# Status Report prepared under clause 7.12 of the Market Rules by System Management 1 October 2013 – 31 December 2013



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#### 1 Introduction

#### 1.1 System Management

Western Power is established under section 4(1)(b) of the *Electricity Corporations Act 2005* and has the functions conferred under section 41 of that act.

Part 9 of the *Electricity Industry Act 2004* makes provision for a wholesale electricity market and provides for the establishment of Market Rules.

Regulation 13 of the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* provides that the Market Rules may confer on an entity the function of operating the SWIS in a secure and reliable manner.

Clause 2.2 of the *Wholesale Electricity Market Amending Rules* (September 2006) (**Market Rules**) confers this responsibility upon the segregated ("ring fenced") business unit of Western Power known as System Management. Amongst these responsibilities, the functions of System Management are to:

- release information required by the Market Rules;
- monitor rule participants compliance with the Market Rules relating to dispatch and power system security and power system reliability; and
- provide regular reports to the IMO and other market participants.

Included in the requirement to monitor and report is this Status Report, described in clause 7.12 of the Market Rules.

#### 1.2 Status Report

Clause 7.12 requires System Management to provide a quarterly report on the performance of the market with respect to the dispatch process. The report must include details of:

- the incidence and extent of issuance of Operating Instructions and Dispatch Instructions;
- the incidence and extent of non-compliance with Operating Instructions and Dispatch Instructions;
- the incidence and reasons for the issuance of Dispatch Instructions to Balancing Facilities Out of Merit, including for the purposes of this clause, issuing Dispatch Orders to the Verve Energy Balancing Portfolio in accordance with clause 7.6.2;
- the incidence and extent of transmission constraints;
- the incidence and extent of shortfalls in Ancillary Services, involuntary curtailment of load, High Risk Operating States and Emergency Operating States;
- the incidence and reasons for the selection and use of LFAS Facilities under clause 7B.3.8.

System Management has prepared this report pursuant to its obligations under clause 7.12 of the Market Rules, for the period 1 October 2013 to 31 December 2013.

Unless otherwise specified, data contained within this report refers to trading dates and not calendar dates.

## 2 Issuance of Dispatch and Operating Instructions.

System Management issued a total of 9,722 Dispatch Instructions to Market Participants during the current reporting period.

Figure 1 below shows the number of Dispatch instructions issued by month over the past 15 months.

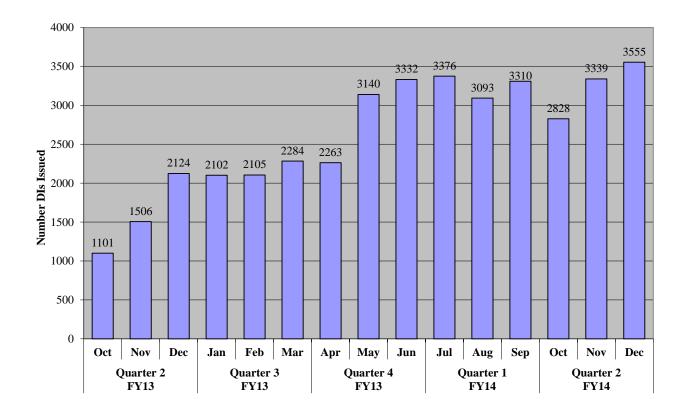


Figure 1: Dispatch Instructions per month

During the current reporting period, System Management issued a total of 14 Operating Instructions.

Under the Market Rules an Operating Instruction is required for Commissioning and Reserve Capacity Testing.

Figure 2 below shows the number of Operating Instructions issued by month over the past 15 months.

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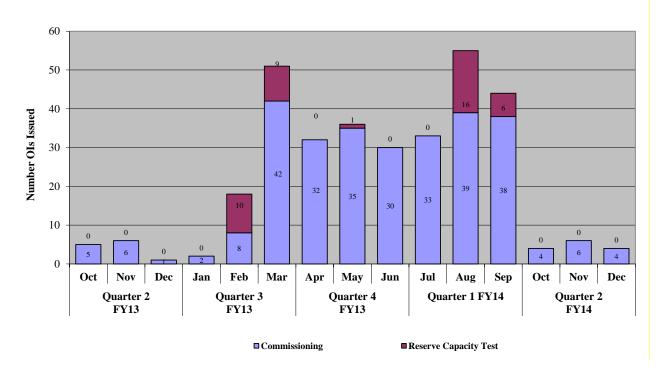


Figure 2: Operating Instructions per month

# 3 Non-compliance with Dispatch and Operating Instructions

In the current reporting period, System Management reported 685 instances of non-compliance with Dispatch Instructions by a Market Participant at the end of their scheduled interval taking into account the Tolerance Range where applicable.

System Management issued 28,945 one minute non-compliance notifications to Market Participants for non-compliance with Dispatch Instructions during the reporting period taking into account the Tolerance Range where applicable.

There were a total of 223 failures by a Market Participant to acknowledge a Dispatch Instruction through the Market Participant Interface.

There were no recorded failures by a Market Participant to acknowledge Operating Instructions during the reporting period.

Non-compliance data pertaining to the above has been provided to the IMO pursuant to the requirements of the Market Rules, the IMS Interface Market Procedure and established processes.

Figure 3<sup>1</sup>,<sup>2</sup> below provides historical non-compliance data by month over the past 15 months.

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<sup>&</sup>lt;sup>1</sup> 7.12 Reports published for Q1\_13 and Q2\_13 only captured non-compliance for scheduled generators. Subsequent reports include non-compliance information for both scheduled and intermittent generators.

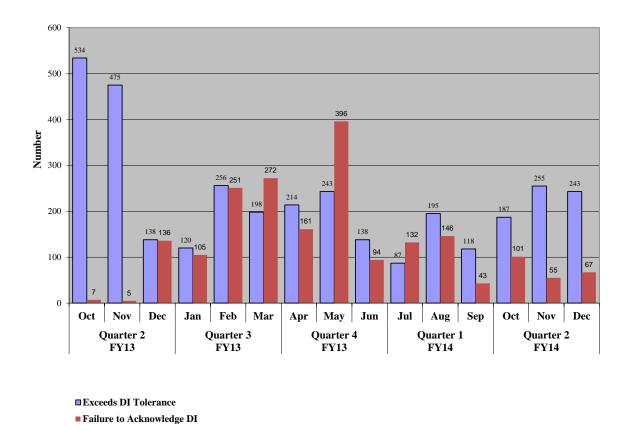


Figure 3: Dispatch Instruction non-compliance notifications (end of interval) and non-acknowledged Dispatch Instructions

# 4 Issuance of Dispatch Instructions to Balancing Facilities Out of Merit Order.

#### 4.1 Out of Merit instances reported to the IMO

There were no instances of Out of Merit Dispatch reported to the IMO during the reporting period.

#### 4.2 Other instances of Out of Merit dispatch

Section 5 of this report contains information pertaining to facilities that have been impacted by transmission constraints. Where a transmission constraint reported in section 5 has resulted in a facility/ies being dispatched to a position that differs from the applicable

<sup>&</sup>lt;sup>2</sup> Figure 3 in the 7.12 Status Report for the period 1 July 2013 to 30 September 2013 incorrectly recorded a total of 595 failures by Market Participants to acknowledge Dispatch Instructions, whereas the text in section 3 of that report recorded the correct total of 321. Figure 3 in this current report shows the correct total of 321.

Balancing Merit Order then these instances will constitute Out of Merit dispatch. Dispatch Advisory notifications are released for these transmission constraint related instances.

Section 6 of this report describes occasions of High Risk and Emergency Operating States that have occurred during the reporting period. During elevated Operating States there may be a need to dispatch facilities Out of Merit to return the power system to a Normal Operating State where indicated in the information provided in section 6.

#### 5 Transmission constraints

A "transmission constraint" refers to the configuration of the transmission network that has an effect or potential effect of constraining or otherwise varying the output of a generator. The resultant situation has a generation facility either decrease output, or not increase output as it would if the constraint did not exist.

System Management has identified 27 intervals of decreased output due to a transmission constraint on INVESTEC\_COLLGAR\_WF1. System Management was in a High Risk State during this period (DA #3822) due to a loss of transmission equipment in the Muja Region.

# 6 Operating States, Shortfalls in Ancillary Services and Involuntary Curtailment of Load

# 6.1 High Risk Operating State

18 instances of a High Risk Operating States occurred during the reporting period.

Date	1 October 2013
Interval/s	7:1 – 7:1
DA Number	3483
Details	ALINTA_PNJ_U1 tripped causing significant loss of generation.
System Management action	Facilities were dispatched accordingly to maintain system security and reliability.

Date	8 October 2013
Interval/s	12:2 – 12:2
DA Number	3494
Details	COCKBURN_CCG1 tripped causing a significant loss of generation.
System Management action	System Management issued Dispatch Instructions as per the latest BMO.

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Date	10 October 2013
Interval/s	9:1 – 9:2
DA Number	3500
Details	NEWGEN_KWINANA tripped causing a significant loss of generation and a drop in frequency.
System Management action	Facilities were dispatched accordingly to maintain system security and reliability.

Date	17 October 2013
Interval/s	6:2 – 7:1
DA Number	3523
Details	COCKBURN_CCG1 tripped causing a significant loss of generation and a drop in frequency.
System Management action	Facilities were dispatched accordingly to maintain system security and reliability.

Date	16 October 2013
Interval/s	19:1 – 22:2
DA Number	3518
Details	The IMO's WEMS Production system was out of service and the BMO was unable to be retrieved manually and therefore not available to System Management.
System Management action	System Management issued Dispatch Instructions accordingly to the last received and visible BMO.

Date	20 October 2013
Interval/s	20:1 – 20:1
DA Number	3531
Details	MUJA_G4 tripped causing a significant loss of generation.
System Management action	System Management issued Dispatch Instructions as per the latest BMO.

Date	24 October 2013 to 28 October 2013
Interval/s	24 October 2013 7:1 – 28 October 2013 17:1
DA Number	3548
Details	Transmission constraints occurred in the Eastern Goldfields region. As a result of these constraints there was a possibility of Out of Merit Dispatch to maintain system security and reliability.
System Management action	System Management issued Dispatch Instructions as per the latest BMO.

Date	23 October 2013
Interval/s	22:2 – 22:2
DA Number	3550
Details	BW1_BLUEWATERS_G2 tripped causing a significant loss of generation.
System Management action	Facilities were dispatched accordingly to maintain system security and reliability.

Date	4 November 2013
Interval/s	16:2 – 16:2
DA Number	3613
Details	ALINTA_WGP_U2 tripped at 16:44 causing a significant loss (170MW) of generation.
System Management action	System Management issued Dispatch Instructions accordingly to the last received and visible BMO.

Date	11 November 2013
Interval/s	17:2 – 17:2
DA Number	3710
Details	COCKBURN_CCG1 tripped at 17:39 causing a significant loss (200MW) of generation and a deviation in frequency to approximately 49.49hz.
System Management action	System Management issued Dispatch Instructions as per the latest BMO.

Date	21 November 2013
Interval/s	13:1 – 13:1
DA Number	3750
Details	Transmission constraints occurred in the Eastern Goldfields region. As a result of these constraints there was a possibility of Out of Merit Dispatch to maintain system security and reliability.
System Management action	System Management issued Dispatch Instructions as per the latest BMO.

Date	24 November 2013
Interval/s	7:1 – 14:2
DA Number	3758
Details	System Management's Real Time Dispatch Engine was out of service (unable to load current BMOs).
System Management action	System Management issued manual dispatch instructions as per the latest received BMO.

Date	26 November 2013
Interval/s	16:1 – 16:1
DA Number	3763
Details	COLLIE_G1 tripped at 16:02 causing a significant loss (270MW) of generation and a frequency deviation to approximately 49.30hz.
System Management action	System Management issued Dispatch Instructions as per the latest BMO.

Date	27 November 2013
Interval/s	21:1 – 23:1
DA Number	3765
Details	The IMO's WEMS Production system was out of service and System Management used this opportunity to perform maintenance on its market systems. Various systems were unavailable including SMMITS, MPI, and the Real Time Dispatch Engine. The 20 Second Real time Data, Interval Resource EOI and Interval Relevant Dispatch Quantity data files were not sent to the IMO for the duration of the outage.
System Management action	System Management issued manual dispatch instructions as per the latest BMO.

Date	27 November 2013
Interval/s	20:1 - 23:1
DA Number	3766
Details	A continuation of the previous Dispatch Advisory 3765. The IMO's WEMS Production system was out of service. As a result System Management also performed maintenance on its market systems - SMMITS, MPI, and the Real Time Dispatch Engine.
System Management action	System Management issued manual dispatch instructions as per the latest BMO.

Date	2 December 2013
Interval/s	8:1 – 10:1
DA Number	3784
Details	Due to IT issues, System Management's market systems were out of service preventing Dispatch Instructions from being sent to Market Participants electronically.
System Management action	System Management issued manual dispatch instructions as per the latest BMO.

Date	3 December 2013
Interval/s	5:2 – 6:1
DA Number	3786
Details	BW1_BLUEWATERS_G2 tripped causing a significant loss (150MW) of generation.
System Management action	System Management issued Dispatch Instructions as per the latest BMO.

Date	14 December 2013 to 16 December 2013
Interval/s	14 December 2013 Interval 16:2 – 16 December 2013 Interval 11:1
DA Number	3822
Details	Transmission constraints occurred in the MUJA region with Out of Merit Dispatch required to maintain system security and reliability.
System Management action	Facilities were dispatched accordingly to maintain system security and reliability.

#### 6.2 Emergency Operating State

There were no Emergency Operating States issued during the reporting period.

Figure 4 below provides historical data for High Risk and Emergency Operating States that have occurred over the past 15 months since 1 October 2012.

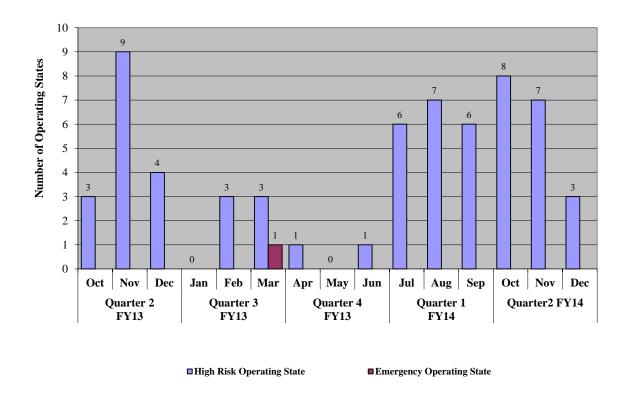


Figure 4: Number of High Risk and Emergency Operating States

#### **6.3 Shortfalls in Ancillary Services**

There were no instances of shortfalls in Ancillary Services for the period.

#### 6.4 Involuntary curtailment of load

There were no instances of involuntary curtailment of load for the period

#### 7 LFAS Facilities out of Merit Order

During the current reporting period there were no incidents where System Management was required to use LFAS Facilities outside of the LFAS Merit Order to operate the SWIS in a reliable and safe manner as per MR7B.3.8.