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DISCUSSION PAPER: 2014 WHOLESALE ELECTRICITY MARKET REPORT TO THE MINISTER FOR ENERGY - SYSTEM MANAGEMENT SUBMISSION

System Management appreciates the opportunity to provide a submission on the matters raised in the Economic Regulation Authority's (ERA) Discussion Paper for the 2014 Wholesale Electricity Market (WEM) Report to the Minister for Energy.

System Management is the segregated business unit within Western Power. It is responsible for the provision of power system operation services under Part 9 of the Electricity Industry Act 2004, which established the WEM.

System Management has prepared the attached submission in response to the ERA's Discussion Paper, confined to relevant issues from a system operator perspective.

System Management welcomes the opportunity to discuss any of the matters raised in its submission with the ERA. Please direct any queries in this regard to Mike Davidson, Market Development and Governance Manager, on 9427 5787.

Yours sincerely

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System Management

Submission to the Economic Regulation Authority's (ERA) Discussion Paper: 2014 Wholesale Electricity Market Report to the Minister for Energy

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

System Management's primary function is to operate the South West Interconnected System in a secure and reliable manner. The comments expressed in this submission reflect this function.

System Management additionally has a secondary function to procure ancillary services and is party to existing deeds of arrangement for these services.

The format of this submission is to address the concerns raised in section 2 of the Discussion Paper: 2014 Wholesale Electricity Market Report to the Minister for Energy where appropriate and then to address other issues either outstanding or new.

Issue 2.1: Access to the Network

System Management supports the introduction of a constrained network (highlighted in its submission to the Electricity Market Review¹) and therefore endorses the ERA's recommendation that "a full and detailed review be undertaken of the costs, benefits and possible implementation issues relating to a move towards a constrained network access framework"². System Management concurs with the ERA's view that "a piecemeal and uncoordinated adoption of constrained network access was unlikely to result in an optimal overall solution"³.

Further, System Management maintains that any intermediary measures, put in place in lieu of a full review of the interaction of the Access Code and WEM Rules, will create difficulties in managing system security and reliability.

Issue 2.3: Load Following Ancillary Services (LFAS) Market

System Management notes that the cost of LFAS increased significantly after the introduction of the LFAS market on 1 July 2012.

¹ [Electricity Market Review System Management Submission, Section 3, p.5](#)

² Discussion Paper: 2014 Wholesale Electricity Market Report to the Minister for Energy, Section 2.1, p.10

³ Discussion Paper: 2014 Wholesale Electricity Market Report to the Minister for Energy, Section 1.3, p.6

In its Discussion Paper the ERA highlights the opportunity to reduce LFAS costs by comparing the quantity of LFAS in the National Electricity Market (NEM) and the WEM⁴. Table 1 below explores the relativities between cost and volume in more detail.

Metric	WEM	NEM	Ratio WEM/NEM
Annual LFAS Cost (\$M/year)	50	5	Approx. 10:1
LFAS Quantity (MW)	144	250	Approx. 1:2
Average LFAS Service Price (\$/MW/hour) <i>Equals Cost/Quantity/hours per year</i>	40	2.5	Approx. 20:1
Annual Energy Sales to Retailers (MWH)	17,000,000	200,000,000	Approx. 1:11
Average LFAS Cost/Energy Sales (\$/MWH) <i>Equals Cost/Energy Sales</i>	Approx. 3	Approx. 0.025	Approx. 120:1

Table 1: Comparison of per unit Cost and per unit Volume for LFAS in the NEM and WEM (scaled for a 12 month period)

Price

As Table 1 shows, the LFAS Service Price in the WEM is twenty times higher compared to the NEM. System Management suggests that the key determinant of this significant price differential is a relative lack of competition in the WEM compared to the NEM. Currently only two market participants provide LFAS services, with one participant almost exclusively setting the market price.

System Management has been working with two additional market participants to commission Automatic Generator Control (a technical pre-requisite for supplying LFAS) on their Facilities therefore enabling these Facilities to participate in the LFAS market if the participants choose to do so.

Volume

Table 1 also shows that whilst the NEM is in the order of ten times the size of the WEM, the LFAS quantities in the WEM are only half those in the NEM.

System Management's view is that the over-riding factors behind the relatively high LFAS volumes in the WEM are gate closure and dispatch cycle times. In the WEM the market volumes are set between 6 and 12 hours in advance. In the NEM market LFAS volumes are set five minutes in advance. The marked difference in load forecast horizons has a dramatic effect on the volume of LFAS required in each market.

System Management believes that a move to shorter gate closure and dispatch cycle times (LFAS and Balancing, in line with the NEM) would have a dramatic effect on required LFAS volumes. As a result of a marked reduction in volume, there would naturally be an increase in competitive pressure as the balance between supply and demand for services shifts.

Notwithstanding our belief that the major impact on LFAS volumes would derive from a review of gate closure and dispatch cycle periods, System Management has been working

⁴ Discussion Paper: 2014 Wholesale Electricity Market Report to the Minister for Energy, Section 1.3, p.7

with the IMO on a number of initiatives intended to reduce LFAS volumes, albeit to a lesser extent:

- Refining the calculation of LFAS quantities
- Sculpting of LFAS volumes on a within day basis
- Improvements to the ramping of Non-Scheduled Generators
- Improvements to the auxiliary load forecast.

Issue 2.4: Sustained Network and Generator Outages

The ERA is seeking feedback on sustained outages of plant, specifically asking if the current Market Rules are adequate to deal with sustained outages such as the two transformer failures at Muja.

One of the matters requiring consideration over the course of the Muja scenario was the contract provisions under the WEM Rules for Ancillary Services. System Management's key concern as the responsible party for procuring Ancillary Service contracts is a need for an improvement or clarification in the role of Dispatch Support Service (DSS) deeds and Network Control Service (NCS) contracts in order to address any real or perceived issues with the Balancing Market. There is ambiguity in the current WEM Rules about when such contracts should apply.

In respect of DSS, System Management would welcome a review of the need for and application of such services in the WEM.

Existing Unresolved Issue: Market Governance

System Management welcomes the Electricity Market Review's objective to address the issue of market governance and is available to work with the Public Utilities Office on its reform agenda for a more effective design for the current market.

New Issue: Additional Ancillary Services Markets

The ERA Discussion paper indicates that stakeholders were supportive of opening up other Ancillary Services to competition. System Management is of the view that given the experience with the LFAS market it is important that prior to the introduction of any further competitive markets for Ancillary Services, there is sufficient appetite to participate in the market, that any technical barriers to participation are sufficiently mitigated prior to market participation, the market rules are holistically changed to incorporate any new market and the allocation or measurement of the service delivered is clearly defined.