



**Draft Rule Change Report**  
**Title: Provision of Load Following**  
**Ancillary Service**

Ref: RC\_2009\_40  
Standard Rule Change Process

Date: 15 February 2010

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## DOCUMENT DETAILS

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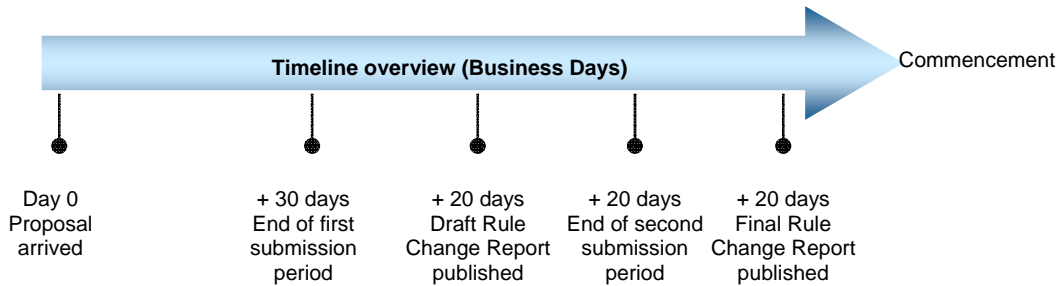
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## 1. INTRODUCTION

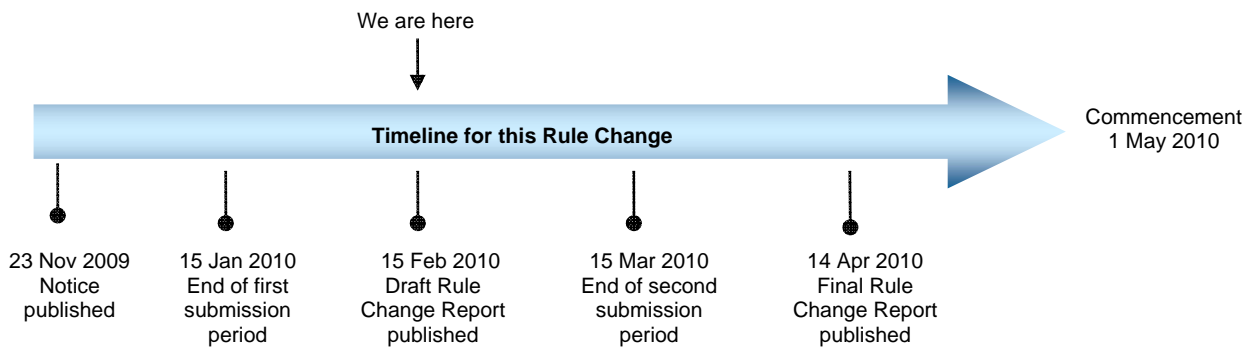
On the 12 November 2009, System Management submitted a Rule Change Proposal regarding the amendment of clause 3.9.1 of the Wholesale Electricity Market Rules (Market Rules).

This proposal is being processed using the Standard Rule Change Process, described in section 2.7 of the Market Rules. The standard process adheres to the following timelines:



As allowed by clause 2.5.10 of the Market Rules, the Independent Market Operator (IMO) decided to extend the first submission period to allow for the Christmas break. A notice of this extension was published on the IMO website on 23 November 2009, in accordance with clause 2.5.12.

The key dates in processing this Rule Change Proposal, as amended in the extension notice, are:



The IMO's draft decision is to accept the Rule Change Proposal. The detailed reasons for the IMO's decision are set out in section 5 of this report.

In making its draft decision on the Rule Change Proposal, the IMO has taken into account:

- the Wholesale Market Objectives;
- the practicality and cost of implementing the proposal;
- the views of the Market Advisory Committee (MAC); and
- the submissions received.

All documents related to this Rule Change Proposal can be found on the IMO website: [http://www.imowa.com.au/RC\\_2009\\_40.html](http://www.imowa.com.au/RC_2009_40.html)

## 2 CALL FOR SECOND ROUND SUBMISSIONS

The IMO invites interested stakeholders to make submissions on this Draft Rule Change Report. The submission period is 20 Business Days from the publication date of this report. Submissions must be delivered to the IMO by 5.00pm **Monday 15 March 2010**.

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

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

**Independent Market Operator**  
Attn: Manager Market Development and System Capacity  
PO Box 7096  
Cloisters Square, PERTH, WA 6850  
Fax: (08) 9254 4399

## 3. THE RULE CHANGE PROPOSAL

### 3.1 Submission Details

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<b>Address:</b>	
<b>Date submitted:</b>	12 November 2009
<b>Urgency:</b>	Standard Rule Change Process
<b>Change Proposal title:</b>	Provision of Load Following Ancillary Service
<b>Market Rule affected:</b>	Clause 3.9.1

### 3.2 Summary Details of the Proposal

#### Background

System Management's Rule Change Proposal noted that the Market Rules, as they are currently written, only allow for Scheduled Generators to provide Load Following Ancillary Services. This threshold requirement effectively functions to prevent a Load or Non Scheduled Generator from satisfying the requirements of a provider of a Load Following Service, and therefore precludes an offer to provide Load Following Ancillary Service in any procurement process initiated under the Market Rules.

System Management's Rule Change Proposal aimed to limit any impediments which may operate to preclude potential providers from participating in the inaugural Load Following Ancillary Service procurement process<sup>1</sup>.

<sup>1</sup>

[http://www.westernpower.com.au/mainContent/workingWithPower/systemManagement/Load\\_following\\_ancillary\\_services\\_.html?word=load%20following](http://www.westernpower.com.au/mainContent/workingWithPower/systemManagement/Load_following_ancillary_services_.html?word=load%20following)

System Management contended that, in theory, Load Following Ancillary Service can be provided either by a Scheduled Generator, Non-Scheduled Generator, a Dispatchable Load or a Curtailable Load, and hence all should be able to be considered in the procurement process. System Management also noted that the second draft report of the Ancillary Service review performed by Sinclair Knight Merz ([http://www.imowa.com.au/2009\\_AS\\_study](http://www.imowa.com.au/2009_AS_study)) recommended that loads be allowed to provide Load Following.

## **Proposal**

System Management proposed that clause 3.9.1 of the Market Rules be broadened to allow Non-Scheduled Generators and Loads to provide Load Following Ancillary Service.

### **3.3 The Proposal and the Wholesale Market Objectives**

System Management considered that the Rule Change Proposal would better address objectives (a), (b), (c) and (e) of the Market Objectives.

The Rule Change Proposal broadens the potential range of participants who may provide Load Following Ancillary Service, therefore increasing competition, avoiding discrimination against particular energy options and encouraging measures to manage the amount of electricity used.

### **3.4 Amending Rules proposed by System Management**

The amendments to the Market Rules proposed by System Management are available in the Rule Change Notice and in Section 7 of this report.

### **3.5 The IMO's Initial Assessment of the Proposal**

The IMO decided to proceed with the proposal on the basis of its preliminary assessment, which indicated that the proposal was consistent with the Wholesale Market Objectives.

The IMO's assessment of the Rule Change Proposal against the Wholesale Market Objectives was published in the Rule Change Notice on 20 November 2009.

## **4. FIRST SUBMISSION PERIOD**

The first submission period for this Rule Change Proposal was between 23 November 2009 and 15 January 2010.

### **4.1 Submissions received**

The IMO received submissions from Landfill Gas & Power (LGP), Perth Energy and Synergy. The submissions are summarised below, with the full text available on the IMO website.

#### **4.1.1 Submission from Landfill Gas & Power**

LGP supports the proposal on the grounds that it will increase competition, avoid discrimination against particular energy options and encourage measures to manage the amount of electricity used (therefore advancing Wholesale Market Objectives (b), (c) and

(e)). LGP considers that this change will facilitate the implementation of climate change mitigation strategies.

#### **4.1.2 Submission from Perth Energy**

Perth Energy considers that ancillary services should be procured on a competitive basis whenever possible, and therefore supports the proposal as it would increase the pool of potential suppliers of Load Following Service.

Perth Energy considers that the Rule Change Proposal will advance Wholesale Market Objectives (a), (b), (c) and (d). Perth Energy does not consider that the Rule Change Proposal impacts on the achievement of Wholesale Market Objective (e).

#### **4.1.3 Submission from Synergy**

Synergy supports the Rule Change Proposal and considers that the change will be consistent with all of the Wholesale Market Objectives.

#### **4.2 Public Forums and Workshops**

No public forums or workshops were held in relation to this Rule Change Proposal.

### **5. THE IMO'S ASSESSMENT**

In preparing its Draft Rule Change Report, the IMO must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules.

Market Rule 2.4.2 outlines that the IMO “*must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives*”.

Additionally, clause 2.4.3 states, when deciding whether to make Amending Rules, the IMO must have regard to the following:

- any applicable policy direction from the Minister regarding the development of the market;
- the practicality and cost of implementing the proposal;
- the views expressed in submissions and by the MAC; and
- any technical studies that the IMO considers necessary to assist in assessing the Rule Change Proposal.

The IMO notes that there has not been any applicable policy direction from the Minister in respect of this Rule Change Proposal.

The IMO's assessment is outlined in the following sections.

#### **5.1 Wholesale Market Objectives**

The IMO considers that the Market Rules as a whole, if amended according to this Rule Change Proposal, will be consistent with the Wholesale Market Objectives.

Wholesale Market Objective	Consistent with objective
(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system	Yes
(b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors	Yes
(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	Yes
(d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system	Yes
(e) to encourage the taking of measures to manage the amount of electricity used and when it is used	Yes

Further, the IMO considers that the Market Rules if amended would not only be consistent with the Wholesale Market Objectives but also allow the Market Rules to better address the Wholesale Market Objectives:

Impact	Wholesale Market Objectives
Allow the Market Rules to better address objective	a, b, c, d, e
Consistent with objective	a, b, c, d, e

The IMO considers that the proposed amendments would improve the ability of the Market Rules to meet:

- objective (a), by allowing Facilities other than Scheduled Generators to provide Load Following Service when these can do so more efficiently;
- objective (b), by enabling greater competition in the provision of Load Following Service;
- objective (c), by removing a restriction on the activities of Non-Scheduled Generators (which are generally renewable energy sources);
- objective (d), by enabling what may be lower-cost options for the provision of Load Following Service; and
- objective (e), by removing a restriction on the activities of Curtailable Loads, therefore potentially encouraging the taking of measures to manage the amount of electricity used and when it is used.

## 5.2 Practicality and Cost of Implementation

The proposed changes do not require any change to the Wholesale Electricity Market or settlement systems operated by the IMO, nor to any of the systems operated by System Management.

### **5.3 Market Advisory Committee**

The MAC discussed the proposal at its meeting on 11 November 2009. At this meeting:

- the IMO noted that Demand-Side Management is used to provide Load Following Service in New Zealand, and that the Sinclair Knight Merz report<sup>2</sup> into Ancillary Services recommended that a watching brief be maintained on technological developments in this area;
- System Management stated that its purpose is to ensure that no artificial barriers exist to prevent participants from bidding for the provision of Ancillary Services, and that the technical requirements facing any bidder would be the same regardless of the type of facility used to provide the service; and
- the MAC agreed to proceed with the proposal.

### **5.4 Views Expressed in Submissions**

The submissions received during the first submission period supported the Rule Change Proposal.

### **5.5 The IMO's Analysis**

#### **5.5.1 SKM Report**

The IMO notes that the Sinclair Knight Merz (SKM) states (as Recommendation 1): "No change to the Market Rules in the definition of Ancillary Services is recommended at this time. However, a watching brief on DSM technologies capable of providing Load Following [...] is recommended." SKM agrees that there is potential for new DSM technologies to provide Load Following Service, and that all viable options should be encouraged. However, SKM considers it may be premature to make changes to the Market Rules.

The IMO considers that there is no real risk of doing this now. If the Market Rules are changed to permit an option that is not yet technically feasible, all that will happen is that the option will not be exercised.

The IMO considers that a widely-inclusive wording of clause 3.9.1 would be in accordance with the SKM report, which says that "the market should aim to be technology- and solution-neutral, and facilitate participation by the broadest set of possible solutions, provided they are able to meet the technical requirements."

#### **5.5.2 Technical Requirements**

The Facility (or Facilities) that provide Load Following Service must be able, at very short notice, to adjust their consumption or output both upwards and downwards in order to respond to over and under-frequency events. They must also be able to adjust by an amount – the Minimum Frequency Keeping Capacity, defined in clause 3.10.1 of the Market Rules, that is sufficiently large to cover all short-term fluctuations in system load and output that are at all probable. The Minimum Frequency Keeping Capacity is currently 60MW, and is expected to increase within three years because of increases in the amount of intermittent generation capacity.

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<sup>2</sup> Available at <http://www.imowa.com.au/n685.html>



Many Facilities will be unable to meet the technical requirements for the provision of Load Following Service. However, the PSOP: Ancillary Services requires System Management to include the necessary technical requirements in its call for tenders, and to reject offers that fail to meet them. Accordingly, the IMO considers that it is not necessary for the Market Rules to prohibit any option on technical grounds, and that doing so would be undesirable as it would pre-empt the technical evaluation that is part of the tender process.

The IMO accepts that the Minimum Frequency Keeping Capacity need not be provided by a single Facility. Neither must upward and downward adjustments be made by the same Facility. System Management has suggested that (for example) under-frequency events could be countered by reducing the consumption of one or more Curtailable Loads, while over-frequency events are countered by reducing the output of one or more Intermittent Generators.

## 6. THE IMO'S DRAFT DECISION

The IMO's draft decision is to accept the Rule Change Proposal.

### 6.1 *Reasons for the Decision*

The IMO made its decision on the basis that the Rule Change Proposal:

- is supported by the submissions received, and by the MAC; and
- will advance all of the Wholesale Market Objectives.

Details of the IMO's analysis are provided in Section 5 of this report.

## 7. PROPOSED AMENDING RULES

The IMO proposes to amend the Market Rules, in accordance with the Rule Change Proposal, as follows (~~deleted words~~, added words):

3.9.1 Load Following Service is the service of frequently adjusting:

- (a) the output of one or more Scheduled Generators;
- (b) the output of one or more Non-Scheduled Generators; or
- (c) the consumption of one or more Loads

within a Trading Interval so as to match total system generation with total system load in real time in order to correct any SWIS frequency variations.