



REVIEW OF POWER SYSTEM RECLASSIFICATION EVENTS 1 MAY 2015 TO 31 OCTOBER 2015

FOR THE NATIONAL ELECTRICITY MARKET

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IMPORTANT NOTICE

Purpose

AEMO has prepared this document to review power system reclassification events in the National Electricity Market for the period 1 May 2015 to 31 October 2015.

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1. INTRODUCTION

This report sets out AEMO's reasons for all decisions to re-classify *non-credible contingency events* to *credible contingency events* under National electricity Rules (NER) clause 4.2.3A(i).

AEMO is required to issue such a report every six months. This report covers the period from 1 May 2015 to 31 October 2015.

In accordance with 4.2.3A(i) the report:

- (1) Must include an explanation of how AEMO applied the criteria established in accordance with clause 4.2.3B for each of these decisions.
- (2) May also include AEMO's analysis of re-classification trends during the relevant 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

AEMO correctly applied the reclassification criteria from 1 May 2015 to 31 October 2015. AEMO appropriately reclassified *non-credible contingency events* as credible based on the established criteria in SO_OP3715¹ for bushfires, lightning or other reasons. AEMO notified *Market Participants*, via *Market Notices*², of the reasons for reclassifying *non-credible contingency events*.

The number of reclassification events in this reporting period has increased compared with historical winter trends. The established criteria remains appropriate for reclassifying *non-credible contingency events*.

3. AEMO'S ROLE

The power system is operated such that it will remain in a *satisfactory operating state*³ for the loss of single elements 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 element.

¹ http://aemo.com.au/Electricity/Policies-and-Procedures/System-Operating-Procedures/Power-System-Security-Guidelines-SO_OP3715.

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 web site.

³ Refer to NER 4.2.2

⁴ Refer to NER 4.2.3

- The trip of *transmission plant* in a manner not considered likely (e.g. a *transmission line* that trips at one end only).
- The trip of multiple *generating units*.
- The trip of more than one *load* block where the combined *load* lost exceeds that at which 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, 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 bushfires.

4. RECLASSIFICATION CRITERIA

AEMO has developed criteria for determining if a *non-credible contingency event* should be reclassified as credible. This criteria is defined in AEMO's Power System Security Guidelines SO_OP3715 as per NER Clause 4.2.3B. AEMO has developed criteria for reclassifying events due to:

- Bushfires.
- Lightning.
- Other (pollution, protection and control issues, advice from Participants).

The following section analyses how AEMO reclassified *non-credible contingency events* based on this criteria for 1 May 2015 to 31 October 2015.

4.1 Review of reclassification criteria

AEMO is currently reviewing the reclassification criteria relating to lightning and bushfires, details of these reviews are on the AEMO website⁵.

5. RECLASSIFICATION EVENTS 1 MAY 2015 TO 31 OCTOBER 2015

AEMO reclassified 198 events during the reporting period 1 May 2015 to 31 October 2015. Table 1 summarises these events. Refer to Appendix A for a complete list of events. In one event, of these 198 reclassifications, the contingency occurred while it was reclassified.

Table 1 Reclassification events for period 1 May 2015 to 31 October 2015

Criteria	Number of Recl Class Events	Incidence of contingency occurring during reclassification
Bushfires	0	0
Lightning	191	1
Other	7	0
Total for Period	198	1

⁵ [AEMO Communications 29 February 2016](#)

AEMO reclassified events due to bushfires using the established criteria specified in SO_OP3715. There were no reclassifications due to bushfires in this period.

AEMO reclassified events due to lightning using the established criteria specified in SO_OP3715. There were 191 reclassifications due to lightning in this reporting period. During one of these reclassifications the contingency event occurred as shown in Table 2.

Table 2 Occurrence of an event while reclassified as credible

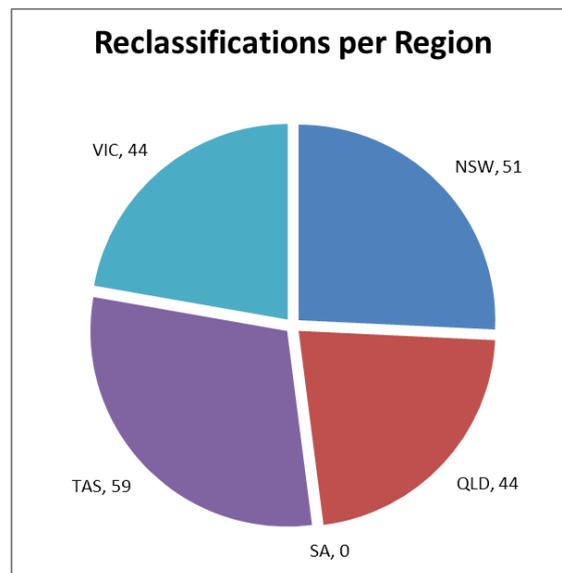
Start MN	Start Reclassification	Reclassified Equipment	Region	Reason	Date contingency occurred	Comments
49458	02/08/2015 10:30	Trip of Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	02/08/2015	Both lines tripped due to lightning after AEMO reclassified the event as credible

During the reporting period there were seven reclassifications for other reasons. These events were reclassified due to abnormal weather conditions, advice from Participants or, that the non-credible contingencies had occurred and AEMO considered there was a risk of reoccurrence.

5.1 Reclassification Trends

Figure 1 shows the number of reclassification events per region from 1 May 2015 to 31 October 2015. During this period, there were no reclassification events in South Australia.

Figure 1 Reclassifications per region 1 May 2015 to 31 October 2015



The historical trend of reclassification events is shown in Figure 2. The number of reclassification events has increased during this reporting period as compared to the previous winter due to increased lightning reclassifications.

Five sets of *transmission lines* tripped due to lightning before being reclassified by AEMO. These lines were not on the list of vulnerable transmission lines and consequently were not normally re-classified in the presence of lightning. As a result of these lines tripping, AEMO subsequently added them to the lightning vulnerable transmission line list (see Table 3) because they fulfilled the established criteria specified in SO_OP3715. There have been 58 reclassification events on these lines since they were

added to the lightning vulnerable transmission line list. The *contingency event* did not occur during any of these 58 reclassifications.

Figure 2 Historical Reclassification events

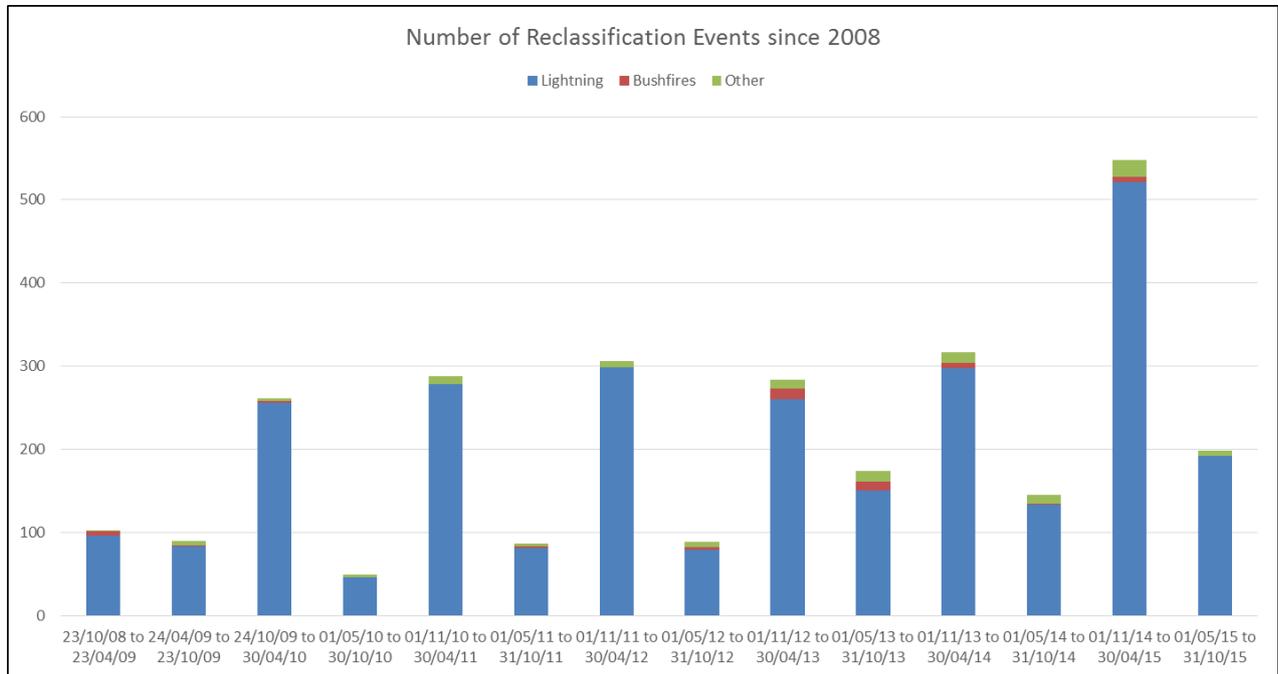


Table 3 Transmission line added to the lightning vulnerable transmission line list

Transmission line added to the lightning vulnerable transmission line list	Region	Number of Reclassification Events	Number of contingency occurring during reclassification
Chinchilla – Columboola 7349 and 7350 132 kV lines	QLD	4	0
Chalumbin – Turkinje 7165 and 7166 132 kV lines	QLD	2	0
Ross – Chalumbin 857 and 858 275 kV lines	QLD	3	0
Coffs Harbour – Raleigh (9W3) and Coffs Harbour – Boambee South (9W8) 132 kV lines	NSW	26	0
Coffs Harbour – Raleigh (9W3) and Boambee South – Nambucca (9W7) 132 kV lines	NSW	23	0
Total for Period		58	0

6. NON-CREDIBLE CONTINGENCY EVENTS 1 MAY 2015 TO 31 OCTOBER 2015

There were 14 *non-credible contingency events* in the *National Electricity Market* during the reporting period 1 May 2015 to 31 October 2015. AEMO subsequently reclassified four of these as credible contingencies as there was a risk of the event reoccurring.

Appendix B lists all *non-credible contingency events* during the reporting period and AEMO's assessment in determining whether to reclassify the event as credible. The rows highlighted blue in

Appendix B explains the reclassification events corresponding to the reclassifications highlighted blue in Appendix A.

7. EVENTS RECLASSIFIED IN PREVIOUS REPORTING PERIOD

Table 4 shows four *non-credible contingency events* that were reclassified as credible contingencies in the previous reporting period 1 November 2014 to 30 April 2015⁶. AEMO cancelled these reclassifications in the current reporting period as AEMO assessment showed no increased risk of *non-credible contingency events* occurring in relation to this equipment.

Table 4 Events reclassified in previous reporting period but cancelled in this reporting period

Start MN	Start Reclassification	End Reclassification	Reclassified Equipment	Region	Reason
47434	29/12/2014 17:00	22/05/2015 17:00	Trip of Mt Barker No.2 132/66 kV Transformer and Mt Barker - Mobilong 132 kV line	TAS	Other
47857	23/01/2015 18:45	16/07/2015 16:00	Trip of Mount Beauty - Dartmouth PS 220 kV line and Eildon No. 2 Generator	VIC	Lightning
48167	13/02/2015 19:05	20/05/2015 13:00	Trip of APD - Heywood - Tarrone No. 1 500 kV line and Moorabool - Tarrone No. 1 500 kV line	VIC	Other
48755	20/04/2015 13:00	04/05/2015 12:30	Trip of all generators at Darling Downs Power Station	QLD	Other

8. MARKET IMPACT OF RECLASSIFICATION CONSTRAINTS

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

A binding constraint indicates that the constraint, and in this case the reclassification, has impacted the market. Appendix C lists the binding constraints during reclassification events over the reporting period.

During this reporting period 16 reclassified events resulted in binding constraints on the power system.

9. CONCLUSION

AEMO concluded that:

- (1) AEMO correctly applied the reclassification criteria from 1 May 2015 to 31 October 2015.

⁶ Review of Power System Reclassification Events – 1/11/2014-30/4/2015 report: <http://www.aemo.com.au/Electricity/Resources/Reports-and-Documents/Power-System-Operating-Incident-Reports>



- (2) AEMO appropriately reclassified *non-credible contingency events* as credible based on the established criteria in SO_OP3715 for bushfires, lightning or other reasons.
- (3) AEMO notified *Market Participants* of the reasons for reclassifying *non-credible contingency events*.
- (4) The number of reclassification events in this reporting period have increased compared with historical winter trends.
- (5) AEMO is currently reviewing the reclassification criteria relating to lightning and bushfires.



APPENDIX A. RECLASSIFICATION EVENTS 1 MAY 2015 TO 31 OCTOBER 2015

Table 5 Reclassification Events 1 May 2015 to 31 October 2015

Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
48827	01/05/2015 01:45	01/05/2015 02:45	48829	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
48828	01/05/2015 01:45	01/05/2015 02:45	48830	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
48831	01/05/2015 03:35	01/05/2015 05:15	48832	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
48833	01/05/2015 07:10	01/05/2015 09:45	48857	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
48834	01/05/2015 07:25	01/05/2015 12:45	48860	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
48835	01/05/2015 07:25	01/05/2015 12:45	48859	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
48861	01/05/2015 13:55	01/05/2015 15:35	48864	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
48862	01/05/2015 13:55	01/05/2015 15:35	48865	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
48867	02/05/2015 03:45	02/05/2015 05:00	48871	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
48868	02/05/2015 03:45	02/05/2015 05:00	48870	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
48872	02/05/2015 22:00	02/05/2015 23:50	48874	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
48873	02/05/2015 22:00	02/05/2015 23:50	48875	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
48877	03/05/2015 23:25	03/05/2015 23:55	48878	Ross to Chalumbin 857 & 858 275 kV Transmission Lines	QLD	Lightning	GPATS
48894	05/05/2015 12:45	05/05/2015 13:40	48896	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48895	05/05/2015 13:40	05/05/2015 16:25	48902	Burnie Sheffield No. 2 110kV line and Paloona Sheffield 110kV line	TAS	Lightning	GPATS
48897	05/05/2015 14:00	05/05/2015 16:25	48901	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
48898	05/05/2015 14:15	05/05/2015 15:40	48900	Liapootah - Palmerston No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
48905	06/05/2015 08:40	06/05/2015 09:15	48906	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
48907	06/05/2015 09:25	06/05/2015 10:15	48909	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
48908	06/05/2015 09:30	06/05/2015 10:15	48910	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
48911	06/05/2015 09:30	06/05/2015 10:15	48912	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48917	06/05/2015 14:10	06/05/2015 14:45	48918	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48919	06/05/2015 15:55	06/05/2015 18:45	48921	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48924	06/05/2015 22:10	06/05/2015 23:55	48925	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48926	07/05/2015 00:10	07/05/2015 01:00	48927	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48928	07/05/2015 02:25	07/05/2015 03:00	48929	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48931	07/05/2015 05:40	07/05/2015 06:15	48932	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48953	12/05/2015 05:30	12/05/2015 07:00	48954	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48957	12/05/2015 07:55	12/05/2015 08:55	48958	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
48974	17/05/2015 21:30	11/06/2015 14:15	49158	Trip of the Columboola - Roma 7174 132 kV line at the Columboola end only	QLD	Other	Event occurred
48981	19/05/2015 05:20	19/05/2015 08:30	48984	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
48982	19/05/2015 05:55	19/05/2015 08:30	48983	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
48987	19/05/2015 13:15	19/05/2015 16:30	48989	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
48988	19/05/2015 14:00	19/05/2015 16:30	48990	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49037	28/05/2015 11:15	28/05/2015 12:05	49038	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
49039	28/05/2015 14:30	28/05/2015 18:10	49044	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49041	28/05/2015 15:40	28/05/2015 18:10	49043	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
49042	28/05/2015 17:20	28/05/2015 19:05	49045	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
49046	28/05/2015 19:05	28/05/2015 19:55	49047	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49048	28/05/2015 20:15	28/05/2015 21:35	49050	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49049	28/05/2015 21:30	28/05/2015 23:00	49051	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
49052	29/05/2015 04:05	29/05/2015 05:00	49053	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49067	31/05/2015 21:50	31/05/2015 22:30	49069	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49109	07/06/2015 17:20	07/06/2015 18:15	49111	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49110	07/06/2015 17:40	07/06/2015 18:15	49112	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49119	09/06/2015 00:30	09/06/2015 01:30	49120	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49121	09/06/2015 02:05	09/06/2015 03:00	49123	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49122	09/06/2015 02:30	09/06/2015 03:00	49125	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49204	25/06/2015 13:20	26/06/2015 11:00	49211	Trip of Clare South - Townsville South (7130) 132 kV line and Strathmore No.1 275 kV SVC	QLD	Other	Event occurred
49205	25/06/2015 14:50	25/06/2015 18:15	49209	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49238	01/07/2015 22:40	01/07/2015 23:45	49239	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49240	02/07/2015 04:15	02/07/2015 05:25	49242	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49241	02/07/2015 04:15	02/07/2015 05:25	49243	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49279	11/07/2015 09:40	11/07/2015 10:15	49280	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49281	11/07/2015 11:30	11/07/2015 19:50	49282	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49283	11/07/2015 12:20	11/07/2015 13:40	49287	Burnie Sheffield No. 2 110kV line and Paloona Sheffield 110kV line	TAS	Lightning	GPATS
49284	11/07/2015 12:25	11/07/2015 19:50	49293	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49285	11/07/2015 12:35	11/07/2015 13:40	49286	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49288	11/07/2015 16:55	11/07/2015 17:30	49289	Liapootah - Palmerston No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
49292	11/07/2015 18:15	11/07/2015 20:45	49294	Trip of Canberra - Lower Tumut (07) 330 kV line at Canberra end only	NSW	Other	Event occurred
49349	20/07/2015 02:25	21/07/2015 23:40	49366	Trip of Liddell No.2 and No.3 generating units	NSW	Other	Generator
49367	22/07/2015 03:20	22/07/2015 08:20	49371	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49368	22/07/2015 04:35	22/07/2015 08:20	49370	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49369	22/07/2015 07:10	22/07/2015 08:20	49373	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
49391	24/07/2015 17:05	24/07/2015 19:40	49394	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49392	24/07/2015 17:55	24/07/2015 19:40	49395	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49393	24/07/2015 19:30	24/07/2015 21:55	49398	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
49396	24/07/2015 20:20	24/07/2015 21:50	49397	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
49401	26/07/2015 03:40	26/07/2015 04:25	49402	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49404	26/07/2015 23:20	27/07/2015 13:05	49416	Trip of Farrell 220/110 kV T2 transformer and Farrell 220 kV A Busbar	TAS	Other	TNSP
49456	01/08/2015 23:40	02/08/2015 00:30	49457	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49458	02/08/2015 10:30	02/08/2015 11:30	49461	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49459	02/08/2015 10:30	02/08/2015 11:30	49462	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49463	02/08/2015 14:15	02/08/2015 15:15	49464	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
49465	02/08/2015 17:15	02/08/2015 18:15	49469	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49466	02/08/2015 17:30	02/08/2015 18:15	49470	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49467	02/08/2015 17:35	02/08/2015 18:15	49468	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49471	03/08/2015 00:40	03/08/2015 01:10	49473	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49478	03/08/2015 09:20	03/08/2015 10:05	49479	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
49523	10/08/2015 18:40	10/08/2015 19:40	49524	Burnie Sheffield No. 2 110kV line and Paloona Sheffield 110kV line	TAS	Lightning	GPATS
49542	12/08/2015 12:10	12/08/2015 16:45	49547	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49543	12/08/2015 13:15	12/08/2015 16:15	49546	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
49626	22/08/2015 13:10	22/08/2015 17:00	49628	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49627	22/08/2015 13:10	22/08/2015 17:00	49629	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49636	23/08/2015 15:55	23/08/2015 18:00	49638	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49637	23/08/2015 15:55	23/08/2015 18:00	49639	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49640	23/08/2015 18:30	23/08/2015 21:30	49644	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49641	23/08/2015 18:30	23/08/2015 21:30	49643	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49645	24/08/2015 01:15	24/08/2015 02:00	49647	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49646	24/08/2015 01:15	24/08/2015 02:00	49648	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49649	24/08/2015 05:40	24/08/2015 07:35	49653	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49650	24/08/2015 05:40	24/08/2015 07:35	49652	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49654	24/08/2015 12:10	24/08/2015 20:00	49659	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49655	24/08/2015 12:10	24/08/2015 20:00	49660	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49658	24/08/2015 18:45	24/08/2015 23:45	49661	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49682	27/08/2015 11:40	27/08/2015 12:40	49683	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49687	29/08/2015 13:45	29/08/2015 16:20	49688	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49718	02/09/2015 20:40	02/09/2015 00:45	49719	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49720	03/09/2015 03:10	03/09/2015 05:15	49722	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49723	03/09/2015 06:30	03/09/2015 08:55	49724	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49732	05/09/2015 14:40	05/09/2015 20:00	49734	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49786	14/09/2015 17:15	14/09/2015 18:00	49787	Burnie Sheffield No. 2 110kV line and Palooa Sheffield 110kV line	TAS	Lightning	GPATS
49789	14/09/2015 19:40	14/09/2015 20:45	49790	Burnie Sheffield No. 2 110kV line and Palooa Sheffield 110kV line	TAS	Lightning	GPATS



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
49791	14/09/2015 21:15	14/09/2015 22:00	49792	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
49793	15/09/2015 02:40	15/09/2015 03:40	49794	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
49795	15/09/2015 04:35	15/09/2015 06:15	49798	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
49797	15/09/2015 05:35	15/09/2015 08:25	49799	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49803	16/09/2015 17:00	16/09/2015 18:00	49805	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49808	16/09/2015 18:25	16/09/2015 20:15	49810	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49809	16/09/2015 18:50	16/09/2015 20:15	49811	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49812	17/09/2015 08:45	17/09/2015 15:50	49824	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49817	17/09/2015 13:35	17/09/2015 19:15	49828	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49826	17/09/2015 19:15	17/09/2015 22:30	49830	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49827	17/09/2015 19:15	17/09/2015 22:30	49829	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49846	21/09/2015 15:20	21/09/2015 18:50	49847	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49877	26/09/2015 20:45	27/09/2015 00:15	49878	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49880	27/09/2015 10:40	27/09/2015 11:40	49881	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49882	27/09/2015 13:55	27/09/2015 15:55	49883	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49894	28/09/2015 15:05	28/09/2015 17:00	49896	Collinsville - Mackay tee Proserpine 7125 and 7126 132kV Lines	QLD	Lightning	GPATS
49897	28/09/2015 20:05	28/09/2015 22:45	49901	Farrell Reece No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49898	28/09/2015 20:25	28/09/2015 23:50	49904	Burnie Sheffield No. 2 110kV line and Paloona Sheffield 110kV line	TAS	Lightning	GPATS
49899	28/09/2015 20:40	28/09/2015 23:50	49905	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49900	28/09/2015 21:05	28/09/2015 22:45	49902	Farrell - John Butters 220kV line & Farrell - Rosebery Tee Queenstown - Newton 110kV line	TAS	Lightning	GPATS
49903	28/09/2015 23:40	29/09/2015 02:30	49907	Liapootah - Palmerston No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
49906	29/09/2015 00:10	29/09/2015 03:25	49908	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
49909	29/09/2015 04:10	29/09/2015 05:10	49910	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
49912	29/09/2015 12:45	29/09/2015 16:40	49918	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49920	30/09/2015 12:35	30/09/2015 21:20	49923	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49924	01/10/2015 13:00	01/10/2015 17:00	49927	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49928	01/10/2015 17:20	01/10/2015 20:40	49929	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
49944	06/10/2015 03:00	06/10/2015 03:30	49955	Collinsville - Mackay tee Proserpine 7125 and 7126 132kV Lines	QLD	Lightning	GPATS
49963	09/10/2015 05:20	09/10/2015 06:40	49964	Ross to Chalumbin 857 & 858 275 kV Transmission Lines	QLD	Lightning	GPATS
49967	09/10/2015 16:30	09/10/2015 22:20	49969	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49968	09/10/2015 19:20	09/10/2015 22:20	49970	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49973	10/10/2015 11:30	10/10/2015 14:00	49974	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
49975	10/10/2015 14:50	10/10/2015 17:25	49978	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49977	10/10/2015 17:10	10/10/2015 23:05	49982	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
49979	10/10/2015 19:10	11/10/2015 05:35	49984	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
49980	10/10/2015 19:10	11/10/2015 06:15	49985	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49987	11/10/2015 15:10	11/10/2015 20:40	49992	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
49988	11/10/2015 16:35	11/10/2015 22:00	49993	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
49989	11/10/2015 16:35	11/10/2015 22:00	49994	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
49990	11/10/2015 19:25	11/10/2015 22:35	49995	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
49991	11/10/2015 19:50	11/10/2015 23:30	49996	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
50000	12/10/2015 13:35	12/10/2015 16:15	50004	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
50001	12/10/2015 13:35	12/10/2015 16:15	50005	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50002	12/10/2015 15:15	12/10/2015 18:10	50006	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
50021	13/10/2015 07:05	13/10/2015 09:20	50023	Trip of H13 Ross - H35 Strathmore 879 and 8858 275 kV lines	QLD	Other	TNSP



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
50027	13/10/2015 13:00	13/10/2015 18:20	50031	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
50028	13/10/2015 13:00	13/10/2015 18:20	50032	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50033	13/10/2015 20:00	14/10/2015 03:15	50035	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
50038	14/10/2015 07:05	14/10/2015 08:15	50041	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50039	14/10/2015 07:05	14/10/2015 08:15	50040	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
50044	14/10/2015 10:45	14/10/2015 20:30	50054	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
50048	14/10/2015 14:40	14/10/2015 20:30	50053	Chinchilla - Columboola No. 7349 and No. 7350 132 kV lines	QLD	Lightning	Event occurred
50064	16/10/2015 05:10	16/10/2015 05:55	50065	Farrell - Sheffield No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
50067	16/10/2015 09:40	16/10/2015 10:10	50068	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
50074	17/10/2015 12:45	17/10/2015 14:20	50075	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
50090	20/10/2015 13:35	20/10/2015 16:55	50094	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
50101	21/10/2015 12:45	21/10/2015 18:30	50110	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
50105	21/10/2015 14:35	21/10/2015 16:35	50107	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50106	21/10/2015 14:35	21/10/2015 16:35	50108	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
50116	22/10/2015 08:00	22/10/2015 09:10	50119	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50117	22/10/2015 08:00	22/10/2015 09:10	50118	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
50120	22/10/2015 10:20	22/10/2015 16:35	50127	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50121	22/10/2015 10:20	22/10/2015 16:35	50126	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
50122	22/10/2015 13:40	22/10/2015 17:50	50129	Tarong - Chincilla 7183 and 7168 132 kV Lines	QLD	Lightning	GPATS
50123	22/10/2015 13:40	22/10/2015 17:50	50128	Chinchilla - Columboola No. 7349 and No. 7350 132 kV lines	QLD	Lightning	GPATS



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
50125	22/10/2015 16:10	22/10/2015 16:35	50131	Kemmis Moranbah tee Burton Downs 7117 132kV line and Nebo Moranbah tee Coppabella 7118 132kV line	QLD	Lightning	GPATS
50140	23/10/2015 12:40	23/10/2015 23:55	50148	Ross to Chalumbin 857 & 858 275 kV Transmission Lines	QLD	Lightning	GPATS
50141	23/10/2015 13:25	23/10/2015 22:20	50149	Kemmis Moranbah tee Burton Downs 7117 132kV line and Nebo Moranbah tee Coppabella 7118 132kV line	QLD	Lightning	GPATS
50142	23/10/2015 14:15	23/10/2015 22:20	50150	Moranbah Goonyella 7369 and 7370 132kV lines	QLD	Lightning	GPATS
50143	23/10/2015 14:15	23/10/2015 22:20	50151	Chalumbin - Turkinjie 7165 and 7166 132 kV lines	QLD	Lightning	GPATS
50144	23/10/2015 14:15	23/10/2015 22:20	50152	Chalumbin Woree 876 and 877 275kV lines	QLD	Lightning	GPATS
50145	23/10/2015 15:40	23/10/2015 22:20	50153	Collinsville - Mackay tee Proserpine 7125 and 7126 132kV Lines	QLD	Lightning	GPATS
50163	24/10/2015 17:20	24/10/2015 20:20	50168	Chinchilla - Columboola No. 7349 and No. 7350 132 kV lines	QLD	Lightning	GPATS
50164	24/10/2015 17:40	24/10/2015 18:45	50166	Chalumbin - Turkinjie 7165 and 7166 132 kV lines	QLD	Lightning	GPATS
50165	24/10/2015 17:40	24/10/2015 18:45	50167	Chalumbin Woree 876 and 877 275kV lines	QLD	Lightning	GPATS
50173	25/10/2015 19:00	25/10/2015 20:30	50177	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
50175	25/10/2015 19:10	25/10/2015 20:30	50176	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
50178	25/10/2015 20:15	25/10/2015 22:50	50179	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
50180	25/10/2015 23:00	26/10/2015 01:40	50186	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
50181	25/10/2015 23:05	26/10/2015 01:40	50187	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
50182	25/10/2015 23:20	26/10/2015 00:55	50185	Norwood-Scottsdale-Derby 110kV Line and Norwood-Scottsdale 110kV Line	TAS	Lightning	GPATS
50183	25/10/2015 23:45	26/10/2015 00:35	50184	Liapootah - Palmerston No. 1 and No. 2 220kV lines	TAS	Lightning	GPATS
50190	26/10/2015 11:45	26/10/2015 22:00	50197	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
50191	26/10/2015 11:45	26/10/2015 22:00	50196	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50193	26/10/2015 15:35	26/10/2015 16:30	50194	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
50204	27/10/2015 22:45	27/10/2015 23:45	50206	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS



Start MN	Start Date	Actual End Date	End MN	Reclassified Equipment	Region	Reason	Source
50205	27/10/2015 22:45	27/10/2015 23:45	50207	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50208	28/10/2015 00:50	28/10/2015 05:00	50210	Coffs Harbour to Raleigh (9W3) and Coffs Harbour to Boambee Sth (9W8) 132kV Lines	NSW	Lightning	GPATS
50209	28/10/2015 00:50	28/10/2015 05:00	50211	Coffs Harbour to Raleigh (9W3) and Boambee South to Nambucca (9W7) 132 kV lines	NSW	Lightning	GPATS
50215	28/10/2015 14:10	28/10/2015 23:40	50217	Chinchilla - Columboola No. 7349 and No. 7350 132 kV lines	QLD	Lightning	GPATS
50224	29/10/2015 06:10	29/10/2015 08:15	50226	Chinchilla - Columboola No. 7349 and No. 7350 132 kV lines	QLD	Lightning	GPATS
50229	31/10/2015 00:05	31/10/2015 11:20	50235	Glenrowan - Dederang No. 1 and No. 3 220kV lines	VIC	Lightning	GPATS
50230	31/10/2015 00:40	31/10/2015 10:50	50233	Eildon - Mt Beauty No. 1 and No. 2 220kV lines	VIC	Lightning	GPATS
50231	31/10/2015 05:15	31/10/2015 10:50	50234	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS
50236	31/10/2015 11:30	31/10/2015 12:35	50237	Rowville Yallourn No. 5 and No. 6 220kV lines	VIC	Lightning	GPATS



APPENDIX B. NON-CREDIBLE CONTINGENCY EVENTS 1 MAY 2015 TO 31 OCTOBER 2015

Table 6 Non-Credible Contingency Events 1 May 2015 to 31 October 2015

Date of contingency	Description	Region	Reason	Was the contingency then reclassified?	Comments
17/05/2015 21:21	Trip of Columboola - Roma 7174 132 kV at Columboola end	QLD	Other	Yes	Powerlink advised the trip was caused by incorrect protection operation. AEMO reclassified the incident as a credible contingency incident until the protection issue was rectified on 11/06/2015.
27/05/2015 12:26	Trip of Capital Wind Farm A 330 kV bus during the switching of a planned outage of Capital Wind Farm C 330 kV bus	NSW	Other	No	TransGrid advised the trip was caused by human error. AEMO did not reclassify the incident because the cause for the trip had been identified and rectified. AEMO considered that the incident was unlikely to reoccur.
24/06/2015 18:36	Trip of Clare South - Townsville South (7130) 132 kV and Strathmore No. 1 275 kV SVC	QLD	Other	Yes	Powerlink advised the trip and auto-reclose of Line 7130 was caused by a sugar cane fire under the line. The trip of the SVC was due to a faulty relay operation. AEMO reclassified the incident on 25/06/2015 when the SVC was returned to service. The cause of the incident was unknown during the reclassification and AEMO considered the incident was likely to reoccur. AEMO cancelled the reclassification on 26/06/2015 when the cause was identified and rectified.
27/06/2015 15:01	Trip of Rowville No. 1 220 kV bus, and disconnection of No. 1 220 kV SVC	VIC	Other	No	AusNet advised the trip was caused by human error. AEMO did not reclassify the incident because the cause for the trip had been identified and rectified. AEMO considered the incident was unlikely to reoccur.
02/07/2015 08:02	Trip of Bannaby - Marulan (36) 330 kV at Bannaby end, and the trip of Bannaby 330 kV B bus	NSW	Other	No	TransGrid advised the trip was caused by faulty protection operation. AEMO did not reclassify the incident because the faulty protection relay was isolated. AEMO considered the incident was unlikely to reoccur.
11/07/2015 17:48	Trip of Canberra - Lower Tumut 330 kV at Canberra end	NSW	Lightning/ Other	Yes	TransGrid advised the trip of Lower Tumut - Upper Tumut was caused by lightning strikes. The trip of Canberra - Lower Tumut was due to incorrect protection operation. AEMO reclassified the incident as the cause was unknown and considered the incident was likely to reoccur. AEMO cancelled the reclassification on the same day when the cause was identified and resolved.



Date of contingency	Description	Region	Reason	Was the contingency then reclassified?	Comments
22/07/2015 09:12	Trip of Lilyvale - Norwich Park (7150/1) 132 kV at Lilyvale end	QLD	Other	No	Powerlink advised the trip of Line 7150/1 was caused by faulty protection operation. AEMO did not reclassify the incident as the faulty protection relay was identified and isolated. AEMO considered the incident was unlikely to reoccur.
28/07/2015 16:29	Trip of Chalumbin - Woree (877) 275 kV at Woree end	QLD	Other	No	Powerlink advised the trip was caused by faulty protection operation. AEMO did not reclassify the incident as the faulty protection relay was identified and isolated. AEMO considered the incident was unlikely to reoccur.
03/09/2015 04:45	Trip of Armidale - Tamworth 330 kV and Narrabri - Tamworth 132 kV	NSW	Lightning	No	The trip of these lines was caused by lightning strikes. AEMO did not reclassify the incident because the 132 kV line does not fulfil the definition of the transmission network for NSW and it does not provide support to the High Voltage network. TransGrid also advised that another occurrence is unlikely after analysing and reviewing the trip history of these lines.
10/09/2015 11:15	Trip of Kemmis No. 2 132 kV bus	QLD	Other	No	Powerlink advised the trip was caused by human error while working on a planned outage on Kemmis No. 2 transformer. AEMO did not reclassify this event as the cause was identified and considered the incident was unlikely to reoccur.
17/09/2015 15:26	Trip of South East - Tailem Bend No. 1 275 kV and South East No. 1 SVC	SA	Other	No	ElectraNet advised the trip was caused by unexpected protection operation. AEMO did not reclassify the incident as the cause was identified and considered the incident was unlikely to reoccur.
14/10/2015 14:16	Trip of Chinchilla - Coolumboola (7349) and (7350) 132 kV	QLD	Lightning	Yes	Powerlink confirmed the trip was caused by lightning. AEMO reclassified the incident as lightning was detected in the vicinity. The reclassification was cancelled on the same day due to lightning ended. AEMO added these lines to the lightning vulnerable transmission line list in SO_OP3715.
23/10/2015 23:28	Trip of Alcoa Portland W1 and W5 220/33 kV transformers, and disconnecting Potlines 1 and 2.	VIC	Other	No	Alcoa Portland advised that the trip was caused by koala climbing on switchgear. AEMO did not reclassify the incident as the cause was identified and considered the incident was unlikely to reoccur.
31/10/2015 13:55	Trip of Blanch - Mt Gambier 132 kV at Mt Gambier end	SA	Other	No	ElectraNet advised the trip was caused by protection operation due to a faulty cable. AEMO did not reclassify the incident as the cause was identified and rectified. AEMO considered the incident was unlikely to reoccur.



APPENDIX C. MARKET IMPACT OF RECLASSIFICATION CONSTRAINTS 1 MAY 2015 TO 31 OCTOBER 2015

Table 7 Reclassification constraints that bound over the reporting period

Reclassification Start time	Reclassification End time	Reclassified Equipment	Constraint	Number of Dispatch Intervals binding
20/04/2015 13:00	04/05/2015 12:30	Trip of all generators at Darling Downs Power Station	F_MAIN+DD_N-2_MG_R60	43
			F_MAIN+DD_N-2_MG_R6	43
			F_MAIN+DD_N-2_MG_R5	43
			F_I+DD_N-2_MG_R6	64
			F_I+DD_N-2_MG_R5	64
			F_I+DD_N-2_MG_R60	64
05/05/2015 14:00	05/05/2015 16:25	Farrell - Sheffield No. 1 and No. 2 220kV lines	T_T_FASH_5_N-2	28
			F_T+FASH_N-2_RREG	24
			F_T+FASH_N-2_TG_R5	5
			F_T++FASH_N-2_TG_R6	3
			F_T+FASH_N-2_TG_R60	4
			F_T+FASH_N-2_TG_R6	3
06/05/2015 08:40	06/05/2015 09:15	Farrell Reece No. 1 and No. 2 220kV lines	F_T+FARE_N-2_TG_R6_1	7
			F_T+FARE_N-2_RREG	4
06/05/2015 09:25	06/05/2015 10:15	Farrell Reece No. 1 and No. 2 220kV lines	F_T++FARE_N-2_TG_R5	4
			F_T++FARE_N-2_TG_R6	2
31/05/2015 21:50	31/05/2015 22:30	Farrell Reece No. 1 and No. 2 220kV lines	F_T+FARE_N-2_TG_R5	8
			F_T+FARE_N-2_TG_R6_1	8
			F_T+FARE_N-2_TG_R60	8
09/06/2015 02:30	09/06/2015 03:00	Farrell Reece No. 1 and No. 2 220kV lines	F_T+FARE_N-2_TG_R5	6
			F_T+FARE_N-2_RREG	6
			F_T+FARE_N-2_TG_R60	4



Reclassification Start time	Reclassification End time	Reclassified Equipment	Constraint	Number of Dispatch Intervals binding
			F_T+FARE_N-2_TG_R6_1	5
02/07/2015 04:15	02/07/2015 05:25	Farrell Reece No. 1 and No. 2 220kV lines	F_T+FARE_N-2_RREG	7
			F_T+FARE_N-2_TG_R6_1	5
			F_T+FARE_N-2_TG_R6_2	2
11/07/2015 12:35	11/07/2015 13:40	Farrell - Sheffield No. 1 and No. 2 220kV lines	F_T++FASH_N-2_TG_R6	11
			F_T+FASH_N-2_RREG	10
			F_T++FASH_N-2_TG_R5	13
			F_T++FASH_N-2_TG_R60	1
			T_FASH_MAXGEN_1	7
			T>T_FASH_1_N-2	12
11/07/2015 16:55	11/07/2015 17:30	Liapootah - Palmerston No. 1 and No. 2 220kV lines	T>T_NIL_LIPM_N-2_2A	1
20/07/2015 02:25	21/07/2015 23:40	Trip of Liddell No.2 and No.3 generating units	F_I+LD23_N-2_TG_R5	330
			F_I+LD23_N-2_TG_R60	295
			F_MAIN++LD_N-2_TG_R5	20
			F_MAIN++LD_N-2_TGR60	76
			F_MAIN+LD_N-2_TG_R5	27
			F_MAIN+LD_N-2_TG_R60	27
			F_I+LD23_N-2_MG_R60	46
			F_I+LD23_N-2_MG_R5	69
			F_I+LD23_N-2_MG_R6	54
			F_MAIN++LD_N-2_MG_R6	27
			F_MAIN++LD_N-2_MGR60	32
			F_MAIN++LD_N-2_MG_R5	7
			F_MAIN+LD_N-2_MG_R6	7
			F_MAIN+LD_N-2_MG_R5	7
			F_MAIN+LD_N-2_MG_R60	7
26/07/2015 03:40	26/07/2015 04:25	Farrell Reece No. 1 and No. 2 220kV lines	F_T+FARE_N-2_TG_R6_1	7
			F_T+FARE_N-2_RREG	6
			F_T+FARE_N-2_TG_R5	1



Reclassification Start time	Reclassification End time	Reclassified Equipment	Constraint	Number of Dispatch Intervals binding
02/08/2015 10:30	02/08/2015 11:30	Farrell Reece No. 1 and No. 2 220kV lines	F_T++FARE_N-2_TG_R5	4
			F_T++FARE_N-2_TG_R6	3
02/08/2015 17:35	02/08/2015 18:15	Farrell - Sheffield No. 1 and No. 2 220kV lines	F_T++FASH_N-2_TG_R5	1
			T_T_FASH_5_N-2	8
28/09/2015 20:05	28/09/2015 22:45	Farrell Reece No. 1 and No. 2 220kV lines	F_T+FARE_N-2_RREG	7
			F_T++FARE_N-2_TG_R60	2
			F_T++FARE_N-2_TG_R5	1
			F_T++FARE_N-2_TG_R6	4
			F_T+FARE_N-2_TG_R60	2
28/09/2015 20:40	28/09/2015 23:50	Farrell - Sheffield No. 1 and No. 2 220kV lines	F_T+FASH_N-2_RREG	38
			F_T++FASH_N-2_TG_R60	17
			F_T++FASH_N-2_TG_R6	17
			T_T_FASH_5_N-2	2
			F_T++FASH_N-2_TG_R5	18
			T_FASH_MAXGEN_1	1
			T>T_FASH_1_N-2	4
			F_T+FASH_N-2_TG_R5	4
			F_T+FASH_N-2_TG_R60	6
			F_T+FASH_N-2_TG_R6_1	3
10/10/2015 11:30	10/10/2015 14:00	Rowville Yallourn No. 5 and No. 6 220kV lines	V>>V_NIL_ROYP56_P2_1	11