
**Status Report prepared under
clause 7.12 of the Market Rules by
System Management
1 July 2015 – 30 September 2015**



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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 of the Market Rules 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 July 2015 to 30 September 2015.

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 11,762 Dispatch Instructions to Market Participants during the current reporting period.

Figure 1 below shows the number of Dispatch instructions issued by month since 1 April 2014.

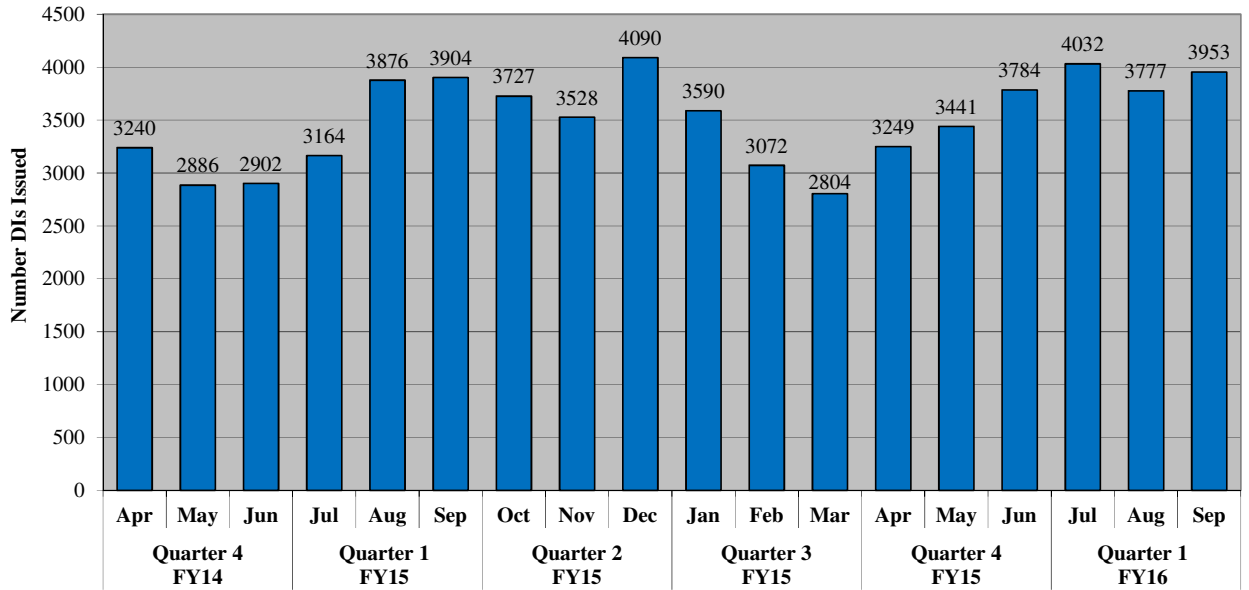


Figure 1: Dispatch Instructions per month

During the current reporting period, System Management issued a total of 21 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 since 1 April 2014.

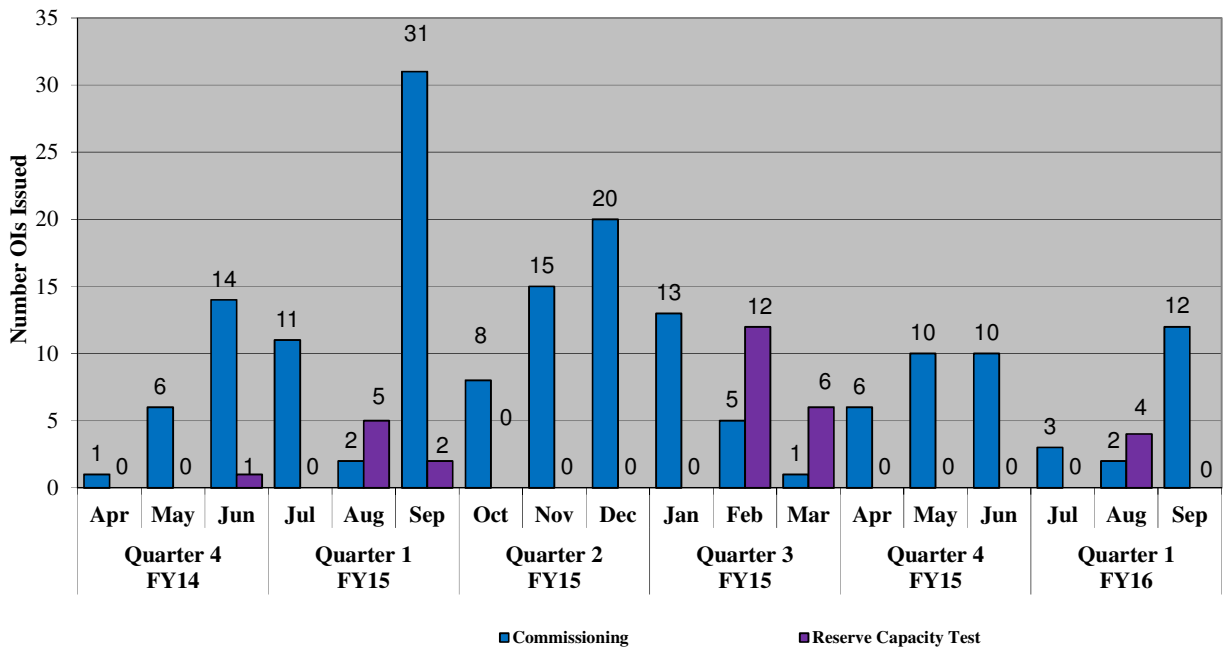


Figure 2: Operating Instructions per month

3 Non-compliance with Dispatch and Operating Instructions

In the current reporting period, System Management reported 200 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 9807 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 146 failures by a Market Participant to acknowledge a Dispatch Instruction through the Market Participant Interface.

There were no failures by a Market Participant to acknowledge an Operating Instruction.

Figure 3¹, below provides historical non-compliance data since 1 April 2014.

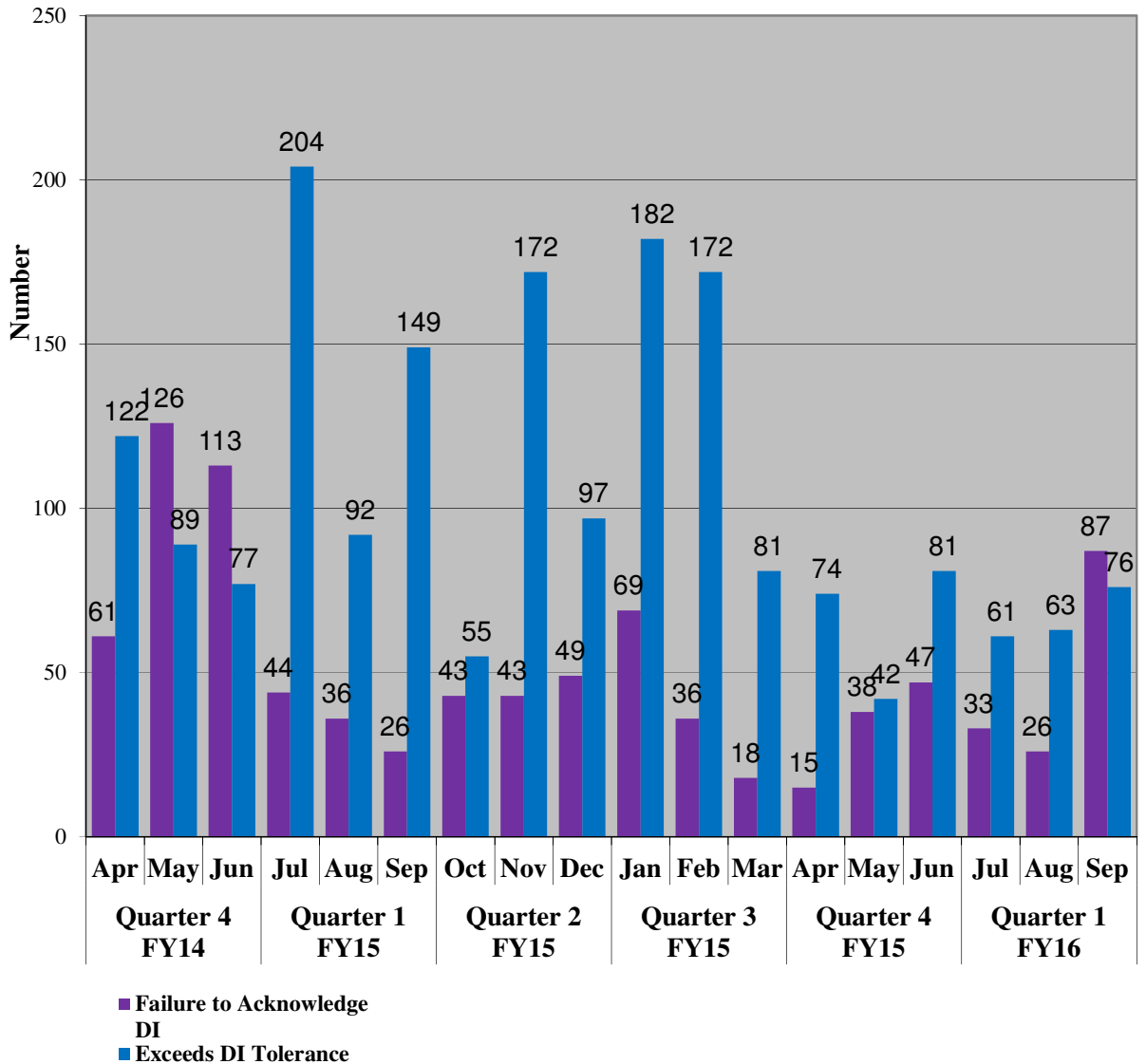


Figure 3: Dispatch Instruction non-compliance notifications (end of interval) and non-acknowledged Dispatch Instructions

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

4.1 Out of Merit instances reported to the IMO

During the period System Management reported no occasions of potential Out of Merit dispatch to the IMO.

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 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 increase output as required by the circumstances of the constraint.

System Management has identified the following transmission constraints during the period.

- On 1 July 2015, a Western Power Networks Transmission outage in the Eastern Goldfields Region resulted in STHRNCRS_EG being constrained off from 17:1 to 17:2 for 2 intervals.
- On 2 July 2015, a Western Power Networks Transmission outage in the Eastern Goldfields Region resulted in STHRNCRS_EG being constrained off from 9:2 to 14:1 for 11 intervals (refer to Dispatch Advisory 11196).
- On 7 July 2015, Western Power Networks Transmission works at West Kalgoorlie Terminal resulted in INVESTEC_COLLGAR_WF1 being constrained to a maximum of 50MW during interval 8:2 (refer to Dispatch Advisory 11204). However the facilities export at the time of the constraint was below 50MW and therefore did not impact on the facility.
- On 7 July 2015, a Western Power Networks Transmission outage at the West Kalgoorlie terminal required INVESTEC_COLLGAR_WF1 being constrained to a maximum of 50MW from 13:2 to 16:2 for a total of 7 intervals and then from 18:1 to 18:2 for a total of 2 intervals (refer to Dispatch Advisories 11205, 11206 and 11208).
- On 10 August 2015 due to Western Power performing maintenance works at the West Kalgoorlie terminal INVESTEC_COLLGAR_WF1 was required to be constrained to a maximum of 50MW from 8:2 to 9:1 for 2 intervals (refer to Dispatch Advisory 11370).
- On 11 August 2015 a Western Power Networks Transmission outage potentially required INVESTEC_COLLGAR_WF1 to be constrained to a maximum of 50MW from interval 6:1 to 6:2 for a total of 2 intervals (however, the conditions at the time were such that the Facility’s output was less than 50MW during these intervals).
- On 13 August 2015 a Western Power Networks Transmission outage potentially required INVESTEC_COLLGAR_WF1 to be constrained to a maximum of 50MW for one interval at 8:2 and then from interval 17:1 to 18:1 for 3 intervals (however, the

conditions at the time were such that the Facility’s output was less than 50MW during these intervals).

- On 7 September 2015 due to Western Power performing maintenance works at the West Kalgoorlie terminal INVESTEC_COLLGAR_WF1 was required to be constrained to a maximum of 50MW for one interval at 10:1 (refer to Dispatch Advisory 11449).
- On 16 September 2015 a Western Power Networks Transmission outage on the Muja Bus Tie Transformer two potentially required INVESTEC_COLLGAR_WF1 to be constrained to a maximum of 50MW from interval 9:1 to 10:1 (refer to Dispatch Advisory11466) for a total of 3 intervals and then from 13:2 to 14:1 for 2 intervals (however, the conditions at the time were such that the Facility’s output was less than 50MW during these intervals)
- On 24 September 2015, a Western Power Networks Transmission outage required INVESTEC_COLLGAR_WF1 to be constrained to a maximum of 50MW from interval 8:2 to 11:2 for a total of 7 Intervals (refer to Dispatch Advisory 11490). There was also a potential requirement for INVESTECT_COLLGAR_WF1 to be constrained to a maximum of 130MW for 1 interval at 12:1 (however, the conditions at the time were such that the Facility’s output was less than 130MW during this interval).

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

6.1 High Risk Operating State

Six instances of a High Risk Operating States occurred during the report period.

Date	20 July 2015
Interval/s	Int 10:2 – Int 11:1
DA Number	11257
Details	System Management was experiencing SCADA system IT issues commencing from 10:50am until 11:12am. Facilities that were on Automatic Balancing Control (ABC) were required to be run in Manual mode.
System Management action	System Management manually controlled the frequency. No Out of Merit was required and dispatch was as per the latest BMO.

Date	7 August 2015
Interval/s	Int 11:2 – Int 12:1
DA Number	11366
Details	An issue with System Management’s IT Market Systems was affecting the SOCC_UI and the Real Time Dispatch Engine.

System Management action	The IT issue commenced at 11:51am until 12:15pm. A facility on Automatic Balancing Control (ABC) was requested to run in Manual mode until the IT issue was resolved. No out of Merit was required and dispatch was as per the latest BMO.
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Date	15 August 2015
Interval/s	15 August 2015 Int 18:2 – 16 August 2015 Int 6:1
DA Number	11377
Details	An IT issue at 18:55pm affecting PI and SCADA service caused intermittent loss of Frequency visibility and Automatic Generation Control (AGC) and the loss of the Real Time Dispatch Engine (RTDE). AGC was restored at 19:11pm.
System Management action	Dispatch Instructions were issued and acknowledged verbally. No Out of Merit was required and dispatch was as per the latest BMO.

Date	19 September 2015
Interval/s	Int 0:1 – 1:1
DA Number	11470
Details	Issues with System Management's Real Time Dispatch Engine (RTDE) appeared to result in the scheduling of incorrect zero MW dispatch Instructions to some Market Participants commencing interval 1:1
System Management action	While no incorrect zero MW Dispatch Instructions were actually issued, Dispatch Instructions had to be verbally issued while the RTDE issues were being investigated and resolved. These verbal Dispatch Instructions were issued according to the latest BMO information available to System Management at the time.

Date	21 September 2015
Interval/s	Int: 16:2 – 17:1
DA Number	11476
Details	COCKBURN_CCG1 tripped at 16:34 with a loss of 164MW of generation and a drop in frequency to 49.57Hz.
System Management	No Out of Merit Dispatch was required and System Management

action	continued to dispatch as per the latest Balancing Merit Order
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Date	23 September 2015
Interval/s	Int: 15:2 – 16:1
DA Number	11481
Details	COCKBURN_CCG1 tripped at 15:56 with a loss of approximately 179MW of generation and a drop in frequency to 49.52Hz.
System Management action	No Out of Merit Dispatch was required and System Management continued to dispatch as per the latest Balancing Merit Order

6.2 Emergency Operating State

During the reporting period, no Emergency Operating States were recorded.

Figure 4 below provides historical data for High Risk and Emergency Operating States that have occurred since 1 April 2014.

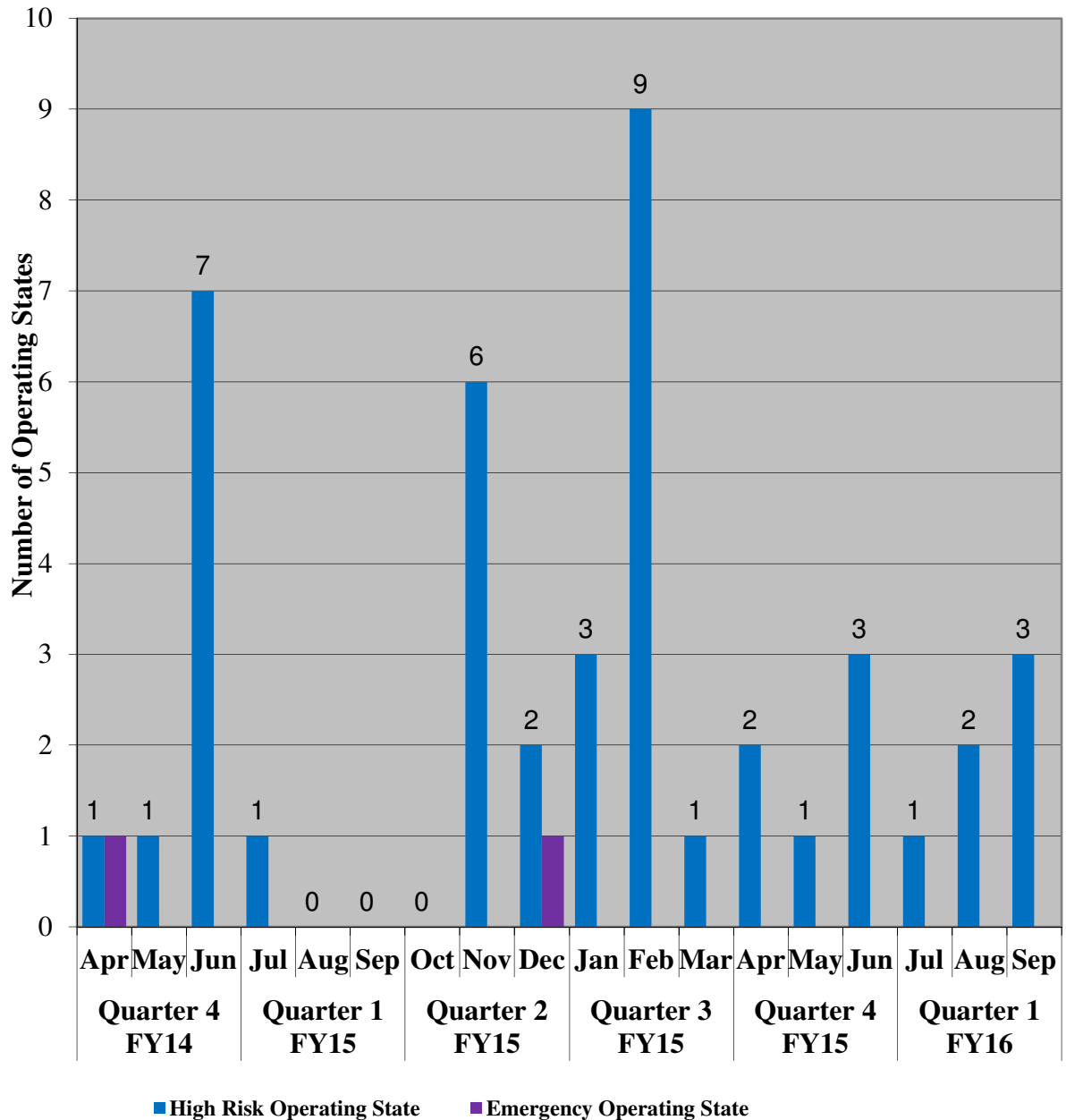


Figure 4: Number of High Risk and Emergency Operating States

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.

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.