

11 December 2013 MAC Spinning Reserve Service Short Term Cost Reduction Opportunity

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Synopsis

- This presentation is to give Market Participants a heads up of an opportunity to provide Spinning Reserve prior to the commencement of a Spinning Reserve Market
 - Current Services
 - Service Opportunities
 - Service Requirements
 - Next Steps
 - MAC consultation

Spinning Reserve Overview

SPINNING RESERVE DEFINITION

3.9.2. Spinning Reserve Service is the service of holding capacity associated with a synchronised Scheduled Generator, Dispatchable Load or Interruptible Load in reserve so that the relevant Facility is able to respond appropriately in any of the following situations:

(a) to retard frequency drops following the failure of one or more generating works or transmission equipment; and

(b) in the case of Spinning Reserve Service provided by Scheduled Generators and Dispatchable Loads, to supply electricity if the alternative is to trigger involuntary load curtailment.

SRAS PROCUREMENT

3.11.8. System Management may enter into an Ancillary Service Contract with a Rule Participant other than Verve Energy for Spinning Reserve Ancillary Services, where:

(a) it does not consider that it can meet the Ancillary Service Requirements with Verve Energy's Registered Facilities; or

(b) the Ancillary Service Contract provides a less expensive alternative to Ancillary Services provided by Verve Energy's Registered Facilities.

Spinning Reserve Overview 2

SRAS Payment

Payment (to Verve) is made in accordance with an administered price and detailed in clause 9.9, essentially

Payment in trading interval = $0.5 \times \text{Spinning Reserve Quantity provided in trading interval (in MW)} \times \text{balancing price in interval (in \$/MWh)} \times \text{margin}$

For 2013/14 margin is 17% during peak and 27% during off peak* as proposed by IMO and approved by ERA (see link below). ERAWA determination for 2014/15 is not completed

For an average balancing price of \$50/MWh this equates to approximately \$8,000/MW/month or \$100,000/MW/year

The administered price is based upon provision of 220MW during peak and 197 MW during off peak

http://www.erawa.com.au/cproot/11213/2/20130318%20-%20Determination%20of%20the%20Ancillary%20Service%20Margin_Peak%20and%20Margin_Off-Peak%20Parameters.pdf

Future Spinning Reserve Market

Appendix 1. Market Rules Evolution Plan: 2013-2016 Issue list

A summary of the issues in the current MREP is provided in the following table.

Rank	Issue	Explanation (from MREP)	Source	Status
1	Additional Improvements to the Balancing Mechanism	<ul style="list-style-type: none"> Remove requirement to submit Resource Plans; Investigate removal of STEM submissions requirement, or allow multiple STEM windows catering for multiple STEM transactions within the Trading Day, aligned to the balancing windows; Investigate closer to real time bilateral nominations/updates/adjustments; Link between Balancing Submissions and Facility limit so that a Balancing Submission may contain more capacity than the Facility limit but not less; and Timing of submissions: consider starting at 9:00am or 10:00am instead of 8:00am. 	Multiple Stakeholders	Preliminary investigations are underway, may be impacted by the proposed merger of Synergy and Verve Energy. It may be useful to consider changes to Bilateral Submissions and the Short Term Energy Market (STEM) separately from changes to Resource Plans. For discussion at the October 2013 MAC meeting.
2	Emissions Intensity Index (EII)	Amendments to the Market Rules have been proposed to formalise the provision of emissions data by Market Participants to the IMO and the publication by the IMO of an Emissions Intensity Index for the WEM.	IMO	Preliminary investigations are underway. Priority may be affected by the recent Federal election results.
3	Transition to half hour gate closure	It has been suggested that a half hour gate closure would lead to more efficient market outcomes.	ERM Power	Outstanding.
4	Introducing Market in Spinning Reserve	Suggestions have been expressed at MAC that the introduction of a Spinning Reserve Market will increase competition in the WEM.	Multiple Stakeholders	Outstanding, waiting on the outcomes of the five yearly Ancillary Services review.
5	Settlement simplification	A number of participants have commented that the complexity in the Market Rules around market settlements may benefit from simplification.	MREP 2009-2013	Outstanding



SRAS Short Term Opportunity

A Market Participant (Simcoa) has offered System Management Spinning Reserve Services at a discount to the Administered Price

This facility is technically capable of providing this service immediately as a result of infrastructure installed during construction of third furnace

This pricing offer is a requirement under Market Rule

“3.11.8E The scope of any Ancillary Services Contract entered into by System Management for the purposes of clause 3.11.8 must:

(a) not include components for the payment of energy; and

(b) only include the availability of the service based on a proportion of the values determined under clause 3.13.3.”

SRAS Short Term Opportunity

System Management has reviewed the opportunity for displacement of spinning reserve provided by Verve Energy

During Peak times the spinning reserve requirement is generally 240MW based on the largest contingency being Collie Power station operating at full output 340MW

During Off Peak times the spinning reserve requirement is generally 140MW based on the largest contingency being Collie/Bluewaters/Newgen Kwinana at reduced output 200MW

Load Following Raise Ancillary Services is a component of SRAS (circa 72MW) as is the existing interruptible Load Contract with SIMCOA (42MW)

This gives an opportunity of 26MW during off peak and higher during peak

System Management considers that an opportunity of 26MW of Spinning Reserve Services continuously available is worthy of pursuit if regulatory/commercial/operational costs are minimal. (gives a total of 68MW of Interruptible load)

To be fair, this opportunity must be transparent and available to others whom are willing to offer the service at a better discount

SRAS Short Term Opportunity

For simplicity and low cost this is not intended to be a real time offer/clearing process that would be integrated into the current balancing / market process. A competitive Spinning Reserve Market would facilitate this type of process

This may be provided by a continuous service such as an interruptible load with a minimum load.

This equates to a contract value of approximately \$2M/year with savings to the market of \$100k/year, assuming a 5% discount was offered.

Interruptible Load Provider Requirements as per current contract

Interruptible Load offerings must be 10 MW or more (same as LFAS)

Load must be disconnected within 500ms and reconnectable after instruction from System Management within 15 minutes

Set up requirements:

- Real time telemetry of the interruptible being offered must be made – communication link to the nearest Western Power Substation is required. Providers must determine cost and timing to connect to Western Power communication links prior to submitting tender.
- An Under Frequency Load Shedding system must be installed and tested.
- In place no later than 1 July 2014

Commercial Offers must be made in the form of a discount to the Administered Price. The minimum discount must be 5%

Contracts will terminate upon the start of a Spinning Reserve Market or 1/7/2015 which ever is the earliest, may be extended if Spinning Reserve market not started.

Next Steps for SM

- Mid January 2014 seek Market Participants wish to provide interruptible load services for 26MW of Interruptible Load.
- If 26MW or less offered direct negotiations with providers.
- If more than 26MW offered consider Tender process, selects those with highest discount until 26MW is filled. A partial acceptance may be made if the last block causes acceptance above 26MW, provider may decline.

Affirmation of Next Steps from MAC

- Discussion - is this sufficiently transparent and fair?