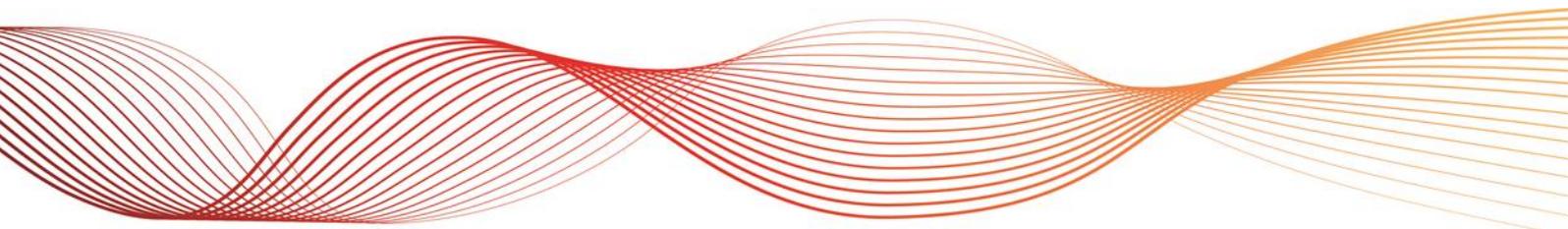




THE EFFECTIVENESS OF THE AUTOMATED PROCEDURES FOR IDENTIFYING DISPATCH INTERVALS SUBJECT TO REVIEW

2012 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

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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.

The automated procedure appears to have achieved its primary purpose in 2012. The primary purpose of the automated procedure is to detect instances where manifestly incorrect inputs may have resulted in material differences in pricing outcomes. The only known dispatch interval which contained manifestly incorrect inputs in 2012 was detected by the automated procedure, and the prices were subsequently rejected.

However, the rate of false positives for the automated procedure was over 99%. In other words, over 99% of the dispatch intervals that were flagged as subject to review contained no manifestly incorrect inputs. Each false positive creates market price uncertainty, requires resources to review, and creates the possibility of incorrectly rejecting the dispatch interval prices.



CONTENTS

EXECUTIVE SUMMARY	1
1 – INTRODUCTION	3
2 – THE AUTOMATED PROCEDURE	4
3 – PRICE AND FLOW THRESHOLDS	5
3.1 Price thresholds	5
3.2 Flow thresholds	5
4 – 2012 RESULTS	7
5 – CONCLUSIONS	8
APPENDIX A – AEMO’S RULES OBLIGATIONS ON MANIFESTLY INCORRECT INPUTS	9
APPENDIX B – DISPATCH INTERVALS SUBJECT TO REVIEW DURING 2012	10
APPENDIX C – THE MII PRICE REVIEW PROCESS	42
GLOSSARY	43



1 – INTRODUCTION

This report analyses the effectiveness of AEMO's automated procedure for identifying dispatch intervals subject to review during 2012. 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 2012.

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 2012. 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

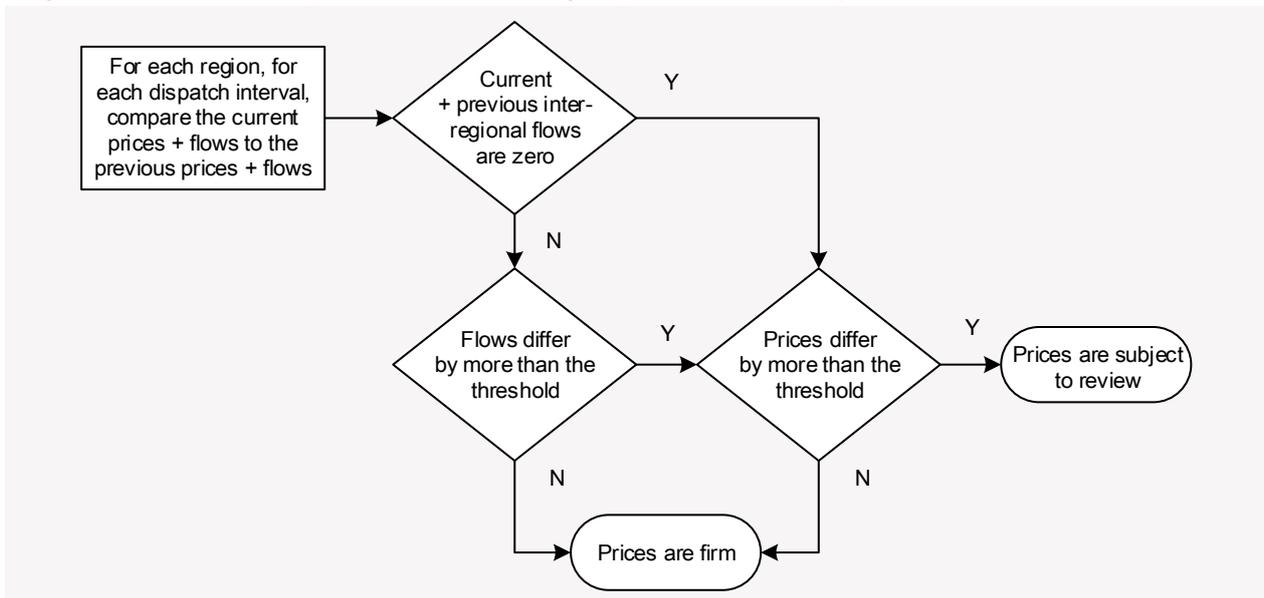
This section provides a general description of the automated procedure for detecting dispatch intervals subject to review.

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 – 2012 RESULTS

This section summarises the results from AEMO's automated procedure for detecting manifestly incorrect inputs during 2012.

The automated procedure flagged 152 dispatch intervals as subject to review during 2012. Of these 152 dispatch intervals, the prices were accepted in 151 dispatch intervals and rejected in the remaining dispatch interval. AEMO knows of no other dispatch intervals in 2012 that contained MII. Consequently the automated procedure appears to have achieved its primary purpose, which is to detect instances where MII may have resulted in material differences in pricing outcomes.

However, the rate of false positives for the automated procedure was over 99%. In other words, over 99% of the dispatch intervals that were flagged as subject to review contained no MII.



5 – CONCLUSIONS

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

The current automated procedure appeared effective in meeting its primary purpose in 2012, even though the rate of false positives in 2012 was over 99%.

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 2012

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	10/01/2012 14:15	QLD1	A	153	173	19	NSW1-QLD1	-38	-305	267	240	High demand due to hot weather. Binding constraint limits flow to QLD. Prices reduced when 1044 MW of QLD generation offers were rebid into negative price bands and fast start plant received targets.	Rebidding
2	11/01/2012 04:10	SA1	A	931	-923	8	V-S-MNSP1	-35	-162	127	100	Varying wind conditions in south east South Australia that intermittently caused constraint equations (Robertstown and South East transformers) to bind.	Constraint Action
3	12/01/2012 09:40	QLD1	A	575	12500	22	N-Q-MNSP1	40	-40	80	80	High demand due to hot weather. Binding constraint limits flow to QLD. Dynamic rating of line 871 changed causing constraint violation in DI 0935, with prices returning to normal levels when approx 1800 MW was	Rating changes
							NSW1-QLD1	-196	-479	284	240		



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
												rebid to negative offer bands.	
4	12/01/2012 14:05	QLD1	A	51	27	1387	NSW1-QLD1	-526	-175	351	240	Yarwun generating unit tripped. With some units being ramp rate constrained, expensive offers set the price.	Line/generator trippings
5	12/01/2012 14:15	QLD1	A	1349	1368	20	NSW1-QLD1	-288	-601	313	240	Market response to Yarwun trip. Over 1900 MW of generation capacity re-offered into lower cost offer bands.	Rebidding
6	13/01/2012 09:35	QLD1	A	46	30	1416	NSW1-QLD1	-161	80	241	240	High demand due to hot weather. Binding constraint 855/871 limits flow to QLD. Gladstone power station rebid 440 MW of generation into bands priced at over \$1300 per MWh for DIs 0935 to 1000 hrs.	Rebidding
7	13/01/2012 10:05	QLD1	A	6	169	23	N-Q-MNSP1	37	-43	80	80	Change in offer profile of Gladstone power station to what it was prior to the rebid (refer to incident above).	Rebidding
8	15/01/2012 16:00	QLD1	A	134	18	152	N-Q-MNSP1	-100	-20	81	80	Binding constraint limits flow to QLD, and	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
												constrains off generation in QLD (855/871).	
9	15/01/2012 16:10	QLD1	A	6	21	150	N-Q-MNSP1	-77	3	80	80	Binding constraint limits flow to QLD, and constrains off generation in QLD (855/871).	Constraint Action
10	15/01/2012 16:15	QLD1	A	131	150	18	N-Q-MNSP1	3	-78	82	80	Binding constraint limits flow to QLD, and constrains off generation in QLD (855/871).	Constraint Action
11	22/01/2012 07:35	VIC1	A	5	21	-88	V-S-MNSP1	-18	208	226	100	Additional 551 MW of generation capacity offered in negative price bands.	Step change in Offer Profile
							V-SA	-3	-243	240	150		
12	24/01/2012 15:25	VIC1	A	9	48	465	T-V-MNSP1	452	255	197	190	A constraint equation that manages provision of frequency raise services during high Basslink transfer towards VIC violated. Constraint designed to cover generation tripping by the NCSPS in TAS.	Constraint Action
		TAS1	A	210	42	8974	T-V-MNSP1	452	255	197	190		
13	24/01/2012 15:30	SA1	A	10	494	44	V-SA	207	433	227	150	Additional 1473 MW of generation capacity in VIC offered in cheaper price bands.	Step change in Offer Profile



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
		VIC1	A	450	465	15	VIC1-NSW1	-462	23	485	500		
14	27/01/2012 12:05	QLD1	A	36	26	951	NSW1-QLD1	-655	-414	241	240	The dynamic rating of Calvale–Stanwell No. 855 line reduced and caused a constraint equation to bind. Generation in QLD was constrained off and flow on QNI towards QLD limited.	Rating changes
15	27/01/2012 12:10	QLD1	A	37	951	25	NSW1-QLD1	-414	-825	412	240	Fast start generators received instructions to start; constraint RHS more relaxed allowing for more generation in QLD; slight decrease in 5 min demand.	Step change in Offer Profile
16	27/01/2012 12:40	QLD1	A	6	24	160	N-Q-MNSP1	-48	33	81	80	Binding constraint (855/871). Gladstone rebid to higher price bands, resulting in generation priced at - \$1000 per MWh being constrained off.	Rebidding
17	27/01/2012 15:10	QLD1	A	44	949	-22	NSW1-QLD1	-442	-688	246	240	Additional 200 MW of generation capacity in QLD offered in negative bands; coinciding with a	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
												120 MW decrease in demand.	
18	28/01/2012 13:30	QLD1	A	5	30	169	N-Q-MNSP1	-134	-52	82	80	Constraint (855/871) bound when 855 dynamic rating was lowered, constraining off generation in QLD. Coincided with Gladstone rebidding to higher price bands.	Rating changes
19	29/01/2012 12:15	QLD1	A	7	158	-871	NSW1-QLD1	-1070	-830	240	240	Additional 343 MW of generation capacity in QLD rebid in negative bands; coinciding with a 100 MW decrease in demand.	Rebidding
20	29/01/2012 12:25	QLD1	A	501	-482	18	N-Q-MNSP1	37	-43	80	80	1000 MW of generation capacity in QLD rebid from negative bands to higher price bands.	Rebidding
21	29/01/2012 13:20	QLD1	A	153	20	173	N-Q-MNSP1	-98	-17	81	80	Increase in QLD demand causing constraint (855/871) to bind, constraining off generation in QLD. Gladstone units trapped by FCAS trapeziums.	Constraint Action
22	29/01/2012 13:45	QLD1	A	5	28	174	N-Q-MNSP1	-102	-21	80	80	Increase in QLD demand causing constraint (855/871) 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
												bind, constraining off generation in QLD. Gladstone units trapped by FCAS trapeziums.	
23	29/01/2012 14:15	QLD1	A	888	10	898	N-Q-MNSP1	-39	43	82	80	Increase in QLD demand causing constraint (871/855) to bind, constraining off generation in QLD. Gladstone units trapped by FCAS trapeziums.	Constraint Action
24	29/01/2012 15:40	QLD1	A	4	30	142	N-Q-MNSP1	-102	-19	82	80	Increase in QLD demand causing constraint (871/855) to bind, constraining off generation in QLD. Gladstone units limited by ramp up rate of change.	Constraint Action
25	29/01/2012 15:45	QLD1	A	126	142	15	N-Q-MNSP1	-19	-101	81	80	Refer to incident (24). Fast start plant received start signals and Gladstone units increased output.	Step change in Offer Profile
26	31/01/2012 13:50	QLD1	A	41	32	1342	NSW1-QLD1	-618	-327	290	240	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrains off generation in QLD (855/871).	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
27	02/02/2012 14:25	QLD1	A	5	31	180	N-Q-MNSP1	-62	18	81	80	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrains off generation in QLD (855/871).	Rebidding
28	02/02/2012 14:30	QLD1	A	5	180	29	N-Q-MNSP1	18	-62	81	80	Decrease in 5 minute demand relieved the binding constraint (855/871); not constraining off lower priced generation in QLD	Constraint Action
29	02/02/2012 15:10	QLD1	A	5	30	179	N-Q-MNSP1	-81	0	81	80	Barcardine in QLD reduced availability, which resulted in the binding of constraint (855/871)	Rebidding
30	03/02/2012 12:20	QLD1	A	6	27	174	NSW1-QLD1	-898	-656	243	240	Gladstone Power Station rebids resulted in the binding of constraint (855/871)	Rebidding
31	09/02/2012 15:10	QLD1	A	14	1474	95	NSW1-QLD1	-109	-389	-281	240	The dynamic rating of Calvale–Stanwell No. 855 line reduced and caused a constraint equation to bind. Prices reduced when approximately 850 MW of generation was shifted to the negative	Rating 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
												priced bands and a decrease in demand	
32	13/02/2012 15:30	QLD1	A	10	27	299	NSW1-QLD1	-652	-336	316	240	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
33	14/02/2012 13:55	QLD1	A	5	29	179	N-Q-MNSP1	-41	39	80	80	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
34	14/02/2012 14:25	QLD1	A	9	27	271	N-Q-MNSP1	-49	32	81	80	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
35	14/02/2012 14:35	QLD1	A	9	271	27	N-Q-MNSP1	48	-32	-80	80	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
36	14/02/2012 15:05	QLD1	A	9	271	28	NSW1-QLD1	-478	-769	-291	240	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained	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
												generation in QLD (855/871).	
37	14/02/2012 15:25	QLD1	A	49	26	1294	NSW1-QLD1	-941	-650	291	240	Gladstone and Yabulu Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
38	15/02/2012 14:35	QLD1	A	5	175	27	N-Q-MNSP1	39	-41	-80	80	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
39	15/02/2012 14:55	QLD1	A	6	26	173	N-Q-MNSP1	-113	-32	81	80	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
40	15/02/2012 15:05	QLD1	A	6	170	24	N-Q-MNSP1	45	-36	-81	80	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
41	15/02/2012 16:05	QLD1	A	5	168	28	N-Q-MNSP1	34	-46	-80	80	Constraint previously limiting flow to QLD and constrained generation in QLD (855/871) was	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
												no longer binding. This allowed more generation in QLD and reduced the QLD price.	
42	17/02/2012 15:15	QLD1	A	6	26	174	NSW1-QLD1	-606	-311	295	240	Binding constraint limits flow to QLD, and constrains off generation in QLD (855/871) while the demand increased by 78 MW.	Constraint Action
43	17/02/2012 15:20	QLD1	A	6	174	26	NSW1-QLD1	-311	-585	-274	240	Demand decreased by 22 MW and QLD generators were able to generate more with a more relaxed RHS of the 855/871 constraint	Constraint Action
44	17/02/2012 15:35	QLD1	A	9	27	272	NSW1-QLD1	-733	-458	275	240	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (855/871).	Rebidding
45	19/02/2012 16:00	QLD1	A	37	37	1375	NSW1-QLD1	-234	126	360	240	The dynamic rating of Calvale–Stanwell No. 855 line reduced and caused a constraint equation to bind (871/855) and Gladstone Power Station rebid	Rating 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
46	19/02/2012 16:05	QLD1	A	44	1375	30	NSW1-QLD1	126	-338	-464	240	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (871/855).	Rebidding
47	19/02/2012 16:55	QLD1	A	44	30	1347	NSW1-QLD1	-668	-260	407	240	Gladstone Power Station rebid; binding constraint limits flow to QLD and constrained generation in QLD (871/855).	Rebidding
48	20/02/2012 12:50	QLD1	A	8	33	283	N-Q-MNSP1	-73	8	81	80	Gladstone Power Station rebid; binding constraint limited flow to QLD and constrained generation in QLD (855/871)	Rebidding
49	20/02/2012 13:20	QLD1	A	7	36	284	N-Q-MNSP1	-73	7	80	80	Gladstone Power Station rebid; binding constraint limited flow to QLD and constrained generation in QLD (855/871)	Rebidding
50	20/02/2012 13:50	QLD1	A	35	38	1356	N-Q-MNSP1	-73	8	81	80	Gladstone Power Station rebid; increase in demand and binding constraint limited flow to QLD and constrained	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
												generation in QLD (855/871)	
51	21/02/2012 12:50	QLD1	A	6	26	174	NSW1-QLD1	-687	-427	260	240	Gladstone Power Station rebid; binding constraint limited flow to QLD and constrained generation in QLD (855/871)	Rebidding
52	21/02/2012 13:15	QLD1	A	47	28	1354	NSW1-QLD1	-542	-170	372	240	Gladstone Power Station rebid; binding constraint limited flow to QLD and constrained generation in QLD (855/871)	Rebidding
53	22/02/2012 15:20	QLD1	A	46	28	1296	N-Q-MNSP1	-65	15	80	80	Gladstone Power Station rebid; Stanwell Power Station reduced capacity; a generator trapped by its FCAS capability; binding constraint limited flow to QLD and constrained generation in QLD (855/871)	Rebidding
54	22/02/2012 15:55	QLD1	A	8	29	274	NSW1-QLD1	-730	-475	256	240	Gladstone Power Station rebid; binding constraint limited flow to QLD and constrained generation in QLD (855/871)	Rebidding



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55	01/03/2012 14:40	QLD1	A	9	28	281	NSW1-QLD1	-325	-48	276	240	Gladstone Power Station rebid; binding constraint limited flow to QLD and constrained generation in QLD (855/871)	Rebidding
56	01/03/2012 14:45	QLD1	A	9	281	27	NSW1-QLD1	-48	-330	282	240	Refer to incident 8. Fast start plant received dispatch targets.	Step change in Offer Profile
57	01/03/2012 14:55	QLD1	A	6	176	26	N-Q-MNSP1	27	-54	82	80	Decrease in demand; Constraint 855/871 not binding freed up generation in QLD	Constraint Action
58	01/03/2012 16:25	QLD1	A	5	179	30	NSW1-QLD1	-130	-379	249	240	Decrease in demand; rebid from Braemar Power Station to lower price bands	Rebidding
59	02/03/2012 09:45	QLD1	A	11	22	270	NSW1-QLD1	-613	-285	328	240	Gladstone Power Station rebid; binding constraint limited flow to QLD and constrained generation in QLD (855/871)	Rebidding
60	02/03/2012 10:25	QLD1	A	1261	19	1279	NSW1-QLD1	-895	-645	250	240	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding



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61	02/03/2012 10:55	QLD1	A	140	18	157	N-Q-MNSP1	-79	2	81	80	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
62	04/03/2012 13:40	QLD1	A	5	21	127	N-Q-MNSP1	-48	32	80	80	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
63	04/03/2012 16:05	QLD1	A	5	158	26	N-Q-MNSP1	43	-39	81	80	Dynamic rating of line 855 increased. Constraint (855/871) not binding	Rating changes
64	04/03/2012 17:05	QLD1	A	4	134	27	N-Q-MNSP1	35	-46	81	80	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
65	05/03/2012 11:55	QLD1	A	6	26	176	NSW1-QLD1	-436	-188	248	240	Dynamic ratings of lines 855 and 871 reduced. Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rating changes
66	05/03/2012 12:05	QLD1	A	7	1376	168	NSW1-QLD1	-199	-480	281	240	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
67	05/03/2012 12:25	QLD1	A	51	25	1325	NSW1-QLD1	-882	-609	272	240	Gladstone Power Station rebid and	Rebidding



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												constrained generation in QLD (855/871)	
68	05/03/2012 12:45	QLD1	A	5	139	23	NSW1-QLD1	-505	-844	339	240	Substantial rebidding of QLD generation to lower price bands	Rebidding
69	05/03/2012 15:10	QLD1	A	7	21	159	N-Q-MNSP1	-141	-59	82	80	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
70	05/03/2012 16:25	QLD1	A	5	26	158	N-Q-MNSP1	-78	3	81	80	Demand increase; constrained generation in QLD (855/871); a number of units trapped by their FCAS capability	Constraint Action
71	05/03/2012 16:30	QLD1	A	6	158	24	N-Q-MNSP1	3	-78	81	80	Dynamic ratings of lines 855 and 871 increased. Constraint (855/871) not binding	Rating changes
72	06/03/2012 13:35	QLD1	A	1309	1328	19	NSW1-QLD1	-574	-834	260	240	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
73	06/03/2012 14:00	QLD1	A	1250	1268	18	N-Q-MNSP1	45	-36	80	80	Demand decrease; fast start unit received target	Step change in Offer Profile



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74	08/03/2012 16:30	QLD1	A	5	25	160	N-Q-MNSP1	-81	-1	80	80	Decrease in rating of line 855 and constrained generation in QLD; Gladstone Power Station rebid	Rating changes
75	09/03/2012 12:50	QLD1	A	12	20	260	NSW1-QLD1	-999	-714	285	240	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
76	09/03/2012 13:05	QLD1	A	12	260	20	N-Q-MNSP1	43	-37	-81	80	Demand decreased; Gladstone Power Station and other QLD generators rebid to lower priced bands	Rebidding
77	09/03/2012 13:25	QLD1	A	239	18	257	N-Q-MNSP1	-145	-64	81	80	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
78	09/03/2012 14:40	QLD1	A	143	162	19	N-Q-MNSP1	31	-50	-81	80	Demand decreased; QLD generation rebid to lower priced bands	Rebidding
79	09/03/2012 15:20	QLD1	A	20	-460	25	N-Q-MNSP1	39	-41	-80	80	Negative residue management ceased which allowed more flow into NSW from QLD	Constraint Action
80	10/03/2012 13:30	QLD1	A	5	151	952	N-Q-MNSP1	-115	-34	81	80	Gladstone Power Station rebid; decrease in rating of line 855 and	Rating changes



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												constrained generation in QLD (871/855)	
81	10/03/2012 16:30	QLD1	A	4	127	24	N-Q-MNSP1	34	-47	-81	80	Gladstone Power Station rebid to its normal priced bands (less than \$40/MWh)	Rebidding
82	11/03/2012 13:15	QLD1	A	143	18	161	N-Q-MNSP1	-177	-96	82	80	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding
83	11/03/2012 13:45	QLD1	A	6	118	-22	N-Q-MNSP1	46	-35	-80	80	Demand decreased; QLD generation rebid to lower priced bands	Rebidding
84	11/03/2012 14:05	QLD1	A	5	119	22	N-Q-MNSP1	48	-32	-80	80	Demand decreased; Callide Power Station rebid to lower priced bands	Rebidding
85	11/03/2012 14:50	QLD1	A	107	119	12	N-Q-MNSP1	45	-35	-80	80	Demand decreased and price was set by generation in the lower priced bands	Demand changes
86	11/03/2012 15:55	QLD1	A	6	23	159	N-Q-MNSP1	-114	-33	81	80	Gladstone Power Station rebid and constrained generation in QLD (855/871)	Rebidding



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87	23/03/2012 09:45	TAS1	A	19	27	548	T-V-MNSP1	382	183	199	190	Constraint equation (ensuring Basslink is able to fully compensate fast NCSPS action from Western NCSPS generation) reduced flow VIC	Constraint Action
88	23/03/2012 12:20	QLD1	A	4	25	129	N-Q-MNSP1	-66	16	82	80	QLD Demand increased and price was set by generation offer in higher priced band	Demand changes
89	23/03/2012 12:25	QLD1	A	4	129	25	N-Q-MNSP1	16	-65	81	80	Slight decrease in QLD demand	Demand changes
90	23/03/2012 13:05	QLD1	A	4	25	124	N-Q-MNSP1	-73	8	81	80	Increase in demand; constraint 855/871 binding and constraining off generation in QLD. Higher priced offer cleared from Gladstone PS	Constraint Action
91	23/03/2012 13:55	QLD1	A	4	119	22	N-Q-MNSP1	37	-43	80	80	Increase in dynamic rating of line 871, constraint 855/871 less severe which freed up previously constrained off generation	Rating changes
92	23/03/2012 14:30	QLD1	A	6	23	169	N-Q-MNSP1	-98	-18	80	80	Decrease in dynamic rating of line 871, constraint 855/871	Rating changes



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												constraining off generation in QLD	
93	23/03/2012 15:05	QLD1	A	5	1696	272	NSW1-QLD1	-917	-648	270	240	Decrease in dynamic rating of line 871, constraint 855/871 constraining off generation in QLD	Rating changes
94	23/03/2012 16:05	QLD1	A	5	123	21	N-Q-MNSP1	38	-43	81	80	Constraint action (855/871). Braemar PS moving 136 MW to lower price bands; Constraint action reduced Gladstone PS target; lower priced offer cleared	Constraint Action
95	24/03/2012 16:10	QLD1	A	4	23	118	N-Q-MNSP1	-70	10	81	80	Constrained generation in QLD (871/855). Gladstone PS rebid 240MW to higher price bands	Rebidding
96	24/03/2012 16:20	QLD1	A	128	-11	117	N-Q-MNSP1	-70	11	81	80	Price went negative when Callide rebid to negative price bands. Constraint action reduced Gladstone PS target. Demand increase at 16:20 cleared expensive Gladstone offers	Rebidding



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97	18/04/2012 16:05	TAS1	A	318	55	17652	T-V-MNSP1	244	26	218	190	Sheffield-Palmerston 220 kV line tripped. NCSPS offloaded 2 Reece units. Outage constraint violated during this DI	Line/generator trippings
98	22/04/2012 09:55	SA1	A	8	20	-145	V-SA	-419	-263	156	150	Low demand and high wind generation. Increase in wind encouraged constraint action to manage post contingent flow through 275 kV South East transformer	Constraint Action
99	05/05/2012 15:30	QLD1	A	5	26	166	NSW1-QLD1	-1017	-749	268	240	Constrained generation in QLD (855/871). Gladstone PS rebid 240MW to higher priced bands	Rebidding
100	29/06/2012 19:00	TAS1	A	7	33	260	T-V-MNSP1	312	116	196	190	Reclassification due to lightning - loss of Georgetown to Sheffield 220kV lines declared credible. TAS generation constrained.	Constraint Action
101	02/07/2012 12:25	VIC1	A	58	14193 (8600 after capping)	50042 (12900 after capping)	T-V-MNSP1	535	0	535	190	Basslink tripped from exporting 582 MW towards Victoria. A security constraint violated when required	Line/generator trippings



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												interconnector flows could not be achieved.	
102	02/07/2012 12:30	QLD1	A	17	58	-957	NSW1-QLD1	-1000	-689	311	240	Prices reduced significantly due to extensive rebidding across the NEM and the dispatch of fast start plant in SA and VIC.	Rebidding
		NSW1	A	5	272	-1000	N-Q-MNSP1	-170	-89	81	80		
		VIC1	A	2709	838500	309	V-S-MNSP1	99	220	121	100		
		SA1	A	2674	800463	299							
103	03/07/2012 16:20	SA1	A	5396	105	567550 (300 after OCD was resolved)	V-S-MNSP1	81	227	146	100	Prior line outages in SA, with actual LOR 2 condition declared. After a rebid, a Mortlake unit received a dispatch target. A constraint equation caused large changes in SA generation, and violated for one DI. Prices marked as subject to review and market notice was issued	Rebidding
							V-SA	220	-86	306	150		
104	03/07/2012 16:25	SA1	A	7456	567550 (300 after OCD was resolved)	76	V-S-MNSP1	227	57	169	100	Constraint violation cleared	Constraint Action



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105	18/07/2012 19:10	SA1	A	5	590	95	V-S-MNSP1	201	89	112	100	High evening demand in SA and low wind. Stability constraints in SA binding, limiting flow to SA. Price spike when expensive offer was cleared. Prices reduced with fast start plant and drop off in demand.	Demand changes
106	23/07/2012 12:50	NSW1	R	4	64	350 (64 after price was rejected)	VIC1-NSW1	-9	-961	952	500	Incorrect generation value for Challicum Hills wind farm was fed into a constraint, whilst injection tests were carried out at the plant. AEMOs automated procedures detected a MII for DI ending 1250 hrs. Prices were rejected and replaced with prices of DI 1245 hrs, as per the Rules.	Rejected
		VIC1	R	406	65	-26430 (65 after price was rejected)	VIC1-NSW1	-9	-961	952	500		
		QLD1	R	4	65	333 (65 after price was rejected)	T-V-MNSP1	478	277	201	190		
107	23/07/2012 12:55	QLD1	A	5	333	58	NSW1-QLD1	-474	-206	268	240	Incorrect generation value for Challicum Hills wind farm was fed into a constraint, whilst injection tests were	Reversal of an input error (next DI)



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												carried out at the plant. AEMOs automated procedures detected a MII for DI ending 1250 hrs. Prices were rejected and replaced with prices of DI 1245 hrs, as per the Rules.	
108	02/08/2012 05:05	TAS1	A	12	56	-600	T-V-MNSP1	-307	-76	231	190	Change in the generation profile of Hydro TAS, with 779MW of capacity moved to negative price bands. Basslink turning around from importing into TAS.	Step change in Offer Profile
109	04/08/2012 16:40	QLD1	A	3	53	235	N-Q-MNSP1	-81	0	81	80	Increased flow through lines 855 and 871 resulted in Q>>NIL_871_855 binding. Flow on QNI reduced as per ramp rate, and expensive offer from Stanwell cleared to relieve constraint.	Constraint Action
110	04/08/2012 16:45	QLD1	A	3	235	53	N-Q-MNSP1	0	-82	82	80	Q>>NIL_871_855 no longer binding. Flow on QNI increased as per ramp rate.	Constraint Action
111	04/08/2012 17:05	QLD1	A	4	245	54	N-Q-MNSP1	44	-37	81	80	Number of QLD generators moved	Rebidding



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												generation offers into cheaper price bands	
112	19/08/2012 23:35	SA1	A	167	71	11947	V-S-MNSP1	76	202	125	100	Demand increase of 177 MW due to ripple control. Very low wind generation and a number of generating units in SA was ramp rate up limited for one DI.	Demand changes
113	25/08/2012 11:05	QLD1	A	13	-795	69	NSW1-QLD1	-689	-936	247	240	Constraint 855/871. Negative residue management constraint revoked. Allows more flow from QLD to NSW on QNI	Constraint Action
114	25/08/2012 12:10	QLD1	A	6	68	-311	N-Q-MNSP1	37	-45	82	80	Constraint 855/871. Fast start plant started generating, which relieved 855/871 constraint. Previously constrained off generation offered at negative prices cleared.	Constraint Action
115	26/08/2012 08:50	QLD1	A	6	352	51	NSW1-QLD1	-773	-1038	264	240	Constraint 855/871 binding. Constraint relaxed when fast start plant received target, and the line flow on 855 reduced. Cheaper generation offer,	Constraint Action



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												previously constrained off, could be cleared	
116	26/08/2012 10:45	QLD1	A	6	-264	1427	N-Q-MNSP1	-85	-5	80	80	Constraint 855/871 binding. Gladstone units, which can relieve the constraint, rebid 300MW to bands priced at close to MPC	Rebidding
117	30/08/2012 11:40	QLD1	A	3	192	45	NSW1-QLD1	-543	-811	268	240	Constraint 855/871 binding. Dynamic rating reduced from 787 MVA to 745 MVA; constraining of negatively priced generation offers	Rating changes
							N-Q-MNSP1	5	-98	103	80		
118	30/08/2012 13:35	QLD1	A	28	-1000	37	N-Q-MNSP1	24	-58	82	80	Constraint 855/871 binding. Extensive rebidding across QLD	Rebidding
119	31/08/2012 12:00	QLD1	A	3	47	187	N-Q-MNSP1	-103	-23	81	80	Constraint 855/871 binding. Generation from Gladstone units, which can relieve the constraint, was rebid to bands priced at MPC for DI 1200 hrs only	Rebidding
120	31/08/2012 12:05	QLD1	A	3	187	46	N-Q-MNSP1	-23	-105	83	80	Constraint 855/871 binding. Generation from Gladstone units, which can relieve the constraint, was rebid to bands priced at MPC for DI 1200 hrs only	Rebidding



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121	01/09/2012 12:05	QLD1	A	44	-998	23	N-Q-MNSP1	36	-46	82	80	Extensive rebidding across QLD	Rebidding
122	03/09/2012 12:10	QLD1	A	5	-330	1471	NSW1-QLD1	-1017	-764	253	240	Constraint 855/871 binding. Generation from Gladstone units, which can relieve the constraint, was rebid to bands priced at MPC	Rebidding
123	03/09/2012 12:35	QLD1	A	1000	-1000	0	N-Q-MNSP1	36	-46	82	80	Constraint 855/871 binding. Extensive rebidding across QLD	Rebidding
124	03/09/2012 13:10	QLD1	A	15	-381	27	N-Q-MNSP1	31	-65	96	80	Constraint 855/871 binding. Callide C generation rebid from MFP to \$66 bands	Rebidding
125	08/09/2012 13:30	QLD1	A	196	0	196	NSW1-QLD1	-908	-562	346	240	Constraint 855/871 binding. Generation from Gladstone units, which can relieve the constraint, was rebid to bands priced at MPC for DI 1330 hrs only	Rebidding
126	08/09/2012 13:35	QLD1	A	195	196	1	N-Q-MNSP1	37	-46	83	80	Constraint 855/871 binding. Generation from Gladstone units, which can relieve the constraint, was rebid to bands priced at MPC for DI 1330 hrs only	Rebidding
127	11/09/2012 09:00	VIC1	A	175	73	12891	V-S-MNSP1	-36	-143	107	100	Multiple outages affecting VIC and SA. Lower Tumut – Wagga constraint equation binding which increases flow to NSW. Low wind	Constraint Action



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												generation in SA and Vic. All lower priced generation offers fully dispatched	
128	11/09/2012 09:10	SA1	A	65	130	8564	V-S-MNSP1	-66	-174	108	100	For DI 0905 hrs two fast start units in SA received targets to move to min load. The availability of these units was withdrawn for 0910 hrs, resulting in price spike	Rebidding
		VIC1	A	90	142	12891							
129	11/09/2012 09:15	SA1	A	122	8564	70	V-S-MNSP1	-174	-64	109	100	Fast start unit in SA received dispatch targets. Demand drop after the morning peak.	Demand changes
		VIC1	A	168	12891	76							
130	23/09/2012 12:20	SA1	A	128	0	-128	V-SA	-353	-172	181	150	Substantial wind generation and low demand. Constraint that manage loading on South East transformers was intermittently binding due to varying wind conditions, limiting flow to VIC	Constraint Action
131	21/10/2012 13:00	QLD1	A	4	51	230	N-Q-MNSP1	-73	7	80	80	Dynamic ratings for line 855 reduced by 50MVA. Constraint 855/871 constrained off QLD generation	Rating changes



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132	27/10/2012 12:00	QLD1	A	3	43	181	N-Q-MNSP1	-113	-33	80	80	Dynamic ratings for lines 855 and 871 reduced. Constraint 855/871 constrained off QLD generation	Rating changes
133	27/10/2012 12:45	QLD1	A	47	1463	30	N-Q-MNSP1	73	-7	80	80	190 MW of QLD generation offers rebid to lower price bands, with a reduction in demand	Rebidding
134	27/10/2012 12:50	QLD1	A	20	30	-587	N-Q-MNSP1	-7	74	81	80	1500 MW of QLD generation rebid to negative price bands; negative residue management constraint limits flow to NSW	Rebidding
135	27/10/2012 13:25	QLD1	A	3	-79	185	N-Q-MNSP1	-17	64	81	80	Constraint 871/855 binding. 810 MW of Gladstone generation capacity was rebid to bands priced at close to the MPC	Rebidding
136	27/10/2012 13:30	QLD1	A	3	185	43	N-Q-MNSP1	64	-18	82	80	Increase in the dynamic rating of line 855 (50 MVA). Previously constrained off generation freed up	Rating changes
137	27/10/2012 14:40	QLD1	A	142	49	7010	N-Q-MNSP1	-57	24	81	80	Dynamic rating for line 855 reduced by 150 MVA over 3 DIs.	Rating changes



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												Constraint violated at 1440 hrs and constrained off generation in QLD and increased flow to NSW	
138	27/10/2012 15:00	QLD1	A	27	-586	23	N-Q-MNSP1	-3	-84	82	80	Negative residue management constraint allow for more energy from QLD to be exported to NSW	Rating changes
139	04/11/2012 23:35	SA1	A	3	67	300	V-S-MNSP1	37	185	148	100	Hot water load pick up	Demand changes
140	01/12/2012 14:40	SA1	A	505	53	-26801	V-S-MNSP1	-57	48	105	100	Low demand period in SA. Wind gush increased wind generation by 160MW in one DI. Excess generation was exported to VIC, although not in full.	Demand changes
141	03/12/2012 08:35	QLD1	A	69	53	3730	N-Q-MNSP1	-73	7	80	80	Constraint Q->NIL_855_871 binding. Dynamic ratings reduced by 50 MVA. Negative offers constrained off in an attempt to satisfy constraint.	Rating 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
142	03/12/2012 08:40	QLD1	A	70	3730	53	N-Q-MNSP1	7	-73	80	80	Units that were ramp rate up limited in previous DI reached their dispatch targets, which relieved 855/871 constraint.	Constraint Action
143	03/12/2012 14:05	QLD1	A	18	80	1542	NSW1-QLD1	-504	-181	323	240	Constraint Q>>NIL_855_871 binding. Generation (270 MW) from Gladstone units, which can relieve the constraint, was rebid to bands priced at MPC.	Rebidding
144	04/12/2012 16:35	QLD1	A	7	215	1644	NSW1-QLD1	-52	196	248	240	Q>>NIL_855_871 binding.High QLD demand due to high temperatures (38 degrees C in Brisbane). Flow on line 871 increased by 39 MW. Offers priced at \$12,900/MWh had to be cleared from Gladstone Power Station to relieve the constraint.	Constraint Action
145	06/12/2012 08:35	QLD1	A	4	362	80	NSW1-QLD1	-499	-757	258	240	Q>>NIL_855_871 binding. Gladstone units, which can relieve the constraint, reached dispatch targets (ramp	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
												up constrained in previous DI)	
146	06/12/2012 14:30	QLD1	A	3	237	58	N-Q-MNSP1	28	-53	81	80	Q->NIL_855_871 binding. Rating of line 855 increased by 50 MVA, relaxing the constraint. Previously cheaper, and constrained off generation could be dispatched	Rating changes
147	13/12/2012 12:50	SA1	A	3	71	300	V-SA	-130	-399	268	150	High demands SA and VIC, multiple outages.Rebid for the generation at Murray Power Station to MPC	Rebidding
		VIC1	A	10	73	806							
148	13/12/2012 12:55	VIC1	A	6	806	122	V-SA	-399	-235	164	150	Fast start plant in SA receiving targets after high price event	Rebidding
149	13/12/2012 14:30	VIC1	A	7	449	59	V-SA	-432	-168	264	150	Rebid for Murray PS to \$0/MWh	Rebidding
		SA1	A	4	299	57							
150		SA1	A	3	57	250	V-SA	-168	-429	262	150		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
	13/12/2012 14:35	VIC1	A	217	59	12900						Rebid for Murray PS to MPC	
151	13/12/2012 14:40	VIC1	A	400	12900	32	V-SA	-429	-118	311	150	Rebid for Murray generation reversed (generation was offered at MPC for DI 14:35 only)	Rebidding
		SA1	A	7	250	31	VIC1-NSW1	-403	207	610	500		
152	29/12/2012 09:15	QLD1	A	3	186	44	N-Q-MNSP1	48	-33	81	80	Q>>NIL_855_871 binding. Stanwell reached target (cheaper offers) - was ramp rate limited up in previous interval	Constraint Action



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