
Status Report prepared under
clause 7.12 of the Market Rules by
System Management
22 June 2011 – 21 September 2011



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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.

One of the core functions undertaken by Western Power is the management of the electricity transmission and distribution networks. 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

System Management has prepared this report pursuant to its obligations under clause 7.12 of the Market Rules, for the period 22 June 2011 to 21 September 2011.

2 Issuance of Dispatch Instructions

During the period, System Management issued a total of 143 Dispatch Instructions to Market Participants.

Of these, 11 were “minimum MW” instructions, 94 were “target MW” instructions, and 38 were instructions to return to the Resource Plan.

3 Non-compliance with Dispatch Instructions

No instances of non-compliance with Dispatch Instructions occurred.

4 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.

A Transmission constraint in the Geraldton area requires a Dispatch Support Service at Mungarra.

The amount of Generation Dispatched under this service for the following months are;

- June 2011 2891.937
- July 2011 3251.238
- Aug 2011 4439.049
- Sep 2011 3430.399

Note the data provided is in MWh and runs from 1st day to 30th/31st day of each month.

5 Shortfalls in Ancillary Services

No instances of shortfalls in Ancillary Services occurred.

6 Involuntary curtailment of load

One instance of involuntary curtailment of load, requiring major rotation load shedding occurred.

On 09 September 2011 (trading day 08 September 2011), at 1:39am a generator in the Collie area failed with the loss of 200MW of generation.

At 3.38am, a generator in the Perth area failed with the loss of a further 200MW.

At 1:39am the system frequency declined to 48.75hz due to the exhaustion of the generator reserves. At this point the SWIS is near to entering an unsafe operating mode and customers started to experience involuntary load shedding. Customers were shed which brought the demand back to the level of generation available.

At 1:46am the system frequency returned to the normal 50.00hz.

An information flyer has been published in regards to this event on the Western Power Website under System Management, Power System Disturbances.

7 High Risk Operating State

Five instances of a High Risk State occurred.

1. On Trading day 23 June 2011, due to the loss of a large Generator causing low frequency outside of normal limits a High Risk State was called for Intervals 14:1 to 14:2. System Management was not required to issue any Dispatch Instructions.

2. On Trading day 14 August 2011, due to the loss of a large generator causing low frequency outside of normal limits a High Risk State was called for Intervals 0:1 to 1:1. During this period System Management issued two Dispatch Instructions.

3. On Trading Day 20 August 2011 the loss of a large Generator caused low frequency outside of normal limits. A High Risk state was called for the period 5:1 to 5:1. No further action was taken by System Management.

4. On Trading Day 08 September 2011, the loss of two large generators within minutes of each other caused a loss of approximately 400MW of generation. A High Risk state was called for during the period 1:2 to 2:2. As a result, involuntary load shedding was required to prevent the SWIS entering an unsafe operating state. System Management issued 13

Dispatch Instructions over this period of time. See Section 6 above for further information on the involuntary load shedding.

5. On Trading day 18 September 2011, due to strong winds and inclement weather increasing the risk of Transmission faults, a High Risk state was called for during the period 13:2 to 19:1. System Management issued one Dispatch Instruction.

8 Emergency Operating State

No instances of an Emergency Operating State occurred.

9 Equipment Tests

System Management received no submissions to conduct Equipment Tests.