

## Rule Change Notice

### Selection of the 12 peak Trading Intervals used for calculation of IRCR (RC\_2013\_11)

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

**Submitter:** Allan Dawson, IMO

**Date Submitted:** 14 May 2013

#### The Proposal

To fund capacity that is procured through the Reserve Capacity Mechanism, each Market Customer is assigned an Individual Reserve Capacity Requirement (IRCR) obligation. The IRCR for a Market Customer is a quantity of capacity (expressed in MW) which represents that customer's share of the Reserve Capacity Requirement (RCR) for the relevant Capacity Year.

IRCRs are determined by dividing the RCR among Market Customers based on their relative contribution to metered output during the "12 peak Trading Intervals" in the previous Hot Season (December to April inclusive). The IMO proposes to amend Appendix 5 of the Market Rules to select the 12 peak Trading Intervals from the 4 Trading Days in the previous Hot Season with the highest maximum demand, rather than the 4 Trading Days in the previous Hot Season with the highest daily consumption.

The IMO also proposes a minor amendment to Appendix 5 to clarify that for the purposes of IRCR calculation the demand in a Trading Interval is measured as the sum of the Sent Out Metered Schedules of all Scheduled Generators and Non-Scheduled Generators in that Trading Interval.

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

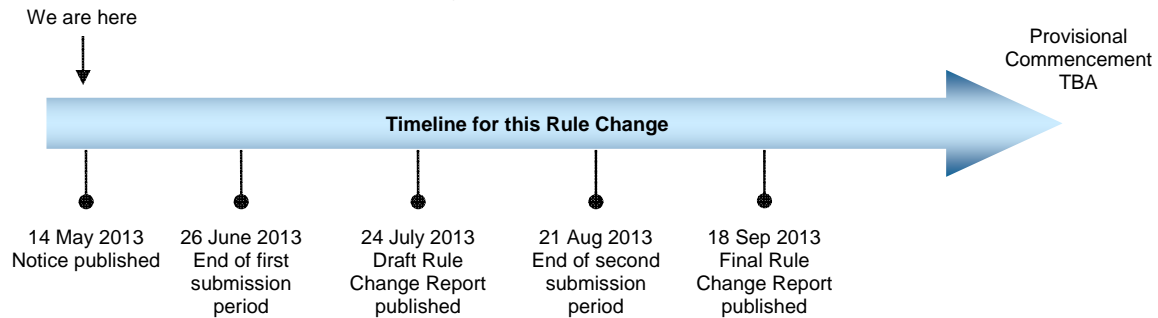
- the proposed amendments to the Market Rules;
- relevant references to clauses of the Market Rules and any proposed specific amendments to those clauses; and
- the submitter's description of how the proposed amendments would allow the Market Rules to better address the Wholesale Market Objectives.

#### Decision to Progress the Rule Change

The IMO has decided to progress the Rule Change Proposal on the basis that Rule Participants should be given an opportunity to provide submissions as part of the rule change process. This Rule Change Proposal will be progressed using the Standard Rule Change Process.

## Timeline

The projected timelines for processing this proposal are:



## Call for Submissions

The IMO invites interested stakeholders to make submissions on this Rule Change Proposal. The submission period is 30 Business Days from the Rule Change Notice publication date. Submissions must be delivered to the IMO by **5.00pm on Wednesday, 26 June 2013**.

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](mailto:market.development@imowa.com.au)

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

### Independent Market Operator

Attn: Group Manager, Development and Capacity  
PO Box 7096  
Cloisters Square, PERTH, WA 6850  
Fax: (08) 9254 4399





INDEPENDENT  
MARKET  
OPERATOR

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## Wholesale Electricity Market Rule Change Proposal

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**Rule Change Proposal ID:** RC\_2013\_11  
**Date received:** 14 May 2013

**Change requested by:**

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<b>Date submitted:</b>	14 May 2013
<b>Urgency:</b>	Medium
<b>Change Proposal title:</b>	Selection of the 12 peak Trading Intervals used for calculation of IRCR
<b>Market Rule(s) affected:</b>	Appendix 5

### 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, Development and Capacity  
PO Box 7096  
Cloisters Square, Perth, WA 6850  
Fax: (08) 9254 4339  
Email: [market.development@imowa.com.au](mailto: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.

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## Details of the Proposed Rule Change

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

#### Background

As part of the Reserve Capacity Mechanism (RCM), the IMO must determine for each Capacity Year the Reserve Capacity Requirement (RCR). The RCR is an estimate of the capacity that would be required to:

- meet the forecast peak demand (assuming expected growth and with a 10% probability of exceedance) plus an additional reserve margin and allowance for Load Following Service; and
- limit expected energy shortfalls to 0.002% of annual energy consumption.

In practice the first criterion is dominant, which means that the key factor in determining the RCR for a Capacity Year is the forecast system demand for the highest demand Trading Interval in that year.

To fund capacity that is procured through the RCM, each Market Customer is assigned an Individual Reserve Capacity Requirement (IRCR) obligation. The IRCR for a Market Customer is a quantity of capacity (expressed in MW) which represents that customer's share of the RCR for the relevant Capacity Year.

IRCRs are determined by dividing the RCR among Market Customers based on their relative contribution to metered output during the "12 peak Trading Intervals" in the previous Hot Season (December to April inclusive). The calculation is based on the median output from the 12 Trading Intervals selected as the "3 highest demand Trading Intervals on each of the 4 Trading Days with the highest daily demand, where demand refers to total demand, net of

embedded generation, in the SWIS”<sup>1</sup>. “Highest daily demand” is calculated based on total sent out energy during the Trading Day.

## Issue

The Reserve Capacity Mechanism Working Group has recently undertaken a review of a number of aspects of the RCM, including a consideration of the allocation of capacity costs among Market Customers. During the review, a misalignment between the determination of the RCR and IRCRs was identified.

The current IRCR allocation is based on Trading Intervals selected from the four Trading Days with the highest daily consumption in the Hot Season. However, the RCR is calculated based on demand during peak Trading Intervals and not on daily consumption. The Trading Days with the highest daily demand do not always align with the Trading Days with the peak demand Trading Intervals. In each of the last five Hot Seasons, at least one of the four Trading Days used was not in the top four demand days as measured by peak demand. This creates a risk of selecting Trading Intervals that are unrepresentative of a system peak demand event, upon which the RCR is conceptually based.

An illustration of this is the inclusion, under the current IRCR methodology, of three Trading Intervals from Australia Day (26 January 2012) in the 12 Peak Trading Intervals used for IRCR calculations for the 2012/13 Capacity Year. The consumption profile on a public holiday differs to that of a Business Day (containing a higher proportion of residential load and lower proportion of commercial load), and it is unlikely that the highest demand Trading Intervals would occur on such days.

If the Trading Day selection had been based on the maximum demand for each Trading Day, the three Trading Intervals used in the IRCR calculation would instead have been selected from 1 February 2012, which was a Business Day. This would have resulted in an IRCR allocation which more accurately reflected each Market Customer’s likely contribution to system peak load.

## Proposal

The IMO proposes to amend Appendix 5 of the Market Rules to select the 12 Trading Intervals from the 4 Trading Days in the previous Hot Season with the highest maximum demand, rather than the 4 Trading Days in the previous Hot Season with the highest daily consumption.

The IMO also proposes a minor amendment to Appendix 5 to clarify that the demand in a Trading Interval is measured as the sum of the Sent Out Metered Schedules of all Scheduled Generators and Non-Scheduled Generators in that Trading Interval.

## 2. Explain the reason for the degree of urgency:

The IMO submits that this Rule Change Proposal should be progressed via the Standard Rule Change Process.

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## 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)*

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<sup>1</sup> Appendix 5 of the Wholesale Electricity Market Amending Rules

# Appendix 5: Individual Reserve Capacity Requirements

This Appendix presents the method for annually setting and monthly adjusting Individual Reserve Capacity Requirements.

For the purpose of this Appendix:

- Steps 1 to 10 are repeated every month.
- All references, apart from those in Step 5A, to meters are interval meters.
- The Notional Wholesale Meter is to be treated as a registered interval meter measuring Temperature Dependent Load. This meter is denoted by Temperature Dependent Load meter  $v=v^*$ .
- The New Notional Wholesale Meter, determined in accordance with Step 5A, is to be treated as a registered interval meter measuring Temperature Dependent Load.
- The meter registration data to be used in the calculations is to be the most current complete set of meter registration data as at the time of commencing the calculations.
- The values of RR (the Reserve Capacity Requirement) and FL (forecast peak demand associated with that Reserve Capacity Requirement as specified in clause 4.6.2) may be modified from their standard values in accordance with clause 4.28.11A.
- In the case of the first Reserve Capacity Cycle, the IMO may use meter data relating to periods prior to Energy Market Commencement as if the energy market had commenced prior to the time periods covered by that meter data.
- In Steps 1 and 5 the demand in a Trading Interval is measured as the sum of the Sent Out Metered Schedules of all Scheduled Generators and Non-Scheduled Generators in that Trading Interval.
- In Step 1 the maximum demand for a Trading Day is the highest demand measured for any Trading Interval in that Trading Day.

STEP 1: Define the 12 peak Trading Intervals during the Hot Season preceding the initial calculation of Individual Reserve Capacity Requirements for a Reserve Capacity Cycle (the “preceding Hot Season”) as corresponding to the 3 highest demand Trading Intervals on each of the 4 Trading Days with the highest daily maximum demand, ~~where demand refers to total demand, net of embedded generation, in the SWIS.~~

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STEP 5: When determining the Individual Reserve Capacity Requirements for Trading Month n identify meters that were not registered with the IMO during one or more of the 12 peak Trading Intervals in the preceding Hot Season but which were registered by the end of Trading Month n-3.

Identify the 4 Peak SWIS Trading Intervals of Trading Month n-3, being the 4 highest demand Trading Intervals, ~~where demand refers to total demand, net of embedded generation, in the SWIS.~~

For a new meter u that measures Non-Temperature Dependent Load set NMNTCR(u) to be 1.1 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 Peak SWIS Trading Intervals of Trading Month n-3.

For a new meter v that measures Temperature Dependent Load set NMTDCR(v) equal to be 1.3 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 Peak SWIS Trading Intervals of Trading Month n-3.

For a new meter w that measures Intermittent Load set IILRCR(w) in accordance with Appendix 4A to the value applicable to Trading Month n.

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#### **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 will better achieve Wholesale Market Objectives (d) and (e), and are consistent with the other Wholesale Market Objectives.

The proposed methodology more accurately (and more equitably) allocates the costs of Reserve Capacity among Market Customers, through better aligning each Market Customer's IRCR with its contribution to peak demand. This provides price signals that encourage Market Customers to reduce their peak demand, which contributes to the following Wholesale Market Objectives:

- minimising the long-term cost of electricity supplied to customers (Wholesale Market Objective (d)) by providing incentives to reduce peak load, which has the effect of reducing the RCR and the need for investment in network infrastructure; and
- encouraging the taking of measures to manage the amount of electricity used and when it is used (Wholesale Market Objective (e)).

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

The IMO will incur some costs associated with implementing the necessary changes to the IMO's systems. These costs are not expected to be significant.

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