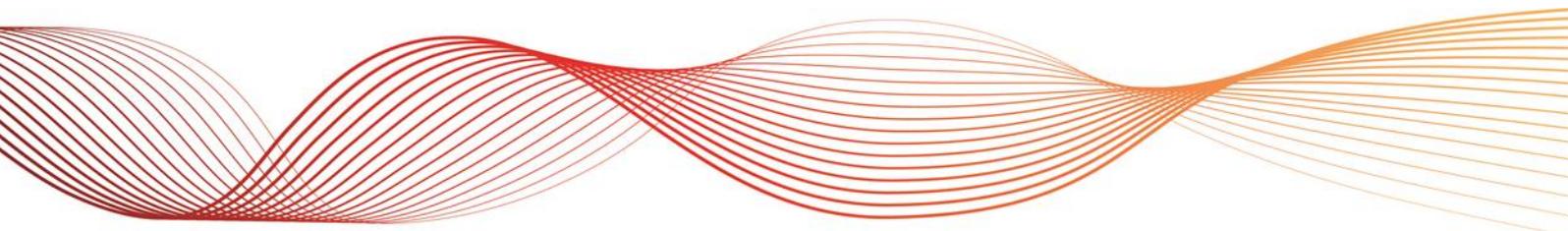




THE EFFECTIVENESS OF THE AUTOMATED PROCEDURES FOR IDENTIFYING DISPATCH INTERVALS SUBJECT TO REVIEW

2013 REVIEW

Published: **October 2014**





IMPORTANT NOTICE

Purpose

AEMO has prepared this report on AEMO's automated procedures for identifying dispatch intervals that may contain manifestly incorrect inputs, in accordance with rule 3.9.2B(l) of the National Electricity Rules, using information available as at the date of publication, unless otherwise specified.

Disclaimer

AEMO has made every reasonable effort to ensure the quality of the information in this document but cannot guarantee its accuracy or completeness. Any views expressed in this report are those of AEMO unless otherwise stated, and may be based on information given to AEMO by other persons.

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EXECUTIVE SUMMARY

The National Electricity Rules require AEMO to apply automated procedures to identify dispatch intervals that are subject to review. AEMO must then determine whether a dispatch interval subject to review contained a manifestly incorrect input to the dispatch algorithm. The Rules also require AEMO to review and report on the effectiveness of these procedures.

There was no evidence in 2013 that the automated procedure was ineffective in its primary purpose of detecting instances where manifestly incorrect input may have resulted in material differences in pricing outcomes.

However, the automated procedure identified 144 dispatch intervals that were subject to review, none of which contain a manifestly incorrect input. Each of these false positives created market price uncertainty, required resources to review, and in one case led to AEMO incorrectly rejecting the prices.



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1 – INTRODUCTION

This report analyses the effectiveness of AEMO's automated procedure for identifying dispatch intervals subject to review during 2013. It has been published to meet the requirements of rule 3.9.2B(I) of the National Electricity Rules (Rules).

Section 2 provides a general description of the automated procedure for identifying dispatch intervals subject to review.

Section 3 provides a specific description of the changes to prices and interconnector flows that trigger a review.

Section 4 summarises the outcomes of AEMO's automated procedure during 2013.

Section 5 comments on the effectiveness of the automated procedure.

Appendix A reproduces section 3.9.2B of the Rules. AEMO's obligations to identify and act on any dispatch interval that may contain MII are defined in s.3.9.2B of the Rules.

Appendix B analyses all dispatch intervals that were subject to review during 2013. Section 3.9.2B(I) of the Rules requires AEMO to report on all dispatch intervals that were subject to review but were subsequently judged to not contain a manifestly incorrect input (MII) to the dispatch algorithm.

Appendix C contains a brief discussion of the entire MII price review process. The body of this report focuses only on the automated procedures for identifying dispatch intervals subject to review. It does not analyse the subsequent price review process.

2 – THE AUTOMATED PROCEDURE

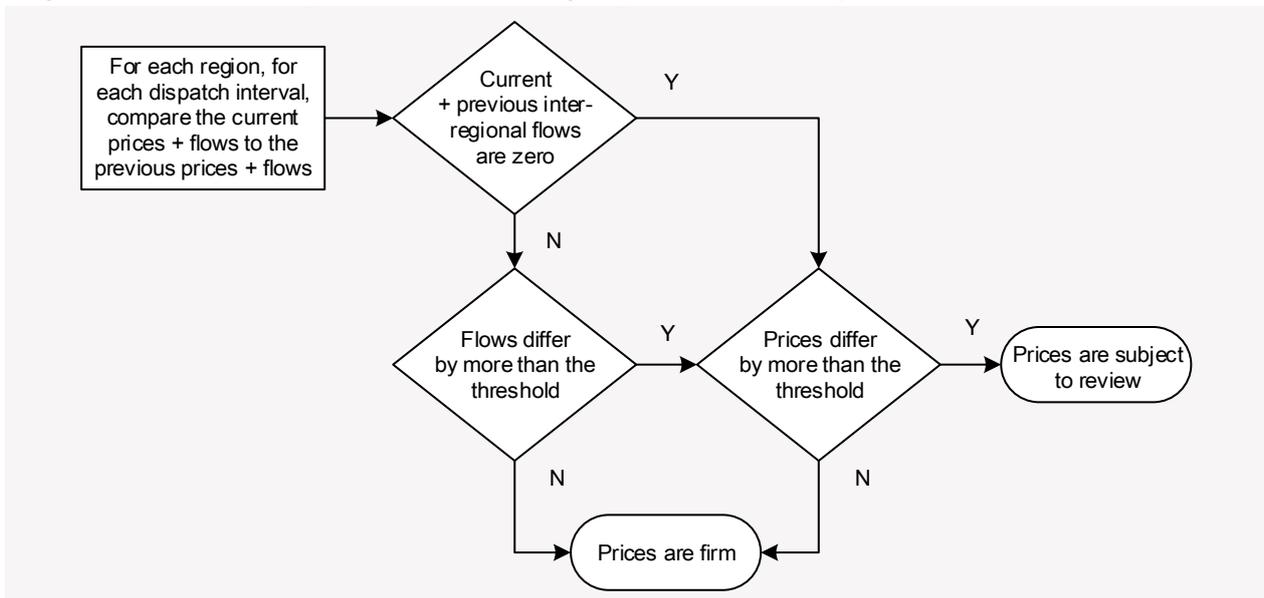
This section provides a general description of the automated procedure for detecting potential MII in the central dispatch process.

For each dispatch interval, the price in each region and the interconnector flows into or out of that region are compared to the price and flows from the previous dispatch interval. If the changes in price and any interconnector flow breach pre-defined thresholds, then the price for the latest dispatch interval in that region is subject to review.

An exception is made if the interconnector flows are zero for the current and previous dispatch intervals – in other words, if the region is electrically “islanded” from the rest of the National Electricity Market (NEM). In this case, only the prices between consecutive dispatch intervals are compared. If the change in those prices breaches the pre-defined threshold, then the latest dispatch interval price in that region is subject to review.

The automated procedure is shown schematically in Figure 1.

Figure 1: The automated procedure for detecting dispatch intervals subject to review





3 – PRICE AND FLOW THRESHOLDS

This section provides a specific description of the changes to prices and interconnector flows that trigger an MII review.

3.1 Price thresholds

Price thresholds are based on two parameters: an absolute number X and a relative number Y. The parameters are specific to each region.

- If the prices for the current and previous dispatch intervals both exceed X, then the price threshold is breached if the difference between the prices, expressed as a multiple of the smaller price, exceeds Y.
- If one of the prices for the current and previous dispatch intervals does not exceed X, then the price threshold is breached if the difference between the prices exceeds X*Y.¹

This can be expressed mathematically as:

The price threshold is breached if

$$\text{Min}(|P_i|, |P_{i-1}|) > X \text{ and } |P_i - P_{i-1}| / \text{Min}(|P_i|, |P_{i-1}|) > Y$$

or

$$\text{Min}(|P_i|, |P_{i-1}|) \leq X \text{ and } |P_i - P_{i-1}| > X * Y$$

where

P_i = price in the current dispatch interval

P_{i-1} = price in the previous dispatch interval

The parameters for each region are:

Region	X (\$/MWh)	Y
NSW	20	3
QLD	20	3
SA	20	3
TAS	20	4
VIC	20	3

3.2 Flow thresholds

Flow thresholds are based on a single parameter Z. The flow thresholds are specific to the directional flow on each interconnector.

¹ The prices used in these comparisons are the Regional Original Price (ROP) for each dispatch interval. The ROP includes the cost of any constraint violations, and can exceed the Market Price Cap (MPC), in which case it will be automatically revised before it is published as the Regional Reference Price (RRP) for the dispatch interval.

- The flow threshold is breached if the difference between the flows for the current and previous dispatch intervals exceeds Z.²

This can be expressed mathematically as:

The flow threshold is breached if

$$|F_i - F_{i-1}| > Z$$

where

F_i = flow in the current dispatch interval

F_{i-1} = flow in the previous dispatch interval

The parameters for each interconnector are:

Interconnector	Direction	Z (MW)
NSW1-QLD1 (QNI)	NSW ⇌ QLD	450
	QLD ⇌ NSW	240
N-Q-MNSP1 (Terranora)	NSW ⇌ QLD	80
	QLD ⇌ NSW	80
T-V-MNSP1 (Basslink)	TAS ⇌ VIC	190
	VIC ⇌ TAS	190
VIC1-NSW1	VIC ⇌ NSW	500
	NSW ⇌ VIC	500
V-SA (Heywood)	VIC ⇌ SA	150
	SA ⇌ VIC	150
V-S-MNSP1 (Murraylink)	VIC ⇌ SA	100
	SA ⇌ VIC	100

² The flows used in these comparisons are the interconnector targets for each dispatch interval.



4 – 2013 RESULTS

This section summarises the results from AEMO's automated procedure for detecting manifestly incorrect inputs during 2013.

The automated procedure flagged 144 dispatch intervals as subject to review during 2013. None of these dispatch intervals contained MII. AEMO knows of no other dispatch intervals in 2013 that contained MII. Consequently it could be argued that the automated procedure achieved its primary purpose, which is to detect instances where MII may have resulted in material differences in pricing outcomes.

A corollary is that all 144 dispatch intervals that were subject to review in 2013 were false positives. In other words, 100% of the dispatch intervals that were flagged as subject to review contained no MII. Furthermore, prices were incorrectly rejected in one of the dispatch intervals that was flagged for review. A report on this incident is available at http://www.aemo.com.au/Electricity/Resources/Reports-and-Documents/-/media/Files/Other/reports/price_revisions/Price%20Revision%20Report%20-%208%20July%202013%20final.pdf.ashx.



5 – CONCLUSIONS

This section comments on the effectiveness of the automated procedure for detecting potential MII in the central dispatch process.

There is no evidence that the automated procedure is ineffective in its primary purpose of detecting instances where MII may have resulted in material differences in pricing outcomes.

However, the automated procedure identifies large numbers of dispatch intervals that are then subject to review, most of which contain no MII. Each of these false positives creates market price uncertainty, requires resources to review, and creates the possibility of incorrectly rejecting the prices.



APPENDIX A – AEMO’S RULES OBLIGATIONS ON MANIFESTLY INCORRECT INPUTS

3.9.2B Pricing where AEMO determines a manifestly incorrect input

- (a) For the purposes of this clause:

Input means any value that is used by the *dispatch algorithm* including measurements of *power system* status, five minute demand forecast values, *constraint* equations entered by *AEMO*, or software setup but not including *dispatch bids* and *dispatch offers* submitted by *Registered Participants*.

Last correct dispatch interval means the most recent *dispatch interval* preceding the affected *dispatch interval* that is not itself an affected *dispatch interval*.

- (b) *AEMO* may apply the automated procedures developed in accordance with clause 3.9.2B(h), to identify a *dispatch interval* as subject to review ("a **dispatch interval subject to review**").
- (c) *AEMO* may also determine that a *dispatch interval* is subject to review if *AEMO* considers that it is likely to be subject to a manifestly incorrect input, but only where the *dispatch interval* immediately preceding it was a *dispatch interval* subject to review.
- (d) *AEMO* must determine whether a *dispatch interval* subject to review contained a manifestly incorrect input to the *dispatch algorithm* ("an **affected dispatch interval**").
- (e) Where *AEMO* determines an affected *dispatch interval*, *AEMO* must:
- (1) replace all *dispatch prices* and *ancillary service prices* with the corresponding prices for the last correct *dispatch interval*; and
 - (2) recalculate, in accordance with clause 3.9.2(h), and adjust all *spot prices* relevant to each affected *dispatch interval*.
- (f) *AEMO* may only carry out the action described in clause 3.9.2B(e) if no more than 30 minutes have elapsed since the publication of the *dispatch prices* for the *dispatch interval* subject to review.
- (g) As soon as reasonably practicable after the action as described in clause 3.9.2B(e), *AEMO* must *publish* a report outlining:
- (1) The reasons for the determination under clause 3.9.2B(d);
 - (2) Whether that determination was correct;
 - (3) What action will be taken to minimise the risk of a similar event in future.
- (h) *AEMO* must, in consultation with *Registered Participants*, develop procedures for the automatic identification of *dispatch intervals* subject to review under clause 3.9.2B (b) ("the **automated procedures**").
- (i) The purpose of the automated procedures is to detect instances where manifestly incorrect inputs may have resulted in material differences in pricing outcomes.
- (j) **[Deleted]**
- (k) At least once each calendar year, *AEMO* must review the effectiveness of the automated procedures referred to in clause 3.9.2B(h).
- (l) *AEMO* must report on the findings of the review under clause 3.9.2B(k) and must include in that report details of all *dispatch intervals* subject to review that were not affected *dispatch intervals* and an analysis of why such intervals were identified as subject to review.
- (m) **[Deleted]**



APPENDIX B – DISPATCH INTERVALS SUBJECT TO REVIEW DURING 2013

Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
1	02/01/2013 12:05	QLD1	A	11	970	78	NSW1-QLD1	-198	-542	344	450	Q>>NIL_855_871 binding. Demand reduction of 90 MW cleared cheaper offer.	Demand changes
2	04/01/2013 13:35	QLD1	A	5	304	48	N-Q-MNSP1	6	-81	87	80	Q>>NIL_855_871 binding. Gladstone generation was rebid to lower price bands	Rebidding
3	04/01/2013 14:10	QLD1	A	5	49	302	N-Q-MNSP1	-75	6	80	80	Q>>NIL_855_871 binding. Increase in demand. Expensive Gladstone offer was cleared to relieve the constraint	Demand changes
4	04/01/2013 14:50	SA1	A	265	21272	80	V-SA	-54	145	199	150	High demand in SA and VIC - very hot weather. Loy Yang A unit 2 tripped from 529 MW. Constraint violated to meet the demand in VIC and SA in previous DI	Line/generator trippings
		VIC1	A	280	21197	75							
5	04/01/2013 14:50	QLD1	A	3	44	191	N-Q-MNSP1	-81	0	81	80	Q>>NIL_855_871 binding. Gladstone generation was rebid to MPC. Cheaper generation offers were	Rebidding



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
												constrained off to balance constraint	
6	04/01/2013 15:05	QLD1	A	3	196	49	N-Q-MNSP1	5	-77	82	80	Q>>NIL_855_871 binding.Gladstone generation was rebid to MPC. Cheaper generation offers were constrained off to balance constraint	Rebidding
7	04/01/2013 15:40	SA1	A	13	111	1500	V-SA	225	62	163	150	High demand in SA and VIC - very hot weather and low wind in SA. High priced offers cleared from fast start plant to meet small increase in demand	Demand changes
		VIC1	A	13	102	1449							
8	04/01/2013 16:05	VIC1	A	111	11888	106	V-SA	-132	93	226	150	High demand in SA and VIC. Generation from Laverton North rebid to lower price bands; more generation cleared from Torrens units (limited by ramp up rate in previous DI)	Rebidding
		SA1	A	104	11602	111							
9	04/01/2013 16:20	SA1	A	193	66	12797	V-SA	144	-96	241	150	High demand in SA and VIC. Rebid of generation offers from Laverton North PS to close to the MPC	Rebidding
		VIC1	A	207	62	12898							



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
10	04/01/2013 16:45	VIC1	A	27	55	1537	V-SA	19	-142	161	150	High demand in SA and VIC. Rebid of generation offers from Laverton North PS to close to the MPC	Rebidding
		SA1	A	26	56	1500							
11	05/01/2013 08:50	QLD1	A	3	48	197	N-Q-MNSP1	-89	-9	80	80	Q>>NIL_855_871 binding.Gladstone generation was rebid to MPC. Cheaper generation offers were constrained off to balance constraint	Rebidding
12	05/01/2013 10:30	TAS1	A	752	46	34952	T-V-MNSP1	192	0	192	190	The constraint T>>T_NIL_BL_EXP_5F (special protection scheme constraint for Hadspen-George Town line) violated when Basslink target flow could not be achieved. Insufficient ramp up rates for some units	Constraint Action
13	11/01/2013 00:05	QLD1	A	125	52	6585	N-Q-MNSP1	-33	48	81	80	Q>>NIL_855_871 binding.Rebidding from CS Energy and Stanwell Corporation for Gladstone and Stanwell generation	Rebidding
14		QLD1	A	128	6585	51	NSW1-QLD1	180	-136	316	450	Q>>NIL_855_871 binding.Rebidding from	Rebidding



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	11/01/2013 00:10						N-Q-MNSP1	48	-35	82	80	CS Energy and Stanwell Corporation for Gladstone and Stanwell generation	
15	11/01/2013 22:05	QLD1	A	5	52	290	N-Q-MNSP1	-41	40	81	80	Q>>NIL_855_871 binding.Rebidding from CS Energy and Stanwell Corporation for Gladstone and Stanwell generation	Rebidding
16	12/01/2013 04:05	QLD1	A	31	54	1716	N-Q-MNSP1	-28	52	80	80	Q>>NIL_855_871 binding. Rebidding of Stanwell generation to MPC	Rebidding
							NSW1-QLD1	-62	-404	342	450		
17	12/01/2013 04:25	QLD1	A	4	200	45	N-Q-MNSP1	63	-17	81	80	Q>>NIL_855_871 binding. Reduced line flows relieved constraint	Constraint Action
18	12/01/2013 04:30	QLD1	A	3	45	-97	N-Q-MNSP1	-17	63	81	80	Slight reduction in QLD demand and 103MW rebid to negative bands; constraint relaxed and cheaper generation cleared	Demand changes
19	12/01/2013 04:35	QLD1	A	4	-97	30	N-Q-MNSP1	63	-17	81	80	Q>>NIL_855_871 not binding anymore	Constraint Action



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
20	12/01/2013 05:35	QLD1	A	3	199	45	N-Q-MNSP1	23	-58	81	80	Q>>NIL_855_871 binding - constraint action and rebidding to lower price bands	Constraint Action
21	12/01/2013 13:00	QLD1	A	18	1101	58	NSW1-QLD1	148	-101	249	450	Q>>NIL_855_871 binding; rebidding to lower price bands and fast start unit receiving higher target	Rebidding
22	14/01/2013 05:25	QLD1	A	5	286	49	N-Q-MNSP1	66	-15	82	80	Q>>NIL_855_871 binding; fast start unit receiving target	Constraint Action
23	14/01/2013 05:45	QLD1	A	3	46	191	N-Q-MNSP1	-90	-10	81	80	Q>>NIL_855_871 binding; demand increase; cheaper generation constrained off	Demand changes
24	14/01/2013 05:55	QLD1	A	3	189	46	N-Q-MNSP1	62	-19	81	80	Q>>NIL_855_871 not binding - increase in 871 rating. Cheaper generation free to set price.	Rating changes
25	14/01/2013 07:20	QLD1	A	37	49	1833	NSW1-QLD1	-320	-605	285	450	Q>>NIL_855_871 binding due to increased line flow on 871. Expensive offer cleared from fast start plant.	Demand changes



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
26	16/01/2013 13:05	QLD1	A	28	55	1565	N-Q-MNSP1	-41	39	80	80	Q>>NIL_855_871 binding, and rebid at 1122hrs moved Gladstone generation to MPC bands from 1235 hrs	Rebidding
27	16/01/2013 13:10	QLD1	A	29	1565	52	N-Q-MNSP1	39	-42	81	80	Fast start units receiving target after high dispatch price. Q>>NIL_855_871 stopped binding	Constraint Action
28	16/01/2013 22:05	QLD1	A	3	49	207	N-Q-MNSP1	-41	40	81	80	Q>>NIL_855_871 binding. A rebid for the capacity of Stanwell PS earlier moved 600 MW to MPC	Rebidding
29	16/01/2013 23:15	QLD1	A	14	-435	33	N-Q-MNSP1	54	-26	80	80	Q>>NIL_855_871 binding. Negative price due to Wivenhoe pump shutting down (excess generation) and 700 MW of generation at Callide C offered at -\$1000/MWh from 2305 hrs. Prices returned to normal in next DI	Rebidding
30	17/01/2013 06:55	QLD1	A	62	1672	26	N-Q-MNSP1	54	-27	81	80	Q>>NIL_855_871 binding. Gladstone set high price; price came	Constraint Action



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
												down when fast start plant received targets	
31	17/01/2013 15:20	NSW1	A	5	320	52	N-Q-MNSP1	-41	40	81	80	Q>>NIL_855_871 binding due to increased line flow on 871; constraint action increased flow to NSW	Constraint Action
32	18/01/2013 01:00	QLD1	A	8	33	309	N-Q-MNSP1	-44	38	82	80	Very high temperatures in QLD. Reduced ratings for line 871 resulted in Q>>NIL_855_871 binding for prolonged periods. High price due to reduced rating for 871 - cheaper generation constrained off	Rating changes
33	18/01/2013 01:05	QLD1	A	5	309	51	N-Q-MNSP1	38	-43	80	80	Q>>NIL_855_871 binding. Fast start plant received target, relieving the constraint.	Constraint Action
34	18/01/2013 05:30	QLD1	A	36	48	1814	N-Q-MNSP1	-89	-9	81	80	Rating change line 871 with Q>>NIL_855_871 binding; Stanwell can relieve constraint but ramp rate up limited	Rating changes
35	18/01/2013 05:35	QLD1	A	39	1814	45	N-Q-MNSP1	-9	-89	81	80	Fast start plant issued with target and Stanwell increasing output to	Constraint Action



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
												relieve 855/871 constraint	
36	18/01/2013 08:30	QLD1	A	214	54	11566	N-Q-MNSP1	-49	31	80	80	Change in dynamic rating of line 871; 855/871 constrained off generation.	Rating changes
37	18/01/2013 08:55	QLD1	A	14	1520	100	NSW1-QLD1	-279	83	362	450	Q>>NIL_855_871 binding. Rebid for Gladstone generation for 0855 hrs to MPC	Rebidding
38	19/01/2013 09:05	QLD1	A	5	193	33	N-Q-MNSP1	40	-40	80	80	Increase in the 871 line rating relieved constraint Q>>NIL_855_871	Rating changes
39	20/01/2013 06:25	QLD1	A	6	296	44	N-Q-MNSP1	15	-67	82	80	Q>>NIL_855_871 binding. Rebid for Gladstone generation for 0620 hrs to MPC	Rebidding
40	20/01/2013 07:55	QLD1	A	4	239	49	N-Q-MNSP1	49	-32	81	80	Increase in the 871 line rating relieved constraint Q>>NIL_855_871	Rating changes
41	21/01/2013 05:40	QLD1	A	3	45	191	N-Q-MNSP1	-81	1	82	80	Q>>NIL_855_871 binding. Rebidding of Gladstone generation to MPC	Rebidding
42	21/01/2013 05:55	TAS1	A	2000	85116	43	T-V-MNSP1	79	311	232	190	NCSPPS constraint unswamped and violated in TAS when	Constraint Action



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
												required Basslink transfer could not be achieved.	
43	21/01/2013 06:00	TAS1	A	51	43	2194	T-V-MNSP1	311	99	213	190	NCSPS constraint unswamped and violated in TAS when required Basslink transfer could not be achieved.	Constraint Action
44	27/01/2013 23:10	QLD1	A	4	56	286	N-Q-MNSP1	-25	57	82	80	Rebidding to higher price bands. Voltage stability constraint reduced transfer to QLD. Only 190 MW available from Gladstone after 3 units tripped earlier in evening (low quality coal/flooding)	Rebidding
45	27/01/2013 23:15	QLD1	A	4	286	55	N-Q-MNSP1	57	-24	81	80	Voltage stability constraint N^Q_NIL_B1 allowed for increased transfer to QLD; small load reduction	Constraint Action
46	29/01/2013 08:25	QLD1	A	5	300	49	NSW1-QLD1	243	-235	478	450	Substantial rebidding to neagive price bands after \$300/MWh price; also fast start units received targets	Rebidding



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
47	03/02/2013 14:05	QLD1	A	3	44	184	N-Q-MNSP1	-89	8	81	80	Constraint Q>>NIL_871_855 binding. Change in line rating of 871 made constraint more conservative. Some QLD generation constrained off for one DI	Rating changes
48	03/02/2013 14:10	QLD1	A	3	184	44	N-Q-MNSP1	-8	-89	81	80	Constraint Q>>NIL_871_855 binding. Change in line rating of 871 made constraint more conservative. Some QLD generation constrained off for one DI	Rating changes
49	08/02/2013 14:40	QLD1	A	289	19	308	N-Q-MNSP1	-51	30	80	80	Q>>NIL_855_871 binding. Rebidding of Stanwell Corporation to more expensive bands (Stanwell and Kareeya units)	Rebidding
50	08/02/2013 15:45	QLD1	A	3	191	47	N-Q-MNSP1	23	-58	81	80	Q>>NIL_855_871 relaxed due to reduced line flows, units reaching dispatch targets, and some rebidding to lower price bands	Constraint Action



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
51	08/02/2013 15:50	QLD1	A	6	47	322	N-Q-MNSP1	-58	23	81	80	Q>>NIL_855_871 binding. Rebidding of some Gladstone generation to MPC	Rebidding
52	08/02/2013 16:20	QLD1	A	30	46	1441	N-Q-MNSP1	-60	21	80	80	Q>>NIL_855_871 binding. Rebidding of some Gladstone generation to MPC	Rebidding
53	12/02/2013 17:50	QLD1	A	3	196	49	N-Q-MNSP1	46	-35	81	80	Q>>NIL_855_871 relaxed due to reduced line flows, combined with lower 5-minute QLD demand	Constraint Action
54	13/02/2013 14:35	QLD1	A	3	190	45	N-Q-MNSP1	54	-28	82	80	Q>>NIL_855_871 binding. Rebidding of some Gladstone generation to lower price bands	Constraint Action
55	14/02/2013 12:20	QLD1	A	4	40	213	N-Q-MNSP1	-65	15	80	80	Q>>NIL_855_871 binding. Increased flow on line 855 made constraint more conservative, and Yabulu generation, that can relieve constraint was rebid to \$2150/MWh	Constraint Action
56	14/02/2013 12:35	QLD1	A	6	30	210	N-Q-MNSP1	-37	43	80	80	Q>>NIL_855_871 binding. Increased flow on line 855 made	Constraint Action



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												constraint more conservative. Lower priced QLD generation (e.g. Callide) constrained off	
57	14/02/2013 17:35	QLD1	A	144	0	144	NSW1-QLD1	-30	-298	267	240	Q>>NIL_855_871 binding. Neg Res management constraint revoked, allowing for energy export to NSW	Constraint Action
58	15/02/2013 07:05	QLD1	A	4	273	51	N-Q-MNSP1	43	-37	80	80	Rebidding of capacity from Gladstone PS, Kareeya, Swanbank E and Stanwell units 1 and 4 to lower price bands (from close to MPC)	Rebidding
59	15/02/2013 10:20	QLD1	A	14	1522	101	NSW1-QLD1	-332	-586	253	240	Q>>NIL_855_871 binding. Rebidding of capacity from Gladstone PS from MPC to lower price bands	Rebidding
60	18/02/2013 17:00	SA1	A	955	0	-955	V-S-MNSP1	-123	90	212	100	Extensive rebidding to negative price bands in VIC and SA, in response to high prices for dispatch intervals 1635 hrs and 1640 hrs	Rebidding
		VIC1	A	1000	0	-1000	V-SA	-274	-428	154	150		
61		SA1	A	17	-955	59	V-SA	-428	-278	150	150	Extensive rebidding in SA and VIC, from	Rebidding



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	18/02/2013 17:05	VIC1	A	18	-1000	60	V-SA	-428	-278	150	150	negative price bands to higher price bands	
62	28/02/2013 12:30	QLD1	A	178	72	12900	N-Q-MNSP1	-78	5	83	80	Kogan Creek tripped	Line/generator trippings
63	05/03/2013 17:35	TAS1	A	4	50	260	T-V-MNSP1	444	246	198	190	280 MW of capacity in TAS rebid at \$260/MWh	
64	06/03/2013 14:35	SA1	A	4	299	66	V-S-MNSP1	-9	95	104	100	Negative residue management on SA to VIC interconnectors ended. Allows for flow from VIC to SA.	Constraint Action
65	06/03/2013 15:05	SA1	A	18	650	12199	V-SA	250	42	208	150	Heywood M1 transformer rating was lowered from 370 MVA to 250 MVA, to manage the post-contingent flow on the transformer for the trip of Northern PS unit. This drastically reduced the flow on Heywood to SA. Fast start units needed more than 1 DI to come on line.	Rating changes
66	06/03/2013 15:10	SA1	A	217	12199	56	V-S-MNSP1	121	-18	139	100	Heywood M1 transformer rating was lowered from 370 MVA to 250 MVA, to manage the post-contingent flow on the transformer for the trip of Northern PS unit. This drastically reduced the flow on Heywood to SA. Fast start units needed more	Rating changes



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												than 1 DI to come on line.	
67	06/03/2013 16:15	SA1	A	10	52	-469	V-S-MNSP1	-18	101	119	100	Extensive rebidding in SA (to market floor price) in response to the binding constraint S>>V_NIL_NOTI_NOTI_3	Rebidding
68	07/03/2013 15:40	SA1	A	4	299	66	V-SA	-100	52	152	150	Constraint S>>V_NIL_NOTI_NOTI reversing flow to SA. Prices in VIC and SA reduced due to rebids for Valley Power and Pelican Point GT; SA demand reduced by 110 MW, probably due to embedded generators responding to high price for 1535 hrs	Rebidding
		VIC1	A	3	303	69							
69	08/03/2013 15:15	SA1	A	41	101	4247	V-SA	-1	-191	189	150	502 MW of generation capacity from Yallourn PS withdrawn - industrial action	Rebidding
		VIC1	A	44	100	4491							
70	09/03/2013 22:15	QLD1	A	182	63	11500	NSW1-QLD1	-24	424	448	240	Millmerran units 1 and 2 tripped from 399 MW and 424 MW respectively at 2207 hrs.	Line/generator trippings



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71	12/03/2013 14:30	VIC1	A	258	12491	48	VIC1-NSW1	-369	332	701	500	AGL Hydro rebid 224 MW of generation from Eildon and Dartmouth PS to \$12,900/MWh and 80 MW from McKay PS to \$12,491/MWh	Rebidding
							T-V-MNSP1	570	384	186	190		
72	12/03/2013 16:20	VIC1	A	18	1108	59	V-SA	-121	35	156	150	Highest demand (9774 MW) in VIC since 2 Feb 2011. Generation from Newport GT in VIC rebid to MPC for 3 DIs only, resulting in high price for 1615 hrs. Demand reduction of 209 MW for DI 1620 hrs in response to high price	Demand changes
							VIC1-NSW1	-156	155	311	500		
73	16/03/2013 22:30	QLD1	A	181	8500	47	NSW1-QLD1	245	-4	249	240	Earlier rebid from Braemar (within the TI), but 45 MW demand increase triggered price spike	Demand changes
74	17/03/2013 13:10	QLD1	A	14	1637	107	NSW1-QLD1	231	-45	276	240	High weekend demand in QLD. Constraint 855/872 binding. Price spike when rating of line 871 reduced	Rating changes
75	24/03/2013 23:35	SA1	A	194	62	12001	V-S-MNSP1	74	198	124	100	Demand increased by 217 MW in a 5-minute interval due to	Demand changes



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												Electranet's hot water load control	
76	28/03/2013 22:05	QLD1	A	5	54	300	N-Q-MNSP1	-33	47	80	80	Rebidding of generation from Gladstone PS, and significant step changes in the offers profiles of Kareeya, Braemar 2,3 and Stanwell PS	Rebidding
77	15/04/2013 07:10	SA1	A	138	91	12600	V-S-MNSP1	220	101	119	100	The outage constraint V>SML_BUDP_2 was invoked in preparation for the planned outage of the Dederang-Wodonga 330kV line. The constraint reduced the flow on Murraylink to SA to manage the loading on the Horsham to Waubra 220 kV line	Constraint Action
78	24/04/2013 20:35	SA1	A	174	12200	70	V-S-MNSP1	220	96	124	100	Hot water load pick up (ripple control) by Electranet. The load increase of 192 MW represented 14% increase in SA demand. In DI 2035 hrs units that were ramp rate up limited increased output.	Demand changes
79	29/04/2013 08:50	SA1	A	182	12195	67	V-S-MNSP1	220	50	170	100	Very low wind generation in SA. Increase in demand, and	Demand changes



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												constraint V>S_NIL_HYTX_HYTX that manages the post-contingent load on a Heywood 275/500 kV transformer, reduced flow to SA for DI 0840 hrs. In DI 0850 hrs units that were ramp rate up limited in previous DI increased output	
80	30/04/2013 22:50	QLD1	A	6	455	65	N-Q-MNSP1	72	-12	84	80	Tarong unit 3 reduced its available capacity from 365 MW to 140 MW. Fast start plant that could replace this withdrawn generation required more than one DI to synchronise.	Rebidding
81	06/05/2013 13:20	TAS1	A	15	50	780	T-V-MNSP1	412	208	204	190	A Sheffield-George Town 220 kV line was on a scheduled outage. A Tasmanian NCSPS constraint violated when the required Basslink transfer could not be achieved.	Constraint Action
82	15/05/2013 23:50	SA1	A	24	1370	54	V-SA	344	194	151	150	SA demand decreased by 122 MW in a 5-minute interval	Demand changes



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83	17/05/2013 20:15	SA1	A	219	12191	55	V-SA	434	262	172	150	Very low wind generation. Step change in the offer profiles for the generation of Torrens Island PS	Step change in Offer Profile
84	17/05/2013 22:10	SA1	A	204	11108	54	V-SA	460	90	370	150	Very low wind generation. Step change in the offer profiles of Torrens Island PS and Dry Creek	Step change in Offer Profile
85	17/05/2013 23:35	SA1	A	188	64	12191	V-SA	241	460	219	150	SA demand increased by 220MW in 5-minutes (hot water load)	Demand changes
86	17/05/2013 23:40	SA1	A	186	12191	65	V-SA	460	259	201	150	Non-scheduled generation starting up (Angaston and Port Stanvac), and rebidding of 235MW to bands priced at the market floor price	Rebidding
87	18/05/2013 23:35	SA1	A	9	60	591	V-SA	305	460	155	150	SA demand increased by 220MW in 5-minutes (hot water load)	Demand changes
88	22/05/2013 07:05	SA1	A	3	392	91	V-SA	300	460	160	150	Newport PS in Victoria tripped during morning load pick-up	Line/generator trippings
		VIC1	A	5	360	62							



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89	28/05/2013 17:50	VIC1	A	183	8092	44	VIC1-NSW1	-36	520	556	500	Extensive rebidding of generation capacity to negative price bands in SA and VIC, in response to a high price in previous DI	Rebidding
90	31/05/2013 12:15	SA1	A	204	11091	54	V-SA	422	177	245	150	42 MW demand increase coincided with a 122 MW drop in wind generation. Murraylink was on a scheduled outage. Osborne and Northern PS unit were ramp rate up limited	Demand changes
91	03/06/2013 23:35	SA1	A	189	58	11048	V-SA	309	460	151	150	Hot water load pickup of around 250 MW in 10 minutes (approximately 17% of the SA demand at the time)	Demand changes
92	04/06/2013 19:20	SA1	A	190	11048	58	V-SA	444	277	168	150	High demand, low wind, steep offer curve	Step change in Offer Profile
93	04/06/2013 23:45	SA1	A	174	11048	63	V-SA	460	275	185	150	Hot water load pickup of around 275 MW in 10 minutes (approx 18% of the SA demand at the time)	Demand changes



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94	07/06/2013 18:45	SA1	A	215	11091	51	V-SA	426	15	412	150	Rebids for the generation from Pelican Point GT and Northern PS 2 resulted in a price spike for DI 1840 hrs. Non-scheduled generation of 100MW came on in the next DI to reduce the price to \$51/MWh	Rebidding
95	17/06/2013 07:20	QLD1	A	275	12900	47	NSW1-QLD1	16	-334	350	240	An outage constraint for the Braemar-Tarong (8815) 275 kV line violated at for DI 0710 hrs, as the desired outcomes to satisfy the constraint could not be achieved	Constraint Action
96	18/06/2013 18:50	SA1	A	164	12194	74	V-S-MNSP1	195	44	151	100	Origin Energy rebid 72 MW from its Ladbroke Grove and Quarantine PS units from - \$1,000/MWh to \$12,194/MWh from DI ending 1845 hrs. Prices reduced in the next DI when 110 MW of non-scheduled generation came on-line	Rebidding
97	20/06/2013 07:40	QLD1	A	582	29743	51	NSW1-QLD1	128	-160	287	240	Millmerran rebid a total of 110MW to \$12,900/MWh during	Rebidding



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												demand pick up. Calvale-Tarong line outage constrained QLD generation. Interconnectors limited due to Tamworth-Armidale line outage	
98	20/06/2013 08:05	QLD1	A	5	-1000	253	NSW1-QLD1	-702	-422	280	240	From 0740 to 0800 hrs, extensive rebidding of generation to negative price bands after high prices. Prices increased when some of this generation was rebid to higher price bands again	Rebidding
							N-Q-MNSP1	56	-24	80	80		
99	21/06/2013 09:45	VIC1	A	45	280	12900	V-SA	227	28	199	150	Hazelwood PS unit 7 tripped from 135 MW at 0937 hrs. From DI 0940 hrs 600 MW was tripped and then withdrawn from Yallourn PS as part of an industrial action campaign. 40 MW from Northern PS unit was rebid to \$12,194/MWh	Line/generator trippings
		SA1	A	43	300	13079							
100	21/06/2013 09:50	VIC1	A	218	12900	59	VIC1-NSW1	-608	-4	604	500	Rebidding of generation in Victoria, and 111 MW response from Point Henry smelter to the high price	Rebidding



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101	21/06/2013 09:55	SA1	A	62	61	-1	V-SA	109	-146	255	150	Rebidding of generation in SA, and 104 MW response from non-scheduled generation to the high price	Rebidding
							V-S-MNSP1	-18	220	238	100		
102	21/06/2013 10:35	VIC1	A	227	57	12900	T-V-MNSP1	147	-59	206	190	Constraint invoked to manage Hazelwood – Yallourn line flows, after withdrawal of generation from Yallourn PS (industrial action). More than 500 MW constrained off in VIC	Rebidding
103	21/06/2013 10:40	VIC1	A	49	12900	258	V-S-MNSP1	-81	32	113	100	Extensive rebidding of generation capacity in Victoria and South Australia to bands priced at -\$1,000/MWh	Rebidding
		SA1	A	32	2477	75							
104	21/06/2013 10:45	TAS1	A	999	-1	-1000	T-V-MNSP1	-200	16	216	190	Extensive rebidding of generation capacity in Victoria, South Australia and Tasmania to bands priced at -\$1,000/MWh	Rebidding
		SA1	A	3	75	-37	V-S-MNSP1	32	-179	211	100		
105	21/06/2013 10:55	VIC1	A	8	124	-810	V-SA	-16	247	263	150	Extensive rebidding of generation capacity in in Victoria, South Australia and Tasmania to bands priced at -\$1,000/MWh	Rebidding
		SA1	A	21	-41	-900							



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106	21/06/2013 11:05	VIC1	A	8	-976	141	T-V-MNSP1	319	50	269	190	Rebids in Tasmania, Victoria and SA to the floor price were reversed	Step change in Offer Profile
107	21/06/2013 11:35	TAS1	A	5	-202	55	T-V-MNSP1	79	280	200	190	Step change in the offer profiles of Vic, SA and Tasmania at the start of the trading interval. Negative prices in previous DI due to rebidding	Step change in Offer Profile
		SA1	A	76	-6	69	V-S-MNSP1	-107	18	125	100		
108	21/06/2013 15:25	SA1	A	402	12194	-30	V-S-MNSP1	-18	-177	159	100	70 MW of generation capacity from Northern PS unit 1 was rebid to \$12,194/MWh, and 80 MW of capacity, previously offered at \$298/MWh, was withdrawn from the market	Rebidding
109	25/06/2013 10:35	TAS1	A	4	47	250	T-V-MNSP1	504	311	193	190	Change in offer profile at the start of the TI	Step change in Offer Profile
110	29/06/2013 23:50	SA1	A	162	11048	68	V-S-MNSP1	173	18	155	100	Demand increased by 224 MW from DI ending 2330 hrs to 2345 hrs, due to hot water load pick up. Pricing report published	Demand changes



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111	08/07/2013 11:00	TAS1	REJECTED	5	54	54	T-V-MNSP1	514	299	215	190	Hydro Tasmania SCADA failure; but prices were incorrectly rejected. MII report was published on website	Rejected
112	08/07/2013 18:45	SA1	A	89	11030	123	V-SA	460	305	155	150	High demand in SA, and very little wind generation (30MW). Change in offer curve and a rebid for AGL Hallett generation. Pricing Report published	Step change in Offer Profile
							V-S-MNSP1	172	3	169	100		
113	14/07/2013 22:00	TAS1	A	203	52	10607	T-V-MNSP1	302	91	211	190	A NCSPS type constraint that manages the post-contingent flow on a Hadspen-George Town 220 kV line, unswamped due to increased line flows on these lines. Pricing report published	Constraint Action
114	18/07/2013 21:35	TAS1	A	22	36	832	T-V-MNSP1	302	82	220	190	Reclassification constraints were invoked to manage the possible simultaneous tripping of parallel lines due to lightning - constrained off cheaper generation	Constraint Action



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115	18/07/2013 23:30	TAS1	A	514	31	15845	T-V-MNSP1	270	74	196	190	Reclassification constraints were invoked to manage the possible simultaneous tripping of parallel lines due to lightning - constrained off cheaper generation	Constraint Action
116	24/07/2013 06:35	QLD1	A	173	13100	75	N-Q-MNSP1	88	5	83	80	Due to technical problems, generation from Kogan Creek PS reduced from 661 MW to 577 MW over the morning peak period	Line/generator trippings
117	13/08/2013 23:05	TAS1	A	14	25	367	T-V-MNSP1	302	76	226	190	Reclassification constraints were invoked to manage the possible simultaneous tripping of parallel lines due to lightning - constrained off cheaper generation	Line/generator trippings
118	15/08/2013 08:20	SA1	A	184	12195	66	V-S-MNSP1	214	40	174	100	The Whayalla Terminal-Yadnarie, and the Yadnari-Port Lincoln 132 kV lines tripped at 0635 hrs. Pt Lincoln provided transmission support. Price spike occurred when Pt Lincoln	Line/generator trippings



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												withdrew capacity after lines were RTS	
119	18/08/2013 11:55	TAS1	A	22220	38	1069	T-V-MNSP1	522	307	215	190	Reclassification constraints were invoked to manage the possible simultaneous tripping of parallel lines due to lightning - constrained off cheaper generation	Constraint Action
120	20/08/2013 19:10	SA1	A	133	11108	83	V-S-MNSP1	173	18	155	100	Torrens Island B2 tripped at 1824 hrs. Demand increase resulted in price spike	Line/generator trippings
121	20/08/2013 20:00	SA1	A	160	11012	69	V-S-MNSP1	196	9	187	100	Rebidding to lower-priced bands in response to high prices	Rebidding
122	23/08/2013 07:40	TAS1	A	305	11707	38	T-V-MNSP1	63	294	232	190	High price in previous DI when NCSPS constraint unswamped due to increased line flows. Nyrstar smelter reduced load which resulted in lower price in following DI	Demand changes
123	28/08/2013 06:45	QLD1	A	260	13100	50	NSW1-QLD1	188	-449	637	240	Demand increase combined with steep supply curve	Demand changes



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124	08/09/2013 17:50	SA1	A	12	58	768	V-S-MNSP1	19	220	201	100	RTS of Heywood-Portland-Tarrone No. 1 500kV line was delayed. Mortlake started generating, which required higher SA exports to manage outage constraints	Constraint Action
							V-SA	250	-55	305	150		
125	08/09/2013 18:05	SA1	A	11	753	65	V-S-MNSP1	220	39	181	100	Mortlake rebid capacity to higher price bands in order to receive lower targets and non-scheduled generation came on-line in response to high prices	Rebidding
							V-SA	-228	31	259	150		
126	10/09/2013 07:05	SA1	A	184	71	13100	V-S-MNSP1	108	220	112	100	Ramping constraints were invoked for the planned outage of a Heywood-Tarrone-Moorabool line. These constraints increased flow to VIC; also a rebid for QPS5 generation	Constraint Action
127	11/09/2013 07:05	SA1	A	6	58	414	V-S-MNSP1	0	141	141	100	Ramping constraints were invoked for the planned outage of a Heywood-Tarrone-Moorabool line. These constraints increased flow to VIC	Constraint Action
							V-SA	126	-122	248	150		



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128	11/09/2013 19:35	SA1	A	12	60	797	V-S-MNSP1	18	159	141	100	Ramping constraints were invoked for the planned outage of a Heywood-Portland (APD) line; Heywood-Tarrone-Moorabool line was briefly offloaded during the switching	Constraint Action
							V-SA	259	3	257	150		
129	11/09/2013 20:35	SA1	A	7	50	422	V-S-MNSP1	-8	156	164	100	Rebid for AGL Hallett generation capacity, and step change in offer curve at the start of the TI	Step change in Offer Profile
130	16/09/2013 18:25	SA1	A	157	11108	70	V-SA	443	291	152	150	Murraylink and Pelican Point CCGT OOS after tripping earlier in the day. Demand pickup resulted in high prices; non-scheduled generators responded and prices reduced	Demand changes
131	27/09/2013 20:50	TAS1	A	501	39	19750	T-V-MNSP1	456	265	191	190	Reclassification constraints were invoked to manage the possible simultaneous tripping of parallel lines due to lightning - constrained off cheaper generation	Constraint Action



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132	28/09/2013 07:55	TAS1	A	182	17990	98	T-V-MNSP1	172	-26	198	190	The load at the NYRSTAR smelter reduced in response to high 5-minute prices	Demand changes
133	30/09/2013 16:05	SA1	A	5	63	369	V-SA	67	263	195	150	Torrens B3 withdrew 200 MW	Rebidding
134	10/10/2013 10:40	SA1	A	167	65	10928	V-S-MNSP1	58	159	101	100	North West Bend-Robertstown line outage, demand increase and rebidding of 40 MW to \$10,928/MWh	Rebidding
135	26/10/2013 18:55	QLD1	A	236	13100	55	NSW1-QLD1	217	-55	272	240	Some unit outages, anmd rebidding of capacity by Stanwell and CS Energy	Rebidding
136	22/11/2013 16:30	TAS1	A	498	43	21373	T-V-MNSP1	448	247	201	190	Reclassification constraints were invoked to manage the possible simultaneous tripping of parallel lines due to lightning - constrained off cheaper generation	Constraint Action
137	28/11/2013 15:50	TAS1	A	604	38	22858	T-V-MNSP1	530	319	211	190	Reclassification constraints were invoked to manage the possible simultaneous tripping of parallel lines due to lightning -	Constraint Action



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
												constrained off cheaper generation	
138	05/12/2013 13:50	TAS1	A	11	38	478	T-V-MNSP1	352	107	245	190	Reclassification constraints were invoked to manage the possible simultaneous tripping of parallel lines due to lightning - constrained off cheaper generation	Constraint Action
139	19/12/2013 17:25	SA1	A	209	91	19106	V-S-MNSP1	24	-115	140	100	Heat wave VIC/SA, and peak demand period Automated constraint for O/L on DDTS-SHTS invoked for 1725 hrs(reclassification due to storms) , constraining off VIC generation and increasing flow to NSW, reducing flow to SA	Constraint Action
		VIC1	A	254	51	13075	V-SA	297	70	228	150		
140	19/12/2013 20:30	SA1	A	184	13100	71	V-SA	245	12	232	150	Heat wave VIC/SA. 485 MW from Torrens Island PS was rebid to \$13,099.99/MWh	Rebidding
141	20/12/2013 13:30	VIC1	A	23	44	-970	VIC1-NSW1	-423	-1013	590	500	Extensive rebidding of capacity in response to high prices in previous DIs	Rebidding
		NSW1	A	24	7338	299							



Incident number	DATETIME	REGION	PRICE STATUS (A = accepted, R = rejected)	PRICE CHANGE (Absolute)	Previous ROP (\$/MWh)	Current ROP (\$/MWh)	INTERCONNECTOR	Prev Flow (MW)	Flow (MW)	Abs change in flow (MW)	Region flow threshold (MW)	Explanation	Reason
142	20/12/2013 13:35	NSW1	A	3	299	72	VIC1-NSW1	-1013	-419	594	500	Step change in the offer profiles of NSW generators at the start of the trading interval; reversing rebids for DI 1330 hrs	Step change in Offer Profile
		VIC1	A	23	-970	44							
143	20/12/2013 14:25	NSW1	A	111	65	7309	VIC1-NSW1	181	-462	644	500	Rating change and increased flows on Ballarat-Bendigo lines caused constraint to violate (hot day in NSW)	Rating changes
144	22/12/2013 18:15	QLD1	A	5	57	340	NSW1-QLD1	-104	-368	264	240	Increased line flows on Murray-UT (65) and Murray LT (66) resulted in constraint binding. Reduced NSW generation and VIC-NSW flows; additional support from QLD and \$340/MWh offers also cleared from Tumut 3. In addition, VP5 rebid 60 MW to high price band and withdrew 180 MW of capacity.	Demand changes



APPENDIX C – THE MII PRICE REVIEW PROCESS

The MII price review process was implemented in AEMO’s market systems on 1 June 2006.

The process was introduced to manage the risks of setting electricity prices that were inconsistent with the actual operating state of the power system. The design also aimed to strike a balance between the uncertainty introduced by a price review process and the accuracy of spot market pricing.

An automated procedure to detect dispatch intervals that may contain MII was developed in consultation with participants. The automated procedure is based on changes to prices within – and interconnector flows to or from – a region. A dispatch interval identified by the automated procedure is flagged as “subject to review”.

As soon as a dispatch interval is flagged as subject to review, a Market Notice is automatically generated that identifies the dispatch interval and prices that are under review. Subsequent dispatch intervals are also flagged as subject to review until the prices in the original dispatch interval have been either accepted or rejected.

AEMO has a short time to reject the prices from any dispatch interval that is subject to review. The prices will be rejected only if AEMO considers that the dispatch interval contained manifestly incorrect inputs. In other words, prices will be rejected only if one or more of the inputs used in the dispatch algorithm appears clearly wrong. If the prices have been neither rejected nor accepted after 30 minutes they are automatically accepted.

If the prices from a dispatch interval are rejected, they are replaced with the prices from the most recent dispatch interval that was not subject to review. In this case a Market Notice is automatically generated that identifies the dispatch interval, the original prices, and the revised prices.

If the prices from a dispatch interval that was subject to review are accepted, a Market Notice is automatically generated that identifies the dispatch interval and states that the original prices have been confirmed.

The entire MII price review process is detailed in Power System Operating Procedure 3705. This procedure covers market operation in relation to the power system, and is available at http://www.aemo.com.au/Electricity/Policies-and-Procedures/System-Operating-Procedures/-/media/Files/Other/SystemOperatingProcedures/SO_OP_3705_Dispatch_v79.ashx. The relevant parts of this procedure are s.20 and Appendix B.



GLOSSARY

Term	Definition
DI	dispatch interval
MII	Manifestly Incorrect Input
MFP	Market Floor Price
MPC	Market Price Cap
NEM	National Electricity Market
ROP	Regional Original Price
RRP	Regional Reference Price
Rules	National Electricity Rules
TNSP	Transmission Network Service Provider