
Wholesale Electricity Market - Pre Market Rule Change Discussion Paper

Submitted by

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Urgency:	High
Change Proposal title:	Reserve Capacity Refund Shortfall Formula
Market Rule(s) affected:	Clauses 4.26.2(b)

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: Dora Guzeleva, Manager Market Administration
PO Box 7096
Cloisters Square, Perth, WA 6850

Fax: (08) 9420 5755

Email: dora.guzeleva@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) Outline the issue concerning the existing Market Rules that is to be addressed by the proposed Market Rule change:

The correction, in December 2006, to a potential anomaly in the Reserve Capacity Shortfall calculations, which lead to an overstatement of a Market Participant's fulfilment of its Reserve Capacity obligation, may have had an unintended adverse impact on participant refund calculations.

Prior to a change implemented in December 2006, Clause 4.26.2(b) of the Market Rules read as follows:

- (b) subject to paragraph (a), for the case where Market Participant p is not the Electricity Generation Corporation, the sum of:
 - i. the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads and Curtailable Loads; plus
 - ii. the MW quantity calculated by doubling the total MWh quantity of energy sent out during that Trading Interval by Facilities registered by that Market Participant as indicated by the applicable Resource Plan; plus
 - iii. the MW quantity calculated by doubling the total MWh quantity covered by the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
 - iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for that Market Participant

corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

- v. the greater of zero and $(BSFO(p,d,t) - RTFO(p,d,t))$; and

In order to determine whether a Market Generator had fulfilled its obligation to offer all of its capacity covered by capacity credits into the Market, Clause 4.26.2(b) added together the following quantities:

- The capacity associated with the quantities offered into the STEM but not cleared
- The capacity associated with the quantities bid into the STEM and scheduled
- The capacity associated with the quantities scheduled to be generated in a Resource Plan
- The capacity kept aside for Ancillary Services
- The capacity not available due to a forced outage before the STEM submission but subsequently available in real time.

This formula resulted in a Market Generator, which was also a Market Customer, potentially overstating its fulfilment of its Reserve Capacity obligation. This is because in practice the “quantities scheduled to be generated in a Resource Plan” would normally cover the participant’s own demand and this demand would normally also be included in the “quantities offered into the STEM but not cleared”.

To avoid this anomaly in the Reserve Capacity Shortfall calculations, the participant’s own demand has to be deducted from its capacity scheduled to be generated where the demand is included in a Resource Plan. To achieve this, in November 2006, the Transitional Market Advisory Committee considered and accepted a proposal to amend clause 4.26.2(b)ii as follows:

- ii. the MW quantity calculated by doubling the total MWh quantity of energy sent out by Facilities registered by that Market Participant net of the MW quantity calculated by doubling the total MWh quantity of energy to be consumed by that Market Participant including demand associated with any Curtailable Load or Interruptible Load, but excluding demand associated with any Dispatchable Load during that Trading Interval as indicated by the applicable Resource Plan; plus

This change to the Rules was implemented in December 2006. The experience in the market since the change was made, however, has demonstrated that, while the change addressed the originally identified issue, it could have an unintended detrimental impact on participant refund calculations in certain circumstances.

In practice, the current formula could result in understatement of the capacity made available to the market. The change was based on the assumption that participants holding Capacity Credits would normally make STEM submissions and ensure that their own demand is included

in the “quantities offered into the STEM but not cleared”. The change provided, therefore, that a participant own demand (as included in a Resource Plan) is deducted from its capacity scheduled to be generated in the Resource Plan to avoid double-counting of the relevant capacity.

However, where a STEM submission is not available, the calculation has the potential to underestimate the capacity made available to the market.

It is noted that this circumstance can arise in the case Intermittent Generators, which are not obliged to make STEM submissions, and this was overlooked in the rule change implemented in December 2006.

Therefore, it is proposed to amend the rules to add back in the determination of the Reserve Capacity Shortfall participant’s own demand, to the extent that the participant does not have a valid STEM submission in any Trading Interval.

2) Explain the reason for the degree of urgency:

Under clause 2.5.9, the IMO may subject a Rule Change Proposal to the Fast Track Rule Change Process under specified conditions. The IMO proposes to subject this rule change to the Fast Track process in accordance with clause 2.5.9(b):

- 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; 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 current clause 4.26.2(b)ii, which resulted from a change made in November 2006, could give rise to an inappropriate capacity refund and disadvantage participants even though they have complied with their obligations. This is a manifest error that should be corrected through the Fast Track process to avoid further unjustified financial consequences for participants.

3) Provide any proposed specific changes to particular Rules:

Clause 4.26.2(b) is proposed to be modified as follows:

- (b) subject to paragraph (a), for the case where Market Participant p is not the Electricity Generation Corporation, the sum of:
 - i. the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant’s Interruptible Loads and Curtailable Loads; plus

- ii. ~~the MW quantity calculated by doubling the total net MWh quantity of energy sent out by Facilities registered by that Market Participant ~~net of the MW quantity calculated by doubling the total MWh quantity of energy to be consumed by that Market Participant including demand associated with any Curtailable Load or Interruptible Load, but excluding demand associated with any Dispatchable Load during that Trading Interval~~ calculated as the Net Contract Position less the shortfall as indicated by the applicable Resource Plan; plus~~
- iiA if a STEM submission does not exist for that Trading Interval, the MW quantity calculated by doubling the total MWh quantity of energy to be consumed by that Market Participant including demand associated with any Curtailable Load or Interruptible Load, but excluding demand associated with any Dispatchable Load during that Trading Interval as indicated by the applicable Resource Plan; plus

[Balance of clause not changed]

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

The objectives of the market as set out in clause 1.2.1 of the Market Rules 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.*

Properly accounting for participants meeting their reserve capacity obligations contributes positively to this objective by:

- In the immediate term, ensuring that participants are treated equitably in the reserve capacity mechanism; and
- In the longer term, efficient investment in capacity required by the market by providing correct signals for making capacity available.

Therefore, the proposed rule change will assist in promoting the economically efficient and reliable production and supply of electricity in the market.

- (b) *to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors.*

Removing the inaccuracies in the Reserve Capacity Refund shortfall formula will enhance the market as an equitable platform by ensuring that all participants are treated in an equitable and fair manner. This will contribute to the encouragement of competition and facilitate entry of new

competitors. The IMO considers that the proposed changes, therefore, are consistent with the operation of objective (b) of the Market Objectives.

- (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.*

The current formula may produce an unintended penalty in the case of Intermittent Generators in certain circumstances. IMO considers, therefore, that correcting the formula in a timely manner to avoid this will contribute positively to the operation of objective (c) of the Market Objectives.

- (d) *to minimise the long-term cost of electricity supplied to customers from the South West interconnected system*

The IMO considers that, by avoiding inappropriate financial consequences for participants, the rule change proposal would contribute positively to the operation of objective (d) of the Market Objectives.

- (e) *to encourage the taking of measures to manage the amount of electricity used and when it is used.*

The IMO considers that the proposed changes do not impact on, and therefore are consistent with, the operation of objective (e) of the Market Objectives.

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

The rule change will need to be implemented through configuration changes only in the Settlement module. It is expected, therefore, that the change could be implemented at a low cost.
