hrs	23/08/2021 0045 hrs	89830	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
89827	22/08/2021 2235 hrs	23/08/2021 0305 hrs	89832	Farrell - Sheffield No. 1 and No. 2 220 kV lines	NSW	Lightning	INDJI
89828	22/08/2021 2235 hrs	23/08/2021 0305 hrs	89833	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
89829	22/08/2021 2235 hrs	23/08/2021 0305 hrs	89831	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
89834	23/08/2021 0600 hrs	23/08/2021 0805 hrs	89837	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
89898	23/08/2021 1600 hrs	23/08/2021 1705 hrs	89913	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
89835	23/08/2021 1600 hrs	23/08/2021 0000 hrs	89839	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
89935	24/08/2021 0035 hrs	24/08/2021 0240 hrs	89936	Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	Lightning	INDJI
89952	25/08/2021 0600 hrs	25/08/2021 0620 hrs	89953	Armidale No. 6 330 kV/132 kV transformer and Armidale No. 1 330 kV SVC	NSW	Other	TNSP
89993	29/08/2021 0550 hrs	29/08/2021 0650 hrs	89994	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
90004	29/08/2021 1920 hrs	29/08/2021 2120 hrs	90005	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
90051	31/08/2021 0340 hrs	31/08/2021 0440 hrs	90052	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
90142	02/09/2021 0540 hrs	02/09/2021 1720 hrs	90162	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
90143	02/09/2021 0545 hrs	02/09/2021 0525 hrs	90163	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
90200	03/09/2021 1420 hrs	03/09/2021 1720 hrs	90207	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
90308	09/09/2021 2150 hrs	09/09/2021 2255 hrs	90309	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
90345	11/09/2021 1815 hrs	11/09/2021 2010 hrs	90346	Gordon 220 kV bus	TAS	Lightning	INDJI
90347	11/09/2021 2350 hrs	12/09/2021 0150 hrs	90348	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
90658	18/09/2021 0320 hrs	18/09/2021 0420 hrs	90659	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
90701	18/09/2021 1520 hrs	18/09/2021 1625 hrs	90725	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
90775	19/09/2021 2245 hrs	19/09/2021 2350 hrs	90776	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
90777	20/09/2021 0055 hrs	20/09/2021 0155 hrs	90778	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
90779	20/09/2021 0310 hrs	20/09/2021 0715 hrs	90785	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
90780	20/09/2021 0410 hrs	20/09/2021 0710 hrs	90782	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
90781	20/09/2021 0415 hrs	20/09/2021 0710 hrs	90783	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
90797	20/09/2021 1030 hrs	20/09/2021 1135 hrs	90799	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
90801	20/09/2021 1350 hrs	20/09/2021 1455 hrs	90803	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
90804	20/09/2021 1535 hrs	20/09/2021 1640 hrs	90809	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
90951	22/09/2021 1310 hrs	22/09/2021 1950 hrs	90965	South East No. 1 SVC and No. 2 SVC	SA	Other	TNSP
91007	24/09/2021 1035 hrs	24/09/2021 1140 hrs	91008	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
91010	24/09/2021 1225 hrs	24/09/2021 1330 hrs	91013	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
91011	24/09/2021 1225 hrs	24/09/2021 1325 hrs	91012	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
91042	24/09/2021 2055 hrs	24/09/2021 2155 hrs	91043	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
91044	25/09/2021 0445 hrs	25/09/2021 0550 hrs	91045	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
91223	28/09/2021 0255 hrs	28/09/2021 0555 hrs	91231	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91232	28/09/2021 0620 hrs	28/09/2021 0720 hrs	91233	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91236	28/09/2021 0915 hrs	28/09/2021 1015 hrs	91237	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91271	28/09/2021 1745 hrs	28/09/2021 2220 hrs	91275	Davenport West 275 kV bus, Davenport - Mt Lock 275 kV line and Davenport No. 2 synchronous condenser	SA	Other	TNSP
91273	28/09/2021 2205 hrs	29/09/2021 0105 hrs	91279	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
91274	28/09/2021 2215 hrs	28/09/2021 2315 hrs	91276	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91325	29/09/2021 2055 hrs	29/09/2021 2155 hrs	91326	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91327	29/09/2021 2245 hrs	30/09/2021 0245 hrs	91333	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91328	29/09/2021 2310 hrs	30/09/2021 0010 hrs	91329	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91330	30/09/2021 0105 hrs	30/09/2021 0205 hrs	91332	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91334	30/09/2021 0320 hrs	30/09/2021 0810 hrs	91338	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
91335	30/09/2021 0400 hrs	30/09/2021 0800 hrs	91337	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91336	30/09/2021 0555 hrs	30/09/2021 0955 hrs	91339	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
91341	30/09/2021 1100 hrs	30/09/2021 1605 hrs	91369	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91342	30/09/2021 1105 hrs	30/09/2021 1210 hrs	91344	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
91345	30/09/2021 1240 hrs	30/09/2021 1540 hrs	91368	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
91393	01/10/2021 0040 hrs	01/10/2021 0645 hrs	91398	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91394	01/10/2021 0040 hrs	01/10/2021 0445 hrs	91397	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91402	01/10/2021 1030 hrs	01/10/2021 1135 hrs	91406	Chinchilla - Columboola No. 7349 and No. 7350 132 kV lines	QLD	Lightning	INDJI
91403	01/10/2021 1030 hrs	01/10/2021 0550 hrs	91440	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
91420	01/10/2021 1355 hrs	01/10/2021 1955 hrs	91444	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91421	01/10/2021 1405 hrs	01/10/2021 1705 hrs	91438	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91434	01/10/2021 1615 hrs	02/10/2021 1620 hrs	91442	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
91432	01/10/2021 1615 hrs	01/10/2021 2120 hrs	91446	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91433	01/10/2021 1615 hrs	01/10/2021 1915 hrs	91443	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
91436	01/10/2021 1620 hrs	01/10/2021 2105 hrs	91445	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
91435	01/10/2021 1620 hrs	01/10/2021 1720 hrs	91439	Sheffield - Wesley Vale 110 kV line and Sheffield - Devonport 110 kV line	TAS	Lightning	INDJI
91437	01/10/2021 1655 hrs	01/10/2021 1755 hrs	91441	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
91447	01/10/2021 2150 hrs	02/10/2021 0040 hrs	91448	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91453	02/10/2021 1420 hrs	02/10/2021 1620 hrs	91460	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
91457	02/10/2021 1510 hrs	02/10/2021 1645 hrs	91461	Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
91458	02/10/2021 1530 hrs	02/10/2021 1735 hrs	91462	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91459	02/10/2021 1535 hrs	02/10/2021 1810 hrs	91463	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
91468	04/10/2021 0530 hrs	04/10/2021 2000 hrs	91487	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM
91469	04/10/2021 0530 hrs	04/10/2021 2000 hrs	91486	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
91470	04/10/2021 1120 hrs	04/10/2021 1225 hrs	91471	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
91472	04/10/2021 1340 hrs	04/10/2021 1440 hrs	91477	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
91476	04/10/2021 1350 hrs	04/10/2021 1650 hrs	91481	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
91478	04/10/2021 1445 hrs	04/10/2021 1850 hrs	91485	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
91479	04/10/2021 1530 hrs	04/10/2021 1630 hrs	91480	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91563	09/10/2021 1315 hrs	09/10/2021 1545 hrs	91570	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
91572	09/10/2021 2050 hrs	09/10/2021 2150 hrs	91574	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
91573	09/10/2021 2105 hrs	09/10/2021 1040 hrs	91575	Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	Lightning	INDJI
91650	12/10/2021 1205 hrs	12/10/2021 1405 hrs	91652	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
91672	13/10/2021 2050 hrs	13/10/2021 2350 hrs	91676	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91673	13/10/2021 2145 hrs	14/10/2021 0245 hrs	91681	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
91674	13/10/2021 2155 hrs	14/10/2021 0055 hrs	91677	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91675	13/10/2021 2235 hrs	14/10/2021 0235 hrs	91680	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91678	14/10/2021 0115 hrs	14/10/2021 0415 hrs	91682	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91679	14/10/2021 0140 hrs	14/10/2021 0645 hrs	91683	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91686	14/10/2021 0830 hrs	14/10/2021 0935 hrs	91687	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
91690	14/10/2021 1135 hrs	14/10/2021 1640 hrs	91703	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
91694	14/10/2021 1415 hrs	14/10/2021 1615 hrs	91702	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91695	14/10/2021 1415 hrs	14/10/2021 1515 hrs	91698	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
91706	14/10/2021 1725 hrs	14/10/2021 2025 hrs	91715	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91710	14/10/2021 1805 hrs	14/10/2021 1905 hrs	91713	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
91711	14/10/2021 1825 hrs	14/10/2021 2030 hrs	91716	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
91714	14/10/2021 1935 hrs	14/10/2021 2035 hrs	91717	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91718	15/10/2021 0200 hrs	15/10/2021 0305 hrs	91721	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91719	15/10/2021 0225 hrs	15/10/2021 0525 hrs	91722	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91720	15/10/2021 0255 hrs	15/10/2021 0600 hrs	91723	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
91724	15/10/2021 0625 hrs	15/10/2021 1225 hrs	91731	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91726	15/10/2021 0905 hrs	15/10/2021 1005 hrs	91729	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91728	15/10/2021 0955 hrs	15/10/2021 1055 hrs	91730	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
91750	15/10/2021 1610 hrs	15/10/2021 1730 hrs	91751	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91765	17/10/2021 1655 hrs	17/10/2021 1855 hrs	91768	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91766	17/10/2021 1655 hrs	17/10/2021 1855 hrs	91767	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91770	18/10/2021 0810 hrs	18/10/2021 0940 hrs	91771	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91772	18/10/2021 1105 hrs	18/10/2021 1805 hrs	91787	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91773	18/10/2021 1240 hrs	18/10/2021 1715 hrs	91785	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91774	18/10/2021 1255 hrs	18/10/2021 1755 hrs	91786	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91775	18/10/2021 1400 hrs	18/10/2021 1605 hrs	91782	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
91778	18/10/2021 1510 hrs	18/10/2021 1645 hrs	91784	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91779	18/10/2021 1510 hrs	18/10/2021 1615 hrs	91783	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
91788	18/10/2021 2125 hrs	18/10/2021 2230 hrs	91789	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91790	18/10/2021 2245 hrs	18/10/2021 2350 hrs	91791	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91792	19/10/2021 0110 hrs	19/10/2021 0510 hrs	91796	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91794	19/10/2021 0205 hrs	19/10/2021 0410 hrs	91795	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
91797	19/10/2021 0530 hrs	19/10/2021 0635 hrs	91798	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91801	19/10/2021 1335 hrs	19/10/2021 1835 hrs	91820	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91802	19/10/2021 1400 hrs	19/10/2021 1705 hrs	91807	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
91821	19/10/2021 1850 hrs	19/10/2021 2150 hrs	91825	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91823	19/10/2021 2010 hrs	19/10/2021 2155 hrs	91826	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91824	19/10/2021 2115 hrs	19/10/2021 2315 hrs	91827	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91834	20/10/2021 1310 hrs	20/10/2021 1415 hrs	91836	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91835	20/10/2021 1400 hrs	20/10/2021 1605 hrs	91843	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91839	20/10/2021 1425 hrs	20/10/2021 1725 hrs	91848	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
91840	20/10/2021 1450 hrs	20/10/2021 1555 hrs	91842	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91844	20/10/2021 1605 hrs	20/10/2021 1810 hrs	91850	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91845	20/10/2021 1625 hrs	20/10/2021 1730 hrs	91849	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91846	20/10/2021 1645 hrs	20/10/2021 2145 hrs	91853	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91851	20/10/2021 1935 hrs	20/10/2021 2040 hrs	91852	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
91856	21/10/2021 0835 hrs	21/10/2021 0935 hrs	91858	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91859	21/10/2021 1205 hrs	21/10/2021 1410 hrs	91864	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
91877	22/10/2021 1820 hrs	22/10/2021 1920 hrs	91878	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91882	23/10/2021 0615 hrs	23/10/2021 0815 hrs	91883	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
91908	23/10/2021 1535 hrs	23/10/2021 2135 hrs	91920	Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	Lightning	INDJI
91909	23/10/2021 1600 hrs	23/10/2021 2100 hrs	91918	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91911	23/10/2021 1610 hrs	23/10/2021 1915 hrs	91917	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
91910	23/10/2021 1610 hrs	23/10/2021 1910 hrs	91916	Strathmore - Clare South 7208 132 kV line and Collinsville North - Tee King Creek - Clare South 7128 132 kV line	QLD	Lightning	INDJI
91915	23/10/2021 1910 hrs	23/10/2021 2110 hrs	91919	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91940	25/10/2021 1400 hrs	25/10/2021 2200 hrs	91951	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91939	25/10/2021 1400 hrs	25/10/2021 1700 hrs	91948	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91949	25/10/2021 1745 hrs	25/10/2021 1850 hrs	91950	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
91955	26/10/2021 0830 hrs	26/10/2021 0930 hrs	91957	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
91966	26/10/2021 1320 hrs	26/10/2021 1920 hrs	91977	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91979	26/10/2021 2050 hrs	26/10/2021 2150 hrs	91980	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
91981	27/10/2021 0705 hrs	27/10/2021 0835 hrs	91983	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
91996	27/10/2021 1630 hrs	28/10/2021 2210 hrs	92026	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	Severe weather	BOM
91997	27/10/2021 2255 hrs	29/10/2021 0015 hrs	92029	Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	Severe weather	BOM

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
92007	28/10/2021 1700 hrs	28/10/2021 1920 hrs	92016	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
92011	28/10/2021 1815 hrs	28/10/2021 2015 hrs	92019	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
92013	28/10/2021 1840 hrs	28/10/2021 2045 hrs	92021	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
92015	28/10/2021 1905 hrs	29/10/2021 0105 hrs	92032	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
92022	28/10/2021 2050 hrs	29/10/2021 0050 hrs	92031	Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	Lightning	INDJI
92023	28/10/2021 2100 hrs	28/10/2021 2300 hrs	92028	Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	Lightning	INDJI
92024	28/10/2021 2115 hrs	29/10/2021 0015 hrs	92030	Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	Lightning	INDJI
92025	28/10/2021 2125 hrs	29/10/2021 0625 hrs	92037	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
92034	29/10/2021 0445 hrs	29/10/2021 0550 hrs	92035	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
92036	29/10/2021 0600 hrs	29/10/2021 0835 hrs	92040	Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	Lightning	INDJI
92038	29/10/2021 0710 hrs	29/10/2021 0910 hrs	92041	Sheffield - Wesley Vale 110 kV line and Sheffield - Devonport 110 kV line	TAS	Lightning	INDJI
92049	29/10/2021 2125 hrs	29/10/2021 2330 hrs	92051	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
92050	29/10/2021 2230 hrs	30/10/2021 0130 hrs	92052	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
92058	30/10/2021 1550 hrs	30/10/2021 1650 hrs	92062	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
92064	30/10/2021 1845 hrs	30/10/2021 2215 hrs	92068	Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	Lightning	INDJI
92066	30/10/2021 1915 hrs	30/10/2021 2320 hrs	92070	Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	Lightning	INDJI
92067	30/10/2021 2135 hrs	30/10/2021 2235 hrs	92069	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI

Start MN	Start of event	End of event	End MN	Equipment	Region	Reason	Source
92071	31/10/2021 0035 hrs	31/10/2021 0140 hrs	92072	Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	Lightning	INDJI
92078	31/10/2021 1545 hrs	31/10/2021 1945 hrs	92097	Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	Lightning	INDJI
92077	31/10/2021 1545 hrs	31/10/2021 1745 hrs	92095	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
92098	31/10/2021 2005 hrs	31/10/2021 2215 hrs	92101	Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	Lightning	INDJI
92099	31/10/2021 2010 hrs	31/10/2021 2210 hrs	92100	Strathmore - Clare South 7208 132 kV line and Collinsville North - Tee King Creek - Clare South 7128 132 kV line	QLD	Lightning	INDJI

A2. Number of reclassification events on each element, 1 May 2021 to 31 October 2021

Table 3 Number of times reclassification events occurred on each element, 1 May 2021 to 31 October 2021

Element	Region	Number of times reclassified				
		Bushfires	Lightning	Severe weather	Other	Total
Armidale - Sapphire WF 8E 330 kV at the Armidale end only	NSW	0	0	0	1	1
Armidale No. 3 330 kV/132 kV transformer and Armidale No. 1 330 kV SVC	NSW	0	1	0	1	2
Armidale No. 6 330 kV/132 kV transformer and Armidale No. 1 330 kV SVC	NSW	0	2	0	1	3
Bayswater - Mt Piper No. 5A3 and Wollar - Mt Piper No. 5A5 500 kV line	NSW	0	19	0	0	19
Liddell - Muswellbrook 83 330 kV line and Liddell - Bayswater 33 330 kV line	NSW	0	0	0	1	1
Liddell Power Station units 1, 2 and 4	NSW	0	1	0	0	1
Lismore - Dunoon 9U6 132 kV line and Lismore - Dunoon 9U7 132 kV line	NSW	0	29	0	0	29
Loss of multiple generating units	NSW	0	0	0	1	1
Wagga - Gadara No. 993 132 kV line CB at the Gadara end only	NSW	0	0	0	1	1
Tamworth - Muswellbrook 88 330 kV line CB at the Tamworth end only	NSW	0	0	0	1	1
Bulli Creek - Dumaresq 8L and 8M 330 kV line	QLD	0	24	0	0	24
Chinchilla - Columboola No. 7349 and No. 7350 132 kV lines	QLD	0	1	0	0	1
Strathmore - Clare South 7208 132 kV line and Collinsville North - Tee King Creek - Clare South 7128 132 kV line	QLD	0	3	0	0	3

Appendix A2. Number of reclassification events on each element, 1 May 2021 to 31 October 2021

Element	Region	Number of times reclassified				
		Bushfires	Lightning	Severe weather	Other	Total
Tarong - Chinchilla 7183 and 7168 132 kV lines	QLD	0	37	0	0	37
Collinsville - Mackay Tee Proserpine 7125 and 7126 132 kV lines	QLD	0	16	0	0	16
Collinsville Nth - Clare Sth Tee King Creek 7128 132 kV line and Strathmore - Clare South 7208 132 kV line	QLD	0	10	0	0	10
Condabri North - Condabri Central No. 7400 and No. 7401 132 kV lines	QLD	0	34	0	0	34
Darling Downs Power Station	QLD	0	0	0	1	1
Brinkworth - Templers West and Para-Templers West 275 kV lines	SA	0	0	1	0	1
Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275 kV lines	SA	0	0	11	0	11
Para - Templers West and Magill - Torrens Island A 275 kV lines	SA	0	1	12	0	13
South - East No. 1 SVC and No. 2 SVC	SA	0	0	0	1	1
Davenport West 275 kV bus, Davenport - Mt Lock 275 kV line and Davenport No. 2 synchronous condenser	SA	0	0	0	1	1
Farrell - Sheffield No. 1 and No. 2 220 kV lines	TAS	0	20	0	0	20
Gordon 220 kV bus	TAS	0	1	0	0	1
Lindisfarne - Mornington Tee - Rokeby No. 1 110 kV line and Lindisfarne - Mornington Tee - Rokeby No. 2 110 kV line	TAS	0	2	0	0	2
Sheffield - Wesley Vale 110 kV line and Sheffield - Devonport 110 kV line	TAS	0	4	0	0	4
Farrell - John Butters 220 kV line & Farrell - Rosebery Tee Queenstown - Newton 110 kV line	TAS	0	30	0	0	30
Farrell - Reece No. 1 and No. 2 220 kV lines	TAS	0	30	0	0	30
Glenrowan - Dederang No. 1 and No. 3 220 kV lines	VIC	0	30	0	0	30
Hazelwood PS - Rowville No. 1 and 2 220kV lines	VIC	0	15	0	0	15
Wodonga terminal station No. 1 and No. 2 330/66/22 kV transformers	VIC	0	0	0	1	1
Eildon - Mt Beauty No. 1 and No. 2 220 kV lines	VIC	0	28	0	0	28

A3. Non-credible contingency events, 1 May 2021 to 31 October 2021

Table 4 lists all *non-credible contingency events* that occurred during the reporting period, and AEMO's assessment of whether to reclassify each event as credible. The rows highlighted in teal in Table 4 explain the contingency events corresponding to the reclassifications highlighted in teal in Appendix A1.

Table 4 Non-credible contingency events, 1 May 2021 to 31 October 2021

Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
03/05/2021 0439 hrs	Trip of the Wodonga Terminal Station No. 1 and No. 2 330 kV transformers	VIC	Protection and Control	Yes	AEMO reclassified the event as credible since the cause was initially unknown. The No. 1 and No. 2 330/66/22 kV transformers tripped due to the unexpected operation of their respective transformer Y protection. The reclassification was cancelled at 2055 hrs on 03/05/2021 as the cause had been identified and rectified.
04/05/2021 2047 hrs	Trip of all Liddell generating units	NSW	Faulty Equipment	Yes	The Liddell 1A 330/33 kV station auxiliary transformer tripped due to an electrical motor fault. Power station staff advised that for the loss of the remaining 1B 330/33 kV station auxiliary transformer, there was an increased risk of a simultaneous trip of all in service generating units. AEMO reclassified the simultaneous loss of multiple generating units at Liddell Power Station as a credible contingency event based on the advice from the power station. AGL later advised that during an outage of an auxiliary transformer group, there is no known credible contingency for the loss of the remaining transformer group that would cause the simultaneous trip of the remaining generating units. Any unit that would need to come off due to the loss of the auxiliary transformer would shut down in a controlled manner. The reclassification was cancelled at 2320 hrs on 04/05/2021 as the faulty motor on the transformer had been isolated and the simultaneous trip of all generating units is no longer reasonably possible.

Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
08/05/2021 1548 hrs	Trip of Port Macquarie – Taree 964 line at Taree end	NSW	Faulty Equipment	No	Transgrid identified the cause as a faulty protection relay. The relay was isolated, and the line was returned to service. AEMO did not reclassify the event as credible as the cause had been identified and isolated.
11/05/2021 0507 hrs	Trip of Port Macquarie – Taree 964 line at Taree end	NSW	Protection and Control	No	Transgrid advised the cause was identified as a high resistance joint on a VT secondary. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
12/05/2021 1027 hrs	Trip of Burnie No. 2 220/110 kV transformer on the 220 kV side only and B452 220 kV circuit breaker	TAS	Human Error	No	TasNetworks advised during a planned protection outage of the Burnie A 110 kV bus, staff onsite inadvertently tripped the B452 220kV circuit breaker (CB), offloading the No. 2 transformer. TasNetworks confirmed that the trip was due to human error. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
14/05/2021 1521 hrs	Trip of Newport D Power Station No. 1 220 kV bus and Fishermans Bend B2 220/66 kV transformer	VIC	Faulty Equipment (for trip of bus) Protection and Control (for trip of transformer)	No	The Newport No. 1 220 kV bus and Fishermans Bend B2 220/66 kV transformer tripped during restoration of a planned outage of Brooklyn – Newport and Fishermans Bend – Newport 220 kV lines. Post-incident investigation by AusNet concluded that an internal arc fault in the white phase busbar chambers at Newport D Power Station (NPSD) occurred and triggered the X and Y high impedance busbar protection. Coincident with the fault at NPSD, the Fishermans Bend (FBTS) B2 220/66 kV transformer Y restricted earth fault (REF) protection operated for the fault at NPSD. This was not expected as the fault was outside the protection zone of the Y REF protection. The NPSD No. 1 bus white phase chambers were replaced and the FBTS B2 220/66 kV transformer Y REF protection setting was modified. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
21/05/2021 0955 hrs	Trip of Wagga - Gadara No. 993 132 kV line and circuit breaker 9932 at Gadara end only	NSW	Human Error	Yes	The cause was initially unknown and AEMO reclassified the event as credible until further notice. Transgrid later advised that the original trip has been attributed to human interference. The CB has been fully tested and successfully operated multiple times with no fault identified. The reclassification was cancelled at 1600 hrs on 03/06/2021 as the cause had been identified and rectified.
22/05/2021 0728 hrs	Trip of Springvale No. 2 220 kV bus	VIC	Faulty Equipment	No	The cause was initially unknown. AusNet later advised that a gas alarm associated with the planned outage of Springvale B2 transformer caused the Springvale No. 2 220 kV bus to trip. The transformer gas protection was triggered due to a transformer low oil condition. AusNet advised that the gas alarm protection had been isolated and the transformer's oil level was topped up. AEMO did not reclassify the event as credible as the cause had been identified and rectified.

Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
25/05/2021 1406 hrs	Trip of multiple generators and lines in Central Queensland	QLD	To be confirmed	No	At 1340 hrs, CS Energy informed AEMO of a possible fire at Callide C4. At 1344 hrs, Callide C3 tripped from 417 MW and CS Energy contacted AEMO to confirm there was a fire in the Callide C turbine hall. At 1406 hrs a significant power system event occurred in Queensland due to loss of multiple generating units and all 275 kV lines out of Calvale substation. NSW – QLD interconnector tripped followed by successful auto-reclose and synchronisation. AEMO was considering the reclassification of the Callide C Power Station upon receiving the notification of a possible fire at the station. The subsequent event at 1406 hrs was a fault of abnormally long duration. On this basis, no decisions on reclassification of contingencies were considered necessary or appropriate following the event. At Gladstone Power Station, three generating units tripped due to operation of under excitation protection. AEMO had assessed a recurrence of multiple units tripping on this protection operation as not reasonably possible for a credible contingency event and thus reclassification was not appropriate. Both Townsville and Yarwun generating units reduced output during the period of underfrequency. A reclassification for these was not considered to be warranted at that time as investigations indicated that such behaviour was only likely to occur for severe underfrequency conditions which would be triggered only by non-credible contingency events.
28/05/2021 1315 hrs	Trip of Claire South – Townsville South 7131 132 kV line at Townsville South end only	QLD	Faulty Equipment	No	The line trip was caused by a compressor de-loading. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
02/06/2021 1342 hrs	Trip of Heywood – South East No. 1 line M1 transformer 275 kV circuit breaker	VIC	Faulty Equipment	No	The Heywood - South East (HYTS - SESS) M1 CB opened at Heywood, offloading the Heywood M1 500/275 kV transformer. AusNet advised that the circuit breaker trip was caused by faulty inputs into the relay. AusNet's post-incident investigation confirmed a digital input of the Circuit Breaker Management (CBM) relay that monitors blue phase CB status had failed causing the Heywood - South East No. 1 line M1 transformer 275 kV circuit breaker to trip due to a pole discrepancy. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
15/06/2021 0918 hrs	Trip of Calliope River No. 1 132 kV bus	QLD	Human Error	No	Powerlink advised that staff onsite inadvertently tripped the bus. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
15/06/2021 0947 hrs	Trip of Darling Downs GT1, GT2 and GT3 units	QLD	Faulty Equipment	No	Origin advised that the station suffered a loss of gas supply caused by a trip of the station gas meter. AEMO did not reclassify the event as credible as the cause had been identified and rectified.

Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
28/06/2201 1329 hrs	Trip of Wandoan South No. 1 132 kV bus	QLD	Protection and Control	No	The trip occurred during energisation of feeder 7484. The cause was identified as incorrect CT ratios on 132 kV feeder 7484 and remedied. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
05/07/2021 0847 hrs	Trip of Armidale - Sapphire 8E 330 kV line at Armidale end only	NSW	Human Error	Yes	The Armidale – Sapphire WF 8E 330kV line tripped at the Armidale end only while Transgrid protection technicians were working on site. The cause was initially unknown and AEMO reclassified the event as credible. Transgrid advised AEMO that they reviewed the procedures for working on in-service panels and found that procedures were correct. The cause of this incident was human error in implementing the procedure. The reclassification was cancelled at 1050 hrs on 05/07/2021 as the cause had been identified and rectified.
13/07/2021 1642 hrs	Trip of Muswellbrook – Tamworth 88 330 kV line at Tamworth end only	NSW	Human Error	Yes	The Muswellbrook – Tamworth 88 opened at Tamworth end only while Transgrid technicians were working on site. The cause was initially unknown and AEMO reclassified the event as credible. Transgrid confirmed that the cause of this incident was human error in implementing the procedure. The reclassification was cancelled at 2030 hrs on 13/07/2021 as the cause had been identified and rectified.
16/07/2021 2249 hrs	Trip of multiple Cherry Gardens 275 kV and 132 kV lines	SA	Lightning (for trip of 275 kV lines) Protection and control (for trip of 132 kV line)	No	Prior to the incident, AEMO and ElectraNet were aware of lightning activity in the area of the Cherry Gardens - Tailem Bend (CHG – TBE) and the Cherry Gardens - Mount Barker South (CHG – MTBS) 275 kV lines. High voltage phase to ground faults occurred on the 'W' phase conductors of the CHG – TBE and the CHG – MTBS 275 kV lines simultaneously as a result of a lightning strike. The 'W' phase CBs on both 275 kV lines successfully auto-reclosed to restore both circuits. The trip of the MTB – CHG 132 kV line at the Mount Barker end only was caused by unexpected protection operation. ElectraNet sought manufacturer feedback on the appropriate long-term solution to this event which has been implemented. AEMO did not reclassify the loss of both CHG – TBE and the CHG – MTBS 275 kV lines as a single credible contingency as any successful simultaneous single-phase auto-reclose (SPAR) operation on multiple lines does not require reclassification under AEMO's Power System Security Guidelines. The MTB – CHG 132 kV line is not classified as a transmission element. As such, AEMO correctly determined that reclassification of this event as a credible contingency event was not required.
10/08/2021 0306 hrs	Trip of Bayswater – Mt Piper 5A3 500 kV line and Bayswater No. 4 generator (BW04)	NSW	Human Error	No	Transgrid advised that there was a confirmed fault on 5A3 line that caused the trip and auto-reclose of the line. Transgrid has been unable to identify the cause of this fault. BW04 unexpectedly tripped due to operation of its Restricted Earth Fault (REF) protection. Prior to this incident at BW04, one of its 23/11 kV auxiliary transformers was in the process of being reinstalled. During these works, a Current Transformer (CT) from the de-energised transformer was

Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
					incorrectly connected to an active protection system. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
31/08/2021 0207 hrs	Trip of Blackwater No. 1 SVC and Bluff No. 1 SVC	QLD	Faulty Equipment (for trip of Blackwater SVC) Protection and Control (for trip of Bluff SVC)	No	Powerlink advised that the cause of the Blackwater SVC trip was a faulty phase failure relay, and the cause of the Bluff SVC trip was a loss of AC supply. As the causes were independent of each other, the event was unlikely to re-occur. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
31/08/2021 1140 hrs	Trip of Eraring main 500 kV bus	NSW	Faulty Equipment	No	Transgrid confirmed that the cause of trip was a faulty surge arrestor. The surge arrestor was subsequently isolated, and the busbar was returned to service. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
09/09/2021 1738 hrs	Trip of Gordon Power Station B 220 kV bus	TAS	Protection and control	Yes	The trip of Gordon B 220 kV bus also offloaded the Chapel Street – Gordon No. 2 220 kV line at the Gordon end only. TasNetworks confirmed that the Gordon B busbar "A" protection mal-operated due to the lightning strike on the Chapel Street – Gordon No. 2 circuit. AEMO reclassified the loss of any one of the 220 kV busbars at Gordon as credible when there is lightning in the vicinity of the Gordon substation. TasNetworks had reviewed the protection settings and updated the firmware of affected busbar protection relays at Gordon 220 kV substation on 26/11/2021. The reclassification was cancelled at 1530 hrs on 07/12/2021 as the cause had been identified and rectified.
12/09/2021 1822 hrs	Trip of Canowie 275 kV circuit breakers	SA	Protection and control	No	Canowie 275 kV substation's circuit breakers CB 6501 and CB 6502 tripped, resulting in disconnection of Canowie – Robertstown and Canowie – Mount Lock 275 kV lines at one end only. The simultaneous trip of the Canowie 275 kV substation circuit breakers was caused by the maloperation of the Canowie - Robertstown protection signalling equipment. AEMO identified that the system impact of this incident was similar to having a fault on the Canowie - Robertstown 275 kV line, which is an existing credible contingency event, therefore AEMO correctly identified that reclassification was not required. The event is still under review and findings and recommendations are subject to change.
12/09/2021 2215 hrs	Trip of Ross - Townsville South 7249 132 kV line and Kennedy Energy Park Wind Farm (WF)	QLD	Unknown	No	A transient fault on line 7249 caused it to trip and auto-reclose. There was no lightning, or weather, or fires reported in the vicinity. The cause of the Kennedy Energy Park WF trip was due to the undervoltage settings. With these settings, Kennedy Energy Park WF tripped as per design, so the event was not reclassified as credible. AEMO, Powerlink and Energy Queensland are continuing to investigate if any changes to protection settings are required.

Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
22/09/2021 1134 hrs	Trip of South East Substation No. 1 and No. 2 Static Var Compensators (SVCs)	SA	Protection and Control	Yes	The cause was initially unknown and AEMO reclassified the event as credible. ElectraNet subsequently reported the cause was failures in several auto changeover relays. With each SVC now fed from separate AC supplies, ElectraNet advised the event was unlikely to re-occur. The reclassification was cancelled at 1935 hrs on 22/09/2021 as the cause had been identified and rectified. The event is still under review and findings and recommendations are subject to change.
22/09/2021 1740 hrs	Trip of Torrens Island 66 kV East bus	SA	Protection and Control	No	The trip occurred during the restoration of the planned outage of Torrens Island Power Station A (TIPS A) – Torrens Island North (TINS) 2 66 kV line. The cause of the trip had been identified as a pre-triggered circuit breaker fail (CBF) timer signal on TIPS A - TINS 2 line. ElectraNet modified the CBF logic in the set X protection to include a current check requirement before the CBF time delay. AEMO did not reclassify the event as credible as the cause had been identified and rectified. The event is still under review and findings and recommendations are subject to change.
28/09/2021 1555 hrs	Trip of the Davenport - Bungama 275 kV line, the Davenport 275 kV West bus, the Davenport - Mount Lock 275 kV line and the Davenport No. 2 synchronous condenser.	SA	Lightning (for trip of Davenport - Bungama 275 kV line) Protection and Control (for trip of Davenport 275 kV West bus, Davenport No. 2 synchronous condenser and Davenport - Mount Lock 275 kV line)	Yes	The cause was initially unknown and AEMO reclassified the event as credible. A single-phase fault on the Bungama - Davenport 275 kV line was caused by a lightning strike. The protection systems associated with this line operated correctly and cleared the fault. The simultaneous trip of the Davenport 275 kV West bus, the Davenport No. 2 synchronous condenser, and the Davenport - Mount Lock 275 kV line was caused by an incorrect operation of circuit breaker fail (CBF) protection. The reclassification was cancelled at 2025 hrs on 28/09/2021 as the cause had been identified and isolated. The event is still under review and findings and recommendations are subject to change.
28/09/2021 2233 hrs	Trip of Broken Hill - Silverton X6 220 kV line, Silverton Wind Farm (WF) and Broken Hill Solar Farm (SF)	NSW	Protection and Control	No	Transgrid identified the cause of the trip as the mal-operation of the Silverton Wind Farm Transfer Tripping Scheme (TTS) which monitors the Broken Hill – Buronga X2 220 kV line. Transgrid tested the Silverton Wind Farm TTS communication paths prior to returning the scheme to service. All communication paths were proven to be fully operational. AEMO did not reclassify the event as credible as the cause had been identified and rectified.
27/10/2021 1226 hrs	Trip of Wodonga – Dederang 330kV line at Wodonga end only	VIC	Human Error	No	The cause of this event was due to human error. AusNet advised that staff were working on a planned in-service protection work on Dederang No. 3 transformer and sent a remote trip to Wodonga. AEMO did not reclassify the event as credible as the cause had been identified and rectified. The event is still under review and findings and recommendations are subject to change.

Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
28/10/2021 0905 hrs	Trip of Tungkillo – Robertstown 275 kV line and Para – Robertstown 275 kV line	SA	Protection and Control	No	A lightning strike near to the Para – Robertstown (PARA - ROBT) 275 kV line caused a phase to ground fault on this circuit. The protection systems on the PARA - ROBT 275 kV line operated in line with their settings. The Directional Earth Fault (DEF) scheme in the Tungkillo – Robertstown (TUNG-ROBT) 275 kV line protection unexpectedly operated. ElectraNet had completed a detailed review of the DEF scheme and had modified the directional settings. During this incident the PARA-ROBT 275 kV line completed a successful single-phase auto-reclose (SPAR) operation, meaning this line remained in service throughout the incident. Simultaneously all three phases of the TUNG-ROBT 275 kV line tripped. AEMO did not reclassify the event as credible as this incident had the same system impact as a credible contingency event. The event is still under review and findings and recommendations are subject to change.

A4. Binding reclassification constraints, 1 May 2021 to 31 October 2021

Table 5 Reclassification constraints that bound, 1 May 2021 to 31 October 2021

Reclassification start time	Reclassification end time	Reclassified equipment	Constraint	Number of Dispatch Intervals binding
04/05/2021 2145 hrs	04/05/2021 2325 hrs	Liddell units 1, 2 and 4	F_I+LD_N-2_MG_R5	20
			F_I+LD_N-2_MG_R6	20
			F_I+LD_N-2_MG_R60	20
16/05/2021 1755 hrs	16/05/2021 1915 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T+FASH_N-2_RREG	8
			T_FASH_MAXGEN_1	16
28/05/2021 2040 hrs	28/05/2021 2140 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R60	2
			F_T+FASH_N-2_RREG	24
			T_T_FASH_1_N-2	12
			T_T_FASH_10_N-2	12
05/06/2021 1435 hrs	05/06/2021 1540 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T+FARE_N-2_RREG	12
			F_T+FARE_N-2_TG_R5	12
			F_T+FARE_N-2_TG_R6_1	3
			F_T+FARE_N-2_TG_R6_2	10
07/06/2021 1710 hrs	07/06/2021 2300 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T+FARE_N-2_TG_R5	3
			F_T+FARE_N-2_TG_R6_1	2
07/06/2021 1720 hrs	07/06/2021 2305 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	4

Reclassification start time	Reclassification end time	Reclassified equipment	Constraint	Number of Dispatch Intervals binding
			F_T+FASH_N-2_RREG	52
			F_T+FASH_N-2_TG_R5	2
			F_T+FASH_N-2_TG_R6_2	2
			T_T_FASH_1_N-2	25
			T_T_FASH_10_N-2	18
			T_T_FASH_2_N-2	42
12/06/2021 0235 hrs	12/06/2021 0335 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	T_T_FASH_1_N-2	8
			T_T_FASH_10_N-2	2
02/07/2021 2005 hrs	02/07/2021 2345 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T+FASH_N-2_RREG	6
			T_FASH_MAXGEN_1	1
25/07/2021 0500 hrs	25/07/2021 0705 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T+FARE_N-2_TG_R5	4
			F_T+FARE_N-2_TG_R6_1	2
			F_T+FARE_N-2_TG_R6_2	6
25/07/2021 0510 hrs	25/07/2021 0715 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T+FASH_N-2_TG_R5	4
			F_T+FASH_N-2_TG_R6_2	1
25/07/2021 1525 hrs	25/07/2021 1630 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	1
			F_T+FASH_N-2_RREG	24
28/07/2021 0735 hrs	28/07/2021 0940 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R5	3
			F_T++FARE_N-2_TG_R6	2
			F_T++FARE_N-2_TG_R60	2
			F_T+FARE_N-2_TG_R5	10
			F_T+FARE_N-2_TG_R6_1	3
			F_T+FARE_N-2_TG_R6_2	3

Reclassification start time	Reclassification end time	Reclassified equipment	Constraint	Number of Dispatch Intervals binding
28/07/2021 2240 hrs	28/07/2021 2350 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R6	1
28/07/2021 2255 hrs	28/07/2021 2350 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	5
			F_T++FASH_N-2_TG_R6	6
			F_T++FASH_N-2_TG_R60	10
			F_T+FASH_N-2_RREG	20
			T>T_FASH_2_N-2	5
29/07/2021 0625 hrs	29/07/2021 0825 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T+FASH_N-2_RREG	26
			T_FASH_MAXGEN_1	12
29/07/2021 1220 hrs	29/07/2021 1510 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T+FARE_N-2_TG_R5	7
			F_T+FARE_N-2_TG_R6_2	6
31/07/2021 1530 hrs	31/07/2021 1630 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T+FARE_N-2_TG_R5	2
			F_T+FARE_N-2_TG_R6_1	6
			F_T+FARE_N-2_TG_R6_2	1
15/08/2021 2130 hrs	15/08/2021 2305 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R5	1
			F_T++FARE_N-2_TG_R6	17
			F_T+FARE_N-2_RREG	1
15/08/2021 2140 hrs	15/08/2021 2310 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	13
			F_T++FASH_N-2_TG_R6	3
			F_T++FASH_N-2_TG_R60	15
			F_T+FASH_N-2_RREG	6
			T_FASH_MAXGEN_1	17
16/08/2021 0930 hrs	16/08/2021 1030 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R5	11
			F_T++FARE_N-2_TG_R6	9

Reclassification start time	Reclassification end time	Reclassified equipment	Constraint	Number of Dispatch Intervals binding
			F_T++FARE_N-2_TG_R60	11
21/08/2021 0350 hrs	21/08/2021 0910 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R6	11
21/08/2021 0415 hrs	21/08/2021 0915 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	4
			F_T++FASH_N-2_TG_R60	9
			F_T+FASH_N-2_RREG	10
			T_FASH_MAXGEN_1	49
			T>T_FASH_1_N-2	22
22/08/2021 2235 hrs	23/08/2021 0305 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R6	13
22/08/2021 2235 hrs	23/08/2021 0305 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	1
			F_T++FASH_N-2_TG_R60	18
			F_T+FASH_N-2_RREG	42
			T_FASH_MAXGEN_1	45
			T>T_FASH_1_N-2	4
18/09/2021 0320 hrs	18/09/2021 0420 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T+FARE_N-2_TG_R5	2
20/09/2021 0410 hrs	20/09/2021 0710 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R6	28
20/09/2021 0415 hrs	20/09/2021 0710 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	31
			F_T++FASH_N-2_TG_R60	27
			F_T+FASH_N-2_RREG	40
			T_FASH_MAXGEN_1	35
20/09/2021 1030 hrs	20/09/2021 1135 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R5	12
			F_T++FARE_N-2_TG_R6	12
			F_T++FARE_N-2_TG_R60	12
01/10/2021 1620 hrs	01/10/2021 2105 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	1

Reclassification start time	Reclassification end time	Reclassified equipment	Constraint	Number of Dispatch Intervals binding
			F_T++FASH_N-2_TG_R60	1
			F_T+FASH_N-2_RREG	14
			T_FASH_MAXGEN_1	43
			T>T_FASH_1_N-2	28
02/10/2021 1510 hrs	02/10/2021 1645 hrs	Farrell - Reece No. 1 and No. 2 220 kV lines	F_T++FARE_N-2_TG_R5	3
			F_T++FARE_N-2_TG_R6	10
			F_T++FARE_N-2_TG_R60	3
			F_T+FARE_N-2_TG_R5	5
			F_T+FARE_N-2_TG_R6_1	3
02/10/2021 1535 hrs	02/10/2021 1810 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	7
			F_T++FASH_N-2_TG_R60	7
			F_T+FASH_N-2_RREG	4
			F_T+FASH_N-2_TG_R5	11
			F_T+FASH_N-2_TG_R6_1	8
			F_T+FASH_N-2_TG_R6_2	6
			F_T+FASH_N-2_TG_R60	10
			T_FASH_MAXGEN_1	19
			T>T_FASH_1_N-2	22
09/10/2021 1315 hrs	09/10/2021 1545 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T+FASH_N-2_RREG	62
			F_T+FASH_N-2_TG_R5	31
			F_T+FASH_N-2_TG_R6_2	31
			F_T+FASH_N-2_TG_R60	20
			T_FASH_MAXGEN_1	31

Reclassification start time	Reclassification end time	Reclassified equipment	Constraint	Number of Dispatch Intervals binding
28/10/2021 1840 hrs	28/10/2021 2045 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T++FASH_N-2_TG_R5	20
			F_T++FASH_N-2_TG_R6	19
			F_T++FASH_N-2_TG_R60	7
			T_FASH_MAXGEN_1	1
29/10/2021 0445 hrs	29/10/2021 0550 hrs	Farrell – Sheffield No. 1 and No. 2 220 kV lines	F_T+FASH_N-2_TG_R5	2
			F_T+FASH_N-2_TG_R6_2	2