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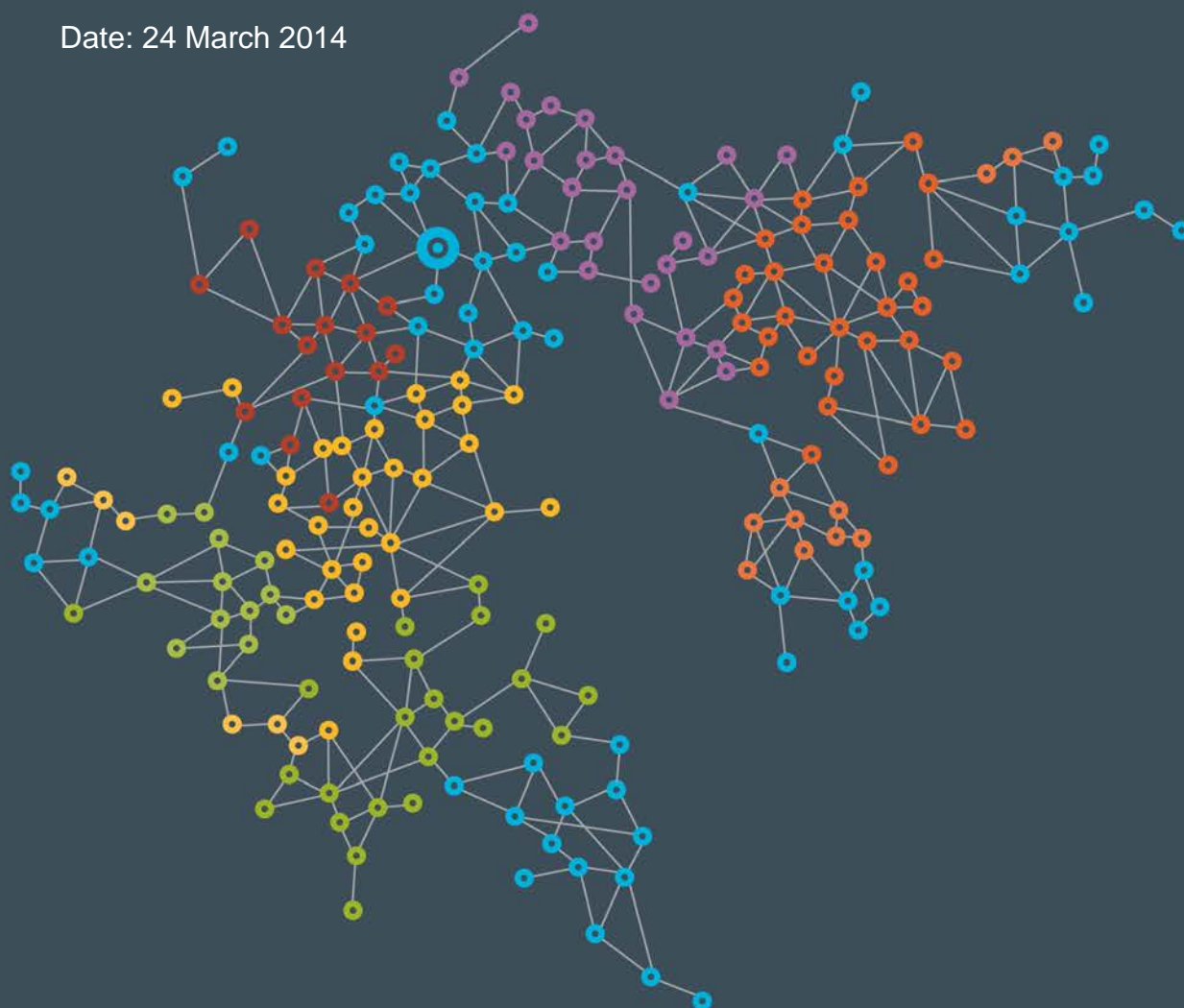
# Final Rule Change Report Harmonisation of Supply-Side and Demand-Side Capacity Resources

RC\_2013\_10

Standard Rule Change Process

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Date: 24 March 2014



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## Executive Summary

### **Proposed Amendments**

The Reserve Capacity Mechanism (RCM) Working Group (RCMWG) was established in February 2012 to assess the issues highlighted by the Lantau Group in its report “*Review of RCM: Issues and Recommendations*”<sup>1</sup>. This report was commissioned by the IMO Board to analyse the effectiveness and efficiency of the RCM.

One of the key topics discussed during the RCMWG meetings was the harmonisation of rules relating to supply-side and demand-side capacity resources. Key considerations in these discussions were the:

- fuel requirements for generators;
- minimum availability requirements for Demand Side Programmes (DSPs);
- real-time data requirements for DSPs; and
- alignment between the Individual Reserve Capacity Requirement (IRCR) and Relevant Demand (RD) for a Market Customer with a DSP.

While not all aspects of the proposal were unanimously accepted, RCMWG members generally supported the proposed changes in the Rule Change Proposal.

### **Consultation**

The IMO first submitted a concept paper to the Market Advisory Committee (MAC) on 12 June 2013 for discussion. The proposal was then submitted to the 7 August 2013 MAC meeting as a pre Rule Change Proposal. At this meeting, the proposal received endorsement for progression into the formal rule change process.

The IMO formally submitted the proposal into the Standard Rule Change Process and published the Rule Change Notice on 21 August 2013.

The first submission period was held between 22 August and 3 October 2013. Submissions were received from Alinta Energy, EnerNOC, Newmont Mining Services, Perth Energy, Synergy and System Management. The majority of submissions from DSP providers raised concerns with the potential increase in costs to Market Participants, particularly around the requirement to provide real-time telemetry. Other submissions were supportive of the IMO’s proposal to increase the availability requirements for demand-side resources to improve alignment with supply-side resources.

The second submission period was held between 20 December 2013 and 31 January 2014. The timeframe for the second submission period was extended in accordance with the extension notice published on 16 December 2013 to allow additional time over the Christmas and New Year period. The second submission period was also extended on 23 January 2014 to allow stakeholders sufficient opportunity to consider the associated proposed amended Market Procedure:

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<sup>1</sup> [http://www.imowa.com.au/f5415,2873688/09\\_Agenda\\_Item\\_8\\_Lantau\\_Report.pdf](http://www.imowa.com.au/f5415,2873688/09_Agenda_Item_8_Lantau_Report.pdf)

Certification of Reserve Capacity (PC\_2013\_06) which was submitted into the Procedure Change Process on 11 February 2014.

During the second submission period, six submissions were received. All submitters generally supported the principle underlying the proposed changes as representing a significant improvement over the current market design. However, a number of issues were raised, primarily around the costs and benefits of introducing a requirement for DSP providers to make consumption data available. Alinta Energy and Synergy also raised concerns about the regulatory uncertainty introduced by the removal of the prescription of fuel requirements for the certification process.

### ***Assessment Against the Wholesale Market Objectives***

The IMO considers that the Market Rules as a whole, if amended as presented in section 6.1, will not only be consistent with the Wholesale Market Objectives but also allow the Market Rules to better achieve Wholesale Market Objectives (a), (c) and (e).

### ***Practicality and Cost of Implementation***

The IMO has identified material costs associated with the implementation of the proposed Amending Rules. These costs are primarily related to the new requirements for telemetry for DSPs.

The IMO has investigated the potential costs for Market Customers related to the requirement for DSP providers to implement real-time telemetry. The IMO estimates that the costs are primarily fixed, one-off costs of \$350,000 to \$450,000 for building and testing new software systems for each of the eight Market Customers with a DSP. It is also expected to cost each DSP provider \$50,000 to \$100,000 per annum for ongoing monitoring and maintenance. The IMO expects that a bureau service may emerge, providing the necessary software systems to support smaller DSP providers which will reduce these costs materially.

The requirements for data provision will not be known with certainty until the necessary web service is fully specified in changes to be included in the Power System Operation Procedure (PSOP): Communications and Control Systems and Market Procedure: IMS Interface. As such, the cost to Market Customers cannot be determined with great certainty at this stage.

System Management is expected to incur costs of \$272,000 to expand the current web service and provide the necessary administration.

The IMO is also expected to incur one-off costs of approximately \$160,000 to change IMO systems to provide for the amendments to the validation for certification and methodology for Capacity Credit allocation and settlements and ensure that the necessary telemetry data can be captured and stored as necessary. These costs will be able to be met within the IMO's existing resources.

It is expected that the implementation of this Rule Change Proposal will cost \$3.2 million to \$3.6 million in up-front capital costs, with an additional \$400,000 to \$800,000 per annum to realise the benefits of approximately 550 MW of demand-side capacity costing up to \$66 million<sup>2</sup> per annum.

The IMO and System Management will consult further with DSP providers and other key stakeholders when developing the necessary amendments to procedures to ensure that the telemetry requirements are fit-for-purpose and not overly onerous or costly.

The IMO considers that the proposed commencement dates will provide Rule Participants adequate time for the necessary changes to IT and operational systems and processes.

The IMO has engaged with the Public Utilities Office to progress the proposed amendments to Protected Provisions and civil penalty provisions in relation to this Rule Change Proposal.

### ***The IMO's Decision***

The IMO's decision is to accept the Rule Change Proposal as modified following the first and second submission periods.

### ***Next Steps***

The Amending Rules that apply for the certification of Reserve Capacity in the 2014 Reserve Capacity Cycle will provisionally commence at **8.00 AM on 1 May 2014**. This includes amendments to clauses 2.13.9, 4.5.12, 4.10.1, 4.10.2, 4.11.1, 4.11.4, 4.25.1 and 4.25.13 Appendix 3 of the Market Rules and the definition of Availability Class and the introduction of the new definitions of Availability Class 1 and Availability Class 2.

The Amending Rules that relate to the changes to the calculation of the RD for the certification of Reserve Capacity in the 2014 Reserve Capacity Cycle will provisionally commence at **8.00 AM on 1 October 2014**. This includes the amendments to clause 4.26.2CA and Appendix 5 of the Market Rules and the introduction of the new definition of Individual Reserve Capacity Requirement Contribution. In addition, the change related to clause 4.26.1A of the Market Rules which corrects a manifest error will also commence to allow the necessary system changes to be coordinated with the RD changes.

The Amending Rules that apply to the operation of Facilities in the 2016/17 Capacity Year will provisionally commence at **8.00 AM on 1 October 2016**. This includes new clauses 6.12.1 and 7.5.1A and the new definitions of Off-Peak Trading Interval Rate, Peak Trading Interval Rate and amendments to clauses 2.29.9A, 4.12.2, 4.12.4, 4.12.8, 4.26.3A, 6.12.1A (renumbered), 7.5.1, 7.5.2, 7.5.3, 7.6.10, 7.7.4A, 7.7.10, 7.10.2, 7.10.4, 7.11.1, 7.11.5, 7.11.6 and 7.13.1, Appendix 1 of the Market Rules and the definitions of Dispatch Advisory and Refund Table.

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<sup>2</sup> This is the implied cost of the Capacity Credits associated with DSM based on the administered Reserve Capacity Price of \$120,199 per MW per year for the 2015/16 Capacity Year and certified demand-side capacity of 550 MW. It should be noted that the actual value of Capacity Credits is determined by the prices paid for Capacity Credits under Bilateral Contracts.

## 1. Rule Change Process and Timetable

On 21 August 2013 the IMO submitted a Rule Change Proposal regarding:

- amendments to clauses 2.13.9, 2.29.9A, 4.5.12, 4.10.1, 4.10.2, 4.11.1, 4.11.4, 4.12.2, 4.12.4, 4.12.8, 4.25.1, 4.25.13, 4.26.2CA, 4.26.3A, 6.12.1, 7.5.1, 7.6.10, 7.7.4A, 7.7.10, 7.10.4, 7.11.1 and 7.11.5, along with the Glossary, Appendix 1, Appendix 3 and Appendix 5 of the Wholesale Electricity Market Rules (Market Rules); and
- proposed new clauses 2.35.3A, 2.35.3B, 2.35.3C and 7.13.1D of the Market Rules.

The IMO then proposed further changes to clauses 4.26.3A, 7.6.10, 7.11.5 and Appendix 5 to improve the clarity of the Amending Rules in the Draft Rule Change Report. The IMO also proposed amendments to clause 4.26.1A in response to an issue raised in the first submission period.

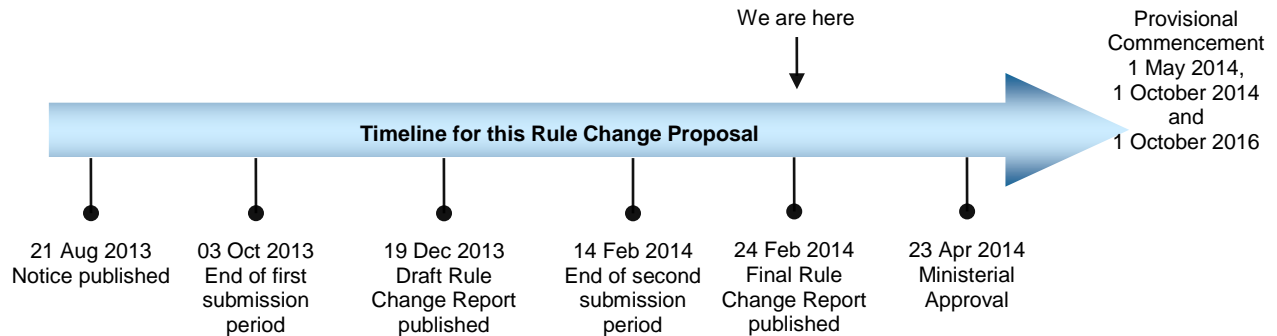
In the Final Rule Change Report, the IMO proposes:

- further changes to clauses 2.13.9, 4.12.2, 4.25.1, 4.25.13, 4.26.1A, 4.26.3A, 7.10.2, 7.11.1, 7.11.6 and 7.13.1 of the Market Rules and to remove the proposed clauses 2.35.3A and 2.35.3B to remove the duplication of obligations and improve the overall clarity of Rule Participants' obligations in the proposed Amending Rules;
- to re-order three clauses to ensure the obligations are placed in the relevant sections of the Market Rules, including to move the obligations from proposed new clause 2.35.3C to clause 7.6.10 and from proposed new clause 7.13.1D to clause 6.12.1. This has also resulted in the renumbering of clause 6.12.1 of the Market Rules to clause 6.12.1A;
- to further amend clauses 4.10.1 and 4.10.2 of the Market Rules to address issues raised during the second submission period; and
- introduce new clause 7.5.1A of the Market Rules to split the timeframes for the provision of the Non-Balancing DMO proposed to be amended to 8:00 PM and provision of fuel declarations to remain at 1:30 PM. This has also resulted in consequential changes to clauses 7.5.2 and 7.5.3.

This proposal is being processed using the Standard Rule Change Process, described in section 2.7 of the Market Rules.

In accordance with clause 2.5.10 of the Market Rules, the IMO decided to extend the timeframe for the publication of the Draft Rule Change Report as outlined in the notices of extension published on 24 October 2013, 5 December 2013 and 16 December 2013. The IMO extended the timeframe to allow sufficient time to consider the submissions received in the first submission period and to work with System Management to provide greater clarity on the costs and benefits of real-time telemetry. The IMO published the Draft Rule Change Report on 19 December 2013. The IMO also extended the timeframe for the second submission period on 16 December 2013 and 23 January 2014 to allow sufficient time for stakeholders to consider the associated proposed amended Market Procedure: Certification of Reserve Capacity.

The key dates in processing this Rule Change Proposal are:



## 2. Proposed Amendments

### 2.1. The Rule Change Proposal

The Rule Change Proposal seeks to harmonise the Market Rules related to supply-side and demand-side capacity resources in accordance with the recommendations of the Reserve Capacity Mechanism (RCM) Working Group (RCMWG).

#### 2.1.1. Background

The RCM is a mechanism to support the Wholesale Electricity Market (WEM) in the South West interconnected system (SWIS) in ensuring there is sufficient Reserve Capacity to meet reliability targets. The RCM allows for capacity to be provided by supply-side resources (predominantly thermal generators) or through reductions in demand by providers of Demand Side Management (DSM) services.

The RCMWG was established by the Market Advisory Committee (MAC) in February 2012 to assess the issues highlighted by the Lantau Group in its report "Review of RCM: Issues and Recommendations"<sup>3</sup>. This report was commissioned by the IMO Board to analyse the effectiveness and efficiency of the RCM.

One of the key topics discussed during the RCMWG meetings was the harmonisation of rules relating to supply-side and demand-side capacity resources. Key considerations in these discussions were the:

- fuel requirements for generators;
- minimum availability requirements for Demand Side Programmes (DSPs);
- real-time data requirements for DSPs; and
- alignment between the Individual Reserve Capacity Requirement (IRCR) and Relevant Demand (RD) for a Market Customer with a DSP.

Substantial analysis was conducted by Dr Richard Tooth of Sapere Research Group to support the

<sup>3</sup> [http://www.imowa.com.au/f5415,2873688/09\\_Agenda\\_Item\\_8\\_Lantau\\_Report.pdf](http://www.imowa.com.au/f5415,2873688/09_Agenda_Item_8_Lantau_Report.pdf)

RCMWG in its consideration of these issues. Three reports on the performance requirements for demand-side and supply-side capacity resources were presented by Dr Tooth at RCMWG meetings. These reports, together with the Working Group's discussions and analyses, are available on the Market Web Site: <http://www.imowa.com.au/rcmwg>.

### **2.1.2. Proposed Amendments to the Market Rules**

The IMO proposed to amend clauses 2.13.9, 2.29.9A, 4.5.12, 4.10.1(e)(v), 4.10.1(f), 4.10.2, 4.11.1, 4.11.4, 4.12.2, 4.12.4, 4.12.8, 4.25.1, 4.25.13, 4.26.1A, 4.26.2CA, 4.26.3A, 6.12.1, 7.5.1, 7.6.10, 7.7.4A, 7.7.10, 7.10.2, 7.10.4, 7.11.1, 7.11.5, 7.11.6 and 7.13.1, the Glossary and Appendix 1, Appendix 3 and Appendix 5, and introduce new clauses 2.35.3A, 2.35.3B, 2.35.3C, 7.13.1D and additional terms in the Glossary of the Market Rules.

In the Final Rule Change Report, the IMO also proposes:

- further changes to clauses 4.10.1 and 4.10.2 of the Market Rules to address issues raised during the second submission period;
- further changes to clauses 2.13.9, 4.12.2, 4.25.1, 4.25.13, 4.26.1A, 4.26.3A, 7.10.2, 7.11.1, 7.11.6 and 7.13.1 of the Market Rules and to remove the proposed clause 2.35.3A and 2.35.3B to improve the clarity of Rule Participants' obligations in the proposed Amending Rules;
- to re-order three clauses to ensure the obligations are placed in the relevant sections of the Market Rules, including to move the obligations from proposed new clause 2.35.3C to clause 7.6.10 and from proposed new clause 7.13.1D to clause 6.12.1. This has also resulted in the renumbering of clause 6.12.1 of the Market Rules to clause 6.12.1A; and
- to introduce new clause 7.5.1A of the Market Rules to split the timeframes for the provision of the Non-Balancing DMO proposed to be amended to 8:00 PM and provision of fuel declarations to remain at 1:30 PM. This has also resulted in consequential changes to clauses 7.5.2 and 7.5.3 of the Market Rules.

These proposed Amending Rules will:

- **Relax fuel requirements for certification of generators** – To receive Certified Reserve Capacity in relation to a Scheduled Generator, a Market Participant must currently demonstrate that the fuel storage, supply and transport arrangements for the generator are sufficient to allow 12 hours of continuous operation. The analysis conducted for the RCMWG<sup>4</sup> concluded that there are currently sufficient commercial incentives for Scheduled Generators to provide reliable supply, irrespective of the fuel requirements in clause 4.11.1(a). The IMO considered that the combination of the market for energy, Ancillary Services and Capacity Cost Refunds provide incentives for Market Generators to ensure the availability of their Facilities, including the availability of sufficient fuel for operation.

The IMO proposed to relax the requirement for generation Facilities to have 'firm fuel' supply contracts in place by introducing amendments to clauses 2.13.9, 4.10.1(e), 4.10.2,

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<sup>4</sup> [http://www.imowa.com.au/f5415.2873627/Combined\\_Papers\\_Mtg\\_5.pdf](http://www.imowa.com.au/f5415.2873627/Combined_Papers_Mtg_5.pdf)



4.11.1, 4.12.2, 4.25.1 and 4.25.13 of the Market Rules.

The IMO also proposed changes to the Market Procedure: Certification of Reserve Capacity to support the proposed Amending Rules. The Procedure Change Proposal (PC\_2013\_06) was developed in consultation with the IMO Procedure Change and Development Working Group (IMOPWG) and was formally submitted into the Procedure Change Process on 11 February 2014. For full details of the Procedure Change Proposal please refer to the Market Web Site: [http://www.imowa.com.au/PC\\_2013\\_06](http://www.imowa.com.au/PC_2013_06).

- **Require telemetry for DSPs** – System Management currently has information regarding a DSP's likely availability provided through the certification process, but does not have real-time information on the availability and performance of DSPs. This lack of information about a DSP's circumstances at any time means that System Management is likely to be less confident in the use of demand-side capacity, and may result in the inefficient use of DSPs. The availability of real-time information would increase System Management's ability to maintain the security and reliability of the SWIS.

The IMO proposed to require DSPs to provide real-time telemetry for all Associated Loads to improve the information available to System Management and the market with regard to the quantity of demand-side capacity available.

The proposed amendments to Appendix 1 of the Market Rules establish the requirement for DSP providers to have appropriate communications infrastructure to provide real-time telemetry. The IMO and System Management investigated implementation options and concluded that the development of a B2B web service was the most efficient solution to collect the telemetry data. However, the details with regard to the operation of the web service and requirements for telemetry will be developed in a PSOP prior to the commencement of the Amending Rules on 1 October 2016.

The IMO also amend clause 7.6.10 of the Market Rules to require Market Participants to provide System Management with consumption data of each Associated Load and the aggregated quantity of all of the Associated Loads in a DSP as close to five minutes before the beginning of each Trading Interval. In addition, the IMO proposed amendments to clause 7.13.1 of the Market Rules for System Management to then provide this data to the IMO.

In addition, the IMO proposed to amend clause 7.10.4 of the Market Rules to remove the exemption for System Management to monitor DSPs' compliance with Dispatch Instructions.

- **Revise DSM availability requirements** – Following investigations into the opportunities to increase the use of demand-side capacity, the RCMWG agreed to pursue changes to increase the minimum availability requirements for DSPs as shown in Table 1. Analysis undertaken for the RCMWG found that having greater flexibility to dispatch DSPs was likely to result in more dispatch events, but not necessarily increase the amount of demand-side capacity used overall.

**Table 1: Minimum availability requirements for DSPs**

Requirement	Current Rule	Proposed Change
Days of Availability	All Business Days	All Business Days
Dispatch events per year	At least 6	5 x 52 = 260 – (public holidays) ≈ 250*
Hours per day	4 hours	6 hours
Total hours available per year	24 hours	approx. 250 x 6 ≈ 1,500 hours*
Earliest Start	12:00 PM	10:00 AM
Latest Finish	8:00 PM	8:00 PM
Minimum notice period of dispatch	4 hours	2 hours [Dispatch Advisory may be released by System Management within 24 hours of the capacity requirement] **

\* These requirements will no longer be limited under the Market Rules; figures provided are indicative of the maximum requirement for a DSP.

\*\* The introduction of a Dispatch Advisory was suggested at the June 2013 MAC meeting during the development of the Rule Change Proposal.

The IMO considered that greater flexibility will be achieved by reducing the current four Availability Classes to two. The IMO proposed that Availability Class 1 contain those Facilities that can provide capacity at all times, comparable with Scheduled Generators and Availability Class 2 contain all other demand-side capacity.

The IMO proposed to increase the availability requirements for DSPs by proposing changes to clauses 2.29.9A, 4.5.12, 4.10.1(f), 4.11.4, 4.12.4, 7.7.10, Appendix 1 and Appendix 3 of the Market Rules and the defined terms Availability Class and Dispatch Advisory. The proposed amendments also introduced defined terms for Availability Class 1 and Availability Class 2 in the Glossary.

The proposed changes to increase the minimum availability requirements will also affect the calculation of the Demand Side Programme Capacity Cost Refund under clause 4.26.3A of the Market Rules. The IMO proposed to amend the calculation of availability to vary the refund applicable according to the maximum dispatch hours per day and introduce the new defined terms Off-Peak Trading Interval Rate, Peak Trading Interval Rate and amend the definition of Refund Table. It should be noted that clause 4.26.3A of the Market Rules is proposed to be further amended under the Rule Change Proposal: Changes to the Reserve Capacity Price and the Dynamic Reserve Capacity Refunds Regime (RC\_2013\_20).<sup>5</sup>

<sup>5</sup> For full details of the Rule Change Proposal please refer to the Market Web Site: [http://www.imowa.com.au/RC\\_2013\\_20](http://www.imowa.com.au/RC_2013_20).

- **Removal of the Third Day Rule** – Under clause 4.12.8 of the Market Rules, a DSP that has been dispatched on two consecutive days will have a Reserve Capacity Obligation Quantity (RCOQ) of zero on the third day. By having a RCOQ of zero the DSP is not subject to Capacity Cost Refunds if it fails to respond to a Dispatch Instruction. The IMO proposed to remove the provision that allows DSPs to be unavailable for dispatch on the third consecutive day (the ‘third day rule’) to align the requirements of DSPs to those that apply to supply-side capacity resources. The IMO proposed to remove the exception in clause 4.12.8 of the Market Rules.
- **Amend the ranking of Non-Balancing Facilities in the Non-Balancing Dispatch Merit Order** – The Non-Balancing Dispatch Merit Order (DMO) currently orders the dispatch of Non-Balancing Facilities (including DSPs) by price. In the event that one or more DSPs have the same price, they are ordered from largest to smallest by Facility size. The RCMWG members agreed that ranking Facilities according to size was inappropriate and created a disincentive for DSPs to aggregate Loads. The IMO proposed to introduce a ranking based on time since last dispatch by amending to clause 7.7.4A of the Market Rules.

To facilitate the operation of the Non-Balancing DMO, the IMO proposed to introduce a new clause 6.12.1 of the Market Rules requiring System Management to provide the IMO with all the Dispatch Instructions issued to DSPs on the Scheduling Day for the IMO to use to develop the Non-Balancing DMO. The IMO also proposed amendments to the existing clause 6.12.1 of the Market Rules (now proposed to be renumbered to clause 6.12.1A) which outlines the requirements for the Non-Balancing DMO and proposed to remove clause 7.6.10(a) and place the obligation for the IMO to provide System Management with each Non-Balancing Facility’s RCOQ in clause 6.12.1A of the Market Rules. This will mean that the IMO will provide the relevant RCOQs in the Non-Balancing DMO.

The IMO also proposed a change in the time that it must provide System Management with the Non-Balancing DMO to 8:00 PM in clause 7.5.1 of the Market Rules. This will allow the IMO to appropriately order the Non-Balancing Facilities, in particular to account for those Facilities that were dispatched on the Scheduling Day, where the RCOQ will be zero. The IMO proposed consequential changes to add a new clause 7.5.1A and amend clauses 7.5.2 and 7.5.3 of the Market Rules to uncouple the provision of fuel declarations and the Non-Balancing DMO so that System Management continues to receive the fuel declarations at 1:30PM.

Another issue identified by the IMO was that the current Non-Balancing DMO does not remove Facilities that have an RCOQ of zero. This makes it difficult for System Management to dispatch Facilities in the Non-Balancing DMO. The IMO therefore proposed further changes to clause 6.12.1 of the Market Rules (renumbered to clause 6.12.1A) to establish an order for the list.

The proposed amendments also introduce greater clarity for DSP providers with respect to when they are expected to operate. The proposed changes to clauses 7.11.5 and 7.11.6 of the Market Rules introduce the requirement for System Management to issue a Dispatch Advisory containing the expected quantity of demand-side capacity to be required 24 hours in advance of when it expects to issue a Dispatch Instruction to a Non-Balancing Facility. The IMO has also taken the opportunity to move the definition of Dispatch Advisory from clause 7.11.1 of the Market Rules to the Glossary.

- **Enable dispatch of DSPs outside nominated availability** – The RCMWG noted that some DSPs may be able to provide capacity outside their nominated availability periods. Under clause 7.6.10(b) of the Market Rules, System Management currently is unable to dispatch a DSP outside of its nominated availability periods. In cases where additional capacity is needed, the IMO considers it prudent that System Management should have the ability to request a DSP to curtail consumption if it can.

The IMO proposed to delete clause 7.6.10(b) of the Market Rules to enable DSPs to be dispatched in these circumstances on a 'best efforts basis'. This means that there will continue to be no Capacity Cost Refunds for non-performance when a DSP's RCOQ is equal to zero. In addition, the IMO proposed to amend clause 7.10.2 of the Market Rules to provide an exemption to a Market Participant's requirement to comply with a Dispatch Instruction when its RCOQ is zero.

- **Limiting a DSP's RD to no more than its IRCR** – The amount of Reserve Capacity that a DSP can provide is currently determined by its RD. The RD is the median value that the Associated Loads of a DSP consumed during the 32 Trading Intervals of highest demand in the preceding Hot Season, reflecting a normal operating level during the intervals when the DSP is most likely to be dispatched.

Under clause 4.26.2C(b)(iii) of the Market Rules, the RD for a DSP may be adjusted upward where one or more Associated Loads performed maintenance during these 32 Trading Intervals. This differs from the calculation of the IRCR, for which there is no such adjustment. The IMO considers that the exclusion of maintenance periods from the calculation of RD coupled with its inclusion in IRCR provides a dual incentive for Associated Loads to perform maintenance during those Trading Intervals that they assume will also be used in the calculation of IRCR intervals under Appendix 5 of the Market Rules.

This reduction of consumption at times of system peak can result in the Associated Load having a RD (representing the upper limit on the Capacity Credits that a DSP provider may sell to the market) that is greater than its IRCR (representing the Capacity Credits that a DSP provider buys from the market). The IMO considers it inappropriate that a Load that is incapable of generating should be a net seller of Capacity Credits to the market.

The IMO therefore proposed amendments to clause 4.26.2CA and Appendix 5 of the Market Rules to calculate the RD of a DSP for a Trading Day as the lesser of the historical consumption quantities of the 32 Trading Intervals identified under clause 4.26.2C(a) of the Market Rules for the Capacity Year and the sum of the IRCR contributions of each Associated Load that form the DSP. The IMO also proposed to add new definitions for Individual Reserve Capacity Requirement Contribution, Off-Peak Trading Interval Rate and Peak Trading Interval Rate and amend the definition of Refund Table in the Glossary to improve the clarity in the Market Rules.

- **Ensure refunds are applicable to unfilled DSPs** – Currently under clause 4.26.1A of the Market Rules Market Customers are not required to pay Reserve Capacity Deficit refunds on an unfilled portion of a DSP. The IMO proposed to correct this manifest error by introducing amendments to clause 4.26.1A(a)(vii) of the Market Rules to ensure that Market Customers pay Reserve Capacity Deficit refunds consistent with the application of refunds to any other Market Participant not able to meet its obligations.

For full details of the Rule Change Proposal please refer to the Market Web Site: [http://www.imowa.com.au/RC\\_2013\\_10](http://www.imowa.com.au/RC_2013_10).

## **2.2. The IMO's Initial Assessment of the Rule Change Proposal**

The IMO decided to proceed with the proposal on the basis that Rule Participants and stakeholders should be given an opportunity to provide submissions on the Rule Change Proposal.

## **2.3. Protected Provisions, Reviewable Decisions and Civil Penalties**

Clause 2.13.9 of the Market Rules is a Protected Provision. The IMO has proposed amendments to this clause to remove the obligation on System Management to monitor Rule Participants for breaches of the requirements under clause 4.10.2 of the Market Rules, as the clause is proposed to be deleted.

Clause 4.10.2 of the Market Rules has an associated Category C civil penalty under the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* (Regulations). The IMO has proposed to delete this clause to relax the requirements for Facilities to have 'firm fuel' supply contracts in place. The Regulations will need to be amended to reflect this change.

The IMO has engaged with the Public Utilities Office to discuss the proposed Amending Rules in relation to this Rule Change Proposal.

## **3. Consultation**

### **3.1. The Market Advisory Committee**

The RCMWG was established by the MAC and met on 12 occasions between February 2012 and February 2013. While not unanimously accepted, the RCMWG members generally supported the changes developed in this Rule Change Proposal. Details of the analyses and discussions of the RCMWG are available at <http://www.imowa.com.au/rcmwg>.

The proposal was first presented as a concept paper<sup>6</sup> to the MAC on 12 June 2013. MAC members raised a number of issues with respect to the detail underpinning the broad principles. These issues were addressed in the pre Rule Change Proposal.

The IMO presented the pre Rule Change Proposal to the MAC at the 7 August 2013 meeting. At this meeting, the MAC discussion was focused on the proposal to implement the requirement for real-time telemetry for DSPs and the drafting of the proposed amendments to remove the prescriptive requirements for fuel availability.

The MAC agreed that, subject to clarification of the implementation of telemetry for Market Customers with DSPs and other minor adjustments to the Non-Balancing DMO, the IMO should submit the Rule Change Proposal into the Standard Rule Change Process.

Further details are available in the MAC meeting minutes available on the Market Web Site: <http://www.imowa.com.au/MAC>.

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<sup>6</sup> See agenda item 5(a) available at [http://www.imowa.com.au/docs/default-source/Governance/Market-Advisory-Committee/combined\\_mac\\_mtg\\_61\\_papers.pdf?sfvrsn=2](http://www.imowa.com.au/docs/default-source/Governance/Market-Advisory-Committee/combined_mac_mtg_61_papers.pdf?sfvrsn=2)

### **3.2. Submissions Received During the First Submission Period**

The first submission period for this Rule Change Proposal was between 22 August and 3 October 2013. Submissions were received from Alinta Energy, Community Electricity, EnerNOC, Newmont Mining Services, Perth Energy, Synergy and System Management.

Community Electricity, EnerNOC and Perth Energy supported the Rule Change Proposal on the basis that it would ensure more equitable treatment of supply-side and demand-side capacity and would improve the efficiency of dispatch and utilisation of demand-side capacity.

Alinta Energy was generally supportive of the proposal to improve equity between capacity sources but suggested that any changes to the RCM should be delayed until a wider review of the market is undertaken. Alinta Energy and Synergy both supported the introduction of differential pricing to reflect inherent differences in the availability of demand-side capacity, rather than harmonisation of their requirements.

Community Electricity and Newmont Mining Services raised concerns around the potential cost of installing telemetry infrastructure. Newmont Mining Services also noted that this, coupled with the increases in availability may impose a barrier to entry for small participants. Community Electricity suggested that further information on the requirements of such telemetry would need to be developed before the cost could be better estimated.

System Management questioned the value of real-time telemetry and noted that the amendments in the Rule Change Proposal would reduce the incentive for both generators with non-firm fuel supply and DSPs to be available.

Synergy and System Management further questioned the value of DSP providers making consumption data available at the Associated Load level.

Perth Energy and Alinta Energy both questioned why the cap on a DSP's Relevant Demand should be higher than the actual amount consumed, and suggested that the uplift factor included in the calculation of the IRCR should be removed.

A copy of all submissions in full received during the first submission period is available on the Market Web Site: [http://www.imowa.com.au/RC\\_2013\\_10](http://www.imowa.com.au/RC_2013_10).

### **3.3. The IMO's Response to Submissions Received During the First Submission Period**

The IMO's response to submissions received during the first submission period are detailed in section 4.3 of the Draft Rule Change Report available on the Market Web Site.

### **3.4. Additional Amendments Following the First Submission Period**

Following the first public submission period the IMO made the following additional changes to the Amending Rules:

- amendments to clause 4.26.1A(a)(vii) of the Market Rules, to address System Management's concerns raised during the first submission period, to ensure that DSP providers pay Capacity Cost Refunds for an unfilled portion of a DSP;
- further amendments to clauses 7.11.1 and 7.11.5 of the Market Rules to include all Non-Balancing Facilities, rather than just DSPs; and

- further amendments to clauses 4.26.3A and 7.6.10 and Appendix 5 of the Market Rules to improve the integrity of the Market Rules.

The additional amendments the IMO made to the Amending Rules following the first submission period are detailed in Appendix 1 of the Draft Rule Change Report available on the Market Web Site: [http://www.imowa.com.au/RC\\_2013\\_10](http://www.imowa.com.au/RC_2013_10).

### **3.5. Submissions Received During the Second Submission Period**

The second submission period was held between 20 December 2013 and 14 February 2014. The timeframe for the second submission period was extended in accordance with extension notices published on 16 December 2014 and 23 January 2014 to allow for additional time over the Christmas and New Year period, and to allow stakeholders sufficient opportunity to consider the Procedure Change Proposal: Changes to Market Procedure for Certification of Reserve Capacity (PC\_2013\_06), which was submitted into the Procedure Change Process on 11 February 2014.

The IMO received submissions from Alinta Energy, Amanda Australia, Community Electricity, EnerNOC, Synergy and System Management. EnerNOC and System Management noted that they considered the proposed amendments implemented as a package, will facilitate all five of the Wholesale Market Objectives.

All submitters generally supported the principles underlying the proposed changes as representing a significant improvement over the current market design. However, a number of issues were raised and are addressed in section 3.6 of this Final Rule Change Report, including:

- Alinta Energy and Synergy raised concerns about the regulatory uncertainty introduced by the removal of the prescription of fuel requirements for the certification process.
- Alinta Energy reiterated its question regarding the appropriateness of using the IRCR (including the uplift factor) to cap a DSP's RD, instead suggesting that RD be capped at the actual consumption level of the DSP during the IRCR periods.
- Synergy raised concerns about the costs and benefits associated with DSP providers making consumption data available at the Associated Load level, primarily due to the additional complexity associated with the transfer of such high quantities of data.
- Amanda Australia noted that the cost of providing telemetry would be high resulting in smaller sites being removed from the DSP. However, it also noted that it supported the introduction of telemetry and believed the data was valuable for System Management.
- Community Electricity, EnerNOC and Amanda Australia reiterated the necessity to engage in a consultative process to develop telemetry requirements that are fit-for-purpose and not overly onerous and to ensure that the requirement does not impose prohibitive costs.

Other minor changes were suggested and are also addressed in section 3.6 of this Final Rule Change Report.

A copy of all submissions in full received during the second submission period is available on the Market Web Site: [http://www.imowa.com.au/RC\\_2013\\_10](http://www.imowa.com.au/RC_2013_10).

### **3.6. The IMO's Response to Submissions Received During the Second Submission Period**

The IMO's responses to each of the issues identified during the second submission period are presented in the table over the page.



No.	Submitter	Comment/Change Requested	IMO's Response
1.	<b>General Comments</b>		
	Alinta Energy	Alinta also maintains its view that the harmonisation of DSM and generation changes should be postponed and considered as part of the wider WEM review where a more holistic consideration of DSM in the market can be undertaken, including consideration of differential pricing and the introduction of a dynamic baseline methodology for measuring DSM's performance.	<p>The IMO notes Alinta Energy's concerns with respect to the wider review of the market recently commenced by the Government. However, the IMO considers it appropriate to continue to progress reforms that are underway to ensure that the Market Rules remain relevant.</p> <p>It should be noted that under the rule change process set out in clauses 2.4 to 2.8 of the Market Rules, the IMO must make a decision to either accept or reject a Rule Change Proposal at each stage of the process. However, the IMO does not have the discretion to cease the progress of a Rule Change Proposal once it has been submitted into the rule change process.</p>
2.	<b>Relaxation of Fuel Requirements</b>		
	Alinta Energy	Alinta continues to support the principles behind the IMO's proposal to relax the fuel supply arrangements. However, the proposed changes to the rules, when read in conjunction with the proposed amended Market Procedure for Certification of Reserve Capacity (Market Procedure), suggest that the IMO will be adopting a broader approach to considering fuel when assigning Certified Reserve Capacity by removing any reference to the peak capacity period. Alinta notes that neither the proposal nor the draft report stated any rationale for the change in principle from defining the 14 hour primary fuel requirement and 12 hour dual fuel requirement (the current "test"), making it unclear whether the IMO adequately considered the consequences of the proposed amendments.	<p>As noted by Alinta in its first submission and second submission and supported by analyses undertaken by the Lantau Group, the IMO believes that sufficient incentives exist for Facilities to be available when they are required. It should also be noted that the IMO is currently developing a Rule Change Proposal to amend the Reserve Capacity refund regime to increase the incentive to be available for all types of capacity.</p> <p>The IMO therefore considers that the relaxation of the requirement will improve efficiency by removing the unnecessarily specific fuel requirements and does not consider there to be any unintended outcomes from the proposed amendments. For example, the IMO does not consider that the removal of the fuel requirements will change the availability or reliability of generation capacity in the SWIS such that it would affect system security.</p>
	Alinta Energy	<p>The IMO has proposed a new test for certification, as contained within the proposed Market Procedure which was formally submitted during the second consultation period for the rule change. While a step in the right direction, Alinta considers that the new proposed test continues to result in regulatory uncertainty and appears at odds with the IMO's previous position of providing clear availability requirements so as to ensure facilities do not incur unnecessary costs as a result of unnecessarily onerous fuel requirements.</p> <p>[Alinta notes that concerns around providing clear availability requirements for facilities motivated clarification of 'peak</p>	<p>The IMO notes Alinta Energy and Synergy's concern with respect to the perceived regulatory uncertainty associated with the removal of the prescriptive fuel requirements for the purposes of certification.</p> <p>The IMO considers that the flexibility afforded by the changes will increase market efficiency by allowing the IMO to consider fit-for-purpose fuel arrangements. For example, a Facility that is only expected to be dispatched a small number of times per year, or for short periods may not require 12 or 14 hours of fuel on site. In these circumstances, under the proposed Amending Rules, the IMO will be able to certify that Facility on the basis of lower stores of fuel, where the applicant can demonstrate supporting supply contracts.</p>

	<p>periods' as progressed by RC_2010_14].</p> <p>Alinta requests formal confirmation that going forward the fuel requirements will be no higher than those currently prescribed (i.e. 14 hours for primary fuel and 12 hours for dual fuel).</p>	<p>It should be noted that RC_2010_14 provided additional information to remove the ambiguity caused by the term 'peak periods'. This is the same ambiguity that the IMO is trying to avoid in the proposed amended Market Procedure: Certification of Reserve Capacity.</p>
Synergy	<p>While supportive of the general principle behind the proposal, Synergy is concerned that the proposed Amending Rules and proposed amendments to the Market Procedure, when read together, introduce regulatory risk and uncertainty as to how the IMO will apply its discretion in assigning Certified Reserve Capacity. Specifically Synergy is concerned that the broad drafting of the proposed Amending Rules and proposed amendments to the Market Procedure could mean that Facilities with certain operational characteristics may be required to demonstrate fuel availability far in excess of what the current rules require i.e. 24/7 operation, 365 days of the year.</p>	<p>The IMO notes that the intent is to ensure that appropriate access to fuel has been arranged for the operational characteristics of the Facility prior to certification.</p> <p>As previously noted, the IMO considers that there are sufficient commercial incentives for a Market Participant to ensure that its Facility has enough fuel to operate when required.</p> <p>The IMO will consider further changes to the Market Procedure: Certification of Reserve Capacity following the closure of the consultation period for the Procedure Change Proposal on 11 March 2014.</p>
Alinta Energy	<p>Alinta acknowledges the difficulties faced by the IMO in clarifying that certification decisions relate to a facilities anticipated performance during peak periods – given it is difficult to define “peak periods”. However without clarifying that the test relates to peak times (or alternatively periods of low system reserve) there is a risk that in the future a much broader test may be applied, particularly for baseload generators for which the “expected operational characteristics” would potentially mean they need sufficient evidence of fuel to operate for a significant proportion of the year.</p> <p>Alinta recommends that a principle along the lines of the following is incorporated: “In assessing applications for Certification of Reserve Capacity the IMO must take into consideration whether the relevant Facility would be reasonably expected to have fuel available for periods of low system reserve during the relevant Capacity Year.”</p>	<p>The IMO notes Alinta Energy's suggested clarification applicable to the Market Procedure: Certification of Reserve Capacity. However, the IMO considers that, as with 'peak periods', the inclusion of 'low system reserve' could equally introduce ambiguity.</p> <p>The IMO will consider this issue further through the associated Procedure Change Proposal (PC_2013_06).</p>
Alinta Energy	<p>Alinta requests that the IMO outlines how it will apply the new test prescribed in the Market Procedure when assessing fuel for the purposes of certification. For example it is unclear whether the IMO will continue to be interested in whether a facility has a defined number of hours of fuel stock or rather simply that the facility has appropriate arrangements for the</p>	<p>The IMO notes that the intention of relaxing the fuel requirements as they relate to the certification process is to ensure that the circumstances of each Facility are able to be taken into consideration.</p> <p>The IMO can confirm that it intends to ensure that appropriate access to fuel has been arranged for the operational characteristics of the Facility prior to certification.</p>

		<p>supply of fuel in place.</p> <p>Alinta notes that to the extent that the test is simply that appropriate access to fuel has been arranged it may be appropriate to clarify this when prescribing the principle underpinning the IMO's assessment of fuel when making certification decisions.</p>	<p>The IMO will consider this issue further through the associated Procedure Change Proposal (PC_2013_06).</p>
	Synergy	<p>Under the proposed amendments a Market Participant has no certainty as to what it needs to provide the IMO with in its certification application, and there is a risk to participants that the IMO could apply different requirements to different participants between Capacity Years.</p> <p>[During the IMOPWG meeting], the IMO agreed to formally document that it would not require evidence of firm and non-firm fuel supplies at a more arduous level than is currently required (i.e. the 14 hours fuel requirement for primary fuels and the 12 hour requirement for alternative fuels. Synergy is supportive of this approach as it provides more certainty for participants, whilst still retaining the flexibility that this proposal is seeking to achieve.</p>	
<b>3.</b>	<b>Consumption Data for Associated Loads</b>		
	System Management	<p>While the Individual loads readings are helpful for validation purposes and to identify potential issues with load telemetry, System Management will only be integrating aggregated DSP load readings into its real time monitoring systems. In instances where individual DSP load readings do not sum to the same total as the supplied aggregated reading, System Management has no obligation to act on the information and will continue to use aggregated readings in determining a DSP's ability to be dispatched.</p>	<p>The IMO notes that System Management will only use the aggregate DSP consumption data for the purposes of dispatch. However, the IMO notes that the only additional cost is that to facilitate the transfer of the extra data to capture the consumption at the Associated Load level. The majority of the costs associated with the new telemetry requirements relate to the investment in infrastructure by Market Participants and System Management and will also be required to facilitate the capture of information at the DSP level. Therefore, the additional cost of the transfer of the Associated Load data is expected to be immaterial.</p> <p>The IMO considers that the provision of the consumption data at the Associated Load level will increase transparency and better allow the IMO to monitor compliance with the Market Rules.</p> <p>The IMO has amended clause 7.6.10 of the Market Rules to place the obligation on the DSP provider to ensure that the aggregate quantity of the DSP equals the sum of the quantity of each Associated Load. This change has been reflected in the Amending Rules (see Appendix 1 of this report).</p>
	Synergy	<p>Synergy considers that the IMO has failed to demonstrate that there is a clear favourable cost benefit for [the introduction of telemetry at the Associated Load level]. As such, Synergy again requests that the proposed new clause 2.35.3C(b) be deleted from the rule change proposal until it can be demonstrated that there is a favourable cost benefit.</p>	

4. Specifications for Telemetry		
Amanda Australia	<p>Amanda Australia has been advocating, for several years, the provision of real-time information to System Management to ensure confidence in this valuable DSM resource. We are concerned to read in their submission they do not value real-time telemetry. The cost of providing this service by Amanda Australia will be high and smaller sites may need to be removed from our DSM portfolio if the requirements are too onerous. Amanda Australia cannot accurately define the cost until the full obligations and technical specifications have been established.</p> <p>Amanda Australia offers its expertise in the development of these specifications to ensure maximum value to the SWIS of this expensive but potentially valuable management tool of visibility to demand-side capacity. This visibility must include current demand, and potential additional demand if the load is currently lower than normal but is about to increase to normal load, of the loads in the DSP portfolio.</p>	<p>The IMO notes the potential impact of the specifications for telemetry on the costs incurred by DSP providers and System Management.</p> <p>The IMO will facilitate consultation with key stakeholders to ensure that appropriate requirements, procedures and systems are in place and that the specifications are fit-for-purpose and not unduly onerous or costly.</p> <p>The IMO facilitated a workshop on 19 March 2014 for interested parties to discuss the specifications for the B2B web service to be developed by System Management, which will inform Market Participants' costs.</p> <p>The IMO considers that the development of the communications specifications will be well underway by July 2014 and that full details will be finalised and available to participants by 1 January 2015.</p>
Community Electricity	<p>We reiterate that [the communications specifications] should be fit-for-purpose and should not impose unwarranted costs. In particular, we are concerned that the data provided should actually be used by System Management and that the telemetry costs should not of themselves be a barrier to entry for small loads.</p>	
EnerNOC	<p>We cannot reliably estimate the cost of complying with the telemetry requirements before the full specification is agreed. However, we would caution that care should be taken to avoid excessive performance requirements, which would cause providers to incur significant additional costs while providing minimal additional benefit to the market. Getting these details wrong could lead to the implementation costs greatly exceeding the estimates given in the Draft Rule Change Report. To avoid this, appropriate performance requirements should be developed through a consultative process, with a view to optimising the net benefits.</p> <p>It is important that the full details of the telemetry requirements be finalised well in advance of this date. Ideally, these should</p>	

		<p>be available to participants before they are required to make commitments for the 2016/17 capacity year, on 1 July 2014, as they may affect participants' actions. If this is not possible, then sufficient details should be published before that date to allow participants to develop accurate estimates of their costs, and a full specification would then be needed by January 2015, so as to allow enough time for an orderly, cost-effective implementation.</p>	
5.	<p><b>Capping a DSP's RD at its IRCR</b></p> <p>Alinta Energy</p>	<p>While supportive of the general concept of introducing a cap on a DSP's RD to address potential gaming opportunities Alinta does not support the IMO artificially inflating the IRCR values by the amount of the relevant NTDL and TDL multipliers for the purposes of setting the cap.</p> <p>Alinta disagrees with the logic being applied by the IMO to set the cap for RD [at the IRCR]. The proposed cap will potentially bind in some circumstances and therefore set the level of the DSP's RD. For the purposes of certification the only relevant consideration is the loads actual physical capability (not its commercial liability). The IMO does not focus on ensuring the alignment of commercial outcomes for any other facility type when making certification decisions – rather the IMO's focus (quite rightly) is on ensuring the true level of capacity for the Facility is reflected by its Certified Reserve Capacity.</p> <p>Alinta considers that enabling a load to fully hedge its IRCR liability would introduce a disjoint between the treatment of DSM and generation capacity. For example, a Market Customer seeking to bilaterally cover its IRCR liabilities for a number of Temperature Dependent Loads would need to enter into an agreement with generation capacity to physically cover the uplifted IRCR level. If the generation only covered the physical level of load consumption the level of certification it would potentially receive would not be uplifted by the relevant TDL ratio. As a result the Market Customer would not be hedged for its uplifted IRCR liabilities (i.e. it would have a shortfall of Capacity Credits) and so would be subject to the Targeted Reserve Capacity Cost. Enabling a load to be able to have its CC's potentially set at the uplifted IRCR level simply so it could cover its commercial obligations is inconsistent with</p>	<p>The IMO notes the general support of the principle of a cap on RD to avoid gaming.</p> <p>The IMO agrees with Alinta that certification should be and is based on actual physical values.</p> <p>As previously noted, the RD is calculated from the median consumption of Associated Loads in the 32 Trading Intervals described in clause 4.26.2C(a) of the Market Rules. The calculation uses unadjusted meter data and does not include any adjustment by the Non-Temperature Dependent Load Ratio or Temperature Dependent Load Ratio. The IMO does not propose to change this calculation.</p> <p>The proposed amendments can only result in a reduction in a DSP's RD. This would only occur in circumstances where the Loads associated with the DSP have the ability to sell more Capacity Credits (through RD) than they buy (through IRCR). The proposed amendments would reduce the RD to the quantity of Capacity Credits that the Loads are required to buy. This will prevent a DSP provider from making a financial gain from opportunistically reducing demand to minimise its IRCR obligations and maintain its higher RD.</p> <p>The IMO considers that this treatment is consistent with that of a customer that offsets its IRCR with embedded generation. For example, a customer with a 10MW Temperature Dependent Load may have an IRCR of approximately 16MW. However, the installation of 10MW of embedded generation allows that customer to fully offset its 16MW IRCR.</p>

		<p>the treatment of generation.</p> <p>Alinta recommends that the IMO uses the actual unadjusted IRCR value in setting the cap so as to ensure that a DSP is certified at a level that reflects its physical capability.</p>	
	Amanda Energy	<p>Clearly, [capping a DSPs RD at IRCR] has been included to avoid gaming by some participants. As such Amanda Australia supports the concept but feels more analysis is required to ensure a fairer measure is found to reduce demand in the grid during an emergency event.</p>	<p>The IMO notes that, in an Emergency Operating State, clause 3.5.5 of the Market Rules allows System Management to take a range of actions, as required, to restore the SWIS to a Normal or High Risk Operating State as applicable.</p>
<b>6.</b>	<b>Information Provided in Standing Data</b>		
	Alinta Energy	<p>The changes to clause 4.10.1 will result in information on the processes for changing from one fuel to another needing to be provided during certification. Alinta considers this information is most appropriately provided as Standing Data and notes that no rationale for requiring this information at certification has been outlined.</p>	<p>The IMO agrees that where this information has already been provided in Standing Data and remains relevant, the IMO will not require it to be provided again.</p> <p>However, noting that new Facilities may not have Standing Data, or where circumstances are expected to change, this information should be made available by the Market Participant in its application for certification. This change has been reflected in the Amending Rules (see Appendix 1 of this report).</p>
	Synergy	<p>The proposed drafting of clause 4.10.1(e) includes an additional requirement for a Market Participant who has a Facility with both primary and alternative fuels to provide “the process for changing from one fuel to another”.</p> <p>This information is already required as part of a Facility’s Standing data (see (b)xi in Appendix 1 of the Market Rules). As such, it is not clear from the IMO’s proposal as to why a participant also needs to provide details of the process for changing fuels each year in its certification application.</p>	
<b>7.</b>	<b>Other Minor Issues</b>		
	Alinta Energy	<p>Clause 4.10.2 cannot be deleted entirely as proposed but rather needs to be made “blank” so as to not distort the sequence of numbering in the Market Rules.</p>	<p>The IMO notes Alinta Energy’s suggestion and has made the correction to the Amending Rules (see Appendix 1 of this report).</p>

### 3.7. Public Forums and Workshops

No public forums or workshops were held specifically in relation to the Rule Change Proposal. However, the IMO discussed aspects of the Rule Change Proposal in a range of other meetings with stakeholders.

The IMO developed the Procedure Change Proposal: Changes to Market Procedure for Certification of Reserve Capacity (PC\_2013\_06) to provide the detail in the Market Procedure to support the relaxation of the fuel requirements contained in this Rule Change Proposal. This Procedure Change Proposal was provided to the IMO Procedure Change and Development Working Group (IMOPWG) for comment prior to being formally submitted into the Procedure Change Process on 11 February 2014.

At the IMOPWG meeting, there was considerable discussion regarding how the IMO would assess whether there is sufficient fuel and certainty of fuel supply for a Facility seeking certification of a given quantity of Reserve Capacity. Some concerns were raised that the proposed amended Market Procedure: Certification of Reserve Capacity which supported the removal of the 14 hours fuel requirement from the Market Rules (in this Rule Change Proposal) was too vague and introduced uncertainty and regulatory risk. The Chair noted that there was a trade-off between certainty and flexibility and invited suggestions from IMOPWG members. A number of suggestions were proposed, however, none of them were considered to provide greater certainty to Market Participants without sacrificing flexibility or introducing further uncertainty.

A meeting was held with stakeholders from Alinta Energy, the APA Group, Bluewaters Power, ERM Power and Synergy, where concerns over the uncertainty caused by the removal of the specific fuel requirements were again raised. Suggestions similar to those raised in the IMOPWG meeting were discussed and no solution was agreed upon. Synergy and Alinta Energy noted that the regulatory uncertainty may be removed if the IMO noted in this Final Rule Change Report or the Market Procedure: Certification of Reserve Capacity that the intention was not to make the requirement more onerous.

The IMO has noted in this Final Rule Change Report that the intent is to ensure that appropriate access to fuel has been arranged for the operational characteristics of the Facility prior to certification while removing the rigidity of the current 14 hour requirement. The IMO will consider further changes to the Market Procedure: Certification of Reserve Capacity following the closure of the consultation period on 11 March 2014.

On 19 February 2014, the IMO met with representatives from the Public Utilities Office (PUO) to discuss this Rule Change Proposal. The PUO requested further information with respect to the proposed:

- deletion of clause 4.10.2 of the Market Rules and its impact of on system security and reliability;
- requirement for System Management to monitor compliance with the requirement for DSPs to provide consumption data;
- requirement for the DSP providers to provide consumption data at the Associated Load level; and
- changes to Protected Provisions and civil penalty provisions, as a result of the

## Rule Change Proposal.

The PUO requested that, in light of the discussion, the IMO provide further information in this Final Rule Change Report to support the above proposed changes. The IMO has endeavored to do this.

Through the development of this Rule Change Proposal, the IMO worked with EnerNOC, the largest DSP provider in the SWIS, to better understand the potential costs incurred by DSP providers. EnerNOC estimated the cost to be between \$350,000 and \$450,000 for each DSP provider (ie. each Market Customer with one or more DSPs). EnerNOC, in developing its estimate, along with other DSP providers in their submissions noted that the cost was difficult to determine as it was highly dependent on the telemetry specification adopted. The IMO acknowledges this and has been supportive of the development of fit-for-purpose, cost-effective requirements.

As the obligation to provide consumption data does not commence until 2016, System Management has not yet developed the proposed specifications and therefore a specific estimate of the cost to DSP providers cannot be provided in this Final Rule Change Report. The IMO will facilitate consultation with System Management and DSP providers to ensure that appropriate requirements, procedures and systems are developed in a timely manner to enable implementation by 1 October 2016. The IMO facilitated an initial workshop with key stakeholders on 19 March 2014 to discuss these matters.

## 4. The IMO's Draft Assessment

The IMO's draft assessment, against clauses 2.4.2 and 2.4.3 of the Market Rules, and analysis of the Rule Change Proposal can be viewed in the Draft Rule Change Report, available on the Market Web Site: [http://www.imowa.com.au/RC\\_2013\\_10](http://www.imowa.com.au/RC_2013_10).

## 5. The IMO's Proposed Decision

The IMO's proposed decision was to accept the Rule Change Proposal as modified following the first submission period.

The wording of the relevant Amending Rules was presented in section 7 of the Draft Rule Change Report.

The IMO made its proposed decision on the basis that the proposed Amending Rules:

- better achieve Wholesale Market Objectives (a), (c) and (e);
- are consistent with the remaining Wholesale Market Objectives;
- will improve the reliability and transparency of demand-side capacity in the market; and
- have the general support of the RCMWG and MAC members.



## 6. The IMO's Final Assessment

In preparing its Final Rule Change Report, the IMO must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules.

Clause 2.4.2 of the Market Rules outlines that the IMO “must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives”. Additionally, clause 2.4.3 of the Market Rules states, when deciding whether to make Amending Rules, the IMO must have regard to the following:

- any applicable policy direction from the Minister regarding the development of the market;
- the practicality and cost of implementing the proposal;
- the views expressed in submissions and by the MAC; and
- any technical studies that the IMO considers necessary to assist in assessing the Rule Change Proposal.

The IMO notes that there has not been any applicable policy direction from the Minister in respect of this Rule Change nor has it commissioned a technical review in respect of this Rule Change Proposal. A summary of the views expressed in submissions and by the MAC is available in section 3 of this Final Rule Change Report.

Details of the additional amendments to the proposed Amending Rules presented in the Draft Rule Change Report are presented in section 6.1 below. The IMO's assessment of the Rule Change Proposal, inclusive of the further amendments made following the first and second submission periods, is outlined in the following sub-sections.

### 6.1. Additional Amendments to the Amending Rules

Following the second submission period, the IMO has made some additional changes to the proposed Amending Rules to:

- reflect suggestions received during the second submission period;
- clarify the information contained in the Non-Balancing DMO and a Dispatch Advisory notifying the expected dispatch of a Non-Balancing Facility;
- clarify the obligations on System Management and DSP providers with respect to the collection and transfer of telemetry data; and
- re-order some clauses and incorporate a number of minor amendments to improve the overall integrity and clarity of the Amending Rules.

The changes the IMO made to the Amending Rules presented in the Draft Rule Change Report are outlined in detail in Appendix 1 of this Final Rule Change Report.

## 6.2. Assessment Against the Wholesale Market Objectives

The IMO considers that the Market Rules as a whole, if amended as presented in section 6.1, will not only be consistent with the Wholesale Market Objectives but also allow the Market Rules to better achieve Wholesale Market Objectives (a), (c) and (e).

The IMO's assessment is presented below:

*(a) To promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system.*

The key deliverable of any demand-side service is to provide an alternative to generation capacity. Through the harmonisation of supply-side and demand-side capacity, the IMO contends that the provision of capacity would be more economically efficient and provide greater reliability to the market.

The IMO considers that the requirement for DSP providers to make their level of consumption visible to System Management to assist in the timely and efficient dispatch of demand-side capacity will increase the efficiency of the dispatch process, support the utilization of demand-side capacity resources and improve the perceived reliability of the approximately 500MW or up to \$66 million<sup>7</sup> of demand-side capacity in the longer-term.

Furthermore, the IMO considers that capacity that is paid for by consumers should be available and used when required. This is essential if DSM is to be an economically efficient source of capacity in the SWIS. Having more flexibility and confidence (due to improved information) in the use of DSPs will give System Management the ability to dispatch demand-side capacity as the system requires it, without onerous restrictions.

The IMO acknowledges that this will require investment by DSP providers to install infrastructure to allow the provision of consumption data. However, the information gathered will allow System Management visibility of the availability of demand-side capacity to improve decision making, particularly in a High Risk Operating State or Emergency Operating State.

The IMO notes that System Management will only use the aggregate DSP consumption data for the purposes of dispatch. However, the IMO believes that the immaterial additional cost of data transfer for DSP providers to make the consumption data available at the Associated Load level will increase transparency and better allow the IMO to monitor DSP providers' compliance with the Market Rules.

The IMO also proposed to cap a DSP's RD at its IRCR. The IMO considers this necessary to amend a manifest error where, under the current arrangements, a DSP provider can sell more capacity than it buys. The IMO considers it inappropriate for a DSP provider, which is incapable of producing electricity, to be a net seller of Capacity Credits into the market. The capping of a DSP's RD at its IRCR will remove the opportunity for a DSP provider to game market outcomes and avoid this resulting in inefficient market outcomes.

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<sup>7</sup> This is the implied cost of the Capacity Credits associated with DSPs based on the administered Reserve Capacity Price of \$120,199 per MW per year for the 2015/16 Capacity Year and certified demand-side capacity of 550 MW. It should be noted that the actual value of Capacity Credits is determined by the prices paid for Capacity Credits under Bilateral Contracts.

The IMO therefore considers that the Rule Change Proposal overall better achieves Wholesale Market Objective (a).

*(c) To avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions.*

The current Market Rules arguably discriminate between Market Participants who provide demand-side and supply-side capacity. The key principle behind this Rule Change Proposal is to improve the harmonisation of the treatment of the capacity types in the WEM. The increase in the availability of demand-side capacity will improve the harmonisation of the treatment of the capacity provided by peaking generators and DSP providers which offer competing capacity services to the market.

The IMO also proposed to remove the prescriptive and onerous provision of information on fuel availability for the purposes of Certification of Reserve Capacity. The IMO considers that the highly prescriptive, inflexible requirements are not equally applicable to all Facility types, and in some circumstances may lead to inefficiencies resulting from arbitrary requirements in the Market Rules.

The IMO considers that this Rule Change Proposal will ensure that capacity providers in the WEM are treated equally to the extent possible and provides a basis for future reforms to further harmonise the treatment of supply-side and demand-side capacity in the WEM and therefore better achieves Wholesale Market Objective (c).

*(e) To encourage the taking of measures to manage the amount of electricity used and when it is used.*

Through changing the obligations on demand-side resources within the market the IMO intends to enable greater reliability and versatility in the use of DSPs. Through fundamental changes to the way the Non-Balancing DMO is calculated and the way Facilities are dispatched, the IMO is ensuring capacity is appropriately managed. Increasing dispatch hours and events will also give System Management more flexibility in the way in which demand-side capacity is used and when it is used.

With a greater understanding on the amount of DSM available to the market, coupled with the changes in the availability requirements of DSPs, the IMO considers that the changes in this Rule Change Proposal better achieve Wholesale Market Objective (e).

### **6.3. Practicality and Cost of Implementation**

#### **6.3.1. Cost**

The IMO has identified material costs associated with the implementation of the proposed Amending Rules. These costs are primarily related to the new requirements for telemetry for DSPs.

The IMO has investigated the potential costs for Market Customers related to the requirement for DSP providers to implement real-time telemetry. The IMO estimates that the costs are primarily fixed, one-off costs of \$350,000 to \$450,000 for building and testing new software systems for each of the eight Market Customers with a DSP. It is also expected to cost each DSP provider \$50,000 to \$100,000 per annum for ongoing monitoring and maintenance. The IMO expects that a

bureau service may emerge, providing the necessary software systems to support smaller DSP providers which will reduce these costs materially.

The requirements for data provision will not be known with certainty until the necessary web service is fully specified in changes to be included in the Power System Operation Procedure (PSOP): Communications and Control Systems and Market Procedure: IMS Interface. As such, the cost to Market Customers cannot be determined with great certainty at this stage.

System Management is expected to incur costs of approximately \$272,000 to expand its current web service and provide the necessary administration.

The IMO is also expected to incur one-off costs of approximately \$160,000 to change IMO systems to provide for the amendments to the validation for certification and methodology for Capacity Credit allocation and settlements and ensure that the necessary telemetry data can be captured and stored as necessary. These costs will be able to be met within the IMO's existing resources.

It is expected that the implementation of this Rule Change Proposal will cost \$3.2 million to \$3.6 million in up-front capital costs, with an additional \$400,000 to \$800,000 per annum to realise the benefits of approximately 550 MW of demand-side capacity costing up to \$66 million<sup>8</sup> per annum.

### **6.3.2. Practicality**

The IMO proposes to commence the proposed Amending Rules in order for them to apply for the 2014 Reserve Capacity Cycle. Rule Participants should note that the:

- changes related to certification of Reserve Capacity are proposed to commence on 1 May 2014 in time for the opening of the window for applications for Certified Reserve Capacity for the 2014 Reserve Capacity Cycle;
- changes that relate to the IRCR and RD are proposed to commence on 1 October 2014 in order to take effect in year one of the 2014 Reserve Capacity Cycle; and
- changes that impact the operation of DSPs are proposed to commence on 1 October 2016.

The IMO considers that these commencement dates will provide Rule Participants adequate time for the necessary changes to IT and operational systems and processes.

No issues were identified with the practicality of implementation of the proposed changes through the consultation process.

As this Rule Change Proposal includes amendments to clause 2.13.9 of the Market Rules which is a Protected Provision, the amendments therefore require approval by the Minister under clause 2.8.3 of the Market Rules. The IMO notes that the proposed commencement of the Amending Rules allows the Minister the required 20 Business Days. However, if the Minister request an extension to the time needed to make a decision, the commencement of the Amending Rules will need to be delayed.

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<sup>8</sup> This is the implied cost of the Capacity Credits associated with DSM based on the administered Reserve Capacity Price of \$120,199 per MW per year for the 2015/16 Capacity Year and certified demand-side capacity of 550 MW. It should be noted that the actual value of Capacity Credits is determined by the prices paid for Capacity Credits under Bilateral Contracts.

In addition, the IMO proposed amendments to clause 4.10.2 of the Market Rules which has an associated Category C civil penalty under the Regulations which will need to be deleted. The IMO has engaged with the Public Utilities Office to discuss the proposed Amending Rules in relation to this Rule Change Proposal.

### **6.3.3. Amendments to Associated Market Procedures**

The IMO notes that amendments are required to the associated Market Procedure: IMS Interface, Market Procedure: Certification of Reserve Capacity, the PSOP: Communications and Control Systems and several associated internal procedures.

## **7. The IMO's Decision**

Based on the matters set out in this report, the IMO's decision is to accept the Rule Change Proposal as modified following the first and second submission periods.

### **7.1. Reasons for the Decision**

The IMO has made its decision on the basis that:

- better achieve Wholesale Market Objectives (a), (c) and (e);
- are consistent with the remaining Wholesale Market Objectives;
- will improve the reliability and transparency of demand-side resources in the market; and
- have the general support of the RCMWG and MAC members and most submitters in the Rule Change Process.

Additional detail outlining the analysis behind the IMO decision is outlined in section 6 of this Final Rule Change Report.

## **8. Amending Rules**

### **8.1. Commencement**

The IMO proposes to stage the commencement of the Amending Rules set out in this Rule Change Proposal in order for them to apply for the 2014 Reserve Capacity Cycle as follows:

- The Amending Rules that apply for the certification of Reserve Capacity in the 2014 Reserve Capacity Cycle will provisionally commence at **8.00 AM on 1 May 2014**. This includes amendments to clauses 2.13.9, 4.5.12, 4.10.1, 4.10.2, 4.11.1, 4.11.4, 4.25.1 and 4.25.13 Appendix 3 of the Market Rules and the definition of Availability Class and the introduction of the new definitions of Availability Class 1 and Availability Class 2.
- The Amending Rules that relate to the changes to the calculation of the RD for the certification of Reserve Capacity in the 2014 Reserve Capacity Cycle will provisionally commence at **8.00 AM on 1 October 2014**. This includes the amendments to clause 4.26.2CA and Appendix 5 of the Market Rules and the introduction of the new definition of Individual Reserve Capacity Requirement Contribution. In addition, the change related to

clause 4.26.1A of the Market Rules which corrects a manifest error will also commence to allow the necessary system changes to be coordinated with the RD changes.

- The Amending Rules that apply to the operation of Facilities in the 2016/17 Capacity Year will provisionally commence at **8.00 AM on 1 October 2016**. This includes new clauses 6.12.1 and 7.5.1A and the new definitions of Off-Peak Trading Interval Rate, Peak Trading Interval Rate and amendments to clauses 2.29.9A, 4.12.2, 4.12.4, 4.12.8, 4.26.3A, 6.12.1A (renumbered), 7.5.1, 7.5.2, 7.5.3, 7.6.10, 7.7.4A, 7.7.10, 7.10.2, 7.10.4, 7.11.1, 7.11.5, 7.11.6 and 7.13.1, Appendix 1 of the Market Rules and the definitions of Dispatch Advisory and Refund Table.

## 8.2. Amending Rules

The IMO has decided to implement the following Amending Rules (~~deleted text~~, added text):

2.13.9. System Management must monitor Rule Participants for breaches of the following clauses:

...

- (h) ~~clause 4.10.2, where System Management is instructed by the IMO under clause 4.25.13~~[Blank]

...

...

2.29.9A. The IMO must not register a Demand Side Programme where the minimum notice period required for dispatch exceeds ~~two~~four hours as specified in Standing Data.

...

4.5.12. For the second and third Capacity Years of the Long Term PASA Study Horizon, the IMO must determine the following information:

- (a) ~~the forecast capacity, in MW, required for more than 24 hours per year, 48 hours per year and 72 hours per year, determined from the Availability Curve for the Capacity Year developed under clause 4.5.10;~~[Blank]
- (b) the minimum capacity required to be provided by generation Availability Class 1 capacity if Power System Security and Power System Reliability is to be maintained. This minimum capacity is to be set at a level such that if:
- i all ~~Demand Side Management~~Availability Class 2 capacity (excluding Interruptible Load used to provide Spinning Reserve to the extent that it is anticipated to provide Certified Reserve Capacity), were activated during the Capacity Year so as to minimise the peak demand during that Capacity Year; and

- ii the Planning Criterion and the criteria for evaluating Outage Plans set out in clause 3.18.11 were to be applied to the load scenario defined by clause 4.5.12(b)(i), then

it would be possible to satisfy the Planning Criterion and the criteria for evaluating Outage Plans set out in clause 3.18.11, as applied in clause 4.5.12(b)(ii), using, to the extent that the capacity is anticipated to provide Certified Reserve Capacity, the anticipated installed ~~generating~~ Availability Class 1 capacity, the anticipated Interruptible Load capacity available as Spinning Reserve and, to the extent that further ~~generation~~ Availability Class 1 capacity would be required, an appropriate mix of ~~generation~~ Availability Class 1 capacity to make up that shortfall; and

- (c) the capacity associated with ~~each~~ Availability Class 2, where this is equal to the Reserve Capacity Target for the Capacity Year less the minimum capacity required to be provided by Availability Class 1 capacity under clause 4.5.12(b):
  - i. ~~the capacity quantity associated with Availability Class 4 is the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under clause 4.5.12(b) and the quantity specified under clause 4.5.12(a) as being required for more than 24 hours per year;~~
  - ii. ~~the capacity quantity associated with Availability Class 3 is:~~
    - 1. ~~the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under clause 4.5.12(b) and the quantity specified under clause 4.5.12(a) as being required for more than 48 hours per year; less~~
    - 2. ~~the capacity quantity associated with Availability Class 4;~~
  - iii. ~~the capacity quantity associated with Availability Class 2 is:~~
    - 1. ~~the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under clause 4.5.12(b) and the quantity specified under clause 4.5.12(a) as being required for more than 72 hours per year; less~~
    - 2. ~~the sum of the capacity quantities associated with each of Availability Class 3 and Availability Class 4;~~
  - iv. ~~the capacity quantity associated with Availability Class 1 is:~~
    - 1. ~~the Reserve Capacity Target for the Capacity Year; less~~
    - 2. ~~the sum of the capacity quantities associated with each of Availability Class 2, Availability Class 3 and Availability Class 4.~~

...

4.10.1. Each Market Participant must ensure that information submitted to the IMO with an application for certification of Reserve Capacity pertains to the Reserve Capacity Cycle to which the certification relates, and is supported by documented evidence and includes, where applicable, except to the extent that it is already accurately provided in Standing Data, the following information:

...

(e) for a generation system other than an Intermittent Generator:

...

v. ~~subject to clause 4.10.2,~~ details of primary and any alternative fuels, including:

1. where the Facility has primary and alternative fuels:

i. the process for changing from one fuel to another; and

ii. the fuel or fuels which the Facility is to use in respect of the application for Certified Reserve Capacity; and

2. ~~details acceptable to the IMO and together with supporting evidence of both firm and any non-firm fuel supplies and the factors that determine restrictions on fuel availability that could prevent the Facility operating at its full capacity;~~

(f) for Interruptible Loads, Demand Side Programmes and Dispatchable Loads:

i. the Reserve Capacity the Market Participant expects to make available from each of up to ~~3~~three blocks of capacity;

ii. ~~the maximum number of hours per year the Interruptible Load, Demand Side Programme or Dispatchable Load is available to provide Reserve Capacity, where this must be at least 24 hours; [Blank]~~

iii. the maximum number of hours per day that the Interruptible Load, Demand Side Programme or Dispatchable Load is available to provide Reserve Capacity if issued a Dispatch Instruction~~called~~, where this must be:

1. ~~not less than four~~six hours; and

2. ~~not more than the maximum of the periods specified in clause 4.10.1(f)(vi);~~

iv. ~~the maximum number of times the Interruptible Load, Demand Side Programme or Dispatchable Load can be called to provide Reserve Capacity during a 12 month period, where this must be at least six times; [Blank]~~



- v. the minimum notice period required for dispatch of the ~~Interruptible Load, Demand Side Programme or Dispatchable Load~~Facility, where this must not be more than ~~4~~two hours; and
- vi. the periods when the ~~Interruptible Load, Demand Side Programme or Dispatchable Load~~Facility can be dispatched, which must include the period between ~~noon~~ 10:00 AM and 8:00 PM on all Business Days;

...

...

4.10.2. ~~For the purpose of clause 4.10.1(e)(v), an applicant may not claim that a Facility has an alternative fuel unless the Facility has on-site storage, or uninterruptible supply of that fuel, sufficient to maintain 12 hours of operation at the level of capacity specified in clause 4.10.1(e)(ii).~~[Blank]

...

4.11.1. Subject to clauses 4.11.7 and 4.11.12, the IMO must apply the following principles in assigning a quantity of Certified Reserve Capacity to a Facility for the Reserve Capacity Cycle for which an application for Certified Reserve Capacity has been submitted in accordance with clause 4.10:

- (a) subject to clause 4.11.2, the Certified Reserve Capacity for a Scheduled Generator for a Reserve Capacity Cycle must not exceed the IMO's reasonable expectation of the amount of capacity likely to be available, after netting off capacity required to serve Intermittent Loads, embedded loads and Parasitic Loads, ~~for Peak Trading Intervals on Business Days~~ in the period from:
  - i. the start of December for Reserve Capacity Cycles up to and including 2009; or
  - ii. the Trading Day starting on 1 October for Reserve Capacity Cycles from 2010 onwards,

in Year 3 of the Reserve Capacity Cycle to the end of July in Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41°C;

...

4.11.4. Subject to clause 4.11.12, when assigning Certified Reserve Capacity to an Interruptible Load, Demand Side Programme or Dispatchable Load, the IMO must ~~indicate what~~ assign an Availability Class to apply is applicable to that Certified Reserve Capacity as follows: where this Availability Class must

(a) ~~reflect the maximum number of hours per year that the capacity will be available and must not be Availability Class 1 where the IMO reasonably expects the Facility to be available to be dispatched for all Trading Intervals in a Capacity Year, allowing for Outages and any restrictions on the availability specified by the applicant under clause 4.10.1(g); or~~

(b) Availability Class 2 otherwise.

...

4.12.2. A Market Participant holding Capacity Credits must also comply with the following obligations:

(a) the Market Participant must comply with ~~the O~~utage planning obligations specified in clauses 3.18, 3.19, 3.20 and 3.21;

(b) the Market Participant must submit to tests of availability of capacity and inspections conducted in accordance with clause 4.25; and

(c) the Market Participant must comply with Reserve Capacity performance monitoring obligations in accordance with clause 4.27; and

~~(d) the Market Participant must, in relation to each Facility assigned Certified Reserve Capacity on the basis of having an alternative fuel available, maintain adequate fuel for 12 hours of operation except on any Trading Day for which the IMO has waived this requirement in response to a Planned Outage or in the event of an extended Forced Outage.~~

...

4.12.4. Subject to clause 4.12.5, where the IMO establishes the initial Reserve Capacity Obligation Quantity to apply for a Facility for a Trading Interval:

...

(c) for Interruptible Loads, Demand Side Programmes and Dispatchable Loads, except where otherwise precluded by this clause 4.12.4, the Reserve Capacity Obligation Quantity:

i. ~~will equal zero once the capacity has been dispatched under clause 7.6.1C(d) for the number of hours per year that are specified under clause 4.10.1(f)(ii);~~ [Blank]

ii. will equal zero for the remainder of a Trading Day in which the capacity has been dispatched under clause 7.6.1C(d) for the number of hours per day that are specified under clause 4.10.1(f)(iii);

- iii. ~~will equal zero once the capacity has been dispatched under clause 7.6.1C(d) for the maximum number of times per year specified under clause 4.10.1(f)(iv);[Blank]~~
- iv. must account for staffing and other restrictions on the ability of the Facility to curtail energy upon request; and
- v. will equal zero for Trading Intervals which fall outside of the periods specified in clause 4.10.1(f)(vi).

...

~~4.12.8. Where a Demand Side Programme is dispatched under clause 7.6.1C(d) to a level equal to its Reserve Capacity Obligation Quantity on two consecutive days the Reserve Capacity Obligation Quantity for the third consecutive day will be zero.~~

...

- 4.25.1. The IMO must take steps to verify, in accordance with clause 4.25.2, that each Facility providing Capacity Credits can:
- (a) in the case of a generation system, during the term the Reserve Capacity Obligations apply, operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once during each of the following periods and such level of operation during those periods must be achieved on each type of fuel ~~available to that Facility~~ notified under clause 4.10.1(e)(v):
    - i. 1 October to 31 March; and
    - ii. 1 April to 30 September; and

...

...

- ~~4.25.13. The IMO must monitor at all times the on-site fuel storage of each Scheduled Generator required to comply with clause 4.10.2. The IMO may:~~
- ~~(a) require the relevant Market Participant to submit a weekly report of the current fuel level;~~
  - ~~(b) have a representative of the IMO conduct an on-site inspection to verify the fuel storage level; and~~
  - ~~(c) instruct System Management to use its SCADA systems to monitor the fuel storage level and to report any failure of any Market Participant to comply with clause 4.10.2 to the IMO.[Blank]~~

...

4.26.1A. The IMO must calculate the Reserve Capacity Deficit refund for each Facility (“**Facility Reserve Capacity Deficit Refund**”) for each Trading Month m as the lesser of:

(a) the sum over all Trading Intervals t in Trading Month m of the product of:

...

vii. if the Facility is a Demand Side Programme:

$$\max(0, \text{RCOQ} - \max(0, (RD - \text{MinLoad})))$$

where:

~~RCOQ is the Reserve Capacity Obligation Quantity determined for the Facility under clause 4.12.4;~~

CC is the MW value of Capacity Credits for the Facility determined in accordance with clause 4.20, 4.28B or 4.28C as applicable;

RD is the Relevant Demand for the Facility determined in accordance with clause 4.26.2CA; and

MinLoad is the sum of the minimum load MW quantities provided under clause 2.29.5B(c) for the Facility’s Associated Loads; and

...

...

4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Day d in a Capacity Year is the lesser of:

(a) the median of the historical consumption quantities determined by the IMO for each of the 32 Trading Intervals identified under clause 4.26.2C(a) for the Capacity Year. The historical consumption quantity for each Trading Interval is the sum, over all the Associated Loads associated with the Demand Side Programme during Trading Day d, of the MW quantity determined by the IMO for each Associated Load and the Trading Interval under clause 4.26.2C(b)-; or

(b) the sum of Individual Reserve Capacity Requirement Contributions of the Associated Loads of the Demand Side Programme.

...

4.26.3A. The Demand Side Programme Capacity Cost Refund for Trading Month m for a Demand Side Programme is equal to the lesser of:

...

(b) the sum of:

i. the sum over all Trading Intervals t in Trading Month m of:

$$12 * \text{Monthly Reserve Capacity Price} * S / (2 * H)$$

$$\left(\frac{24}{H}\right) \times TIRR \times S$$

Where:

S is the Capacity Shortfall in MW determined in accordance with clause 4.26.2D in any Trading Interval; ~~and~~

H is the maximum number of hours per Trading Day that the Facility is available to provide Certified Reserve Capacity that the Facility was certified to be available in accordance with clause 4.10.1(f)(iii); and

TIRR is the Off-Peak Trading Interval Rate or Peak Trading Interval Rate applicable to Trading Interval t; and

- ii. ~~the Facility Reserve Capacity Deficit Refund for Trading Month m for the Facility, determined in accordance with clause 4.26.1A.~~

...

6.12.1. System Management must provide to the IMO, by 6:30 PM on the Scheduling Day, a schedule detailing all of the Dispatch Instructions that System Management issued for each Trading Interval occurring in the period 8:00 AM to 6:00 PM during the Scheduling Day for:

- (a) any Demand Side Programme; and
- (b) any Dispatchable Load.

6.12.1A.

- (a) By ~~8:00~~ 8:30 PM on the Scheduling Day (or within 40 minutes of a closing time extended in accordance with clause 6.5.1(b)) the IMO must determine the Non-Balancing Dispatch Merit Orders identified in clauses 6.12.1A(b) and 6.12.1A(c) for the Trading Day. A Non-Balancing Dispatch Merit Order:
  - i. lists the order in which the Dispatchable Loads and Demand Side Programmes of Market Participants will be issued Dispatch Instructions by System Management under clause 7.6.1C(d) to increase or decrease consumption, as applicable; and
  - ii. provides for each Facility in the list in clause 6.12.1A(a)(i) the Reserve Capacity Obligation Quantity determined in accordance with clause 4.12.4(c).
- (b) A Non-Balancing Dispatch Merit Order for a decrease in consumption relative to the quantities included in the applicable Resource Plan ~~(or the current operating level of a Facility not included in a Resource Plan) during Peak~~ for a Trading

~~Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order must:~~

- ~~i. this Non-Balancing Dispatch Merit Order must list all Demand Side Programmes and Dispatchable Loads registered by Market Participants; and~~
- ~~ii. this Non-Balancing Dispatch Merit Order must be determined by ranking the Registered Facilities referred to in clause 6.12.1A(b)(i) in increasing order of the Consumption Decrease Price for Peak Trading Intervals. as follows:~~

- ~~1. Registered Facilities with a Reserve Capacity Obligation Quantity greater than zero in that Trading Interval ranked in increasing order of the Facility's Consumption Decrease Price applicable to that Trading Interval; followed by~~
- ~~2. Registered Facilities with a Reserve Capacity Obligation Quantity of zero in that Trading Interval, ranked in increasing order of the Facility's Consumption Decrease Price applicable to that Trading Interval.~~

- ~~(c) A Non-Balancing Dispatch Merit Order for an increase in consumption relative to the quantities included in the applicable Resource Plan during Peak for a Trading Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order must:~~

- ~~i. this Non-Balancing Dispatch Merit Order must list all Dispatchable Loads registered by Market Participants; and~~
- ~~ii. this Non-Balancing Dispatch Merit Order must be determined by ranking the Registered Facilities referred to in clause 6.12.1A(c)(i) in increasing order of the Facility's Consumption Increase Price for applicable to that Peak Trading Intervals.~~

- ~~(d) A Non-Balancing Dispatch Merit Order for a decrease in consumption relative to quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a Resource Plan) during Off-Peak Trading Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order:~~

- ~~i. this Non-Balancing Dispatch Merit Order must list all Demand Side Programmes and Dispatchable Loads registered by Market Participants; and~~
- ~~ii. this Non-Balancing Dispatch Merit Order must be determined by ranking the Registered Facilities referred to in clause 6.12.1(d)(i) in increasing order of the Consumption Decrease Price for Off-Peak Trading Intervals; [Blank]~~

- (e) ~~A Non-Balancing Dispatch Merit Order for an increase in consumption relative to the quantities included in the applicable Resource Plan during Off-Peak Trading Intervals. The IMO must take into account the following principles when determining this Non-Balancing Dispatch Merit Order:~~
  - i. ~~this Non-Balancing Dispatch Merit Order must list all Dispatchable Loads registered by Market Participants; and~~
  - ii. ~~this Non-Balancing Dispatch Merit Order must be determined by ranking the Registered Facilities referred to in clause 6.12.1(e)(i) in increasing order of the Consumption Increase Price for Off-Peak Trading Intervals.~~  
[Blank]
- (f) ~~Where the prices described in Standing Data for two or more Registered Facilities are equal, then, for the purposes of determining the ranking in any Non-Balancing Dispatch Merit Order, the IMO must rank those a Registered Facilityies in decreasing order of the time since the Facility's consumption was last reduced in response to a Dispatch Instruction with a greater load registered in Standing Data in items (h)(iii) or (i)(iii) of Appendix 1 before a Registered Facility with a lesser load. In the event of a tie, the IMO will randomly assign priority to break the tie.~~

...

7.5.1. ~~The IMO must provide System Management with the Non-Balancing Dispatch Merit Orders and Fuel Declarations for a Trading Day by 8:00:30 PM on the Scheduling Day.~~

7.5.1A. The IMO must provide System Management with the Fuel Declarations for a Trading Day by 1:30 PM on the Scheduling Day.

7.5.2. ~~Upon receipt of the Non-Balancing Dispatch Merit Orders and/or Fuel Declarations for a Trading Day, System Management must within 5 minutes confirm to the IMO that it has received the Non-Balancing Dispatch Merit Orders and/or Fuel Declarations.~~

7.5.3. ~~In the event that the IMO does not receive confirmation of receipt of the Non-Balancing Dispatch Merit Orders and/or Fuel Declarations for a Trading Day from System Management within 5 minutes of submission, then the IMO must contact System Management. If System Management has not received the Non-Balancing Dispatch Merit Orders and/or Fuel Declarations, then the IMO must make alternative arrangements to communicate the information.~~

...

~~7.6.10. Where a Market Participant has Capacity Credits granted in respect of a Demand Side Programme:~~

- ~~(a) — the IMO must provide System Management with the details of the Reserve Capacity Obligations to enable System Management to dispatch the Demand Side Programme; and~~
- ~~(b) — any Dispatch Instructions issued by System Management to the Demand Side Programme under clause 7.6.1C(d) must be in accordance with those Reserve Capacity Obligations.~~

7.6.10. Where a Market Participant has Capacity Credits granted in respect of a Demand Side Programme, the Market Participant must, as close as reasonably possible to five minutes prior to the start of a Trading Interval that Market Participant must provide System Management with:

- (a) the then current consumption, in MW, of each Associated Load of the Demand Side Programme; and
- (b) the then current consumption, in MW, of the Demand Side Programme, which must equal the sum of the consumption of all Associated Loads for that Demand Side Programme provided in clause 7.6.10(a),

in the form specified in the Power System Operation Procedure in clause 2.35.4.

...

7.7.4A. When selecting Non-Balancing Facilities from the Non-Balancing Dispatch Merit Order, System Management must select them in accordance with the Power System Operation Procedure. The selection process specified in the Power System Operation Procedure must:

- (a) only discriminate between Non-Balancing Facilities based on ~~size of the capacity,~~ response time and availability; and
- (b) permit System Management to not curtail a Demand Side Programme when, due to limitations on the availability of the Demand Side Programme, such curtailment would prevent that Demand Side Programme from being available to System Management at a later time when it would have greater benefit with respect to maintaining Power System Security and Power System Reliability.

...

7.7.10. When System Management has issued a Dispatch Instruction or an Operating Instruction to a Demand Side Programme to decrease its consumption, System Management may issue a further instruction terminating the requirement for the Demand Side Programme to decrease its consumption providing that:

- ~~(a) — the further instruction is issued at least ~~four~~two hours before it is to come into effect; and~~



~~(b) the minimum period for which the Demand Side Programme is instructed to decrease its consumption is not less than two hours.~~

...

7.10.2. A Market Participant is not required to comply with clause 7.10.1 if:

- (a) such compliance would endanger the safety of any person, damage equipment or breach any applicable law;~~or~~
- (b) the Facility was physically unable to maintain the ramp rate specified in the Dispatch Instruction but:
  - i. the actual output of the Facility did not, at any time the Dispatch Instruction applied, vary from the output specified in the Dispatch Instruction by more than the applicable Tolerance Range or Facility Tolerance Range; and
  - ii. the average output over a Trading Interval of the Facility was equal to the output specified in the Dispatch Instruction;~~or~~
- (c) both of the following apply:
  - i. the Market Participant has notified System Management, in accordance with clause 3.21.4, that its Registered Facility has been affected by a Forced Outage or Consequential Outage; and
  - ii. the quantity of the Forced Outage or Consequential Outage notified is consistent with the extent to which the Market Participant did not comply with the most recently issued Dispatch Instruction, Operating Instruction or Dispatch Order applicable to its Registered Facility for the Trading Interval;~~;~~ or
- (d) a Demand Side Programme was issued a Dispatch Instruction by System Management under clause 7.6.1C when its Reserve Capacity Obligation Quantity, as determined under clause 4.12.4(c) was zero.

...

7.10.4. System Management must monitor the behaviour of Market Participants with Registered Facilities to assess whether they are complying with clause 7.10.1 in accordance with its Monitoring and Reporting Protocol, ~~except where it relates to a Demand Side Programme.~~

...

~~7.11.1. A Dispatch Advisory is a communication by System Management to Market Participants, Network Operators and the IMO that there has been, or is likely to be, an event that will~~

~~require dispatch of Facilities Out of Merit or will restrict communication between System Management and any of the Market Participants, Network Operators, or the IMO. [Blank]~~

...

7.11.5. System Management must release a Dispatch Advisory in the event of, or in anticipation of situations where:

...

- (h) System Management expects to use LFAS Facilities other than in accordance with the LFAS Merit Order under clause 7B.3.8;~~or~~
- (i) the system is in, or is expected to be in, a High Risk Operating State or an Emergency Operating State;~~or~~
- (j) System Management expects to issue a Dispatch Instruction to a Non-Balancing Facility within the next 24 hours.

7.11.6. Subject to clause 7.11.6A, a Dispatch Advisory must contain the following information:

...

- (dC) where System Management is to release a Dispatch Advisory under clause 7.11.5(j), details of the estimated quantities of Demand Side Management that are to be dispatched;

...

...

7.13.1. System Management must provide the IMO with the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:

...

- (eH) the consumption data provided to System Management by each Market Participant with a Demand Side Programme under clause 7.6.10;

...

## Glossary

...

**Availability Class:** ~~Any one of 4 classes of~~ Means the annual availability of Certified Reserve Capacity set out in clause 4.5.12(e), as either Availability Class 1 or Availability Class 2, as applicable, where each class corresponds to Reserve Capacity being available from a Facility for not more than a specified number of hours per year.

**Availability Class 1:** means the Availability Class assigned by the IMO to Certified Reserve Capacity that includes all generation capacity and the capacity associated with Demand Side Programmes that is expected to be available to be dispatched for all Trading Intervals in a Capacity Year, under clause 4.11.4(a).

**Availability Class 2:** means the Availability Class assigned by the IMO to Certified Reserve Capacity that includes the capacity associated with a Demand Side Programme that is not expected to be available to be dispatched for all Trading Intervals in a Capacity Year, under clause 4.11.4(b).

...

**Dispatch Advisory:** ~~Has the meaning given in clause 7.11.1.~~ Means a communication by System Management to Market Participants, Network Operators and the IMO that there has been, or is likely to be, an event that will require dispatch of Non-Balancing Facilities or Facilities Out of Merit, or will restrict communication between System Management and any of the Market Participants, Network Operators, or the IMO.

...

**Individual Reserve Capacity Requirement Contribution:** Means the contribution of an Associated Load to a Market Customer's Individual Reserve Capacity Requirement determined in accordance with Step 11 of Appendix 5.

...

**Off-Peak Trading Interval Rate:** means the rate determined for the applicable Off-Peak Trading Interval under the Refund Table.

...

**Peak Trading Interval Rate:** means the rate determined for the applicable Peak Trading Interval under the Refund Table.

...

**Refund Table:** The table titled "Refund Table" and set out in ~~Chapter 4~~ clause 4.26.1.

...

## Appendix 1: Standing Data

...

...

(h) for a Demand Side Programme:

...

- viii. ~~the maximum number of hours per year the Demand Side Programme can be curtailed;~~real-time telemetry capabilities;
- ix. the Trading Intervals where the Demand Side Programme can be curtailed;
- x. any restrictions on the availability of the Demand Side Programme;
- xi. the normal ramp up and ramp down rates as a function of output level, if applicable; and
- xii. emergency ramp up and ramp down rates, if applicable; ~~and~~
- xiii. ~~the maximum number of times that the Demand Side Programme can be curtailed during the term of its Capacity Credits.~~

...

## Appendix 3: Reserve Capacity Auction & Trade Methodology

...

The parameter “a” denotes the active Availability Class where “a” can have a value of {1, or 2, 3, 4}. Availability Class 1 has the highest availability requirement, followed by Availability Class 2, ~~Availability Class 3 and then Availability Class 4~~. All Certified Reserve Capacity is assigned an Availability Class. However the algorithms in this appendix allow capacity from an Availability Class with higher availability<sub>1</sub> to be used in place of capacity from an Availability Class with lower availability<sub>2</sub>. For example, a Any capacity accepted from Availability Class 1 that is in excess of the capacity requirement for Availability Class 1 will be available to meet the capacity requirement for Availability Class 2.

~~All Certified Reserve Capacity associated with Interruptible Loads, Demand Side Programmes or Dispatchable Loads is assigned an Availability Class according to the following table, where “Hours of Availability” is the maximum number of hours of availability per year specified for the relevant Facility under clause 4.10.1(f)(ii).~~

Hours of Availability	Availability Class (i.e. value of “a”)
<del><math>\geq 72</math></del>	<del>2</del>
<del><math>\geq 48</math> and <math>&lt; 72</math></del>	<del>3</del>
<del><math>\geq 24</math> and <math>&lt; 48</math></del>	<del>4</del>

~~All other Certified Reserve Capacity is automatically in Availability Class 1.~~

The following algorithm applies for both the testing of bilateral trades and for the auction. Terminology that differs in each case is

- “offers”
  - For the testing of bilateral trades the “offer” is a proposed bilateral transaction (as specified in clause 4.14.1 for each Facility or block).
  - For an auction an “offer” is a “Reserve Capacity Offer”.
- the capacity requirements of Availability Class “a”
  - For the testing of bilateral trades, for Availability Class  $a = 1$  this is the greater of zero and  $Q[a] - X[a]$  while for Availability Classes  $a = 2, 3$  or  $4$ , this is the greater of zero and  $(Q[a] - X[a] - Y[a-1])$  where  
 $Q[a]$  is the quantity associated with Availability Class “a” in clause 4.5.12(b) or clause 4.5.12(c).

...

...

Step 3: Accept offers from the set of active offers in order of

- In the case of testing bilateral schedules, decreasing availability.
- In the case of the Rreserve Capacity Auction, increasing price

...

...

- In the case of the Rreserve Capacity Auction, offers from operating facilities and committed facilities are to be accepted ahead of facilities that are not yet committed; then

...

Step 6: If  $a = 4$  then go to Step 8A otherwise increase a by 1.

...

## Appendix 5: Individual Reserve Capacity Requirements

...

STEP 11: The Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n of a Capacity Year is determined as follows:

- (a) for meter u at an existing connection point measuring Non-Temperature Dependent Load equals  $(NTDL(u) \times NTDL\_Ratio \times Total\_Ratio)$ ;
- (b) for meter v at an existing connection point measuring Temperature Dependent Load equals  $(TDL(v) \times TDL\_Ratio \times Total\_Ratio)$ ;
- (c) for meter u at a new connection point measuring Non-Temperature Dependent Load equals  $(NMNTCR(u) \times Total\_Ratio)$ ; and
- (d) for meter v at a new connection point measuring Temperature Dependent Load equals  $(NMTDCR(v) \times Total\_Ratio)$ .

## Appendix 1. Further Amendments to the Proposed Amending Rules

The IMO has made some amendments to the Amending Rules following the second submission period. These changes are as follows (~~deleted text~~, added text):

2.13.9. System Management must monitor Rule Participants for breaches of the following clauses:

...

(h) [Blank];

...

...

~~2.35.3A. System Management must develop, in the Power System Operation Procedure, a reasonable method of communication that Market Participants with Demand Side Programmes must use when communicating with System Management under the Market Rules.~~

[Note: This proposed clause is proposed to be deleted on the basis that clause 2.35.4 already includes communications and control systems required for the dispatch process.]

~~2.35.3B. Market Participants with Demand Side Programmes must:~~

~~(a) have and maintain systems to enable them to use the method of communication referred to in clause 2.35.3A; and~~

~~(b) use that method when communicating with System Management under the Market Rules.~~

[Note: This proposed clause is proposed to be deleted on the basis that clause 2.35.4 already includes communications and control systems required for the dispatch process.]

~~2.35.3C. As close as reasonably possible to five minutes prior to the start of a Trading Interval a Market Participant with a Demand Side Programme must provide System Management with the following data:~~

~~(a) the then current consumption, in MW, of the Demand Side Programme; and~~

~~(b) the then current consumption, in MW, of each Associated Load within the Demand Side Programme,~~

~~in the form specified in the Power System Operation Procedure.~~

[Note: This proposed clause is proposed to be deleted to move the obligation to the clause 7.6.10 on the basis that it refers to information to be provided for the purposes of dispatch.]

...

- 4.10.1. Each Market Participant must ensure that information submitted to the IMO with an application for certification of Reserve Capacity pertains to the Reserve Capacity Cycle to which the certification relates, is supported by documented evidence and includes, where applicable, except to the extent that it is already accurately provided in Standing Data, the following information:

[Note: The amendment to this clause addresses submissions which noted that the information is often included in Standing Data and should not need to be provided again.]

...

- (e) for a generation system other than an Intermittent Generator:

...

- v. details of primary and any alternative fuels, including:

...

2. details acceptable to the IMO (~~acting reasonably~~) and together with supporting evidence of both firm and any non-firm fuel supplies;

- (f) for Interruptible Loads, Demand Side Programmes and Dispatchable Loads:

- i. the Reserve Capacity the Market Participant expects to make available from each of up to ~~three~~ three blocks of capacity;
- ii. [Blank];
- iii. the maximum number of hours per day that the ~~Interruptible Load, Demand Side Programme or Dispatchable Load~~ Facility is available to provide Reserve Capacity if issued a Dispatch Instruction, where this must be not less than six hours;
- iv. [Blank];
- v. the minimum notice period required for dispatch of the ~~Interruptible Load, Demand Side Programme or Dispatchable Load~~ Facility, where this must not be more than two hours; and
- vi. the periods when the ~~Interruptible Load, Demand Side Programme or Dispatchable Load~~ Facility can be dispatched, which must include the period between 10:00 AM and 8:00 PM on all Business Days;



...

4.10.2. [Blank]

...

4.12.2. A Market Participant holding Capacity Credits must also comply with the following obligations:

- (a) the Market Participant must comply with the Outage planning obligations specified in clauses 3.18, 3.19, 3.20 and 3.21;

...

...

4.25.1. The IMO must take steps to verify, in accordance with clause 4.25.2, that each Facility providing Capacity Credits can:

- (a) in the case of a generation system, during the term the Reserve Capacity Obligations apply, operate at a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once during each of the following periods and such level of operation during those periods must be achieved on each type of fuel notified under clause 4.10.1(e)(v)(1)(ii):

...

...

4.25.13. [Blank]

...

4.26.1A. The IMO must calculate the Reserve Capacity Deficit refund for each Facility ("**Facility Reserve Capacity Deficit Refund**") for each Trading Month m as the lesser of:

- (a) the sum over all Trading Intervals t in Trading Month m of the product of:

...

- vii. if the Facility is a Demand Side Programme:

$$\max(0, CC - \max(0, (RD - \text{MinLoad})))$$

where:

CC is the MW value of Capacity Credits for the Facility determined in accordance with clause 4.20, 4.28B or 4.28C as applicable;

RD is the Relevant Demand for the Facility determined in accordance with clause 4.26.2CA; and

MinLoad is the sum of the minimum load MW quantities provided under clause 2.29.5B(c) for the Facility's Associated Loads; and

...

...

4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Day d in a Capacity Year is the lesser of:

...

- (b) the sum of Individual Reserve Capacity Requirement Contributions of the Associated Loads of the Demand Side Programmes.

...

4.26.3A. The Demand Side Programme Capacity Cost Refund for Trading Month m for a Demand Side Programme is equal to the lesser of:

...

- (b) the sum of:
  - i. the sum over all Trading Intervals t in Trading Month m of:

$$\left(\frac{24}{H}\right) \times TIRR \times S$$

Where:

S is the Capacity Shortfall in MW determined in accordance with clause 4.26.2D in any Trading Interval;

H is the maximum number of hours per Trading Day that the Facility is available to provide Certified Reserve Capacity in accordance with clause 4.10.1(f)(iii); and

TIRR is the Off-Peak Trading Interval Rate or Peak Trading Interval Rate applicable to Trading Interval t; and

- ii. the Facility Reserve Capacity Deficit Refund for Trading Month m for the Facility.

...

6.12.1. System Management must provide to the IMO, by 6:30 PM on the Scheduling Day, a schedule detailing all of the Dispatch Instructions that System Management issued for each Trading Interval occurring in the period 8:00 AM to 6:00 PM during the Scheduling Day for:

- (a) any Demand Side Programme; and

(b) any Dispatchable Load.

[Note: This proposed new clause is contains the obligations that were included in clause 7.13.1D on the basis that it refers to information to be provided for the purposes of dispatch.]

6.12.1A.

- (a) By 8:00 PM on the Scheduling Day (or within 40 minutes of a closing time extended in accordance with clause 6.5.1(b)) the IMO must determine the Non-Balancing Dispatch Merit Orders identified in clauses 6.12.1A(b) and 6.12.1A(c) for the Trading Day. A Non-Balancing Dispatch Merit Order:
- i. \_\_\_\_\_ lists the order in which the Dispatchable Loads and Demand Side Programmes of Market Participants will be issued Dispatch Instructions by System Management under clause 7.6.1C(d) to increase or decrease consumption, as applicable; and
  - ii. \_\_\_\_\_ provides for each Facility in the list in clause 6.12.1A(a)(i) the Reserve Capacity Obligation Quantity determined in accordance with clause 4.12.4(c).

[Note: The proposed amendment moves the provision of the RCOQ of each Facility currently contained in clause 7.6.10 to proposed clause 6.12.1A to include it in the Non-Balancing DMO.]

- (b) A Non-Balancing Dispatch Merit Order for a decrease in consumption relative to the quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a Resource Plan for a Trading Interval must:
- i. list all Demand Side Programmes and Dispatchable Loads registered by Market Participants; and
  - ii. be determined by ranking the Registered Facilities referred to in clause 6.12.1A(b)(i) as follows:  
...
- (c) A Non-Balancing Dispatch Merit Order for an increase in consumption relative to the quantities included in the applicable Resource Plan for a Trading Interval must:
- i. list all Dispatchable Loads registered by Market Participants; and
  - ii. be determined by ranking the Registered Facilities referred to in clause 6.12.1A(c)(i) in increasing order of the Facility's Consumption Increase Price applicable to that Trading Interval.

...

- (f) Where the prices described in Standing Data for two or more Registered Facilities are equal, then, for the purposes of determining the ranking in any Non-Balancing Dispatch Merit Order, the IMO must rank those Registered Facilities in decreasing order of the time since the Facility's consumption was last ~~issued with~~ reduced in response to a Dispatch Instruction. In the event of a tie, the IMO will randomly assign priority to break the tie.

...

7.5.1. The IMO must provide System Management with the Non-Balancing Dispatch Merit Orders ~~and Fuel Declarations~~ for a Trading Day by 8:00PM on the Scheduling Day.

7.5.1A. The IMO must provide System Management with the Fuel Declarations for a Trading Day by 1:30 PM on the Scheduling Day.

7.5.2. Upon receipt of the Non-Balancing Dispatch Merit Orders ~~and/or~~ Fuel Declarations for a Trading Day, System Management must within 5 minutes confirm to the IMO that it has received the Non-Balancing Dispatch Merit Orders ~~and/or~~ Fuel Declarations.

7.5.3. In the event that the IMO does not receive confirmation of receipt of the Non-Balancing Dispatch Merit Orders ~~and/or~~ Fuel Declarations for a Trading Day from System Management within 5 minutes of submission, then the IMO must contact System Management. If System Management has not received the Non-Balancing Dispatch Merit Orders ~~and/or~~ Fuel Declarations, then the IMO must make alternative arrangements to communicate the information.

[Note: The proposed amendments ensure that the fuel declarations continue to be provided to System Management at 1:30PM as they are not directly linked to the provision of the Non-Balancing DMO.]

...

~~7.6.10. Where a Market Participant has Capacity Credits granted in respect of an Interruptible Load, Demand Side Programme or Dispatchable Load the IMO must provide System Management with the details of the Reserve Capacity Obligations to enable System Management to dispatch the Facility.~~

7.6.10. Where a Market Participant has Capacity Credits granted in respect of a Demand Side Programme, as close as reasonably possible to five minutes prior to the start of a Trading Interval that Market Participant must provide System Management with:

- (a) the then current consumption, in MW, of each Associated Load within the Demand Side Programme; and

(b) the then current consumption, in MW, of the Demand Side Programme, which must equal the sum of the consumption of all Associated Loads for that Demand Side Programme provided in clause 7.6.10(a),

in the form specified in the Power System Operation Procedure in clause 2.35.4.

[Note: The proposed amendments move the obligation from the proposed new clause 2.35.3C (now proposed to be deleted) to clause 7.6.10 on the basis that it refers to information to be provided for the purposes of dispatch.]

...

7.10.2. A Market Participant is not required to comply with clause 7.10.1 if:

- (a) such compliance would endanger the safety of any person, damage equipment or breach any applicable law;~~or~~
- (b) the Facility was physically unable to maintain the ramp rate specified in the Dispatch Instruction but:
  - i. the actual output of the Facility did not, at any time the Dispatch Instruction applied, vary from the output specified in the Dispatch Instruction by more than the applicable Tolerance Range or Facility Tolerance Range; and
  - ii. the average output over a Trading Interval of the Facility was equal to the output specified in the Dispatch Instruction;~~or~~
- (c) both of the following apply:
  - i. the Market Participant has notified System Management, in accordance with clause 3.21.4, that its Registered Facility has been affected by a Forced Outage or Consequential Outage; and
  - ii. the quantity of the Forced Outage or Consequential Outage notified is consistent with the extent to which the Market Participant did not comply with the most recently issued Dispatch Instruction, Operating Instruction or Dispatch Order applicable to its Registered Facility for the Trading Interval;~~;~~ or
- (d) a Demand Side Programme was issued a Dispatch Instruction by System Management under clause 7.6.1C when its Reserve Capacity Obligation Quantity, as determined under clause 4.12.4(c) was zero.

[Note: The IMO proposed this amendment to make it explicit that a DSP provider is not in breach of the Market Rules where it fails to meet a Dispatch Instruction but has an RCOQ of zero.]

...

7.11.1. ~~A Dispatch Advisory is a communication by System Management to Market Participants, Network Operators and the IMO that there has been, or is likely to be, an event that will require the dispatch of Non-Balancing Facilities or Facilities Out of Merit, or will restrict communication between System Management and any of the Market Participants, Network Operators, or the IMO.~~[Blank]

[Note: The IMO proposed to remove this clause and amend the definition of Dispatch Advisory.]

...

7.11.6. Subject to clause 7.11.6A, a Dispatch Advisory must contain the following information:

...

(dC) where System Management is to release a Dispatch Advisory under clause 7.11.5(j), details of the estimated quantities of Demand Side Management that are to be used;

[Note: The IMO proposed to add a new subclause to require System Management to include in a Dispatch Advisory the details of the expected quantity.]

...

...

7.13.1. System Management must provide the IMO with the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:

...

(eH) the consumption data provided to System Management by each Market Participant with a Demand Side Programme under clause 7.6.10;

[Note: The proposed amendment clarifies that System Management must provide the telemetry data to the IMO]

...

~~7.13.1D. System Management must provide to the IMO, by 6:30 PM on the Scheduling Day, a schedule detailing all of the Dispatch Instructions that System Management issued for each Trading Interval occurring in the period 8:00 AM to 6:00 PM during the Scheduling Day for:~~

~~(a) any Demand Side Programme; and~~

~~(b) any Dispatchable Load.~~

[Note: The proposed amendments move the obligation from the proposed new clause 7.13.1D (now proposed to be deleted) to new clause 6.12.1 on the basis that it refers to information to be provided for the purposes of dispatch.]

## Glossary

...

**Availability Class:** Means the annual availability of Certified Reserve Capacity determined in accordance with clause 4.5.12, as either Availability Class 1 or Availability Class 2 or both as applicable.

**Availability Class 1:** means the Availability Class assigned by the IMO to Certified Reserve Capacity that includes all generation capacity and the capacity associated with Demand Side Programmes that is expected to be available to be dispatched for all Trading Intervals in a Capacity Year, under clause 4.11.4(a).

**Availability Class 2:** means the Availability Class assigned by the IMO to Certified Reserve Capacity that includes the capacity associated with a Demand Side Programme that is not expected to be available to be dispatched for all Trading Intervals in a Capacity Year, under clause 4.11.4(b).

...

**Dispatch Advisory:** ~~Has the meaning given in clause 7.11.1.~~ Means a communication by System Management to Market Participants, Network Operators and the IMO that there has been, or is likely to be, an event that will require dispatch of Non-Balancing Facilities or Facilities Out of Merit, or will restrict communication between System Management and any of the Market Participants, Network Operators, or the IMO.

[Note: The IMO proposed to remove clause 7.11.1 and amend the definition of Dispatch Advisory.]

...

**Individual Reserve Capacity Requirement Contribution:** Means the contribution of an Associated Load to a Market Customer's Individual Reserve Capacity Requirement determined in accordance with Step 11 of Appendix 5.

.....

[Note: The IMO proposed to amend the definition of Non-Balancing DMO to remove the reference to Scheduled Generators. However, this has already been amended in the Rule Change Proposal: Market Rule changes arising due to the merger of the Electricity Retail Corporation and Electricity Generation Corporation (RC\_2013\_18) which commenced on 1 January 2014. This proposed amendment has therefore been removed from this Rule Change Proposal.]

## Appendix 1: Standing Data

...

...

(h) for a Demand Side Programme:

...

viii. ~~{Blank}~~real-time telemetry capabilities:

[Note: The proposed amendment requires real-time telemetry capabilities to be included in Standing Data to ensure that it can be used as a pre-requisite for Registration]

...

## Appendix 5: Individual Reserve Capacity Requirements

...

STEP 11: The Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n of a Capacity Year is determined as follows:

...