Wholesale Electricity Market
Rule Change Proposal

Change Proposal No: RC_2009_29
Received date: 26 August 2009

Change requested by

Name:	Troy Forward
Phone:	9254 4304
Fax:	(08) 9254 4399
Email:	imo@imowa.com.au
Organisation:	IMO
Address:	Level 3, Governor Stirling Tower, 197 St George's Terrace
Date submitted:	26 August 2009
Urgency:	Fast Track Rule Change Process
Change Proposal title:	Determination of Capacity Shortfalls for Curtailable Loads
Market Rule(s) affected:	Clause 4.26.2D

Introduction

Clause 2.5.1 of the Wholesale Electricity Market Rules (Market Rules) provides that any person (including the Independent Market Operator (IMO)) may make a Rule Change Proposal by submitting a completed Rule Change Proposal form to the IMO.

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

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

The IMO will assess the proposal and, within five 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 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 review of Demand Side Management (DSM) undertaken by the DSM Working Group (established under the auspices of the Market Advisory Committee) resulted in a number of recommendations to:

- Maximise the operational efficiency of DSM;
- Recognise the operational requirements of DSM providers (the end-use customers); and
- Ensure consistency with obligations placed on generation Facilities.

The major outcome of the review is the staged Amending Rules which resulted from the Rule Change Proposal titled Demand Side Management – Operational Issues (RC_2008_20). The IMO, in making its decision to approve RC_2008_20 considered that the amendments would ensure the reliability of DSM programmes in the operation of the market and promote greater competition with existing retailers. Further details of the proposal are available on the IMO's website: http://www.imowa.com.au/RC_2008_20

One outcome of RC_2008_20 was the introduction of the concept that a DSM provider would be required to return all of its Reserve Capacity Payments by way of refunds if it completely failed to meet its maximum level requirements.

In particular, clause 4.26.3A of the Amending Rules defines that the level of refund to apply in any Trading Interval is determined based on the amount of Capacity Shortfall, measured in terms of MWh, as a proportion of the total MWh reduction that the Curtailable Load should have delivered if called to the maximum level for the maximum allowable time. The total amount of refunds payable in a year is capped at the level of Reserve Capacity payment. This is similar to the concept which applies for generation Facilities.

Clause 4.26.2D of the Market Rules outlines the methodology for calculating the “Capacity Shortfall” in Reserve Capacity supplied by each Market Participant holding Capacity Credits associated with a Curtailable Load. The value is determined for each Trading Interval relative to its Reserve Capacity Obligation for capacity certified as either:

- Reserve Capacity expected to be available; or
- Stipulated Default Load.

This information is then used in clause 4.26.3A to determine the value of the Capacity Cost Refunds associated with the Market Participant’s Curtailable Load.

Note that the Amending Rules 4.26.3A, 4.26.2D and the Amending Rules introducing the concept of Capacity Cost Refunds associated with Curtailable Loads (clause 4.26.3) will commence on 1 October 2009.

Issue with clause 4.26.2D

The current methodology for determining the Capacity Shortfall for capacity certified as Stipulated Default Load does not specify that clause 4.26.2D(b)(ii) will only apply as a result of System Management’s Dispatch Instruction (as shown in clause 4.26.2D(a)(ii) for Reserve Capacity expected to be available).

As a result a Curtailable Load which has not been requested by System Management to drop to its Stipulated Default Load and so is operating normally in the market will also be required to make Capacity Cost Refunds.

Evaluation of impacts of current drafting

To evaluate the impacts of the current drafting of clause 4.26.2D consider a Curtailable Load which has nominated a stipulated default load of 20 MW, and which normally operates at 100 MW (therefore has 80 Capacity Credits assigned to it). It is assumed that it is available for 24 hours a year (H = 24).

Capacity Shortfall and Capacity Cost Refund (Current)

Under the current drafting of clause 4.26.2D(b) the Curtailable Load will have a Capacity Shortfall for each Trading Interval of the greater of:

- zero; and
- twice the absolute value of the Metered Schedule minus the Stipulated Default Load

For the given example the Capacity Shortfall will be:

$$= 2 \times 50 \text{ MW} - 20 \text{ MW} = 80 \text{ MW}$$

The refund then payable for an interval is determined under clause 4.26.3A of the Market Rules which specifies that the Capacity Cost Refund is equal to the lesser of either:

- Clause 4.26.3A(a):

  ((12 × Monthly Reserve Capacity Price) × Capacity Credits) – Capacity Cost Refunds

  Where:

  Capacity Cost Refunds refer to those applicable to the Market Participant in previous Trading Months failing in the same Capacity Year as Trading Month m; or

- Clause 4.26.3A(b):

  $$\frac{12 \times \text{Monthly Reserve Capacity Price} \times S}{2 \times H}$$

  Where:

  S is the Capacity Shortfall in MW determine in accordance with clause 4.26.2D in any Trading Interval; and

  H is the maximum number of hours that the Facility was certified to be available in accordance with clause 4.10.1(f)(ii).

For the given example the refund payable for each interval under clause 4.26.3A(b) will be:

$$= \frac{12 \times \text{Monthly Reserve Capacity Price} \times 80}{2 \times 24}$$

$$= \frac{\text{Total yearly Reserve Capacity Price} \times 80}{48}$$

$$= \frac{1}{48} \text{ of the total yearly capacity payments}$$

That is the refund payable for each interval will be equivalent to $1/48^{th}$ of the total amount to be paid by the Market Participant in the Reserve Capacity Year. This payment will be required for the 48 intervals (24 hours) of operation until the cap specified in clause 4.26.3A(a) is reached and will be required in the situation where the Market Customer is:

- operating normally;
- meeting the Stipulated Default Load Dispatch Instructions; or
- failing to meet the Stipulated Default Load Dispatch Instructions.

The IMO considers that requiring Market Participants to make refunds for the first two situations is counterintuitive and does not achieve the intended outcome of RC_2008_20.

Proposal

Based on the outcomes of the IMO's evaluation, the IMO proposes to amend the drafting for clause 4.26.2D(b) to specify that the Capacity Shortfall would equal zero in each interval unless a Dispatch Instruction is issued by System Management and the participant does not meet the Stipulated Default Load requirements as notified in the Dispatch Instruction (similar treatment to clause 4.26.2D(a)).

The IMO contends that this will result in Market Participants with Stipulated Default Loads not having to pay refunds when operating normally in the market or when meeting any Dispatch Instruction issued by System Management. In the case where a Dispatch Instruction has been issued, and the Stipulated Default Load was not met, Market Participants will be required to refund the amount of Capacity Credits equivalent to the amount by which the Stipulated Default Load was not met, as was originally intended by RC_2008_20.

Capacity Shortfall and Capacity Cost Refund (Proposed)

For the given example, the Capacity Shortfall under the proposed Amending Rules would be equal to zero as no Dispatch Instruction had been issued by System Management and the Capacity Cost Refund would be:

$$= \frac{12 \times \text{Monthly Reserve Capacity Price} \times 0}{2 \times 24}$$

$$= 0$$

That is the Market Participant will not be required to make a Capacity Cost Refund for the Trading Interval as they have not failed to meet any relevant Dispatch Instructions issued by System Management or have been operating normally in the market.

2. Explain the reason for the degree of urgency:

This Rule Change Proposal is required to correct a manifest error which incorrectly results in Market Generators with Stipulated Default Loads being required to make Capacity Cost Refunds in the case where a Dispatch Instruction has not been issued by System Management. This is an obvious error which consequently does not meet the original intent of the changes proposed by RC_2008_20 and will potentially result in monetary consequences to effected Market Participants. As such, it fulfils sub-clause 2.5.9(b), in that it is required to correct a manifest error, and therefore may be fast-tracked:

2.5.9. 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;

(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

Level 3 Governor Stirling Tower, 197 St Georges Terrace, PERTH WA 6000 • PO Box 7096, Cloisters Square, Perth WA 6850
Telephone (08) 9254 4300 • Facsimile (08) 9254 4399 • Email imo@imowa.com.au • www. imowa.com.au

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)

4.26.2D. The IMO must determine the capacity shortfall ("**Capacity Shortfall**") in Reserve Capacity supplied by each Market Participant p holding Capacity Credits associated with a Curtailable Load in each Trading Interval t of Trading Day d and Trading Month m relative to its Reserve Capacity Obligation Quantity as:

(a) for capacity certified in accordance with clause 4.10.1(f)(i)(1), the greater of

i. zero; and

ii. where System Management has issued a Dispatch Instruction, the required decrease, in MW~~, as a result of System Management's Dispatch Instruction~~ minus the load reduction, where the load reduction is equal to the Relevant Demand set in clause 4.26.2C minus twice the absolute value Metered Schedule for the Trading Interval, and

(b) for capacity certified in accordance with clause 4.10.1(f)(i)(2), the greater of

i. zero; and

ii. where System Management has issued a Dispatch Instruction, twice the absolute value of the Metered Schedule, minus the Stipulated Default Load.

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 changes, which correct a manifest error in the determination of Capacity Shortfalls for Stipulated Default Loads, are consistent with the market objectives.

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

Costs

Some settlement system changes may be required to implement the proposed changes. The IMO is currently looking into any potential costs and will provide estimations later in the process.

Benefits

The proposed Amending Rules:

- will remove the manifest error requiring Market Participants to unnecessarily make Capacity Cost Refunds in the case where a Stipulated Default Load:
    - has not been issued Dispatch Instructions by System Management; or
    - has been issued Dispatch Instructions and the required decrease has been met; and
- are consistent with the Market Objectives as outlined in section 4 of this proposal.

Level 3 Governor Stirling Tower, 197 St Georges Terrace, PERTH WA 6000 • PO Box 7096, Cloisters Square, Perth WA 6850
Telephone (08) 9254 4300 • Facsimile (08) 9254 4399 • Email imo@imowa.com.au • www. imowa.com.au