Determination of the Ancillary Service Margin_Peak and Margin_Off-Peak parameters

Issues Paper

20 April 2012

Economic Regulation Authority

WESTERN AUSTRALIA

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1. Introduction

1.1 Background and scope of this Issues Paper

The Ancillary Service Margin_Peak and Margin_Off-Peak parameters are required under clause 9.9.2 of the *Wholesale Electricity Market Rules* (**Market Rules**). These parameters reflect the margins applied to the Marginal Cost Administered Price (**MCAP**) in the settlement calculations of the availability costs to be paid to Verve Energy for the provision of the Spinning Reserve Ancillary Service (**SRAS**) and Load Following Ancillary Services (**LFAS**). To date, Verve Energy has been the sole provider of these services.

Clause 3.13.3A of the Market Rules requires that the Economic Regulation Authority (**Authority**) determine the values for the Ancillary Service Margin_Peak and Margin_Off-Peak parameters by 31 March 2012. The time period to which the determination applies is from 1 July 2012 to 30 June 2013.

The Authority received a submission from the IMO on 30 November 2011 proposing the values of the Ancillary Service Margin_Peak and Margin_Off-Peak parameters that compensate for the provision of both SRAS and LFAS for the period from 1 July 2012 to 30 June 2013 under the Market Rules. The Authority published a notice on 30 March 2012 notifying Market Participants that it will not make a determination on these values alone, as they will become redundant when the new Competitive Balancing and Load Following Market commences on 1 July 2012, as expected.

The Market Rules Evolution Plan, led by the Independent Market Operator (**IMO**), resulted in the Rule Change Proposal: Competitive Balancing and Load Following Market being approved on 23 February 2012 by the IMO Board. The amendments to the Market Rules included in the Rule Change Proposal are expected to take effect on 1 July 2012. These amendments include significant changes to the provision of LFAS, whereby a competitive market process will be introduced, allowing other Market Participants to provide this service. Hence, the Ancillary Service Margin_Peak and Margin_Off-Peak parameters will no longer include compensation for the provision of LFAS.

Clause 3.13.3AB of the amended Market Rules require the Authority, in determining the values of the Ancillary Service Margin_Peak and Margin_Off-Peak parameters for the period from the Balancing Market Commencement Day, expected on 1 July 2012, to 30 June 2013, to undertake a public consultation process which must include publishing an issues paper and issuing an invitation for public submissions. The amended Market Rules require the Authority to make a determination on the values by the day the new Competitive Balancing and Load Following Market commences (no specific date is stated in the amended Market Rules).

On 28 March 2012, the IMO submitted to the Authority proposed values for the SRAS parameters Margin_Peak and Margin_Off-Peak under the amended Market Rules for the period from the Balancing Market Commencement Day, expected on 1 July 2012, to 30 June 2013. These values were recommended in its consultant's, Sinclair Knight Merz / McLennan Magasanik Associates (**SKM MMA**), final report.[1] The IMO provided the Authority with a separate report on SKM MMA's key modelling assumptions for the Margin_Peak and Margin_Off-Peak parameters.

[1] SKM MMA's report is included as an attachment to the IMO's proposal of the values for the Margin_peak and Margin_Off-Peak parameters.

In its submission to the Authority, the IMO noted that it requested feedback from six of the largest Market Generators on the key assumptions for their facilities, and three of the six Market Generators provided feedback on their facility assumptions.

The IMO also noted that the IMO and its consultant SKM MMA had consulted directly with System Management and five of the larger Independent Power Producers (**IPP**) to develop baseline assumptions about the participation of IPP facilities in the LFAS market.

The IMO noted that feedback provided by stakeholders was used by SKM MMA to update the input assumptions for the review of the values of the Margin_Peak and Margin_Off-Peak parameters for the period from 1 July 2012 to 30 June 2013.

The IMO's submissions and its consultant's (SKM MMA) reports are available on the Authority's website.[2]

The Authority has prepared this issues paper to assist interested parties in understanding and making submissions on the proposed values for these Ancillary Service parameters, as submitted by the IMO.

The remainder of this paper addresses the following matters:

- how to make a submission on the proposed Ancillary Service margin parameters submitted by the IMO;
- the process to be followed by the Authority in making determinations on these parameters;
- a discussion of the methodology used in modelling the margin parameters by the IMO and its consultant SKM MMA; and
- the proposed margin values for the 2012/13 financial year under the current and amended Market Rules submitted by the IMO.

1.2 How to make a submission

A notice has been posted on the Authority's website advising the release of this issues paper. This notice invites interested parties to make submissions in print and electronic form (where possible) on the proposed values for the Ancillary Service parameters submitted by the IMO by **4:00 pm (WST) on Friday, 18 May 2012**.

Submissions should be addressed to:

Determination of the Ancillary Service Margin_Peak and Margin_Off-Peak parameters - Issues Paper

Postal address: PO Box 8469, PERTH BC WA 6849
Office address: Level 4, 469 Wellington Street, PERTH WA 6000
Email address: publicsubmissions@erawa.com.au

Confidentiality

Submissions made to the Authority will be treated as in the public domain and placed on the Authority's website unless confidentiality is claimed. The submission or parts of the submission in relation to which confidentiality is claimed should be clearly marked. Any

2 See ERA website, Determination of the Ancillary Service Margin_Peak and Margin_Off-Peak parameters – Issues Paper, http://www.erawa.com.au/2/272/42/determination_o.pm

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2. The process to be followed by the Authority

Under clause 3.13.3A of the current Market Rules and clause 3.13.3AB of the amended Market Rules, the factors that the Authority must take into account in determining values for the Ancillary Service Margin_Peak and Margin_Off-Peak parameters are as follows:

- the Wholesale Market Objectives; and
- submissions received from the IMO (proposing the values for the Margin_Peak and Margin_Off-Peak parameters).

The Authority must undertake a public consultation process in determining the values for the Margin_Peak and Margin_Off-Peak parameters. When the Authority undertakes public consultation, the Authority is required to publish an issues paper and issue an invitation for public submissions.

The Authority intends to follow the process in accordance with these clauses in determining the values for these parameters, with an expected timeline as follows:

• Public consultation on this issues paper	20 April 2012 - 18 May 2012
• Publication of determination paper	End of June 2012

Submissions are invited from interested parties on the process that the Authority intends to follow in making a determination on the proposed values for the Margin_Peak and Margin_Off-Peak parameters.

3. Modelling of the values for the Margin_Peak and Margin_Off-Peak parameters

The underlying principle for determining the Margin_Peak and Margin_Off-Peak parameters is to ensure Verve Energy, in providing the relevant Ancillary Services, is appropriately compensated for:

- the energy sales foregone; and
- the generation efficiency losses that could reasonably be expected to be incurred.

To estimate the ‘availability cost’ to be paid to Verve Energy, i.e. to compensate for the energy sales foregone and the generation efficiency losses, the IMO and SKM MMA have developed a methodology that compares the revenue and generation cost outcomes from two market simulations with and without the provision of the relevant Ancillary Services by using the following equation in its modelling:

Availability cost =

Verve Energy’s total generation costs with Ancillary Services provision

– Verve Energy’s total generation costs without Ancillary Services provision

+ (Verve Energy’s total generation volume without Ancillary Services provision

– Verve Energy’s total generation volume with Ancillary Services provision)

* system marginal price with Ancillary Services provision

The system marginal price in SKM MMA’s market simulations is equivalent to the MCAP under the current Market Rules and the Balancing Price under the amended Market Rules.

Having determined the availability cost, SKM MMA calculates the margin values by rearranging the formula in clause 9.9.2 of the Market Rules for calculating the total availability cost (per Trading Month). The rearrangement of the formula in clause 9.9.2 of the Market Rules is described in SKM MMA’s Margin Peak and Margin Off-Peak Review - Market Evolution Program - Assumptions and methodology report (20 January 2012), which is published on the IMO’s website.[3]

SKM MMA applied this methodology in the past two reviews for the modelling of the margin values. SKM MMA has re-applied the methodology in the review for the 2012/13 financial year but has modified the assumptions to account for the carbon pricing resulting from the implementation of the Clean Energy Future Scheme on 1 July 2012, and also to account for the introduction of the new LFAS market and its impact on the availability cost to be paid to Verve Energy for the provision of the SRAS only.

SKM MMA also incorporated changes to the assumptions for the 2012/13 review based on the outcomes from a back-casting exercise whereby analysis was conducted on modelled versus actual market outcomes for the 2010/11 financial year, and it also incorporated changes based on stakeholder review of the proposed assumptions and methodology.

In response to the Authority’s issues paper on the proposed margin values for the 2011/12 financial year, submissions were received from Market Participants on the methodology used by SKM MMA, raising concerns that the methodology for forecasting the availability cost may over-compensate Verve Energy. The Authority shares the same view that the formula presented in SKM MMA’s report for calculating the availability cost only takes into account the differential in Verve Energy’s generation costs and generation volumes in providing the Ancillary Services by Verve Energy, but not the differential in the system marginal price.

In the Authority’s determination paper for the margin values for the 2011/12 financial year published on 31 March 2011, the Authority recommended that the IMO conduct a review of the methodology and the process applied in deriving the values, prior to the next annual

[3] See IMO website, SKMMMA’s *Margin Peak and Margin Off-Peak Review – Market Evolution Program - Assumptions and methodology report* (20 January 2012), http://www.imowa.com.au/f5483,1967510/SH43160_Assumptions_-_MEP_v2.0_PUBLIC.pdf

proposal, i.e. 30 November 2011. This review was undertaken by the IMO only to the extent that the assumptions were modified.

The Authority notes that the IMO engaged SKM MMA to undertake an analysis of modelled versus actual market outcomes for the 2010/11 financial year and as a result refined assumptions were used for the modelling in the margin values review for the 2012/13 financial year, and that the IMO had gone through a more thorough consultation process as part of the margin values review for the 2012/13 financial year. The Authority considers these are positive improvements by the IMO. However, the Authority is of the view that its recommendation in the 2011 determination was not sufficiently fulfilled by the IMO by merely modifying the assumptions. The Authority notes however that this issue regarding the methodology for calculating the availability cost was not raised again by Market Participants when the IMO invited for submissions on SKM MMA's report on its key modelling assumptions and methodology for the margin values review for the 2012/13 financial year.

Table 1 below shows SKM MMA's modelled availability cost under the current Market Rules for the 2010/11 to 2012/13 financial years, modelled availability cost under the amended Market Rules for the 2012/13 financial year, and the actual availability cost paid to Verve Energy in the 2010/11 financial year. It can be seen that the modelled availability cost under the current Market Rules (i.e. with LFAS) has decreased to $22.48 million in the 2012/13 financial year compared with previous years, mainly due to refined assumptions as a result of the back-casting exercise by SKM MMA and consultation with stakeholders. The modelled availability cost has further reduced to $12.51 million for the 2012/13 financial year under the amended Market Rules whereby the availability cost will no longer include compensation for the provision of LFAS.

Table 1 SKM MMA's modelled availability cost for the 2010/11, 2011/12 and 2012/13 financial year and actual availability cost for the 2010/11 financial year

Financial year	Modelled availability cost ($M)	Actual availability cost ($M)
2010/11	29.16	26.34
2011/12	35.42	
2012/13	22.48 (with LFAS)	
2012/13	12.51 (without LFAS)	

Submissions are invited from interested parties on the methodology used by SKM MMA in its modelling to calculate availability cost to Verve Energy

4. Proposed values for the Margin_Peak and Margin_Off-Peak parameters

Table 2 below shows the values for the Margin_Peak and Margin_Off-Peak parameters for the 2011/12 and 2012/13 financial years.

Table 2 Margin Peak and Margin Off-Peak parameters

Margin parameter	Current values FY 2011/12 (%)[4]	Proposed values under current Market Rules FY 2012/13 (%)[5]	Proposed values under amended Market Rules FY 2012/13 (%)[6]
Margin_Peak	25	25	32
Margin_Off-Peak	43	32	31

Currently, the values for the Margin_Peak and Margin_Off-Peak parameters for the 2011/12 financial year are set at 25 per cent and 43 per cent, respectively. The corresponding availability cost is estimated at $35.42 million as shown in Table 1.

The proposed values for the 2012/13 financial year are 25 per cent for the Margin_Peak parameter and 32 per cent for the Margin_Off-Peak parameter under the current Market Rules. The estimated availability cost for the 2012/13 financial year is $22.48 million under the current Market Rules.

Under the amended Market Rules, the proposed value of the Margin_Peak and Margin_Off-Peak parameters for the period 1 July 2012 (expected Balancing Market Commencement Day) to 30 June 2013 are 32 per cent and 31 per cent, respectively. The associated availability cost is $12.51 million.

The Authority invites public submissions on the IMO's proposed values of the Ancillary Service Margin_Peak and Margin_Off-Peak parameters under the current and the amended Market Rules. The Authority notes that the values under the current Market Rules may apply from 1 July 2012 to the Balancing Market Commencement Day in the unlikely event that the Balancing Market commences after 1 July 2012.

Submissions are invited from interested parties on proposed values for the Margin_Peak and Margin_Off-Peak parameters under both the current and amended Market Rules.

[4] The current parameter values reflect the margins applied to the MCAP in the market settlement calculations of the availability costs to be paid to Verve Energy for the provision of SRAS and LFAS.

[5] The proposed parameter values under the current Market Rules reflect the margins to be applied to the MCAP in the market settlement calculations of the availability costs to be paid to Verve Energy for the provision of SRAS and LFAS.

[6] The proposed parameter values under the amended Market Rules reflect the margins to be applied to the Balancing Price in the market settlement calculations of the availability costs to be paid to Verve Energy for the provision of SRAS.