

Our Ref: 10141711
Contact: Gavin White

18 December 2012

Ms Wana Yang
Assistant Director Markets
Economic Regulation Authority
PO Box 8469
PERTH BC WA 6849

Dear Wana

2012 Annual Wholesale Electricity Market Report to the Minister for Energy

System Management (Markets) appreciates the opportunity to provide a submission on the matters raised in the Economic Regulation Authority's (ERA) discussion paper for the 2012 Annual Wholesale Electricity Market Report to the Minister for Energy.

System Management (Markets) has prepared a detailed submission in response to the discussion paper.

System Management (Markets) is the ring fenced business entity within Western Power. It is responsible for the provision of system operation services under Part 9 of the Electricity Industry Act 2004, which established the Wholesale Electricity Market (WEM).

System Management (Markets)'s primary responsibilities are to:

1. support the secure and reliable operation of the South West Interconnected System (SWIS). This requires System Management (Markets) to ensure that electricity demand and supply are in balance for every minute of every day of the year.
2. support the operation of the WEM. System Management (Markets) must comply with its obligations within the Market Rules. These obligations encompass System Management (Markets)'s role in forecasting demand, dispatching supply through the market participants that generate electricity and receive payment through the market, and providing information to the Independent Market Operator (IMO).

System Management (Markets) welcomes the opportunity to discuss any of the matters raised in its submission with the ERA. Please direct any queries in this regard to Gavin White, Manager of Market Strategic Development, on 9427 5787.

Yours sincerely

Cameron Parrotte
General Manager, System Management

Connecting people with energy

363 Wellington Street Perth WA 6000
GPO Box L921 Perth WA 6842
enquiry@westernpower.com.au

T 13 10 87 | F (08) 9225 2660
TTY 1800 13 13 51 | TIS 13 14 50
westernpower.com.au

Electricity Networks Corporation
ABN 18 540 492 861

System Management (Markets)

Submission to the Economic Regulation Authority's discussion paper for the 2012 Wholesale Electricity Market report to the Minister for Energy

1. Background

Since the commencement of the Wholesale Electricity Market in 2006, System Management (Markets) has been an active participant in the WEM since its commencement in 2006, and is committed to continually support the achievement of the Wholesale Electricity Market Objectives.

System Management (Markets)'s function is predominantly focused on maintaining power system security and reliability. The comments expressed in this submission reflect this function.

2. Response to Previous Years Discussion Points

The Standard Rule Change Process is designed to identify material issues arising from the application of the Market rules and aims to provide effective consultation by allowing interested parties sufficient opportunity to respond within a 2 stage submission process. System Management (Markets) notes it has made public submissions on the effectiveness of the governance of this process in recent years.¹

3. Response to 2012 Discussion Points

System Management (Markets) provides response to each of the 11 discussion areas raised by the Economic Regulation Authority (ERA) in its discussion paper below.

¹ <http://www.erawa.com.au/cproot/10092/2/20111128%20-%20Public%20Submission%20-%20System%20Management%20-%202011%20Annual%20Wholesale%20Electricity%20Market%20Report%20to%20the%20Minister%20for%20Energy%20-%20Discussion%20Paper.pdf>

<http://www.erawa.com.au/cproot/8697/2/20100723%20D46727%20Public%20Submission%20-%20System%20Management.pdf>

Discussion Point 1:

Stakeholders are invited to comment on:

- (a) how the Market Rule may be improved so that the Reserve Capacity Auction provision can be utilised by the IMO for the procurement of any capacity shortfall in meeting the Reserve Capacity Requirements; and**
- (b) whether the Bilateral Trade Declaration of capacity should be made as a binding commitment between Market Participants similar to the Bilateral submission in the energy market of the WEM.**

(a) The Reserve Capacity Mechanism is designed to ensure that the SWIS has adequate installed capacity available from generators and demand side management facilities to meet expected peak demand (including a margin for generation outages), and aims to reduce the volatility of energy prices by incentivising peak generation capital costs and a component of base load plant capital costs.

A Reserve Capacity Auction was intended to secure additional capacity in situations where the reserve capacity certification process does not deliver sufficient capacity to meet the Reserve Capacity Requirement for any given Reserve Capacity Cycle.

Since the commencement of the Wholesale Electricity Market certified generation has exceeded forecasted reserve capacity margins, and hence has not triggered the initiation of a Reserve Capacity Auction.

System Management (Markets) observes that the Reserve Capacity Auction process has not been tested to date. Without an understanding of the practical application of the auction mechanism, System Management (Markets) is not in a position to suggest improvements to the Market Rules so that the Reserve Capacity Auction provision can be utilised by the IMO.

(b) System Management (Markets) makes no comment on pricing outcomes.

Discussion Point 2:

Stakeholders are invited to comment on:

- (a) whether there should be a limit set for the amount of Capacity Credits that the IMO can procure in excess of the Reserve Capacity Requirement; and**
- (b) if so, on what basis this limit should be determined.**

(a) System Management (Markets) recognises the Reserve Capacity Mechanism has certified Reserve Capacity Credits in excess of the total forecast load margins in preceding and future years.

System Management (Markets)'s function involves maintaining Power System Security and Reliability, however recognises there is a need for appropriate commercial outcomes. System Management (Markets) understands that limiting the number of Capacity Credits certified does not appear to resolve the issue in relation to procuring excessive quantities of Reserve Capacity Credits beyond forecast.

Market Participants have two main avenues to invest; transacting under bilateral contracts directly with retailers and through the Reserve Capacity Mechanism by

transacting with the IMO equivalent to the total forecast consumption. Where the Reserve Capacity Credit price is perceived to be more competitive than bilaterally negotiated prices for a Reserve Capacity Cycle, Market Participants will naturally saturate the Reserve Capacity Market.

System Management (Markets) observes the payment for Reserve Capacity Credits in excess of the total forecast capacity requirement appears to only provide marginal incremental benefits in respect of ensuring power system security and reliability. The predominant concern is ensuring sufficient generation is procured to be available during the peak hours of the year.

(b) System Management (Markets) refers the ERA to the above response.

Discussion Point 3:

Stakeholders are invited to comment on:

- (a) the effectiveness of the Reserve Capacity Price that has been set using the administrative formula with reference to the Maximum Reserve Capacity Price and the Excess Capacity Adjustment; and**
- (b) whether an alternative calculation formula should be explored.**

(a) The Reserve Capacity Market pays a single capacity price, but for the reliable and secure operation of the Wholesale Electricity Market ('WEM') it requires diversity within its generation fleet. Diversity in fuel types and the ability to switch between fuels are important mitigating factors in managing operational risk.

However other necessary plant capability such as the ability to perform Load Following Ancillary Services ('LFAS') or Spinning Reserve services are not currently incentivised by the Reserve Capacity Mechanism. This is reflected by the fact that there is minimal new plant with these capabilities.

In particular, this mechanism does not differentiate between Facilities which intend to provide Balancing services or Ancillary Services (or both). The capital costs of developing a Facility to provide Ancillary Services eg. Load Following, is expected to be greater than a Facility providing standard Balancing Services.

At some stage consideration will need to be focused to ways plant with these characteristics, which are essential to secure and reliable WEM operations, can be incentivised by the Reserve Capacity Mechanism.

(b) System Management (Markets) makes no comment on pricing outcomes.

Discussion Point 4:

Stakeholders are invited to comment on Lantau's proposal for changing the Reserve Capacity Price calculation formula in the Market Rules

System Management (Markets) makes no comment on pricing outcomes.

Discussion Point 5:

The Authority invites stakeholders to comment on

- (a) the value provided by DSM under the current market design and the cost of DSM to the market.**
- (b) whether alternative treatments of DSM could provide a more cost effective way to the market for the efficient use of DSM.**

(a) An element of the current Wholesale Electricity Market design involves differential treatment of Demand Side Management and conventional generation by restricting use of Demand Side Management facilities to particular circumstances. In the short term, Demand Side Management facilities are intended to provide capacity during situations of gas shortage or peak summer periods more cost effectively than conventional generation.

Findings from the Sapere Research Group presented at the MAC highlighted there is value derived from harmonising demand side management capacity with conventional generation.²

These findings support System Management (Markets)'s view that if restrictions were lifted, the value gained from DSM facilities in respect of dispatch, will be more closely correlated to the value derived from conventional generation.

Overall, System Management (Markets) observes there is value derived from the use of Demand Side Management during critical events such as the gas supply constraints that arose from the Varanus Island incident in February 2011.

System Management (Markets)'s views expressed in previous years remain and it invites the ERA to revisit System Management (Markets)'s submission to the ERA's discussion paper for the 2011 WEM Report to the Minister for Energy.³

(b) System Management (Markets) makes no comment on pricing outcomes.

Discussion Point 6:

Stakeholders are invited to comment on the application of clause 4.11.1(h) of the Market Rules and any appropriate modification that may be required to improve its effectiveness

The IMO must apply 4.11 of the Market Rules when considering the quantity of Certified Reserve Capacity to assign a particular Facility for the Reserve Capacity Cycle.

Currently clause 4.11.1(h) allows the IMO discretion whether to apply the Planned Outage rate and Forced Outage Rate threshold criteria when considering the quantity of Certified Reserve Capacity to assign to a Facility per Reserve Capacity Cycle.

² http://www.imowa.com.au/f5415,2873616/Sapere_RCM_Performance_Criteria_Review_v3.pdf

³ <http://www.erawa.com.au/cproot/10092/2/20111128%20-%20Public%20Submission%20-%20System%20Management%20-%202011%20Annual%20Wholesale%20Electricity%20Market%20Report%20to%20the%20Minister%20for%20Energy%20-%20Discussion%20Paper.pdf>

In light of increased transparency, System Management (Markets) suggests amending 4.11.1(h) to require the IMO to document in their Market Procedures the methodology they must consider when determining whether it is necessary to apply this clause to withhold assigning Certified Reserve Capacity to a Facility.

When developing the procedure, factors such as reason for the outage (eg outage improves plant reliability through targeted improvements or maintenance), the ability to recall facilities from planned outage quickly and the time of year planned outages are taken (particularly with respect to available spare capacity) should be considered.

System Management (Markets) understands this amendment would reduce the quantity of capacity credits offered to Facilities that have a record of frequent or long duration planned and forced outages and may not be sufficiently available to accommodate reserve margins.

System Management (Markets) believes this would be an appropriate modification to promote improved governance in setting the Certified Reserve Capacity quantities for a particular Facility.

Discussion Point 7:

Stakeholders are invited to comment on:

- (a) the provisions of clause 4.27 of the Market Rules; and**
- (b) whether the incentives for plant availability could be improved.**

(a) In accordance with 4.27 of the Market Rules, monitoring of the total availability of capacity in the SWIS must be conducted periodically by the IMO. As part of this monitoring process the IMO must make an assessment of whether the total available capacity in the SWIS has dropped below particular thresholds during the Hot Season, Intermediate Season and Cold Seasons.

The threshold calculation under Market Rule 4.27 does not discriminate between different types of facilities. Under the current market design non-scheduled generation and Demand Side Management facilities are not required to declare planned outages, fuel storage, and supply arrangements. As increasing levels of DSM and intermittent generation enter the WEM, the likelihood of the threshold under clause 4.27 of the Market Rules will be reached lessens.

System Management (Markets) suggests the application of the 'hot season' threshold in clause 4.27.2 should only apply to Capacity Credits held by Scheduled Generators. This will increase the accuracy of that calculation with respect to Scheduled Generators.

To this end, consideration of other methodologies to capture the availability of remaining facilities that are specific to each facility type may be necessary.

(b) The new Balancing market improves the incentives for facilities to be available during times where capacity is required. However, the strength of the incentive offered is limited by the existence of the administered maximum price cap.

System Management (Markets) concurs with the Authority that the subsidy offered by the Reserve Capacity Market is likely to counter the incentive to retire plant that would present in an energy only market. However clause 4.11.1(h) of the Market Rules empowers the IMO to decide not to assign Certified Reserve Capacity to a Facility if the Facility's actual Planned or Forced Outage rates exceed the prescribed threshold.

Another means to improve incentives for plant availability would be to compensate facilities which are asked to return from planned outage.

System Management (Markets) considers that this is sufficient to ensure reasonable availability of the generation fleet.

Discussion Point 8:

Stakeholders are invited to comment on whether the current market design provides appropriate incentives for retirement of inefficient generating units

In the context of the Authority's discussion, System Management (Markets) understands the Authority invites comments on whether the current market design provides incentives for 'retirement of inefficient generating units' to be reflective of 'poor availability generating units'. System Management (Markets)'s comment below is from this view.

System Management (Markets) believes the Market Rules will provide appropriate incentives to retire generating plant with poor availability if Market rule 4.11.1(h), as amended in Discussion Point 6, provides an incentive to maintain low unavailability rates.

Discussion Point 9:

Stakeholders are invited to comment on issues that are impacting on the efficient operation of the new LFAS market

System Management (Markets) has actively supported and encouraged the introduction of the Load Following Ancillary Services (LFAS) market which aims to promote effective competition and lower energy prices. System Management (Markets)'s discussions held in the MAC and various other working groups support this approach.

Notably, the breadth of competition in the LFAS market, compared to the Balancing Market, is fundamentally limited by the technical requirements that facilities providing LFAS must typically satisfy to participate in the LFAS market. For example, an LFAS facility must have the ability to continuously adjust its output in response to fluctuations in total system load. Nonetheless, System Management (Markets) has taken proactive measures to minimise these technical barriers to entry to encourage competition within the LFAS market, although there is additional complexity in undertaking both balancing and LFAS simultaneously.

System Management (Markets) is responsible for ensuring Market Participants adhere to particular operational requirements to facilitate safe and reliable dispatch of Load Following Services. The Ancillary Service Power System Operation Procedure ('PSOP') of 1 July 2012 includes the necessary operational criteria that potential providers of

LFAS must fulfil prior to participating in the LFAS market. System Management (Markets) refers the ERA to the Ancillary Services PSOP.⁴

Following the commencement of the new LFAS market on 1 July 2012, one Market Participant applied to System Management (Markets) to commission their facility, however did not pass the minimum operational criteria required to safely and reliably provide LFAS services. Several other Market Participants made enquiries however to date have not pursued the opportunity. Verve Energy remains the sole provider of LFAS.

Following the commencement of the full Competitive Balancing Market on 5 December 2012, most Market Participants are expected to initially develop commercial and operational strategies, and apply these, primarily within the balancing market.

Once Market Participants gain a better understanding of the Balancing market some may want to pursue LFAS opportunities and engage System Management (Markets) to commission and certify qualifying Facilities.

System Management (Markets), in conjunction with the IMO, is also reviewing the quantity of LFAS required in the LFAS market.

System Management (Markets) makes no comment on pricing outcomes, however notes the Roam Consulting Report 2010⁵ discusses future costs of the provision of Load Following Ancillary Services.

Discussion Point 10:

Stakeholders are invited to comment on:

- (a) whether the current information regime under the Market Rules presents a potential barrier to entry; and**
- (b) what, if any, improvements can be made in promoting more efficient outcomes.**

System Management (Markets) makes no comment on commercial outcomes

Discussion Point 11:

Stakeholders are invited to comment on how effective the IMO, System Management and the Authority have been in carrying out their respective functions in the WEM.

System Management (Markets) provides no comment in response to this discussion item.

⁴ http://www.imowa.com.au/f709,2377423/Ancillary_Services_PSOP_July_2012.pdf.

⁵ http://www.imowa.com.au/f3086,1258199/Report_Imo00016_to_IMO_2010-11-03a_FINAL.pdf