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## Wholesale Electricity Market Rule Change Proposal Submission Form

RC\_2013\_11 Selection of 12 Peak Trading Intervals for the calculation of IRCR

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### Submitted by

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### Submission

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- Please provide your views on the proposal, including any objections or suggested revisions.**

#### ***Background***

Capacity that is procured from generators through the Reserve Capacity Mechanism (RCM) is funded by Market Customers by assigning them an Individual Reserve Capacity Requirement (IRCR) obligation. The IRCR for a Market Customer is a quantity of capacity that represents that customer's share of the total amount of capacity required for the relevant Capacity Year. The Reserve Capacity Requirement (RCR) for each Capacity Year is determined by the IMO in accordance with clauses 4.5 and 4.6 of the Market Rules.

The IRCR is determined by dividing the RCR for the relevant Capacity Year amongst Market Customers based on their relative contribution to metered output during the 12 Peak Trading Intervals during the previous summer. The calculation uses the median output from the 12 Trading Intervals selected as the "3 highest demand Trading Intervals on each of the 4 Trading Days with the highest daily demand, where demand refers to total demand, net of embedded generation, in the SWIS". The "highest daily demand" is calculated based on total sent out energy during the Trading Day.

#### ***RCMWG's deliberations***

The RCM Working Group (RCMWG) recently reviewed a number of aspects of the RCM, including how capacity costs are allocated among Market Customers (Work stream 4).

To assist in the RCMWG's deliberations on Work Stream 4, the IMO engaged Dr Richard Tooth from the Sapere Research Group to:

- Review and identify any refinements to the current calculation of the IRCR, including whether there should be an increase/decrease to the number of Trading Intervals used in the calculation or the status quo should remain; and
- Investigate whether the values for each load used in calculating the Relevant Demand (RD) for a Demand Side Programme (DSP) should be limited to the loads respective IRCR for the relevant year.

It was expressly noted that the work undertaken by Dr Tooth was limited to the calculation of the IRCR and did not extend to its timing.

The major outcomes of Dr Tooth's work were the identification that:

- There is a current misalignment between how the IRCR and RCR are determined. The current IRCR calculation uses the "highest daily consumption intervals" while the RCR is calculated using "demand during peak periods". It was purported that using in the IRCR calculation the maximum demand for each Trading Interval would more accurately reflect each Market Customers likely contribution to system peak load;
- There may be some incentives for gaming created by the current IRCR methodology. Loads may be opportunistically and unreliability reducing their consumption during peak periods to reduce the share of the RCR they are apportioned. This is not the same as a load consistently reducing their demand and peak times and therefore reducing the overall RCR. Ultimately gaming of the IRCR methodology will result in costs being inappropriately allocated to those loads that are unable to respond from those that can consistently game the system<sup>1</sup>; and
- The capacity credited to a DSP could exceed the IRCR contribution of its Associated Loads<sup>2</sup>. This creates an opportunity for gaming by an Associated Load:
  - Reducing its consumption during periods expected to be the peak used in the IRCR calculation; and
  - Subsequently, via the DSP to which they belong, request substitution of metered output values on the basis that their consumption was low during the relevant intervals due to maintenance.

It was subsequently recommended that:

- the IRCR methodology be amended to use the highest maximum demand days rather than highest consumption days;
- there should be consideration as to whether the output of Associated Loads should be adjusted for IRCR calculations when the relevant loads have been dispatched as part of a DSP; and
- there should be consideration of modifications to the load values used in the RD calculation to ensure that the modified RD values cannot exceed the Associated Load's IRCR contribution to peak load.

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<sup>1</sup> Note that analysis of the load profiles during the two most recent summers was undertaken to determine whether there was an issue with gaming occurring in the WEM. The results presented by Dr Tooth suggested that there was no pressing case for change.

<sup>2</sup> Note that these gaming issues were originally identified by the IMO in RC\_2010\_29 and highlighted by the Lantau's Group's 2011 review of the RCM.

No other specific changes to the current IRCR methodology were recommended.

During its September 2012 meeting, the RCMWG members agreed generally that the IRCR calculation should be amended to use the highest peak demand rather than highest daily consumption. Concerns that alternative methodologies had not been considered were noted.

Following the presentation of further analysis, at the November 2012 meeting RCMWG members agreed to the principle that “what was not bought cannot be sold, in the context of the RD and IRCR calculations”.

### ***Proposed changes***

Following the RCMWG’s deliberations, the IMO proposes to amend the IRCR formula (Appendix 5) to select the 12 peak Trading Intervals from the 4 Trading Days in the previous Hot Season with the highest maximum demand, rather than the 4 Trading Days in the previous Hot Season with the highest daily consumption.

A further minor amendment is also proposed to Appendix 5 to clarify that the demand in a Trading Interval is measured as the sum of the Sent Out Metered Schedules of all Scheduled Generators and Non-Scheduled Generators in that Trading Interval.

The IMO has not at this time put forward any proposed changes to the RD methodology to remove the current gaming opportunities between RD and IRCR.

### ***Alinta’s views***

Due to the restrictions on the scope of work undertaken as Work Stream 4 Alinta is concerned that the market has missed an opportunity to investigate alternative methodologies to allocate capacity costs that would enable a more timely and accurate calculation to be undertaken.

While the Dr Tooth’s review determined that the current methodology appears to fairly and equitably distribute capacity costs it did not investigate whether alternative methodologies may achieve these objectives and at the same time enable a more timely calculation to be undertaken. Timely identification of the share of capacity costs that will be allocated to a load would enable a signal for behavioural changes. Currently the Trading Intervals that will be used for the IRCR calculations are not known until significantly after a peak event which means that the market is not able to effectively react.

Alinta is also concerned that the market has missed an opportunity to implement a methodology that will be resilient to “gaming” opportunities moving forward. While to date there is no evidence of gaming activities having occurred, it would be an inequality (and inconsistency with the Market Objectives) if rather than legitimately reducing the overall peak demand requirement some loads simply are able to shift their costs to others who are unable to respond.

In its 2012 report on the effectiveness of the WEM the ERA recommended that the PUO undertake a comprehensive, holistic, review of the current design of the RCM. In response to the ERA’s report, the Minister for Energy announced on 15 June 2013 that the ERA’s

findings and recommendations would provide useful input into the recently announced broader review of the WEM design and arrangements.

In light of the above, Alinta suggests the IMO defer the further progression of all work stream's from the RCMWG until such time as there is greater clarity of the terms of reference for the broader review of the WEM design, and in particular the review of the RCM, given the potential for significant overlap.