System Management

Procedure Change Report
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Title: Monitoring and Reporting Protocol

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INTRODUCTION

This document is the Procedure Change Report for System Management proposed amendments to the Power System Operating Procedure: Monitoring and Reporting Protocol

- This proposal was subject to consultation with the System Management Procedure Change and Development Working Group via email between 25 February 2013 and 5 March 2013.
- This proposal was first published on the IMO website on 20 March 2013.
- A request for submissions to the proposal was published on 21 March 2013 with a deadline of 19 April 2013.
- This Procedure Change Report is submitted to the IMO for publication on 15 May 2013.
- This proposed amended procedure is to commence at 8 am on 1 July 2013.
- Commencement is pending approval by the IMO. Market Rule 2.10.14 requires the IMO to make its decision within 10 Business days of this Report being published.

THE WORDING OF THE AMENDMENT TO THE POWER SYSTEM OPERATING PROCEDURE

The amended procedure is attached to this Report.

THE REASON FOR THE AMENDMENT TO THE POWER SYSTEM OPERATING PROCEDURE

System Management may determine a Tolerance Range to apply to all Facilities (MR 2.13.6D), and a specific Facility Tolerance Range (MR 2.13.6E) for the purpose of System Management's dispatch compliance monitoring and reporting obligations under clauses 7.10.4, 7.10.5 and 7.10.7 of the Rules.

System Management determined the Tolerance Range under clause 2.13.6D to apply to Scheduled Generators from 1 July 2012 as the following formula:

Tolerance Range = (+/-) MAX (6, MIN [5% NPC, 4*ROC])

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))

The above formula is published on the IMO website as required under clause 2.13.6D.

In effect the setting of tolerances is an annual event subject to annual review under clause 2.13.6G, although currently adjustments are made during the year where a

Scheduled Generator changes their Standing Data ramp rate (i.e. change in ROC value). To date, such changes have been infrequent.

Clause 2.13.6K requires System Management to document the procedure for determining and reviewing the Tolerance Range in the Power System Operation Procedure (Monitoring and Reporting PSOP). As part of this Rule requirement, System Management revised the Monitoring and Reporting PSOP to include the Tolerance Range formula through Procedure Change Process PPCL0023. The revised Monitoring and Reporting PSOP commenced on 1 July 2012.

The Tolerance Range formula set out in the Monitoring and Reporting PSOP defines ROC as *'ROC is the currently dispatched ramp rate of a Scheduled Generator in a particular Trading Interval, expressed in MW per minute'.* Applying this ROC definition would result in a dynamic Tolerance Range that potentially changes per interval. This was an oversight and not intended by System Management.

This procedure change proposal intends to correct the ROC definition to align with the definition published on the IMO website (and referred to above) with the intention that it reflects the fairly static Tolerance Range that is currently applied, subject to annual review.

System Management continuously seeks to improve the integrity and clarity of the Power System Operation Procedures, and has also proposed changes to Section 4.3 to clarify the process of determining a Tolerance Range and a Facility Tolerance Range.

System Management have also removed reference to Market Rule 7.10.6 which is currently included in the Appendix of the PSOP: Monitoring and Reporting Protocol. This reference was removed as the IMO is intending on progressing a Fast Track Rule Change proposal to remove this Market Rule (PRC_2013_01). The removal of this reference through this Procedure Change process will be dependent on the outcome of the IMO's Fast Track Rule Change proposal for PRC_2013_01.

THE MARKET ADVISORY COMMITTEE

The Market Advisory Committee (MAC) did not meet regarding this procedure change proposal.

However, these proposed amendments have been subject to consultation with the System Management Procedure Change and Development Working Group via email which concluded on 5 March 2013 in which no comments were received.

SUBMISSIONS

The IMO received one submission regarding this procedure from Alinta Energy as part of Section 2.6 of the Market Procedure: Procedure Administration.

Alinta Energy submitted:

"1. Proposed amendments to PSOP

While Alinta notes System Management's contention that the introduction of a dynamic Tolerance Range formula into the PSOP as part of the Procedure Change Proposal: Replaced PSOP's: Competitive Balancing and Load Following Market 3 (PPCL0023) was an oversight, it is unclear why a static Tolerance Range is preferred. It is also unclear how the proposed adoption of a static Tolerance Range would better achieve the Market Objectives relative to the current dynamic Tolerance Range contained in the PSOP.

The formula for determining the Tolerance Ranges was developed and consulted on prior to commencement of the new Balancing market and was originally intended to only apply for System Management's monitoring obligations. The formula developed by System Management was based on the National Electricity Market's large error trigger threshold formula which similarly provides a mechanism to identify non compliance with dispatch targets. In the NEM the large error trigger threshold formula adjusts dynamically for a facility relative to its maximum output capability and ramp rate during the relevant trading interval.[1]

Given the extended application of the Tolerance Ranges under the new Balancing market it is unclear why adopting a dynamic approach to tolerances would not be appropriate in the Wholesale Electricity Market (WEM). Alinta requests that evidence of the benefits (and associated costs) of using a static Tolerance Range as opposed to a dynamic Tolerance Range be presented and consulted on with industry prior to any further changes being made.

Additionally, Alinta notes that it has discussed directly with both System Management and the IMO the continued need for a separate consultation process on any changes to the Tolerance Range formula. Given the inclusion of the formula in the PSOP (which is therefore subject to a procedure change process if amendments are proposed) this additional consultation process is no longer necessary. Alinta therefore supports the removal of the requirements for a separate consultation process on the Tolerance Ranges as outlined in section 4.2 of the PSOP. For clarity Alinta notes that a separate consultation process for a Facility Tolerance Range is still required to be outlined in the PSOP given the discretion provided to System Management in setting these values.

2. Wider issues with use of Tolerance Range and Facility Tolerance Range for participant compliance

Alinta notes again its concern with the current piecemeal approach to addressing underlying market design issues that is being adopted in the WEM. The majority of regulatory changes that have recently been progressed have simply addressed the symptoms rather than the underlying design deficiencies. In particular, there is currently a lack of clarity in the Market Rules around a Market Participant's requirement to be compliant with a Dispatch Instruction. This issue appears to stem from the recent application of the concept of a Tolerance Range or Facility Tolerance Range (as applicable) to Facilities compliance under the Market Rules. Additionally it is uncertain whether the current Tolerance Ranges:

- *are appropriate given their revised application to participants compliance; and*
- *should apply for Non-Scheduled Generation and Demand Side Management.*

However rather than considering these wider conceptual issues and progressing a comprehensive solution, multiple rule and procedure changes have now been progressed to address related issues. This approach has resulted in an inefficient use of industry resources and ultimately meant the underlying deficiencies in the market design have not been addressed.

Alinta notes that under clause 2.13.6G System Management must review the Tolerance Ranges by 1 July 2013. Alinta requests that as part of this review System Management investigates the appropriateness of the currently applied static Tolerance Ranges given their revised application under the Balancing market. As part of this investigation, Alinta's previously recommended costbenefit assessment of the use of static or dynamic Tolerance Ranges should be presented. Details of the outcomes of this investigation, including the cost-benefit assessment, should be subject to consultation with industry

[1] Refer to the System Operating Procedure: Dispatch available: http://www.aemo.com.au/Electricity/Policies-and-Procedures/System-Operating-Procedures/Dispatch-SO_OP3705"

System Management's response:

System Management has considered Alinta's views and notes that it is seeking an explanation as to why a dynamic approach to the Tolerance Range would not be appropriate under the new Balancing Market over the current static approach that is being applied.

Tolerance Range is defined in the Rules as *'….the amount determined by System Management under clause 2.13.6D of the Market Rules'*. The Rules require the Tolerance Range (i.e. the amount) to be reviewed annually (clause 2.13.6G), and allows System Management to vary the Tolerance Range after such a review.

Applying the current Rules means that once determined the Tolerance Range amount can only change after an annual review.

The static version of the Tolerance Range formula that is currently applied results in a Tolerance Range amount for each Scheduled Generator that applies for a period of one year and is subject to review prior to conclusion of that year. In System Management's view, this is consistent with the Rules.

System Management's view is that rule changes would be required in order to implement a dynamic approach to the Tolerance Range. This is currently beyond the scope of PPCL0024, although could be considered should that be an issue raised by Rule Participants during the Annual Review of the Tolerance Range (currently open for consultation at http://www.imowa.com.au/tolerancerange2013).

To further align its internal process with the above System Management proposes to no longer adjust a Scheduled Generator's Tolerance Range in response to infrequent Standing Data Ramp rate changes that occur prior to an Annual Review of the Tolerance Range. Rather any Standing Data ramp changes that have occurred

during the preceding period will be taken into consideration during the Annual Review process.

System Management also notes that Alinta has requested a cost benefit analysis be undertaken for the use of static and dynamic Tolerance Ranges.

The Tolerance Range was introduced with the intention that it would assist System Management with its reporting of non-compliance. The introduction of the Balancing Market and a recent rule change now see the Tolerance Range having an impact on the recovery of out of merit generation payments (MR 6.16A) and settlements (RC_2012_16 – Alignment of Settlement Tolerance and Tolerance Ranges). System Management is not in a position to undertake a complete cost benefit analysis as it is not privy to the commercial implications that may arise from the application of the Tolerance Range in other processes.

However, System Management has undertaken some analysis of the application of the dynamic version of the Tolerance Range formula applying the dispatched ramp rate.

This analysis shows that out of the 13 Active Scheduled Generators, five would still have a minimum Tolerance Range of six, six would not change from their current Tolerance Range and two would have decreased.

As a result, it is unlikely that the application of the dynamic version of the Tolerance Range formula would make any significant difference to the outcomes of the currently applied static Tolerance Range formula, at least in the near future. System Management will continue to monitor this in the Tolerance Range Annual Review process.

Additionally, implementing the dynamic Tolerance Range formula would require system changes with associated costs potentially for both System Management and the IMO (given the alignment of the Settlement Tolerance to the dispatch Tolerance Range).

System Management also notes that clause 2.13.6E and section 4.3 of the Monitoring and Reporting PSOP allows a Facility to apply for an individual Facility specific Tolerance Range (i.e. Facility Tolerance Range) in situations where the general Tolerance Range may not be appropriate.

In the circumstances, System Management proposes to continue to apply the static version of the Tolerance Range. However, System Management will consider trends in dispatched ramp rates in future (post 1 July 2013) Annual Reviews of the Tolerance Range to determine if the current formula being applied remains appropriate.

System Management also considered Alinta's comments that a separate consultation process for the Annual Review of the Tolerance Range is unnecessary. System Management agrees with Alinta's comments and has therefore revised the drafting in Section 4.4 of the PSOP: Monitoring and Reporting.

AMENDMENT TO THE POWER SYSTEM OPERATION PROCEDURE FOLLOWING PUBLIC CONSULTATION

(Wording of the Procedure Change Proposal has been used and strikethrough placed where words have been deleted and underlined where words added)

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].** ~~System Management must follow the same consultation process as outlined in Paragraphs 4.2.1 to 4.2.3 of this Procedure for a Tolerance Range and Paragraphs 4.3.5 to 4.3.7 for a Facility Tolerance Range(s) prior to varying a Tolerance Range and/or a specific Facility Tolerance Range(s).~~

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.

~~3.~~ 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].**

IMPLEMENTATION

System Management recommends this amended procedure commence at 8 am 1 July 2013.

The above date, in System Management's opinion, allows sufficient time after the date of publication of the IMO's approval of the Procedure Change Proposal under clause 2.10.14, for Rule Participants to implement changes required by this Proposal.

Commencement is pending approval by the IMO. Market Rule 2.10.14 requires the IMO to make its decision within 10 Business days of this Report being published. This decision will include the final commencement date.