Agenda item 5a (vi)

Wholesale Electricity Market
Pre Rule Change Proposal Form

Change Proposal No: PRC_2009_11
Received date:

Change requested by

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Date submitted:	*<date submitted to the IMO>*
Urgency:	Medium
Change Proposal title:	Changing the Window of Entry into the Reserve Capacity Market
Market Rule(s) affected:	Market Rules 4.1.26, and 4.11.1

Introduction

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

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

Independent Market Operator
Attn: Manager Market Administration and System Capacity
PO Box 7096
Cloisters Square, Perth, WA 6850

Fax: (08) 9254 4339
Email: marketadmin@imowa.com.au

The IMO 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:

A key objective for the Wholesale Electricity Market (WEM) is to ensure that electricity and related services are provided reliably and economically. This is a significant issue in Western Australia because the electricity system is isolated and supplies cannot be drawn from neighbouring systems during times of system peak demand.

The provision of capacity in Western Australia is achieved through the Reserve Capacity Mechanism. This is a set of processes through which the IMO determines the amount of generation and Demand Side Management capacity required to meet future demand and reliability requirements. Key to this process is the investors themselves and investor sentiment around entry into the market.

Under the current provisions, the Reserve Capacity Mechanism operates on a cycle which sees all capacity first certified and then assigned Capacity Credits, either through a bilateral trade declaration or auction process. The process of receiving Certified Reserve Capacity is the first significant step in receiving Capacity Credits. This technical evaluation step is used to determine what capacity capability can be provided by a Facility. Capacity Credits are then assigned first through the bilateral trade declaration process and then if needed through a Reserve Capacity Auction.

Currently the timeframe for new capacity to enter the Reserve Capacity Mechanism market (market) is a four-month window centred around the start of a new Capacity Year on 1 October (the window for entry is between 1 August and 30 November). This timeframe allows new Facilities to enter the market and receive the benefit of Capacity Credits and any associated income stream from 1 August. Market Participants are encouraged to enter the market as early as possible so that any initial commissioning issues do not affect the power system at critical times over summer.

Market Participants have the ability to nominate initial projected dates of entry into the market (between 1 August and 30 November) and revise these dates, as part of their regular reporting requirements, as the project nears completion. Once the Facility is fully capable of meeting its obligations and has completed commissioning the Facility is subject to Capacity

Cost Refunds for unapproved outages. Capacity Cost Refunds also apply from 1 December for Facilities which have not completed commissioning by 30 November.

The current dates for entry of new capacity may encourage risk taking. For example, a developer may take an optimistic view and bring a project forward in order to meet the 30 November deadline. This may especially be the case if the alternative to coming on before 30 November is to delay the project until the next Capacity Year.

Developers taking risk around project completion timeframes, for example nominating unreasonable project completion timelines, can place the whole power system at risk if the capacity is not delivered on time.

In response to these considerations, the IMO proposes to retain the four month window of entry for new entrant generators, but bring the window forward to start on 1 June, with all capacity to be fully available no later than 1 October each year. This will have a net benefit to the market by minimising the risk associated with bringing new capacity into service. By coming on no later than 1 October new plant will have a few months to fine-tune its operations before the summer peak demand period.

The concept of shifting the window of entry for new entrant generators was presented by the IMO to the Market Advisory Committee (MAC) at the December 2008 and February 2009 meetings. This Rule Change proposal is based on the outcomes of the MAC's discussions and consultation with other industry representatives. Copies of the concept papers, which contain details of the additional analysis of the various options and considerations undertaken by the IMO, are available from the IMO's public website.

The IMO proposes that these changes be implemented for the 2011/12 capacity year. This will mean that:

a. potential developers will have sufficient time to take these changes into account when making their investment decisions;
b. projects currently underway (for the 2009/10 and 2010/11 capacity years) which were financed under the current reserve capacity structure and may be targeting 30 November as their commissioning date will not be required to be in service by 1 October; and
c. there should be no barriers to entry created for existing developers in the market.

It should be noted that the 2009 Request for Expressions of Interest (EOI) for the 2011/12 Reserve Capacity Cycle, released January 2009, notes that "new facilities must be available for commercial service by 30 November 2011" as provided under current provisions. However, the EOI also signaled that there are currently a number of proposed Rule improvements under consideration in the rule change mechanism provided for under the Market Rules relating to:

a. the Certified Reserve Capacity Provisions;
b. the timing and deadlines associated with the Certification process;
c. fuel provisions and requirements; and
d. renewable generation certification and requirements.

2. Explain the reason for the degree of urgency:

The IMO submits that the above rule change proceed under the Standard Rule Change Process. The IMO anticipates that this will be completed around July 2009 and the amending rules will take effect immediately, in time for the 2009 Reserve Capacity Cycle onwards.

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)

4.1.26. Reserve Capacity Obligations apply:

(a) in the case of the first Reserve Capacity Cycle:

i. from the Initial Time, for Facilities that were commissioned before Energy Market Commencement;

ii. from the Trading Day commencing on the scheduled date of commissioning, as specified in accordance with clause 4.10.1(c)(iii)(7), for Scheduled Generators and Non-Scheduled Generators commissioned between Energy Market Commencement and 30 November 2007, inclusive; and

iii. from the Trading Day commencing on 1 October 2007 for Interruptible Loads, Curtailable Loads or Dispatchable Loads commissioned after Energy Market Commencement; and

(b) ~~in the case of subsequent~~ for subsequent Reserve Capacity Cycles up to and including 2008:

i. from the Trading Day commencing on 1 October of Year 3, for Facilities that were commissioned as at the scheduled time of the Reserve Capacity Auction for the Reserve Capacity Cycle as specified in clause 4.1.18(a) or for Facilities which have provided Capacity Credits in one or both of the two previous Reserve Capacity Cycles; and

ii. from the Trading Day commencing on the scheduled date of commissioning, as specified in accordance with clause 4.10.1(c)(iii)(7), or as revised in accordance with clause 4.27.11A or clause 4.27.11D, for Facilities commissioned between 1 August of Year 3 and 30 November of Year 3.

(c) for subsequent Reserve Capacity Cycles from 2009 onwards:

i. from the Trading Day commencing on 1 October of Year 3, for Facilities that were commissioned as at the scheduled time of the Reserve Capacity Auction for the Reserve Capacity Cycle as specified in clause 4.1.18(a) or for Facilities which have provided Capacity Credits in one or both of the two previous Reserve Capacity Cycles; and

ii. from the Trading Day commencing on the scheduled date of commissioning, as specified in accordance with clause 4.10.1(c)(iii)(7), or as revised in accordance with clause 4.27.11A or clause 4.27.11D, for Facilities commissioned between 1 June of Year 3 and 1 October of Year 3.

4.11.1. Subject to clause 4.11.7, the IMO must apply the following principles in assigning a quantity of Certified Reserve Capacity to a Facility for the Reserve Capacity Cycle to which the application relates:

(a) subject to paragraphs (d) and (e) and clause 4.11.2, the Certified Reserve Capacity for a Facility for a Reserve Capacity Cycle is not to exceed the IMO's reasonable expectation as to the amount of capacity likely to be available from that Facility, after netting off capacity required to serve Intermittent Loads, embedded loads and parasitic loads, at daily peak demand times in the period from the:

(i) start of December for Reserve Capacity Cycles up to 2009; or

(ii) trading day starting on 1 October for Reserve Capacity Cycles from 2009 onwards

in Year 3 of the Reserve Capacity Cycle to the end of July in Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41°C;

(b) where the Facility is a generation system (other than an Intermittent Generator), the Certified Reserve Capacity must not exceed the sum of the capacities specified in clauses 4.10.1(e)(ii) and 4.10.1(e)(iii);

(c) the IMO must not assign Certified Reserve Capacity to a Facility for a Reserve Capacity Cycle if:

i. for Reserve Capacity Cycles up to and including 2009 that Facility is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by ~~30 November~~ 1 October of Year 3 of that Reserve Capacity Cycle; ~~or~~

~~ii. that Facility will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, from a time earlier than 1 August of Year 4 of that Reserve Capacity Cycle;~~

ii. for Reserve Capacity Cycles from 2009 onwards that Facility is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by 1 October of Year 3 of that Reserve Capacity Cycle;

iii. for Reserve Capacity Cycles up to and including 2008 that Facility will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, from a time earlier than 1 August of Year 4 of that Reserve Capacity Cycle; or

iv. for Reserve Capacity Cycles from 2009 onwards that Facility will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, from a time earlier than 1 June of Year 4 of that Reserve Capacity Cycle;

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

(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;

The IMO submits that the proposed changes, which shift the window of entry into the market for new entrant generators, will support market objective (a) by promoting the reliable production and supply of electricity and electricity related services in the South West Interconnected System. In particular, earlier entry into the market will minimise the risk associated with bringing new capacity into service so that it is available during peak demand periods during summer. The proposed changes will improve the reliability of the supply of electricity and electricity related services for Market Customers by incentivising earlier entry. This will also potentially reduce the need to call Supplementary Reserve Capacity (SRC).

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

The IMO submits that the proposed changes will also support market objective (b) by facilitating efficient entry of new competitors into the Reserve Capacity Market. This will be achieved by providing access to an earlier income stream and reducing the risk premiums associated with new projects, which will potentially result in a greater amount of investment in new projects.

The IMO considers that the proposed changes are consistent with the other market objectives.

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

Costs: The IMO has undertaken a detailed analysis of the quantifiable costs associated with shifting the window of entry that must be absorbed by the market during the 2011/12 capacity year. The estimated average costs to the market under the current situation and under the shifted window of entry for the low, mid and high cases of exposure are presented in Table 1.

Table 1: Possible Average Market Exposures

2011/12 Year	Opening Date for Entry Window	
	Current Situation (entry from 1 August to 30 November)	**Shifted Window of Entry** (entry from 1 June to 1 October)
Low Case	-$1,952,790	$0
Mid Case	$1,952,790	$3,905,580
High Case	$3,905,580	$7,811,160

- The low case shows the additional costs that would be borne by the market if all capacity was to enter on 1 October.
- The mid case assumes that capacity enters the market evenly throughout the four month window.
- The high case considers the additional cost borne by Market Customers if all new capacity was to enter the market at the beginning of the window.

The cost per kilowatt hour to the market based on the energy consumption forecasts for the 2011/12 year is presented in Table 2.

Table 2: Cost per Kilowatt hour to the Market

2011/12 Year	Scenarios for implementing a scaling mechanism					
	Low Case		Mid Case		High Case	
	Expected	*Low*	*Expected*	*Low*	*Expected*	*Low*
Current Situation (entry from 1 August)	$-0.0001	$-0.0001	$0.0001	$0.0001	$0.0002	$0.0002
Shifted Window of Entry (entry from 1 June)	$0	$0	$0.0002	$0.0002	$0.0004	$0.0004

- The expected economic growth scenario forecasts energy consumption to grow by approximately 3.9% on average per annum over the Long Term Projected Assessment of System Adequacy (LTPASA) Study Horizon to 2017/18.
- The low economic growth scenario forecasts energy consumption to increase at 3.2% per annum on average over the LTPASA Study Horizon to 2017/18.

Assumptions

The following assumptions underpin the above analysis:

- Costs are based on 85% of the Maximum Reserve Capacity Price for the 2011/12 Reserve Capacity Year as published in the 2008 final report.
- 168 MW of capacity has been included, being the generation growth required from 2010/11 to 2011/12 as identified in the 2008 Statement of Opportunities Report. There has been no adjustment for excess capacity made to these figures.
- The cost of funding SRC has not been considered. Potentially, this would negate some of the costs shown above.
- The analysis does not consider time delay of money. This is considered to be a secondary effect.

Further details of the IMO's analysis are available on the public website: http://www.imowa.com.au/market_advisory_committee.htm.

The Wholesale Electricity Market Systems will need minor modifications to accommodate this change. The cost of the change is yet to be confirmed.

Benefits: The IMO has identified the following benefits to Generators, Market Customers and the overall Wholesale Electricity Market (WEM) associated with shifting the window of entry for new entrant generators:

- Early entry of new entrant generators to the market (WEM);

- Improvement in capacity available for summer period (WEM);
- Reduced risk premiums associated with new projects (WEM);
- Potential reduction in the need to call SRC (WEM);
- Greater investment in new projects (WEM);
- Access to an earlier income stream (Generators);
- Reduced potential for capacity cost refunds (Generators); and
- Increased Reliability (Market Customers).
