



INDEPENDENT  
MARKET  
OPERATOR

ABN 95 221 850 093

Level 17  
197 St Georges Tce  
Perth WA 6000

PO Box 7096  
Cloister Square  
Perth WA 6850

T 08 9254 4300  
F 08 9254 4399

Our ref: CMR020  
Enquiries: Allan Dawson  
Phone: 08 9254 4300

Wana Yang  
Assistant Director Markets  
Economic Regulation Authority  
Level 4, Albert Facey House  
469 Wellington Street  
Perth WA 6000

Dear Wana

**ERA DISCUSSION PAPER: 2012 WHOLESALE ELECTRICITY MARKET REPORT TO THE MINISTER FOR ENERGY.**

The Independent Market Operator (IMO) welcomes the opportunity to comment on the Economic Regulation Authority's (ERA) *Discussion Paper: 2012 Wholesale Electricity Market Report to the Minister for Energy*.

The Reserve Capacity Mechanism (RCM) has provided positive outcomes for the Western Australian economy, with more than 2,700 MW of new generation plant and Demand Side Management (DSM) capacity having been committed since the commencement of the Wholesale Electricity Market (WEM), and a further 200 MW of plant upgrades. This growth in capacity has lifted the market from a capacity shortfall in 2006 to a capacity surplus today.

However, the IMO acknowledges that elements of the RCM should be refined in order to promote an economically efficient market, consistent with the WEM objectives.

In response to the growth in surplus capacity, the IMO Board commissioned The Lantau Group to conduct a review into the RCM in 2011 to consider:

- The consistent capacity surpluses secured in the WEM;
- The extent to which supply-side and demand-side capacity should be treated similarly;
- Fuel supply requirements for generators to secure Capacity Credits;
- The alignment of the Reserve Capacity refund regime with other elements of the RCM; and
- The allocation of capacity costs to customers.

In relation to these issues, The Lantau Group recommended:

- Amendment of the formula for calculating the Reserve Capacity Price (RCP);
- Implementation of a dynamic Reserve Capacity refund regime, in which the value of refunds is linked to system conditions;
- Harmonise the treatment of demand-side and supply-side by increasing the minimum availability requirement for Demand Side Programmes;
- Refinement of the fuel supply requirement;



- Refinement of the method for determining Individual Reserve Capacity Requirements; and
- Periodic review of the Reserve Capacity Mechanism.

The final report "*Review of RCM: Issues and Recommendations*" was provided to the Market Advisory Committee (MAC) in October 2011, and the Reserve Capacity Mechanism Working Group (RCMWG) was established by MAC in early 2012 to assess the issues and The Lantau Group recommendations. The RCMWG has met on nine occasions during 2012 and its recommendations have been provided to the IMO Board in December 2012 for its consideration. The IMO will report back to the MAC in February 2013.

The IMO notes that the ERA's Discussion Paper refers to some elements of the RCMWG's review, such as an amendment to the RCP formula, but neglects the RCMWG's recommendations from other work streams, such as the proposal to harmonise the requirements for demand-side and supply-side capacity resources. More detail on these proposals and the proceedings of the RCMWG (including meeting papers and minutes) are publicly available at <http://www.imowa.com.au/RCMWG>.

The IMO notes that the ERA discussion paper includes a section focusing on the "originally intended" market design in Sections 3.1.1 and 3.1.2 of the Discussion Paper. We would urge the ERA to consider the evolution of the RCM in the current context of what was implemented in the market rather than the perceived intent of the original market design. A number of specific issues are discussed below.

#### **Reserve Capacity Price and excess capacity (Discussion Points 1 to 4)**

The IMO agrees with the statement on page 28 that the current administered RCP formula "does not capture the workings of an efficient capacity market". This was a key observation of The Lantau Group in its review of the RCM, as well as the distortion of incentives in relation to bilateral contracting of capacity. These two issues are the drivers behind Lantau's proposal to amend the RCP formula as recommended in the Memo to the RCMWG for its November 2012 meeting<sup>1</sup>.

However, analysis of the capacity that has entered the market since the commencement (summarised below) of the WEM suggests that the RCM and the economic incentive provided by the Reserve Capacity Price has not been a significant influence in the development of the current capacity surplus as other factors (e.g. displacement tenders, renewable incentives, etc.). Table 1 below shows the capacity attributed to each factor, according to the Capacity Credits assigned for 2014/15.

**Table 1: Drivers of market entry**

<b>Driver for market entry</b>	<b>Capacity (MW)</b>
Committed before market start	490
Western Power procurement (pre-market start)	320
Displacement tender	547
State policy decision (Muja AB)	220
Replace retiring plant (Kwinana HEGTs)	190

<sup>1</sup> Available at [http://www.imowa.com.au/f5415,2978683/Combined\\_Meeting\\_9\\_RCMWG\\_Papers.pdf](http://www.imowa.com.au/f5415,2978683/Combined_Meeting_9_RCMWG_Papers.pdf), pages 69-93. The IMO also notes that Lantau's recommendation changed just prior to the publication of the Discussion Paper to consider an increased slope of -3.75 and an offset factor of 97%.

Driver for market entry	Capacity (MW)
Renewable	77
Supply of major industrial load	216
Upgrades of existing generation capacity	223
DSM (technology driven)	474
<b>Capacity market driven</b>	<b>231</b>
<b>Total new capacity</b>	<b>2987</b>

Further, the quantity of new capacity that has received Capacity Credits has reduced significantly during the last two capacity cycles as shown in Table 2. This may reflect a reduced appetite for capacity investment in the WEM which may be driven by factors such as the current capacity surplus, the significant reform that has taken place in the WEM recently<sup>2</sup>.

**Table 2: Additions of new capacity**

Capacity Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
New capacity (MW)	547	162	335	531	67	25

In light of the above, the IMO considers that Lantau's recommended change to the RCP formula takes account of the current context of the market and is a significant improvement on the current arrangement that will send appropriate signals to investors on the need for new capacity and mitigate (or eliminate) the risk of increased costs resulting from excess capacity.

The IMO considers that an auction mechanism (or other quantity-based mechanism) may be appropriate for the WEM at a point in time in the future. However, as outlined by The Lantau Group in its most recent Memo to the RCMWG, implementation of robust capacity auction mechanisms in other markets has proven problematic. These mechanisms have required significant redesign and revision over a number of years to mitigate the risk of "zero-infinity" pricing outcomes and to ensure the mechanism did not overly protect older inefficient generating units.

The IMO considers that such an auction mechanism could only be considered once the current capacity surplus has been absorbed and the market dominance of the government-owned utilities has been diluted.

#### ***Demand Side Management (Discussion Point 5)***

The Discussion Paper places considerable focus on the growth in Demand Side Management (DSM) capacity in the WEM. The IMO agrees with the statement that "the efficient use of DSM can provide benefits to the market in reducing system peak demand and the required investment in generation and network capacity for meeting the peak demand" (page 30).

<sup>2</sup> Such as the introduction of new Balancing and Load Following markets (RC\_2011\_10), the five-yearly of the Maximum Reserve Capacity Price methodology (PC\_2011\_06) and the capacity valuation for Intermittent Generators (RC\_2010\_25).



DSM is well equipped to provide capacity in electricity markets on an equivalent basis to generation. DSM is well established in the various capacity markets in the USA<sup>3</sup> and will be on equal footing with generation in the Capacity Market design that has been proposed in the United Kingdom<sup>4</sup>. Further, the potential of DSM has been highlighted in various reviews in the National Electricity Market (NEM), including the Australian Energy Market Commission's *Power of choice review*<sup>5</sup>.

However, the IMO considers that elements of the coverage of DSM in the Discussion Paper are imbalanced.

- Discussion Point 5 invites comment on "whether alternative treatments of DSM could provide a more cost effective way for the efficient use of DSM", but fails to acknowledge the recommendations that have been broadly agreed by the RCMWG to harmonise the requirements for demand-side and supply-side capacity resources. These recommendations would remove the annual limits on dispatch hours and number of dispatch events, shorten the minimum notice period and remove or relax other availability restrictions on the dispatch of DSM.
- The linking of the quantity of DSM capacity and the quantity of excess capacity is misleading as it neglects the substantial excess of base load capacity.
- The discussion of the infrequent dispatch of DSM does not compare this dispatch frequency with peaking generators.
- Further, the discussion of the infrequent dispatch of DSM fails to acknowledge the impact of the reliability standard for the South West interconnected system (SWIS). The capacity requirement in WEM is determined as the 1-in-10-year peak demand forecast plus a reserve margin of approximately 400 MW. The nature of this capacity requirement implies that some quantity of capacity will only be required for dispatch every ten years – whether this capacity is provided by generation or DSM.

#### ***Impacts of plant outages (Discussion Points 6 & 7)***

The IMO welcomes the discussion in relation to the discretion under clause 4.11.1(h) of the Market Rules and the Performance Monitoring provisions in clause 4.27 of the Market Rules. The IMO Board has requested that these clauses be reviewed and the IMO will be commencing this work in the New Year.

The IMO welcomes discussion with the ERA on these matters and will consider the views raised in submissions to the ERA.

#### ***Information transparency (Discussion Point 10)***

The IMO strongly supports transparency of information for stakeholders, and as such undertook a review of the confidentiality status of information as part of the implementation of the new Competitive Balancing and Load Following Markets (RC\_2011\_10), and published a revised confidentiality list on 1 July 2012.

<sup>3</sup> Including PJM, NY-ISO and NE-ISO

<sup>4</sup> Information on the legislation that was introduced into the UK Parliament is available at

[http://www.decc.gov.uk/en/content/cms/news/pn12\\_151/pn12\\_151.aspx](http://www.decc.gov.uk/en/content/cms/news/pn12_151/pn12_151.aspx)

<sup>5</sup> <http://www.aemc.gov.au/market-reviews/open/power-of-choice-update-page.html>



The IMO is in the process of implementing RC\_2012\_11 Transparency of Outage Information, which will implement a suite of improvements to the transparency of information relating to outages in the WEM.

The IMO notes the ongoing work to improve transparency around VEBP Dispatch, and investigations into the Load Following Requirement and cost allocation.

**Factual errors and misleading statements**

I would also like to draw your attention to some factual errors and misleading statements within the Discussion Paper.

- Figure 10<sup>6</sup> (page 21), has been used in the Discussion Paper to raise concern with the growth in peaking capacity in recent years. However, the Discussion Paper neglects the surplus in base load generation capacity that developed in the early years of the WEM (2006 through 2009), which has required some cycling of base load generation during periods of low demand (e.g. overnight).

Table 1 below shows the data from Figure 10 in tabular form. This suggests that:

- a substantial surplus of base load capacity remains; and
- the peaking capacity had previously been less than peaking load, but has now grown to cover the peaking load and reserve margin.

**Table 1: SWIS Load Characteristics and Capacity Mix**

Capacity Year	Base (MW)		Mid Merit (MW)		Peaking (MW)		Reserve Margin (MW)
	Load	Capacity	Load	Capacity	Load	Capacity	
2007/08	1528	2051	572	690	1292	1373	345
2008/09	1555	2643	577	746	1383	1210	361
2009/10	1601	2868	617	745	1548	1523	376
2010/11	1680	2864	600	732	1551	1662	386
2011/12	1675	3000	583	515	1596	1978	387
2012/13		2982		630		2384	
2013/14		3005		632		2450	


This analysis suggests that the ERA may have placed undue focus on the growth in peaking capacity in your discussion paper.

- The calculation of the “Direct Cost of Excess Capacity Credits” in Table 2 (page 22) is misleading as it fails to account for the discount to the RCP that is applied through the Excess Capacity Adjustment. The IMO notes that the Discussion Paper does explain the impact of this discount but only in a footnote on the following page. Given the materiality of this discount it is appropriate that it is included in the body of the analysis.

<sup>6</sup> This graph was taken from the 2012 Statement of Opportunities, available at <http://www.imowa.com.au/soo>

- Discussion Point 1 invites stakeholders to comment on “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”. The IMO considers that since the implementation of the new Balancing and LFAS markets the Bilateral Submission may not be an appropriate comparison.

The IMO appreciates the opportunity to provide input on the ERA's discussion paper. If you wish to discuss any aspect of our submission or require further information on the points raised please contact me directly.

Yours sincerely 

**ALLAN DAWSON**  
**CHIEF EXECUTIVE OFFICER**

18 December 2012