

# **ELECTRICITY INDUSTRY ACT**

## **ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY MARKET) REGULATIONS 2004**

### **WHOLESALE ELECTRICITY MARKET RULES**

#### **Power System Operation Procedure: Monitoring and Reporting Protocol**

<b>Version history</b>	
21 September 2006	Power System Operation Procedure (Market Procedure) for Monitoring and Reporting Protocol
12 September 2009	System Management amended changes to the procedure resulting from Procedure Change Proposal PPCL 0012
30 June 2011	System Management amended changes to the procedure resulting from Procedure Change Proposal PPCL 0019
Balancing Market Commencement Day	System Management replacement of the procedure resulting from Procedure Change Proposal PPCL 0023
01 July 2013	System Management amended changes to the procedure resulting from Procedure Change Proposal PPCL 0024

**TABLE OF CONTENTS**

Relationship with Market Rules ..... 3

Commencement..... 3

1 Scope ..... 4

2 Monitoring Compliance of Market Participants..... 4

3 General Monitoring Processes ..... 4

4 Tolerance Range ..... 5

    4.1 Formula for the determination of the Tolerance Range..... 5

    4.2 Determination of the Tolerance Range for all Facilities..... 5

    4.3 Determination of Facility Tolerance Range for specific Facilities ..... 6

    4.4 Changes to Tolerance Ranges and Facility Tolerance Ranges ..... 7

5 Verve Energy Compliance ..... 8

APPENDIX 1 PRIMARY MEASURES USED FOR MONITORING ..... 9

## RELATIONSHIP WITH MARKET RULES

1. This Power System Operation Procedure (PSOP): Monitoring and Reporting has been developed in accordance with, and should be read in conjunction with, the Wholesale Electricity Market Rules (Market Rules).
2. References to particular Market Rules within the Procedure in bold and square brackets **[MR XX]** are current as of the Balancing Market Commencement Day. These references are included for convenience only, and are not part of this Procedure.
3. This Procedure is subservient to the Market Rules. In the event of conflict between this Procedure and the Market Rules or any other document, the order of precedence is as set out in the Market Rules **[MR 1.5.2]**.
4. This Procedure may include explanatory text, including quotations from the Market Rules. Such explanatory text is for information only, does not form part of the Procedure, and is italicised and contained in a rectangular box.
5. A word or phrase defined in the Electricity Industry Act 2004, or in the Regulations or Market Rules made under that Act, has the same meaning when used in this Procedure.

## COMMENCEMENT

1. This amended Procedure has effect from 01 July 2013.

## 1 SCOPE

1. This Procedure has been developed in accordance with the Market Rules **[MR 2.15.6]** and details the processes that System Management must follow to monitor Rule Participant's behaviour for compliance with the Market Rules and the PSOPs, and to provide information about breaches, or other information the IMO may request, to the IMO.
2. In performing its functions under the Market Rules, System Management may be required to disclose certain information to Market Participants and Network Operators. In selecting the information that may be disclosed, System Management must utilise best endeavours and act in good faith to disclose only the information reasonably required by the application of the Market Rules consistent with the relevant information disclosure requirements outlined in Chapter 10 of the Market Rules.

## 2 MONITORING COMPLIANCE OF MARKET PARTICIPANTS

*The requirements for System Management to monitor and report Rule Participants behaviour within respective Tolerance Range and Facility Tolerance Ranges, as applicable, are specified in the Market Rules **[MR 2.13.6, MR 2.13.6A, MR 2.13.6B, MR 2.13.6C]**.*

1. Specific Market Rules that must be monitored by System Management are specified in the Market Rules **[MR 2.13.9]**. System Management must monitor Rule Participant compliance in accordance with the primary measures summarised in Appendix 1.
2. To the extent that specific monitoring activities in this Procedure are inconsistent with the Market Rules, the Market Rules prevail.
3. System Management may provide information to a Market Participant relating to that Market Participant's compliance issues. In no way does this provision of this information or lack thereof, obviate a Market Participant from complying with the Market Rules or PSOPs.

## 3 GENERAL MONITORING PROCESSES

1. Where possible, System Management should use automated methods to determine compliance.
2. System Management must utilise information methods including, but not limited to one or more of the following:
  - a. communication to System Management; or
  - b. SCADA; or
  - c. information provided by the IMO including Standing Data, Resource Plans, Forecast BMOs and BMOs; or
  - d. outage information.

3. In determining whether a given activity is in accordance with the Market Rules and PSOPs, System Management may request further information from Market Participants.

## 4 TOLERANCE RANGE

### 4.1 Formula for the determination of the Tolerance Range

1. System Management has determined that the Tolerance Range **[MR 2.13.6D]** to apply from the 1 July 2012 will be calculated with the following formula:

$$\begin{aligned} \text{Tolerance Range (MW)} &= \text{from } +\text{MAX (6, MIN [5\% NPC, 4*ROC])} \\ &\text{to } -\text{MAX 6, MIN [5\% NPC, 4*ROC]} \end{aligned}$$

Where:

NPC: Name plate capacity of the generator, expressed in MW (Market Rules Appendix 1(b)(ii))

ROC: Rate of Change or Ramp Rate of a Unit per minute (Market Rules Appendix 1(b)(v))

### 4.2 Determination of the Tolerance Range for all Facilities

*The requirements System Management must adhere to when determining a monitoring Tolerance Range to apply to all Facilities for the purposes of System Management's reporting of alleged breaches are stipulated in the Market Rules. System Management must consult with Rule Participants prior to setting the Tolerance Range. **[MR 2.13.6D]***

*System Management must conduct the consultation process in Paragraph 4.2.1 below of this Procedure in good faith and allow relevant stakeholders reasonable opportunity to comment **[MR 2.21.4]**.*

1. System Management must initiate consultation by providing the proposed Tolerance Ranges to the IMO for publication on the Market Web Site, and inviting Rule Participants to provide submissions.
2. The period available for submissions under Paragraph 4.2.1 must not be less than six weeks.
3. System Management must submit its responses to each issue raised in submissions received from Rule Participants to the IMO for publication on the Market Web Site.
4. At least 14 Business Days prior to the date from which the Tolerance Range becomes effective, System Management must submit to the IMO for publication on the Market Web Site:
  - a. all submissions received from Rule Participants; and
  - b. the Tolerance Range; and

- c. an effective date for the commencement of the Tolerance Range **[MR 2.13.6D]**.

#### **4.3 Determination of Facility Tolerance Range for specific Facilities**

1. If System Management considers that the Tolerance Range for all Facilities is not suitable for a particular Facility it may determine a Facility Tolerance Range for that particular Facility.
2. If a Market Participant considers that the Tolerance Range for all Facilities is not suitable for its particular Facility, the Market Participant may submit an application by email or other written means to System Management stating the reasons why the Tolerance Range is not suitable for the Facility concerned. System Management may then, in accordance with Paragraph 4.3.1, determine a Facility Tolerance Range for the Facility.
3. The circumstances in which System Management would generally exercise its discretion to determine a Facility Tolerance Range include, but are not limited to one or more of the following:
  - a. first time entry of small generators into the SWIS; or
  - b. generators with excessively variable output; or
  - c. any other exceptional circumstances which System Management considers reasonable.
4. Where System Management chooses not to exercise its discretion to determine a Facility Tolerance Range in response to an application from a Market Participant as outlined in Paragraph 4.3.2, it must advise the Market Participant of the reasons for its decision in writing.
5. Where System Management chooses to exercise its discretion to determine a Facility Tolerance Range it must consult with Market Participants prior to setting a specific Facility Tolerance Range **[MR 2.13.6E]**.
6. System Management must initiate consultation by providing the proposed Facility Tolerance Range to the IMO for publication on the Market Web Site, and inviting Rule Participants to provide submissions.
7. The period available for submissions under Paragraph 4.3.5 must not be less than six weeks.
8. System Management must submit its responses to each issue raised in submissions received from Rule Participants to the IMO for publication on the Market Web Site.
9. System Management may determine a specific Facility Tolerance Range to apply to a particular Facility. In making this determination System Management must consider the following:
  - a. the variability of the overall system generation/load movement on the SWIS at any point in time; and

- b. individual Facility ramping behaviour; and
  - c. the proportion of Non-Scheduled and Commissioning Facilities synchronised on the system during an average Trading Day; and
  - d. Standing Data and any operating constraints on the Market Participant's Facility of which System Management is aware; and
  - e. any other factors that may influence the real time operation of the SWIS.
10. At least 14 Business Days prior to the date from which a change to the specific Facility Tolerance Range becomes effective, System Management must submit to the IMO for publication on the Market Web Site:
- a. the reasons for System Management's decision to apply a specific Facility Tolerance Range in place of a the Tolerance Range; and
  - b. any submissions received from Market Participants; and
  - c. the applicable Facility Tolerance Range; and
  - d. an effective date for the commencement of the applicable Facility Tolerance Range **[MR 2.13.6E]**.
11. Where a specific Facility Tolerance Range is determined, this Facility Tolerance Range must apply to a particular Facility in place of the Tolerance Range.

#### **4.4 Changes to Tolerance Ranges and Facility Tolerance Ranges**

1. System Management must review the Tolerance Range and all Facility Tolerance Ranges at least annually **[MR2.13.6G]**.
2. Following a review, System Management may vary the Tolerance Range or a specific Facility Tolerance Range(s) **[MR 2.13.6G]**. Varied Tolerance Range and Facility Tolerance Range(s) are effective from the date specified by System Management, as published by the IMO on the Market Web Site **[MR 2.13.6D & MR 2.13.6E]**.
3. If the varied Tolerance Range is only the result of changes to the NPC or ROC Standing Data items for a Facility or Facilities but there is no change to the formula specified in Section 4.1.1 of this PSOP, then System Management must provide the IMO with the revised Tolerance Range amounts prior to their effective date.
4. Where System Management proposes to vary the Tolerance Range formula specified in Section 4.1.1 of this PSOP, it will be required to carry out the Procedure Change process in accordance with clause 2.10 of the Market Rules and the Market Procedure for Procedure Administration prior to the varied Tolerance Range formula taking effect.
5. Where System Management proposes to vary the Facility Tolerance Range it must follow the same consultation process as outlined in Paragraphs 4.3.5 to 4.3.7 prior to the varied Facility Tolerance Range(s) taking effect.

6. Where the IMO gives a direction to System Management to vary a specific Facility Tolerance Range in accordance with the Market Rules **[MR 2.13.6H & MR 2.13.6I]**, that direction must apply until the Facility Tolerance Range is varied in accordance with the Market Rules **[MR 2.13.6G]**.

## 5 VERVE ENERGY COMPLIANCE

*The requirements for the Verve Energy to comply with directions from System Management are specified in the Market Rules **[MR 7.6A]**.*

1. As required by the Market Rules **[MR 7.6A.4]**, System Management may consider Verve Energy to be non-compliant with respect to the Facilities in the Verve Energy Balancing Portfolio where Verve Energy's action or inaction could endanger Power System Security. The mechanism describing how System Management would determine if Verve Energy's behaviour could endanger Power System Security is defined in System Management internal procedures. These can be found on Western Power's website.
2. System Management must have regard to good electricity practice in determining whether Verve Energy conduct could endanger Power System Security.



## APPENDIX 1 PRIMARY MEASURES USED FOR MONITORING

Clause	Description	Proposed Measures
3.4.6	Market Participants must comply with System Management directions and endeavour to assist System Management during high risk operating state.	Following a High Risk Operating State, System Management must investigate the actions of all Market Participants in receipt of a direction to ensure that any directions were complied with.
3.4.8	Market Participant must immediately inform System Management if cannot comply with direction.	Monitored through compliance with directions. All such notifications must be logged, and investigated.
3.5.8	Market Participants must comply with System Management directions and endeavour to assist System Management during emergency operating state.	Monitored through compliance with directions.
3.5.10	Market Participant must immediately inform System Management if cannot comply with direction.	Monitored through compliance with directions. All such notifications must be logged, and investigated.
3.6.5	Networks must implement load shedding plans.	This is identified through observation, and the required reporting for the Under Frequency Load Shedding Plan must be monitored.
3.6.6B	Networks must comply with manual disconnection instructions from System Management.	This is identified through observation of SCADA data following such an instruction.
3.16.4	Market Participants must provide MT-PASA information.	Any Market Participant not providing required information must be investigated.
3.16.7	Market Participants must provide the information System Management requests and any other data they are aware of that might be relevant MT-PASA information.	Any Market Participant not providing required information must be investigated.
3.16.8A	Market Participants must provide additional MT-PASA information requested by System Management.	Any Market Participant not providing required information must be investigated.
3.17.5	Market Participants must provide ST-PASA information.	Any Market Participant not providing required information must be investigated.
3.17.6	Market Participants must update ST-PASA information if it changes.	System Management must monitor the actual situation of Facilities and must identify any anomalies with the PASA.

Clause	Description	Proposed Measures
3.18.2(f)	Market Participant must comply with outage scheduling and approval process if Facility listed on the equipment list in 3.18.2(f)	System Management must monitor discrepancies between planned and actual outage times and report these variations as an alleged breach.
3.21A.2	Market Participant must request Commissioning Test trials from System Management.	This is determined by observation. Any Facility that should provide a plan and does not must be investigated.
3.21A.12	Market Participant must conform to the Commissioning Test plan approved by System Management.	This is determined by observation.
3.21A.13(a)	Market Participant must inform System Management if it cannot conform to the Commissioning Test plan approved by System Management.	This is determined by observation. Any Facility that should provide such notification and does not must be investigated.
3.21B.1	Except when given a Planned Outage, a Market Participant must seek permission from System Management before putting a Scheduled Generator (holding Capacity Credits) into a state where it would take more than four hours to resynchronise the Scheduled Generator.	This is determined by observation at the point where a Market Participant is called to dispatch its Facility and is unable. Any Facility that failed to provide such notification, which caused the failure to dispatch to the Facility to the relevant level, must be investigated
3.21B.2	Market Participant must make request in accordance with 3.21B.1 not less than two hours prior to the Facility ceasing to be able to be re-synchronised within four hours, including particular information as per the Market Rules.	Notification must be logged and investigated where appropriate.
4.10.2 (4.25.13)	Market Participant who claims alternative fuel must have on site fuel or uninterruptible fuel supply.	This is determined by observation but only if System Management is instructed to do so by the IMO under Clause 4.25.13.
7.2.5	Each Market Generator must by 10am each day provide to System Management for each of its Intermittent Generators with capacity exceeding 10 MW its most current forecast of the MWh energy output of the Intermittent Generator in accordance with the Market Rules.	This is determined by observation. Any Facility that should provide such forecast information and does not must be investigated.
7.5.5	Market Participant can only switch fuels under certain circumstances.	Any fuel change notification must be logged and investigated where appropriate.

Clause	Description	Proposed Measures
7.7.6 (b)	Market Participant must confirm receipt of Dispatch Instruction	This is monitored electronically by System Management's IT systems.
7.10.1	Market Participant must comply with the most recently issued Dispatch Instruction, Operating Instruction or Dispatch Order for the Trading Interval	This is monitored electronically by System Management's IT systems.
7.10.3	Market Participant must inform System Management where it cannot comply.	This is determined by observation.
7.10.6A	Market Participant that cannot remain within tolerance must notify System Management.	This is determined by observation.
7.11.7	Market Participants and Network Operators must comply with System Management directions.	This is determined by observation.