



REVIEW OF POWER SYSTEM RECLASSIFICATION EVENTS 1 MAY 2017 TO 31 OCTOBER 2017

FOR THE NATIONAL ELECTRICITY MARKET

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IMPORTANT NOTICE

Purpose

AEMO has prepared this report on its power system reclassification decisions in the National Electricity Market for the period 1 May to 31 October 2017 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 re-classify *non-credible contingency events* to *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 issue such a report every six months. This report covers the period from 1 May 2017 to 31 October 2017 (**reporting period**). The report:

1. Includes an explanation of how AEMO applied the criteria established in accordance with clause 4.2.3B for each of these decisions.
2. Includes AEMO's analysis of re-classification trends during the reporting period and its appraisal of the appropriateness and effectiveness 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.

2. OVERVIEW

In the reporting period, AEMO appropriately reclassified *non-credible contingency events* as *credible contingency events* based on the reclassification criteria contained in AEMO's Power System Security Guidelines SO_OP_3715¹ for bushfires, lightning or other reasons. AEMO notified *Market Participants*, via *Market Notices* (MNs)², of the reasons for reclassifying these *non-credible contingency events*.

There was a total number of 209 reclassification events in this reporting period compared to 166 reclassification events during the last winter reporting period.

3. AEMO'S ROLE

In general terms, the *power system* is operated such that it will remain in a *satisfactory operating state*³ for the loss of single element in the *transmission network*. 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 and will ensure contingency plans are in place to minimise impact on the *power system* following a *credible contingency event*.

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 elements*.
- The trip of *transmission plant* in a manner not considered likely (for example, a *transmission line* that trips at one end only).

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 A Market Notice is an email notification issued in real time by AEMO to market participants. Market Notices are also published on AEMO's website at: <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Market-notice-and-events>.

³ Refer to clause 4.2.2 of the NER.

⁴ Refer to clause 4.2.3 of the NER.



- The trip of multiple *generating units*.
- The trip of more than one *load* blocks in a *region* where the combined *load* lost exceeds what would normally be considered a *credible contingency event* in that *region*.

AEMO does not normally operate the *power system* such that it will remain in a *satisfactory operating state* following a *non-credible contingency event*, as the likelihood of this occurrence is low.

AEMO may reclassify a *non-credible contingency event* as a *credible contingency event* if the risk of this event impacting the *power system* is increased due to *abnormal conditions*. *Abnormal conditions* may include severe weather conditions, lightning, and bushfires⁵.

4. RECLASSIFICATION CRITERIA

AEMO has developed criteria for determining if 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. The reclassification criteria apply to:

- Bushfires.
- Lightning.
- Other events (such as pollution, protection and control issues, the occurrence of a *non-credible contingency event*).

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

5. RECLASSIFICATION EVENTS - 1 MAY 2017 TO 31 OCTOBER 2017

AEMO reclassified 209 events during the reporting period. Table 1 summarises these events. Refer to Appendix A for a complete list of events.

Table 1 Reclassification events for period 1 May 2017 to 31 October 2017

Criteria	Number of reclassification events	Incidence of contingency occurring during reclassification
Bushfires	2	0
Lightning	180	2
Other	27	1
Total for Period	209	3

AEMO correctly reclassified bushfires and lightning events using the reclassification criteria specified in Section 11.3 and Section 11.4 of SO_OP_3715 respectively.

There were 27 events reclassified under "other" criteria according to Section 11.5 and 11.6 of SO_OP_3715. These events were mainly reclassified due to either:

- Forecast abnormal weather conditions (such as severe weather warnings due to high wind), or
- A non-credible contingency occurred and AEMO considered there was a risk of reoccurrence at that time.

⁵ See clause 4.2.3A (a) of the NER.

⁶ See Table 5 in Section 11.4.2 of SO_OP_3715 Power System Security Guidelines.

Table 2 below provides the detail of all the events when an actual contingency occurred while it was reclassified.

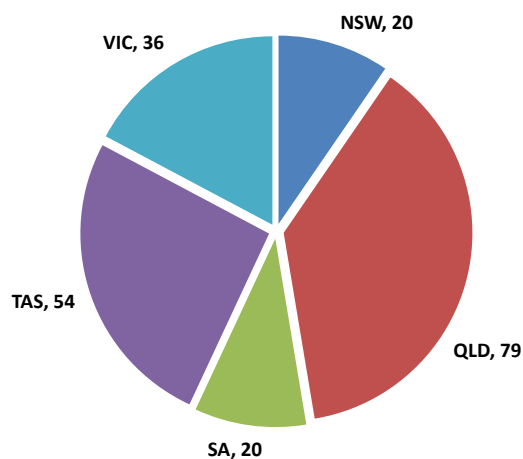
Table 2 Occurrence of an event while reclassified as credible

Start MN	Start / end reclassification	Reclassified equipment	Region	Reason	Date contingency occurred	Comments
58897	31/07/2017 1000 hrs – Current at time of publication	Oakland Hill and Mortons Lane Windfarms	VIC	Other	02/09/2017	Windfarms tripped previously due to not riding through a fault on 29/07/2017. This contingency reoccurred while reclassified as credible.
59239	22/09/2017 2200 hrs – 23/09/2017 0905 hrs	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	23/09/2017	Both lines tripped at 0444 hrs on 23/09/2017 while reclassified as a credible contingency.
59747	31/10/2017 1520 hrs – 31/10/2017 2025 hrs	Collinsville - Mackay tee Proserpine 7125 and 7126 132kV Lines	QLD	Lightning	31/10/2017	Both lines tripped at 1706 hrs on 31/10/2017 while reclassified as a credible contingency.

Refer to Appendix A for all reclassifications during reporting period.

Figure 1 shows the number of reclassification events per region for the reporting period.

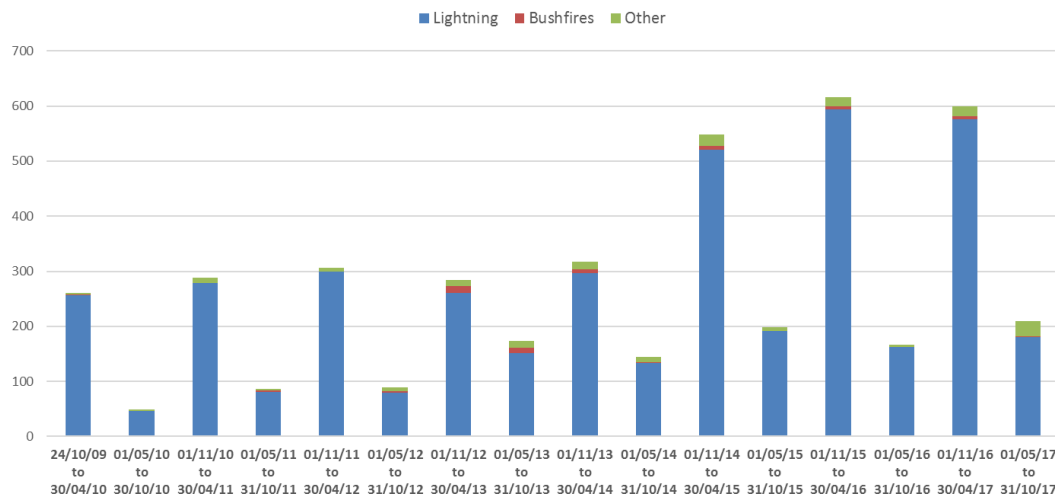
Figure 1 Reclassifications per region 1 May 2017 to 31 October 2017



The historical trend of reclassification events is shown in Figure 2. The number of reclassification events is very similar during this reporting period, compared to the previous winter. However, the number of reclassification events due to 'Other' reasons increased during this reporting period.

Appendix B lists all the reclassified elements and the number of time they were reclassified during this period.

Figure 2 Historical reclassification events, 2009-17



6. NON-CREDIBLE CONTINGENCY EVENTS 1 MAY 2017 TO 31 OCTOBER 2017

27 *non-credible contingency events* occurred while they were not reclassified during the reporting period. AEMO subsequently reclassified eight of these events as *credible contingency events* as there was a risk of the event reoccurring.

Appendix C lists all *non-credible contingency events* during the reporting period, and AEMO's assessment in determining whether to reclassify each event as credible. The rows highlighted in blue in Appendix C explain the contingency events corresponding to the reclassifications highlighted in blue in Appendix A.

7. MARKET IMPACT OF RECLASSIFICATION CONSTRAINTS

When AEMO reclassifies an event as a *credible contingency event*, the *power system* must be operated so it stays in a *satisfactory operating state* should the *credible contingency event* occur. One way to ensure this happens is to invoke constraint equations to manage the *power system* while an event is reclassified.

Appendix D lists the binding constraint equations during reclassification events over the reporting period. There were 18 reclassified events that resulted in binding constraint equations.

8. CONCLUSION

AEMO concluded that, during the reporting period:

1. AEMO correctly applied the reclassification criteria.
2. AEMO notified *Market Participants* of the reasons for reclassifying *non-credible contingency events*.
3. The number of reclassification events is comparable with historical winter trends.



APPENDIX A. RECLASSIFICATION EVENTS 1 MAY 2017 TO 31 OCTOBER 2017

Please note:

- **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. It is also used to provide detection and location of cloud to ground lightning strikes across the 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 events highlighted in blue below occurred after they were reclassified as a credible contingency. Further details on the reclassifications highlighted blue can be found in Appendix C.

Table 3 Reclassification events 1 May 2017 to 31 October 2017

Start MN	Start date	Actual end date	End MN	Reclassified equipment	Region	Reason	Source
58516	06/05/2017 1515 hrs	06/05/2017 1700 hrs	58518	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
58572	14/05/2017 1600 hrs	14/05/2017 2330 hrs	58574	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
58573	14/05/2017 1700 hrs	14/05/2017 2330 hrs	58575	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
58581	16/05/2017 0330 hrs	18/05/2017 1430 hrs	58583	Trip of the T98 Dingo 132kV feeder circuit breakers 4412, 4422 and the No.1 SVC 132kV circuit breaker 4812	QLD	Other	Reclassified after actual event
58584	16/05/2017 1800 hrs	Current at time of publication	-	The simultaneous trip of both Wivenhoe units in all modes of operation, generation, pump and synchronous compensator	QLD	Other	Reclassified after actual event
58588	18/05/2017 1000 hrs	18/05/2017 1530 hrs	58594	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
58617	23/05/2017 2300 hrs	24/05/2017 0530 hrs	58621	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
58618	23/05/2017 2300 hrs	24/05/2017 0530 hrs	58622	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
58619	24/05/2017 0220 hrs	24/05/2017 0510 hrs	58620	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
58632	27/05/2017 2135 hrs	28/06/2017 0125 hrs	58636	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
58633	27/05/2017 2135 hrs	28/05/2017 0125 hrs	58637	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
58634	27/05/2017 2330 hrs	28/05/2017 0415 hrs	58639	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
58701	06/06/2017 1615 hrs	08/06/2017 1515 hrs	58703	The simultaneous trip of a 220/66kV Transformer and the No.2 220kV bus at Brunswick Terminal Station	VIC	Other	Reclassified after actual event
58711	10/06/2017 0735 hrs	10/06/2017 1715 hrs	58714	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee South (9W8) 132kV Lines	NSW	Lightning	INDJI
58712	10/06/2017 0735 hrs	10/06/2017 1715 hrs	58713	Coffs Harbour to Raleigh (9W3) and Boambee Sth to Nambucca (9W7) 132 kV lines	NSW	Lightning	INDJI
58725	14/06/2017 1625 hrs	14/06/2017 1730 hrs	58728	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
58726	14/06/2017 1625 hrs	14/06/2017 1730 hrs	58729	Chalumbin - Turkinje 7165 and 7166 132 kV Lines	QLD	Lightning	INDJI
58769	01/07/2017 0800 hrs	01/07/2017 1600 hrs	58770	Trip of the Uranquinty to Wagga (9R1) 132kV Line at Uranquinty end only	NSW	Other	Reclassified after actual event
58795	05/07/2017 2045 hrs	05/07/2017 2320 hrs	58797	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
58796	05/07/2017 2120 hrs	05/07/2017 2320 hrs	58798	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
58802	07/07/2017 0510 hrs	07/07/2017 0700 hrs	58804	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
58803	07/07/2017 0510 hrs	07/07/2017 0700 hrs	58805	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
58820	15/07/2017 1540 hrs	15/07/2017 1810 hrs	58822	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
58823	15/07/2017 2245 hrs	16/07/2017 0500 hrs	58825	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
58824	15/07/2017 2310 hrs	16/07/2017 0500 hrs	58826	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
58831	17/07/2017 1900 hrs	18/07/2017 0000 hrs	58835	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
58832	17/07/2017 1900 hrs	18/07/2017 0000 hrs	58836	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
58833	17/07/2017 2015 hrs	18/07/2017 2010 hrs	58840	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275kV lines	SA	Other (high wind forecast)	BOM



Start MN	Start date	Actual end date	End MN	Reclassified equipment	Region	Reason	Source
58834	17/07/2017 2015 hrs	18/07/2017 1925 hrs	58838	Para - Templers West and Magill - Torrens Island A 275kV lines	SA	Other (high wind forecast)	BOM
58839	18/07/2017 1930 hrs	18/07/2017 2340 hrs	58842	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
58849	22/07/2017 2245 hrs	23/07/2017 0000 hrs	58852	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
58850	22/07/2017 2300 hrs	23/07/2017 0000 hrs	58853	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
58851	22/07/2017 2325 hrs	23/07/2017 0055 hrs	58854	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
58855	23/07/2017 0705 hrs	23/07/2017 0755 hrs	58856	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
58857	23/07/2017 0900 hrs	23/07/2017 0950 hrs	58858	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
58863	25/07/2017 2000 hrs	25/07/2017 2210 hrs	58866	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
58864	25/07/2017 2030 hrs	25/07/2017 2210 hrs	58867	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
58865	25/07/2017 2150 hrs	25/07/2017 2350 hrs	58868	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
58869	26/07/2017 0115 hrs	26/07/2017 0330 hrs	58871	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
58880	29/07/2017 0000 hrs	29/07/2017 1720 hrs	58885	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275kV lines	SA	Other	BOM
58881	29/07/2017 0000 hrs	29/07/2017 1720 hrs	58886	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other	BOM
58887	30/07/2017 0605 hrs	30/07/2017 0700 hrs	58889	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
58894	31/07/2017 0835 hrs	03/08/2017 1245 hrs	58930	South East 275 kV SVC1 and SVC 2 lines	SA	Other	Reclassified after actual event
58897	31/07/2017 1000 hrs	Current at time of publication	-	Oakland Hill Windfarm and Mortons Lane Windfarm	VIC	Other	Reclassified after actual event
58938	05/08/2017 1200 hrs	06/08/2017 2040 hrs	58962	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275kV lines	SA	Other	BOM
58939	05/08/2017 1200 hrs	06/08/2017 2040 hrs	58963	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other	BOM
58953	06/08/2017 1315 hrs	06/08/2017 1740 hrs	58959	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
58954	06/08/2017 1340 hrs	06/08/2017 1635 hrs	58957	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
58955	06/08/2017 1400 hrs	06/08/2017 1635 hrs	58958	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
58956	06/08/2017 1515 hrs	06/08/2017 1740 hrs	58960	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
58965	06/08/2017 2100 hrs	06/08/2017 2350 hrs	58970	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
58966	06/08/2017 2225 hrs	07/08/2017 0300 hrs	58972	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
58967	06/08/2017 2255 hrs	07/08/2017 0300 hrs	58973	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
58983	09/08/2017 2340 hrs	10/08/2017 0800 hrs	58986	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275kV lines	SA	Other (high wind forecast)	BOM
58984	09/08/2017 2340 hrs	10/08/2017 0800 hrs	58987	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other (high wind forecast)	BOM
58990	10/08/2017 1655 hrs	10/08/2017 2220 hrs	58996	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other (high wind forecast)	BOM
58991	10/08/2017 1905 hrs	10/08/2017 2005 hrs	58993	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
58992	10/08/2017 1910 hrs	10/08/2017 2005 hrs	58994	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
58998	11/08/2017 0545 hrs	11/08/2017 0655 hrs	58999	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59002	11/08/2017 1025 hrs	11/08/2017 1150 hrs	59005	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59003	11/08/2017 1055 hrs	11/08/2017 1150 hrs	59006	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59004	11/08/2017 1100 hrs	11/08/2017 1150 hrs	59007	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59010	11/08/2017 2130 hrs	12/08/2017 0045 hrs	59016	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
59011	11/08/2017 2240 hrs	11/08/2017 2355 hrs	59014	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59012	11/08/2017 2250 hrs	11/08/2017 2350 hrs	59013	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59025	14/08/2017 0815 hrs	14/08/2017 0940 hrs	59026	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59028	15/08/2017 1315 hrs	16/08/2017 0545 hrs	59040	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other	BOM



Start MN	Start date	Actual end date	End MN	Reclassified equipment	Region	Reason	Source
						(high wind forecast)	
59035	16/08/2017 0205 hrs	16/08/2017 0430 hrs	59037	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59035	16/08/2017 0330 hrs	16/08/2017 0430 hrs	59028	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
59045	16/08/2017 1615 hrs	18/08/2017 0540 hrs	59064	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other (high wind forecast)	BOM
59048	16/08/2017 1640 hrs	16/08/2017 1725 hrs	59050	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59047	16/08/2017 1640 hrs	16/08/2017 1725 hrs	59049	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59051	16/08/2017 2035 hrs	16/08/2017 2245 hrs	59052	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59053	17/08/2017 0110 hrs	17/08/2017 0545 hrs	59056	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59054	17/08/2017 0410 hrs	17/08/2017 0540 hrs	59055	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
59057	17/08/2017 1135 hrs	18/08/2017 0540 hrs	59065	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275kV lines	SA	Other (high wind forecast)	BOM
59058	17/08/2017 1705 hrs	17/08/2017 2000 hrs	59062	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59059	17/08/2017 1755 hrs	17/08/2017 1925 hrs	59061	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59085	24/08/2017 1405 hrs	24/08/2017 1730 hrs	59086	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59088	24/08/2017 2050 hrs	24/08/2017 2300 hrs	59090	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee South (9W8) 132kV Lines	NSW	Lightning	INDJI
59087	24/08/2017 2050 hrs	24/08/2017 2300 hrs	59089	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	INDJI
59125	03/09/2017 2025 hrs	03/09/2017 2115 hrs	59126	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59127	03/09/2017 2345 hrs	04/09/2017 0545 hrs	59135	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other (high wind forecast)	BOM
59128	03/09/2017 2355 hrs	04/09/2017 0050 hrs	59129	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
59130	04/09/2017 0050 hrs	04/09/2017 0225 hrs	59131	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59138	04/09/2017 1410 hrs	04/09/2017 1635 hrs	59140	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59139	04/09/2017 1410 hrs	04/09/2017 1635 hrs	59141	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59144	05/09/2017 0215 hrs	05/09/2017 0530 hrs	59147	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59150	05/09/2017 2040 hrs	05/09/2017 2200 hrs	59154	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59151	05/09/2017 2040 hrs	05/09/2017 2200 hrs	59153	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59184	13/09/2017 1445 hrs	13/09/2017 1600 hrs	59186	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
59183	13/09/2017 1450 hrs	13/09/2017 2355 hrs	59188	Liddell- Newcastle (81) and Liddell- Tomago (82) 330 kV Lines	NSW	Bushfires	INDJI
59185	13/09/2017 1540 hrs	13/09/2017 2005 hrs	59187	Tomago - Newcastle (95) and Liddell- Tomago (82) 330 kV Lines	NSW	Bushfires	INDJI
59196	16/09/2017 0000 hrs	16/09/2017 0110 hrs	59197	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59198	16/09/2017 0830 hrs	16/09/2017 1650 hrs	59200	South East 275/132 kV No. 1 Transformer and both the South East No.1 and No.2 275 kV SVCs	SA	Other	TNSP
59219	17/09/2017 2350 hrs	18/09/2017 0755 hrs	59222	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other (high wind forecast)	BOM
59221	18/09/2017 0750 hrs	25/09/2017 1200 hrs	59292	Sydney South - Ingleburn No. 78 330kV Line at Ingleburn end	NSW	Other	Reclassified after actual event
59229	22/09/2017 0415 hrs	22/09/2017 0505 hrs	59230	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59232	22/09/2017 1605 hrs	22/09/2017 1940 hrs	59236	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59237	22/09/2017 2120 hrs	22/09/2017 2220 hrs	59241	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59240	22/09/2017 2200 hrs	23/09/2017 0930 hrs	59249	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59238	22/09/2017 2200 hrs	23/09/2017 0905 hrs	59248	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59239	22/09/2017 2200 hrs	23/09/2017 0905 hrs	59247	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59243	23/09/2017 0250 hrs	23/09/2017 0930 hrs	59250	Chapel St - Liapootah No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59244	23/09/2017 0505 hrs	23/09/2017 0540 hrs	59245	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI



Start MN	Start date	Actual end date	End MN	Reclassified equipment	Region	Reason	Source
59262	23/09/2017 1630 hrs	23/09/2017 1905 hrs	59270	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59263	23/09/2017 1630 hrs	23/09/2017 1905 hrs	59271	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59264	23/09/2017 1650 hrs	23/09/2017 1910 hrs	59272	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59266	23/09/2017 1650 hrs	23/09/2017 1910 hrs	59273	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59265	23/09/2017 1655 hrs	23/09/2017 1925 hrs	59274	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59269	23/09/2017 1800 hrs	23/09/2017 2100 hrs	59275	Chapel St - Liapootah No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59279	24/09/2017 1105 hrs	24/09/2017 1210 hrs	59282	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59297	25/09/2017 1455 hrs	25/09/2017 1830 hrs	59301	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59296	25/09/2017 1455 hrs	25/09/2017 1600 hrs	59298	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59299	25/09/2017 1700 hrs	25/09/2017 1830 hrs	59300	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59306	27/09/2017 1315 hrs	27/09/2017 1520 hrs	59307	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59322	29/09/2017 1850 hrs	29/09/2017 2010 hrs	59323	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59324	29/09/2017 2030 hrs	29/09/2017 2345 hrs	59329	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	INDJI
59325	29/09/2017 2150 hrs	29/09/2017 2345 hrs	59327	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59326	29/09/2017 2205 hrs	29/09/2017 2345 hrs	59327	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59331	30/09/2017 0625 hrs	30/09/2017 0835 hrs	59332	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59334	02/10/2017 0005 hrs	02/10/2017 1240 hrs	59337	Moranbah Goonyella 7369 and 7370 132kV lines	QLD	Lightning	INDJI
59344	03/10/2017 1230 hrs	03/10/2017 1310 hrs	59347	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59349	03/10/2017 1320 hrs	03/10/2017 2120 hrs	59352	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59348	03/10/2017 1320 hrs	03/10/2017 2120 hrs	59351	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59358	05/10/2017 1330 hrs	05/10/2017 1445 hrs	59360	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59359	05/10/2017 1405 hrs	05/10/2017 1435 hrs	59361	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59365	06/10/2017 1755 hrs	07/10/2017 0015 hrs	59368	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59366	06/10/2017 1915 hrs	07/10/2017 0015 hrs	59369	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59370	07/10/2017 1050 hrs	07/10/2017 1515 hrs	59376	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	TNSP
59371	07/10/2017 1455 hrs	07/10/2017 1620 hrs	59377	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59384	08/10/2017 2010 hrs	09/10/2017 0415 hrs	59386	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59385	08/10/2017 2350 hrs	09/10/2017 0000 hrs	59387	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59388	09/10/2017 0640 hrs	09/10/2017 1045 hrs	59393	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59389	09/10/2017 0740 hrs	09/10/2017 1045 hrs	59392	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59397	09/10/2017 1720 hrs	09/10/2017 2145 hrs	59404	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59398	09/10/2017 1735 hrs	09/10/2017 2145 hrs	59403	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59420	10/10/2017 1930 hrs	10/10/2017 2050 hrs	59421	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59426	10/10/2017 2315 hrs	11/10/2017 1800 hrs	59457	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275kV lines	SA	Other (high wind forecast)	BOM
59427	10/10/2017 2315 hrs	11/10/2017 1500 hrs	59456	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other (high wind forecast)	BOM
59466	12/10/2017 0415 hrs	12/10/2017 1140 hrs	59470	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59483	13/10/2017 1345 hrs	14/10/2017 0325 hrs	59495	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59484	13/10/2017 1345 hrs	14/10/2017 0325 hrs	59496	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59487	13/10/2017 1745 hrs	14/10/2017 0325 hrs	59497	Moranbah Goonyella 7369 and 7370 132kV lines	QLD	Lightning	INDJI
59488	13/10/2017 2000 hrs	13/10/2017 2335 hrs	59491	Bouldercombe - Rockhampton 7108 and Bouldercombe - Egans Hill 7221 132 kV Lines	QLD	Lightning	INDJI



Start MN	Start date	Actual end date	End MN	Reclassified equipment	Region	Reason	Source
59492	14/10/2017 0200 hrs	14/10/2017 0515 hrs	59499	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee South (9W8) 132kV Lines	NSW	Lightning	INDJI
59493	14/10/2017 0200 hrs	14/10/2017 0515 hrs	59500	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	INDJI
59494	14/10/2017 0245 hrs	14/10/2017 0405 hrs	59498	7306 Collinsville – Stony Creek and 7121 Collinsville – Newlands 132kV Lines	QLD	Lightning	INDJI
59503	14/10/2017 1220 hrs	14/10/2017 2000 hrs	59508	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59501	14/10/2017 1220 hrs	14/10/2017 2000 hrs	59507	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59502	14/10/2017 1220 hrs	14/10/2017 1230 hrs	59504	Moranbah Goonyella 7369 and 7370 132kV lines	QLD	Lightning	INDJI
59513	15/10/2017 1315 hrs	16/10/2017 0445 hrs	59522	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
59514	15/10/2017 1330 hrs	15/10/2017 2350 hrs	59520	Collinsville North - Proserpine 7125 and Collinsville North - Stoney Creek 7306 132 kV Lines	QLD	Lightning	INDJI
59515	15/10/2017 1525 hrs	15/10/2017 1840 hrs	59517	Bouldercombe - Rockhampton 7108 and Bouldercombe - Egans Hill 7221 132 kV Lines	QLD	Lightning	INDJI
59516	15/10/2017 1700 hrs	15/10/2017 2350 hrs	59521	7306 Collinsville – Stony Creek and 7121 Collinsville – Newlands 132kV Lines	QLD	Lightning	INDJI
59519	15/10/2017 2000 hrs	16/10/2017 0445 hrs	59523	Chalumbin - Turkinje 7165 and 7166 132 kV Lines	QLD	Lightning	INDJI
59526	16/10/2017 1320 hrs	17/10/2017 0345 hrs	59534	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
59527	16/10/2017 1340 hrs	16/10/2017 2110 hrs	59532	Collinsville - Mackay tee Proserpine 7125 and 7126 132kV Lines	QLD	Lightning	INDJI
59528	16/10/2017 1340 hrs	16/10/2017 2110 hrs	59533	7306 Collinsville – Stony Creek and 7121 Collinsville – Newlands 132kV Lines	QLD	Lightning	INDJI
59530	16/10/2017 1620 hrs	17/10/2017 0345 hrs	59535	Chalumbin - Turkinje 7165 and 7166 132 kV Lines	QLD	Lightning	INDJI
59537	17/10/2017 1225 hrs	17/10/2017 1730 hrs	59542	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
59539	17/10/2017 1450 hrs	17/10/2017 1520 hrs	59541	Moranbah Goonyella 7369 and 7370 132kV lines	QLD	Lightning	INDJI
59544	18/10/2017 1110 hrs	18/10/2017 2000 hrs	59547	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
59545	18/10/2017 1625 hrs	19/10/2017 1235 hrs	59551	Chalumbin - Turkinje 7165 and 7166 132 kV Lines	QLD	Lightning	INDJI
59548	19/10/2017 0255 hrs	19/10/2017 0935 hrs	59549	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
59553	19/10/2017 1325 hrs	19/10/2017 2005 hrs	59557	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59552	19/10/2017 1325 hrs	19/10/2017 2005 hrs	59556	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59562	21/10/2017 1330 hrs	21/10/2017 1610 hrs	59563	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59570	23/10/2017 0250 hrs	23/10/2017 2100 hrs	59580	Bouldercombe - Rockhampton 7108 and Bouldercombe - Egans Hill 7221 132 kV Lines	QLD	Lightning	INDJI
59581	23/10/2017 1025 hrs	24/10/2017 0100 hrs	59584	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59582	23/10/2017 2050 hrs	23/10/2017 2355 hrs	59583	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59604	25/10/2017 2150 hrs	26/10/2017 0345 hrs	59612	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59605	25/10/2017 2310 hrs	26/10/2017 0220 hrs	59609	Coffs Harbour to Raleigh (9W3) and Boambee Sth to Nambucca (9W7) 132 kV lines	NSW	Lightning	INDJI
59606	25/10/2017 2310 hrs	26/10/2017 0220 hrs	59610	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee South (9W8) 132kV Lines	NSW	Lightning	INDJI
59615	26/10/2017 1115 hrs	26/10/2017 1800 hrs	59624	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59616	26/10/2017 1115 hrs	26/10/2017 1800 hrs	59625	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59619	26/10/2017 1500 hrs	26/10/2017 2115 hrs	59628	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59620	26/10/2017 1525 hrs	26/10/2017 2125 hrs	59629	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59621	26/10/2017 1655 hrs	26/10/2017 1940 hrs	59626	Coffs Harbour to Raleigh (9W3) and Boambee Sth to Nambucca (9W7) 132 kV lines	NSW	Lightning	INDJI
59622	26/10/2017 1655 hrs	26/10/2017 1940 hrs	59627	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee South (9W8) 132kV Lines	NSW	Lightning	INDJI
59652	28/10/2017 0355 hrs	28/10/2017 0500 hrs	59655	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	INDJI
59653	28/10/2017 0355 hrs	28/10/2017 0500 hrs	59656	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59651	28/10/2017 0355 hrs	28/10/2017 0500 hrs	59654	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	INDJI
59657	28/10/2017 1135 hrs	29/10/2017 0215 hrs	59685	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59662	28/10/2017 1230 hrs	29/10/2017 0215 hrs	59686	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59690	29/10/2017 1050 hrs	30/10/2017 0600 hrs	59705	Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275kV lines	SA	Other (high wind forecast)	BOM



Start MN	Start date	Actual end date	End MN	Reclassified equipment	Region	Reason	Source
59689	29/10/2017 1050 hrs	30/10/2017 0500 hrs	59704	Para -Templers West and Magill - Torrens Island A 275 kV Lines	SA	Other (high wind forecast)	BOM
59692	29/10/2017 1315 hrs	29/10/2017 2125 hrs	59703	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee South (9W8) 132kV Lines	NSW	Lightning	INDJI
59691	29/10/2017 1315 hrs	29/10/2017 2125 hrs	59702	Coffs Harbour to Raleigh (9W3) and Boambee Sth to Nambucca (9W7) 132 kV lines	NSW	Lightning	INDJI
59697	29/10/2017 1640 hrs	29/10/2017 1755 hrs	59698	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59700	29/10/2017 1920 hrs	29/10/2017 2120 hrs	59701	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
59708	30/10/2017 1215 hrs	30/10/2017 1715 hrs	59722	Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	VIC	Lightning	INDJI
59709	30/10/2017 1255 hrs	30/10/2017 1715 hrs	59723	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	INDJI
59714	30/10/2017 1425 hrs	30/10/2017 2350 hrs	59728	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
59715	30/10/2017 1425 hrs	30/10/2017 2350 hrs	59730	Chalumbin - Turkinje 7165 and 7166 132 kV Lines	QLD	Lightning	INDJI
59718	30/10/2017 1515 hrs	30/10/2017 1955 hrs	59727	Collinsville - Mackay tee Proserpine 7125 and 7126 132kV Lines	QLD	Lightning	INDJI
59717	30/10/2017 1515 hrs	30/10/2017 1800 hrs	59725	Moranbah Goonyella 7369 and 7370 132kV lines	QLD	Lightning	INDJI
59719	30/10/2017 1545 hrs	31/10/2017 0120 hrs	59731	Tarong - Chinchilla 7183 and 7168 132 kV Lines	QLD	Lightning	INDJI
59721	30/10/2017 1655 hrs	31/10/2017 0120 hrs	59732	Chinchilla - Columboola 7349 and 7350 132 kV lines	QLD	Lightning	INDJI
59724	30/10/2017 1725 hrs	30/10/2017 2120 hrs	59729	Bouldercombe - Rockhampton 7108 and Bouldercombe - Egans Hill 7221 132 kV Lines	QLD	Lightning	INDJI
59733	31/10/2017 0135 hrs	31/10/2017 0325 hrs	59737	Coffs Harbour to Raleigh (9W3) and Boambee Sth to Nambucca (9W7) 132 kV lines	NSW	Lightning	INDJI
59734	31/10/2017 0135 hrs	31/10/2017 0325 hrs	59738	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee South (9W8) 132kV Lines	NSW	Lightning	INDJI
59735	31/10/2017 0230 hrs	31/10/2017 0320 hrs	59736	Bouldercombe - Rockhampton 7108 and Bouldercombe - Egans Hill 7221 132 kV Lines	QLD	Lightning	INDJI
59741	31/10/2017 1330 hrs	31/10/2017 1945 hrs	59753	Moranbah Goonyella 7369 and 7370 132kV lines	QLD	Lightning	INDJI
59742	31/10/2017 1355 hrs	31/10/2017 1425 hrs	59744	7306 Collinsville – Stony Creek and 7121 Collinsville – Newlands 132kV Lines	QLD	Lightning	INDJI
59747	31/10/2017 1520 hrs	31/10/2017 2025 hrs	59754	Collinsville - Mackay tee Proserpine 7125 and 7126 132kV Lines	QLD	Lightning	INDJI
59749	31/10/2017 1625 hrs	01/11/2017 0130 hrs	59757	Chalumbin - Turkinje 7165 and 7166 132 kV Lines	QLD	Lightning	INDJI
59750	31/10/2017 1705 hrs	01/11/2017 0130 hrs	59758	Ross - Chalumbin 857 and 858 275 kV Lines	QLD	Lightning	INDJI
59752	31/10/2017 1820 hrs	13/11/2017 1245 hrs	59891	Mackay - Pioneer Valley 132 kV 7451 line and no. 3 transformer	QLD	Other	Reclassified after actual event



APPENDIX B. NUMBER OF TIMES RECLASSIFICATION EVENTS OCCURRED ON EACH ELEMENT

Table 4 Number of times reclassification events occurred on each element

Element	Number of times reclassified			
	Bushfires	Lightning	Other	Total
7306 Collinsville – Stony Creek and 7121 Collinsville – Newlands 132kV Lines	-	4	-	4
Bouldercombe - Rockhampton 7108 and Bouldercombe - Egans Hill 7221 132 kV Lines	-	5	-	5
Brinkworth - Davenport, Brinkworth - Templers West and Para - Templers West 275kV lines	-	-	7	7
Chalumbin - Turkinje 7165 and 7166 132 kV Lines	-	6	-	6
Chapel St - Liapootah No. 1 and No. 2 220kV lines	-	2	-	2
Chinchilla - Columboola 7349 and 7350 132 kV lines	-	19	-	19
Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	-	7	-	7
Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee South (9W8) 132kV Lines	-	7	-	7
Collinsville - Mackay tee Proserpine 7125 and 7126 132kV Lines	-	3	-	3
Collinsville North - Proserpine 7125 and Collinsville North - Stoney Creek 7306 132 kV Lines	-	1	-	1
Dederang - Glenrowan No. 1 and No. 3 220 kV Lines	-	18	-	18
Eildon - Mt Beauty No. 1 and No. 2 220kV lines	-	16	-	16
Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	-	21	-	21
Farrell - Sheffield No. 1 and No. 2 220kV lines	-	10	-	10
Farrell Reece No. 1 and No. 2 220kV lines	-	12	-	12
Liddell - Newcastle (81) and Liddell - Tomago (82) 330 kV Lines	1	-	-	1
Mackay - Pioneer Valley 132 kV 7451 line and no. 3 transformer	-	-	1	1
Moranbah Goonyella 7369 and 7370 132kV lines	-	6	-	6
Norwood - Scottsdale - Derby 110kV Line and Norwood - Scottsdale 110kV Line	-	11	-	11
Oakland Hill Windfarm and Mortons Lane Windfarm	-	-	1	1
Para - Templers West and Magill - Torrens Island A 275kV lines	-	-	11	11
Ross - Chalumbin 857 and 858 275 kV Lines	-	10	-	10
South East 275 kV SVC1 and SVC 2 lines	-	-	1	1
South East 275/132 kV No. 1 Transformer and both the South East No.1 and No.2 275 kV SVCs	-	-	1	1
Sydney South - Ingleburn No. 78 330kV Line at Ingleburn end	-	-	1	1
Tarong - Chinchilla 7183 and 7168 132 kV Lines	-	22	-	22
The simultaneous trip of a 220/66kV Transformer and the No.2 220kV bus at Brunswick Terminal Station	-	-	1	1
The simultaneous trip of both Wivenhoe units in all modes of operation, generator, pump and synchronous compensator	-	-	1	1
Tomago - Newcastle (95) and Liddell- Tomago (82) 330 kV Lines	1	-	-	1
Trip of the T98 Dingo 132kV feeder circuit breakers 4412, 4422 and the No.1 SVC 132kV circuit breaker 4812	-	-	1	1
Trip of the Uranquinty to Wagga (9R1) 132kV Line at Uranquinty end only	-	-	1	1



APPENDIX C. NON-CREDIBLE CONTINGENCY EVENTS 1 MAY 2017 TO 31 OCTOBER 2017

Table 5 Non-credible contingency events 1 May 2017 to 31 October 2017

Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
03/05/2017 1241 hrs	Trip of the Capital Windfarm 330 kV A and C Busbars	NSW	Operating Error	No	TransGrid advised AEMO the busbars were inadvertently tripped while performing planned maintenance on the tap changer of the Capital No1 330/33 kV transformer. TransGrid advised it was unlikely to reoccur.
07/05/2017 1318 hrs	Trip of the Colongra – Munmorah C1 and C3 330 kV lines	NSW	Protection and Control	No	AEMO initially did not have sufficient information to determine the cause of the near simultaneous trip of both C1 and C3 lines. However, no decision to reclassify was required until three or more generating units at Colongra PS were on line. There were no Colongra generating units on line at this time. On 9 May, TransGrid informed AEMO that the trip of both lines was caused by protection cables being deliberately cut by copper thieves.
16/05/2017 0232 hrs	Trip of the T98 Dingo 132 kV feeder circuit breakers 4412, 4422 and the #1 SVC 132 kV circuit breaker 4812	QLD	Unknown reason	Yes	AEMO initially reclassified the event as credible as the cause of multiple elements tripping was unknown. Reclassification was cancelled from 1430 hrs on 16/05/17 based on advice from Powerlink that the trip was caused by communications systems issues, which had been rectified.
18/05/2017 1347 hrs	Trip of the Keilor No. 3 220 kV Bus	VIC	Protection and Control	No	AusNet advised that the busbar tripped due to human error during secondary systems work. AusNet advised that the cause of the outage had been identified and was unlikely to reoccur.
25/05/2017 0924 hrs	Trip of the South Morang - Sydenham No.1 500 kV Line at the South Morang end only	VIC	Protection and Control	No	The cause of this events was identified as a faulty protection test switch and isolated while repairs were carried out. The repairs were completed and the protection returned to service.
28/05/2017 0756 hrs	Trip of the T65 Alligator Creek the No. 1 and No. 2 132 kV Busbars	QLD	Transmission Equipment failure	No	Powerlink identified the cause of the trip was a faulty CT on the bus side of CB 4112. CB 4112 was isolated and the event was unlikely to reoccur.
31/05/2017 1116 hrs	Trip of the Loy Yang Power Station No. 1 and No. 3 500 kV Busbars	VIC	Transmission Equipment failure	No	AusNet advised AEMO that the event was caused by the slow operation of a CB. The CB was isolated and the event was unlikely to reoccur.
03/06/2017 2010 hrs	Trip of the Vales Point Power Station Gen 330 kV Busbar	NSW	Operating Error	No	Transgrid advised AEMO that the inadvertent tripping was caused by maintenance personnel while working on the planned outage of Vales Point 2 330/132kV transformer. The event was unlikely to reoccur.
06/06/2017 1142 hrs	Trip of the Brunswick No. 2 220 kV bus	VIC	Unknown reason	Yes	AusNet Services informed AEMO the cause of the 2 Bus trip was associated with a protection issue on the 220 kV/66 kV No. 2 Transformer, which was resolved prior to returning the busbar to service. However, AusNet Services were investigating if a similar protection issue existed with the No. 1 or No. 3 Transformer. Hence, until AEMO received more information, the simultaneous trip of a 220 kV/66 kV Transformer and the No. 2 220 kV bus at Brunswick Terminal Station was declared a credible contingency event. AusNet advised on 08/06/2017 that following further investigation, the event was unlikely to reoccur.
11/06/2017 0544 hrs	Trip of the Glen Innes to Tenterfield (96R) 132 kV Line at Glen Innes end only	NSW	Unknown reason	No	Upon further investigation, it was identified that the line opened at both ends, which is a credible contingency.
28/06/2017 1810 hrs	Trip of the Capital Windfarm 330 kV A and C Busbars	NSW	Protection and Control	No	TransGrid advised AEMO the busbars were inadvertently tripped while reinstating the Woodlawn 330/33 kV transformer following maintenance on its associated Neutral Earthing Transformer. TransGrid advised it was unlikely to reoccur.
01/07/2017 0602 hrs	Trip of the Uranquinty to Wagga (9R1) 132 kV Line at the Uranquinty end only	NSW	Unknown reason	Yes	The cause of this event was not immediately identified so the event was reclassified as credible. TransGrid found a faulty protection card which was replaced and the reclassification was cancelled.
27/07/2017 0758 hrs	Trip of the Vales Point Power Station Main 330 kV Busbar	NSW	Operating Error	No	Transgrid advise that cause of trip was due to inadvertent cutting of secondary cable and was unlikely to reoccur.
29/07/2017 0439 hrs	Trip of the Oakland Hill Windfarm and Mortons Lane Windfarm	VIC	Unknown reason	Yes	The exact cause of both wind farms tripping was unknown and AEMO was not satisfied that a similar event was unlikely. Event remains reclassified at the time of report publication.
31/07/2017 0726 hrs	Trip of the South East 275 kV SVC1 and SVC2	SA	Protection and Control	Yes	At the time the SVCs were returned to service, ElectraNet was unable to confirm the exact cause of the event or if the event is unlikely to re-occur. Reclassification cancelled on 03/08/2017 when ElectraNet advised the trip of both SVCs was caused by a faulty protection relay, which had now been replaced.



Date of contingency	Description	Region	Primary cause	Was the contingency then reclassified?	Comments
31/07/2017 1105 hrs	Trip of the H035 Strathmore No. 1 and No. 2 132 kV busbars	QLD	Protection and Control	No	Powerlink informed AEMO the cause of the trip had been identified as a faulty bus protection relay. The relay was isolated and Powerlink informed AEMO a reoccurrence was unlikely.
31/07/2017 1316 hrs	Trip of the Heywood - Mortlake - APD No. 2 500 kV Line, APD Potline 1 and 2 and South East SVC 1 and SVC 2	VIC/SA	Protection and Control	Yes	The trip of both South East SVCs was reclassified as credible earlier that day. Following this event, the reclassification was modified to consider the loss of the SVCs for any disturbance in the vicinity of the South East substation as credible. Electranet informed AEMO that the faulty relay has been replaced on 3 August. The reclassification has since been removed.
19/08/2017 0507 hrs	Trip of the H23 Upper Kedron to T30 Ashgrove West No. 7256 110 kV transmission line at the Upper Kedron end only	QLD	Protection and Control	No	Powerlink confirmed the event occurred due to a spurious protection alarm. Issue was resolved and unlikely to reoccur.
22/08/2017 1837 hrs	Trip of the Uranquinty-Wagga 132 kV Line at the Uranquinty end only	NSW	Protection and Control	No	TransGrid informed AEMO the incident was caused by inadvertent protection operation. The faulty protection was isolated prior to returning the line to service.
24/08/2017 1739 hrs	Trip of the T48 Tully 132 kV No. 1 Bus	QLD	Operating Error	No	Powerlink advised AEMO that this event was caused by staff inadvertently operating protection while working at the substation.
25/08/2017 0954 hrs	Trip of the T48 Tully 132 kV No. 1 Bus	QLD	Operating Error	No	Powerlink advised AEMO that this event was caused by staff inadvertently operating protection while working at the substation. Powerlink confirmed on 31/08/2017 that the non-credible contingencies on 24 and 25 August were caused by the same event. Protection modifications were completed to mitigate the risk going forward.
01/09/2017 1237 hrs	Trip of the Rowville to South Morang No 3 500 kV line at the Rowville end and the South Morang to Keilor No 1 500kV Line at the South Morang end only	VIC	Operating Error	No	AusNet advised the cause of this event was determined as inadvertent tripping during planned in-service work. AusNet advised that it was unlikely to reoccur.
18/09/2017 0655 hrs	Trip of the Sydney South - Ingleburn No. 78 330 kV transmission line at the Ingleburn end only	NSW	Unknown reason	Yes	Based on advice from TransGrid, AEMO were not satisfied that the event was unlikely to reoccur. On 25/09/2017, TransGrid confirmed that the cause was due to inadvertent protection operation, which had been replaced.
09/10/2017 1153 hrs	Trip of the Davenport 275 kV West Bus	SA	Operating Error	No	ElectraNet advised the incident was caused by inadvertent tripping by staff working on site.
24/10/2017 1511 hrs	Trip of the Mudgeeraba No. 2 and No. 4 110 kV Busbars	QLD	Transmission Equipment failure	No	Powerlink advised this event was caused by a failure of CB 78392. The failed CB was isolated and the event was unlikely to reoccur.
24/10/2017 1812 hrs	Trip of the Heywood - Mortlake - APD No. 2 500 kV Line and the APD No. 1 500 kV Bus	VIC	Protection and Control	No	AusNet advised that line protection had been replaced and protection relays tested to ensure reoccurrence of this event is unlikely.
31/10/2017 1817 hrs	Trip of the T38 Mackay - T141 Pioneer Valley No. 7451 132kV line and the T38 Mackay No. 3 132/33 kv Transformer	QLD	Unknown reason	Yes	The cause of the event was unable to be determined, hence was reclassified. On 13/11/2017, Powerlink advised that the cause had been identified and resolved and the reclassification cancelled.



APPENDIX D. MARKET IMPACT OF RECLASSIFICATION CONSTRAINTS

1 MAY 2017 TO 31 OCTOBER 2017

Table 6 Reclassification constraints that bound over the reporting period

Reclassification start time	Reclassification end time	Reclassified equipment	Constraint	Number of Dispatch Intervals binding
24/05/2017 0225 hrs	24/05/2017 0510 hrs	Farrell Sheffield No. 1 and No 2 220 kV Lines	F_T+FASH_N-2_TG_R6_1	21
			F_T+FASH_N-2_RREG	62
27/05/2017 2135 hrs	27/05/2017 2140 hrs	Farrell Sheffield No. 1 and No 2 220 kV Lines	F_T+FASH_N-2_RREG	2
27/05/2017 2300 hrs	28/05/2017 0125 hrs	Farrell - Sheffield No. 1 and No. 2 220kV lines	F_T+FASH_N-2_RREG	46
			F_T+FASH_N-2_TG_R6_1	1
22/07/2017 2245 hrs	23/07/2017 0000 hrs	Farrell Reece No. 1 and No. 2 220kV lines	F_T+FARE_N-2_RREG	11
			F_T++FARE_N-2_TG_R6	8
22/07/2017 2325 hrs	23/07/2017 0055 hrs	Farrell - Sheffield No. 1 and No. 2 220kV lines	T>T_FASH_3_N-2	16
10/08/2017 1905 hrs	11/08/2017 1105 hrs	Farrell Reece No. 1 and No. 2 220kV lines	F_T++FARE_N-2_TG_R6	19
			F_T++FARE_N-2_TG_R60	15
			F_T+FARE_N-2_RREG	4
			F_T++FARE_N-2_TG_R5	2
11/08/2017 1100 hrs	11/08/2017 1150 hrs	Farrell - Sheffield No. 1 and No. 2 220kV lines	T>T_FASH_1_N-2	2
			F_T++FASH_N-2_TG_R6	8
			F_T++FASH_N-2_TG_R5	3
			F_T++FASH_N-2_TG_R60	5
			F_T+FASH_N-2_TG_R6_1	1
11/08/2017 2240 hrs	11/08/2017 2355 hrs	Farrell - Sheffield No. 1 and No. 2 220kV lines	T>T_FASH_1_N-2	10
			T_FASH_MAXGEN_1	10
			F_T++FASH_N-2_TG_R6	5
			F_T++FASH_N-2_TG_R60	1
			F_T++FASH_N-2_TG_R5	4
11/08/2017 2300 hrs	11/08/2017 2350 hrs	Farrell Reece No. 1 and No. 2 220kV lines	F_T++FARE_N-2_TG_R6	10
			F_T++FARE_N-2_TG_R5	4
16/08/2017 0210 hrs	16/08/2017 0430 hrs	Farrell - Sheffield No. 1 and No. 2 220kV lines	F_T+FASH_N-2_RREG	18
			F_T++FASH_N-2_TG_R60	24
			F_T++FASH_N-2_TG_R6	29
			T_FASH_MAXGEN_1	28
16/08/2017 1640 hrs	16/08/2017 1720 hrs	Farrell Reece No. 1 and No. 2 220kV lines	F_T+FARE_N-2_TG_R6_1	8
			F_T+FARE_N-2_TG_R5	1
22/09/2017 2205 hrs	23/09/2017 0930 hrs	Farrell - Sheffield No. 1 and No. 2 220kV lines	T_FASH_MAXGEN_1	135
			F_T++FASH_N-2_TG_R60	5
23/09/2017 1655 hrs	23/09/2017 1745 hrs	Farrell - Sheffield No. 1 and No. 2 220kV lines	T>T_FASH_1_N-2	24
			F_T++FASH_N-2_TG_R60	18



Reclassification start time	Reclassification end time	Reclassified equipment	Constraint	Number of Dispatch Intervals binding
			F_T++FASH_N-2_TG_R5	10
			T_FASH_MAXGEN_1	2
			F_T++FASH_N-2_TG_R6	1
03/10/2017 0240 hrs	05/10/2017 0505 hrs	Loss of Both Wivenhoe units	F_I+WIP_N-2_ML_L6	56
03/10/2017 0240 hrs	05/10/2017 0505 hrs	Farrell - Sheffield No. 1 and No. 2 220kV lines	F_T++FASH_N-2_TG_R5	4
			F_T++FASH_N-2_TG_R60	6
			T>T_FASH_1_N-2	12
			F_T++FASH_N-2_TG_R6	3
11/10/2017 0140 hrs	11/10/2017 0505 hrs	Loss of Both Wivenhoe units	F_I+WIP_N-2_ML_L6	41
12/10/2017 0140 hrs	12/10/2017 0510 hrs	Loss of Both Wivenhoe units	F_I+WIP_N-2_ML_L6	42
13/10/2017 0040 hrs	13/10/2017 0445 hrs	Loss of Both Wivenhoe units	F_I+WIP_N-2_ML_L6	49