

Rule Change Notice

Constrained On/Off Compensation for Non-Scheduled Generators (RC_2012_19)

This notice is given under clause 2.5.7 of the Market Rules.

Date Submitted: 16 November 2012

Submitter: Allan Dawson, IMO

The Proposal

If a Non-Scheduled Generator was not dispatched upwards or downwards out of merit in a Trading Interval, it should be ineligible for Constrained On Compensation or Constrained Off Compensation (as applicable) and so its Maximum Theoretical Energy Schedule (TES) or Minimum TES (as applicable) is set to its Sent Out Metered Schedule (SOMS). However, under the current Market Rules the SOMS is calculated using SCADA data rather than interval meter readings provided by Western Power. When this quantity is compared with the actual interval meter SOMS, any differences in excess of the Facility's Settlement Tolerance can result in the calculation of Out of Merit Generation and therefore the allocation of Constrained On Compensation or Constrained Off Compensation to the Facility.

This Rule Change Proposal seeks to prevent the allocation of spurious Constrained On Compensation or Constrained Off Compensation in these circumstances.

Appendix 1 contains the Rule Change Proposal and gives complete information about:

- the proposed amendments to the Market Rules;
- relevant references to clauses of the Market Rules and any proposed specific amendments to those clauses; and
- the submitter's description of how the proposed amendments would allow the Market Rules to better address the Wholesale Market Objectives.

Decision to Progress the Rule Change

The IMO has decided to progress the Rule Change Proposal on the basis that interested parties should be given an opportunity to provide submissions as part of the rule change process.

The IMO has decided to subject the Rule Change Proposal to the Fast Track Rule Change Process described in section 2.6 of the Market Rules, on the grounds that it satisfies the criterion in clause 2.5.9(b) of the Market Rules.

Clause 2.5.9 states:

The IMO may subject a Rule Change Proposal to the Fast Track Rule Change Process if, in its opinion, the Rule Change Proposal:

(a) is of a minor or procedural nature; or

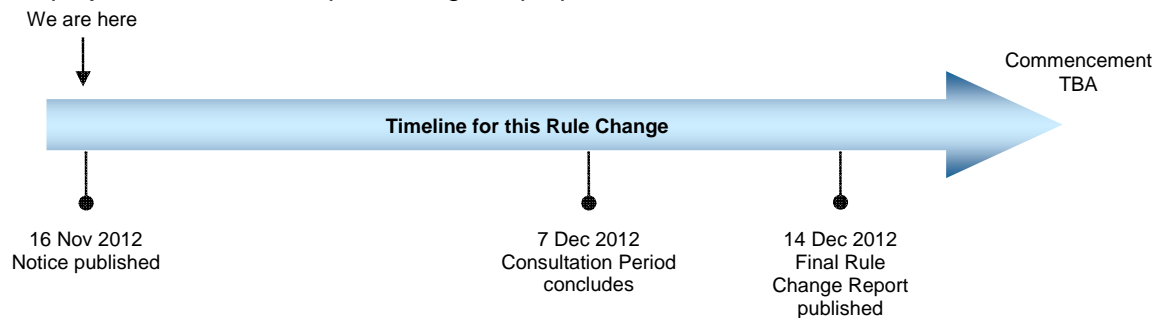
(b) is required to correct a manifest error; or

(c) is urgently required and is essential for the safe, effective and reliable operation of the market or the SWIS.

The IMO considers that this Rule Change Proposal corrects a manifest error in the Market Rules. Under the current drafting, Constrained On Compensation and Constrained Off Compensation can be allocated to a Non-Scheduled Generator for a Trading Interval in which the Facility clearly did not generate out of merit, due to a discrepancy between the MWh interval meter reading for the Facility and its SCADA equivalent. As such, the IMO considers that these amendments satisfy the criterion in clause 2.5.9(b).

Timeline

The projected timelines for processing this proposal are:



Call for Submissions

Any Rule Participant wishing to be consulted regarding this Rule Change Proposal is invited to notify the IMO within 5 Business Days of this notice being published (**23 November 2012**).

The consultation period is 15 Business Days from the publication date of this Rule Change Notice. Submissions must be delivered to the IMO by **5.00pm on Friday, 7 December 2012**.

The IMO prefers to receive submissions by email (using the submission form available on the Market Web Site: <http://www.imowa.com.au/rule-changes>) to: market.development@imowa.com.au



INDEPENDENT
MARKET
OPERATOR

Submissions may also be sent to the IMO by fax or post, addressed to:

Independent Market Operator

Attn: Group Manager, Market Development

PO Box 7096

Cloisters Square, PERTH, WA 6850

Fax: (08) 9254 4399

APPENDIX 1 Wholesale Electricity Market Rule Change Proposal

Change Proposal No: RC_2012_19
Received date: 16 November 2012

Change requested by:

Name:	Allan Dawson
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Organisation:	IMO
Address:	Level 17, 197 St Georges Terrace, Perth WA 6000
Date submitted:	16 November 2012
Urgency:	3-high – Fast Track Rule Change Process
Change Proposal title:	Constrained On/Off Compensation for Non-Scheduled Generators
Market Rules affected:	Clauses 6.16A.2 and 6.17.3A

Introduction

Market Rule 2.5.1 of the Wholesale Electricity Market Rules provides that any person (including the IMO) may make a Rule Change Proposal by completing a Rule Change Proposal Form that must be submitted to the Independent Market Operator.

This Change Proposal can be posted, faxed or emailed to:

Independent Market Operator
Attn: Group Manager, Market Development
PO Box 7096
Cloisters Square, Perth, WA 6850
Fax: (08) 9254 4339
Email: market.development@imowa.com.au

The Independent Market Operator will assess the proposal and, within 5 Business Days of receiving this Rule Change Proposal form, will notify you whether the Rule Change Proposal will be further progressed.

In order for the proposal to be progressed, all fields below must be completed and the change proposal must explain how it will enable the Market Rules to better contribute to the achievement of the wholesale electricity market objectives. The objectives of the market are:

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

Details of the proposed Market Rule Change

1. Describe the concern with the existing Market Rules that is to be addressed by the proposed Market Rule change:

Background

The Rule Change Proposal: Competitive Balancing and Load Following Market (RC_2011_10) introduced a new Balancing Market that enables greater participation of Independent Power Producers (IPPs) in the provision of Balancing. The Balancing Market commenced on 1 July 2012.

Under the new market arrangements, if a Balancing Facility is dispatched “out of merit” (i.e. not in accordance with the Balancing Merit Order), then subject to certain exceptions it is entitled to receive a payment of Constrained On Compensation or Constrained Off Compensation. Constrained On Compensation is paid to ensure that a Market Generator receives at least its bid price for any energy it generates, while Constrained Off Compensation is paid to ensure that a Market Generator does not pay the Balancing Market more for a quantity of energy than the price at which it offered to generate that energy.

To determine the amount of compensation required, for each Balancing Facility and Trading Interval the IMO calculates a Minimum Theoretical Energy Schedule (Minimum TES) and a Maximum Theoretical Energy Schedule (Maximum TES), which together define a range of MWh output for which the Balancing Price is considered to provide appropriate compensation. Again subject to various exceptions, if the Facility’s actual output falls outside this range by more than the applicable Settlement Tolerance, the Facility is paid either Constrained On Compensation (for output in excess of the Maximum TES) or Constrained Off Compensation (for shortfalls in output compared with the Minimum TES) as applicable.

For a Non-Scheduled Generator, the Maximum TES calculation varies depending on how the Loss Factor Adjusted price offered in the Facility's Balancing Submission (NSG Price) compares with the Balancing Price.

- If the NSG Price is less than or equal to the Balancing Price, then the relevant Market Generator has effectively agreed to be paid no more than the Balancing Price for any energy it generates in the Trading Interval. In this case the Maximum TES for the Facility is set to the Facility's Sent Out Metered Scheduled (SOMS), to reflect that the Balancing Price is sufficient for all of the Facility's output and so no Constrained On Compensation is required (clause 6.15.1(b)(i) of the Market Rules).
- If the NSG Price exceeds the Balancing Price, then based on the BMO the Facility would not be cleared to run. In this case the Maximum TES is calculated as the quantity of energy the Facility would be expected to generate if it was dispatched by System Management in accordance with the BMO, i.e. if it ramped down to zero at its Ramp Rate Limit commencing at the start of the Trading Interval (clause 6.15.1(b)(ii)).

The Minimum TES calculation for a Non-Scheduled Generator depends on whether the Facility was dispatched downwards out of merit by System Management in the Trading Interval.

- If the Facility was dispatched downwards out of merit, then the Minimum TES is set to System Management's estimate of the MWh output the Facility could otherwise have achieved in the Trading Interval (clause 6.15.2(b)(i)). The difference between this estimate and the actual output is then subject to Constrained Off Compensation.
- If the Facility was not dispatched downwards out of merit then it is not entitled to any Constrained Off Compensation. For this reason the Minimum TES is set to the Facility's SOMS, to reflect that the Facility did not generate less than it could have due to an out of merit Dispatch Instruction (clause 6.15.2(b)(ii)).

Issue

As outlined above, the Maximum TES of a Non-Scheduled Generator is set to its SOMS in cases where the Facility could not have been dispatched upwards out of merit and so should be ineligible for any Constrained On Compensation. However, under the current Market Rules the SOMS value used to measure actual output is determined from interval meter readings provided by Western Power, while the SOMS value used to calculate Maximum TES is taken from SCADA data provided by System Management. (The use of SCADA readings was prescribed in the Amending Rules for RC_2011_10 because they are available much earlier than interval meter readings, allowing earlier calculation and publication of Minimum and Maximum TES.)

Although both values are measures of the same physical quantity they are likely to vary to some extent, mainly due to the relative inaccuracy of SCADA. Occasionally the discrepancy can exceed the Settlement Tolerance of the Facility, which can result in the allocation of spurious Constrained On Compensation to the Facility.

For example, consider a Non-Scheduled Generator with a Settlement Tolerance of 1.5 MWh. For a Trading Interval with a Balancing Price of \$50/MWh, the Facility has an NSG Price of \$-1000/MWh, a SCADA SOMS of 20 MWh and an interval meter reading SOMS of 25 MWh.

The Facility will be assigned a Maximum TES of 20 MWh, since its NSG Price is less than the Balancing Price (i.e. it was eligible to run under the BMO). Under clause 6.16A.1 the Upwards Out of Merit Generation for the Facility is set to $(25 - 20) = 5$ MWh, as the interval meter reading SOMS exceeds the Maximum TES by more than the Facility's Settlement Tolerance. This results in the allocation of Constrained On Compensation for a quantity of 5 MWh (clause 6.17.3A(a)) at a price of $(\$-1000/\text{MWh} - \$50/\text{MWh}) = \$-1050/\text{MWh}$ (clause 6.17.3A(b)), and so the Market Generator incurs a cost of \$5250 for the Trading Interval. It should be noted that the Constrained On Compensation in these cases will never be a positive amount, as the Facility's NSG Price will never be greater than the Balancing Price.

Spurious Constrained Off Compensation payments can also be allocated to a Non-Scheduled Generator, if the Facility's Minimum TES is set to its SCADA SOMS and this quantity exceeds the interval meter reading SOMS by more than the Settlement Tolerance. In these cases the Constrained Off Compensation could be either a positive amount (if the NSG Price is less than the Balancing Price) or a negative amount (if the NSG Price is greater than the Balancing Price), although the former option is far more likely to occur in practice.

Non-Scheduled Generators have been charged a total of \$470,500 in spurious Constrained On Compensation for the first two months of the Balancing Market. An additional charge of around \$1.3 million was avoided by the IMO adjusting the relevant Facility's Settlement Tolerance in breach of the Market Rules. During the same period, Non-Scheduled Generators have received around \$21,600 in spurious Constrained Off Compensation, with a further payment of \$550,000 avoided by the IMO adjusting the relevant Facility's Settlement Tolerance.

Proposal

The IMO proposes two amendments to the Market Rules to address this issue.

- To prevent the allocation of Constrained On Compensation to a Non-Scheduled Generator due to SCADA/interval meter reading variations, the IMO proposes to set a minimum value of zero for the ConP1 price calculated for Non-Scheduled Generators in clause 6.17.3A(b). This will ensure the Constrained On Compensation is set to zero if the Facility's NSG Price is less than or equal to the Balancing Price (which will always be the case when the Maximum TES is set to the SCADA SOMS). Note that this amendment will not affect the calculation of Constrained On Compensation when the NSG Price exceeds the Balancing Price.
- To prevent the allocation of Constrained Off Compensation due to SCADA/interval meter reading variations, the IMO proposes to amend clause 6.16A.2(b) so that the Downwards Out Of Merit Generation for a Non-Scheduled Generator is set to zero unless System Management has indicated that it dispatched the Facility downwards out of merit by sending the IMO an estimate under clause 7.13.1(eF) of the MWh output the Facility could have otherwise achieved.

2. Explain the reason for the degree of urgency:

The IMO considers that this Rule Change Proposal corrects a manifest error in the Market Rules. Under the current drafting, Constrained On Compensation and Constrained Off Compensation can be allocated to a Non-Scheduled Generator for a Trading Interval in which the Facility clearly did not generate out of merit, due to a discrepancy between the MWh interval meter reading for the Facility and its SCADA equivalent. As such, the IMO considers that this proposal should be progressed using the Fast Track Rule Change Process, on the grounds that it satisfies the criterion in clause 2.5.9(b) of the Market Rules.

Clause 2.5.9 states:

The IMO may subject a Rule Change Proposal to the Fast Track Rule Change Process if, in its opinion, the Rule Change Proposal:

- (a) is of a minor or procedural nature; or*
- (b) is required to correct a manifest error; or*
- (c) is urgently required and is essential for the safe, effective and reliable operation of the market or the SWIS.*

3. Provide any proposed specific changes to particular Rules: (for clarity, please use the current wording of the Rules and place a ~~strikethrough~~ where words are deleted and underline words added)

6.16A.2. The Downwards Out of Merit Generation in a Trading Interval for a Balancing Facility equals:

- (a) subject to clause 6.16A.2(b), the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule; or
- (b) zero if:
 - i. System Management has provided a report to the IMO under clause 7.10.7 and the IMO determines that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction;
 - ii. the Facility was undergoing a Test or complying with an Operating Instruction; ~~or~~
 - iii. the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule is less than the sum of:
 - 1. any Downwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Downwards Backup LFAS Enablement, which the Facility was instructed by System

Management to provide, divided by two so that it is expressed in MWh; and

2. the applicable Settlement Tolerance; or

iv. the Balancing Facility is a Non-Scheduled Generator and System Management has not provided the IMO with a MWh quantity for the Facility and the Trading Interval under clause 7.13.1(eF).

6.17.3A Subject to clause 6.17.5B, for any Balancing Facility that is a Non-Scheduled Generator, in a Trading Interval:

(a) ConQ1 equals the Upwards Out of Merit Generation, in MWh, for the Trading Interval, which for settlement purposes under Chapter 9 the IMO must Loss Factor adjust; and

(b) ConP1 equals the greater of:

i. zero; and

ii. the Loss Factor Adjusted Price in the Balancing Price-Quantity Pair associated with the Balancing Facility for that Trading Interval less the Balancing Price for that Trading Interval.

4. Describe how the proposed Market Rule change would allow the Market Rules to better address the Wholesale Market Objectives:

The IMO considers that the proposed amendments correct a manifest error in the Market Rules and are consistent with the Wholesale Market Objectives.

Further, the IMO considers that the proposed amendments will allow the Market Rules to better address Wholesale Market Objectives (b) and (c). The allocation of negative Constrained On Compensation due to random SCADA/interval meter reading variations (which generally outweighs any windfall gains from Constrained Off Compensation) poses a threat to the viability of small Non-Scheduled Generators, and would be likely to discourage the participation of these Facilities in the market. The IMO therefore considers that eliminating these payments will better achieve both Wholesale Market Objective (b) and, as the problem only affects Non-Scheduled Generators, Wholesale Market Objective (c).

5. Provide any identifiable costs and benefits of the change:

Costs:

Some changes to the IMO's settlement system will be required. The IMO will provide stakeholders with an estimate of the cost of these changes during the consultation period for the Rule Change Proposal.

Benefits:

- Correction of a manifest error in the Market Rules.
 - Elimination of spurious payments and charges for Non-Scheduled Generators.
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