Wholesale Electricity Market
Rule Change Submission Form

RC_2013_20 Changes to the Reserve Capacity Price and dynamic Reserve Capacity refund regime

Submitted by

Name:	Fiona Edmonds
Phone:	08 9486 3009
Fax:	08 9226 4688
Email:	fiona.edmonds@alintaenergy.com.au
Organisation:	Alinta Energy
Address:	Level 13, 1 William Street, Perth WA 6000 Australia
Date submitted:	30 April 2014

Submission

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

Background

In 2011 the IMO Board engaged The Lantau Group to conduct a comprehensive review of the design and performance of the Reserve Capacity Mechanism (RCM). The review concluded that while the RCM had promoted capacity development and reliability in the Wholesale Electricity Market (WEM), refinements were required to improve its responsiveness to changing market conditions.

To consider those issues raised, and recommendations made, by The Lantau Group, the IMO constituted the RCM Working Group (RCMWG) in early 2012.

RCMWG's deliberations

The RCMWG explored the following four major work streams relating to the WEM Rules:

- Adjustments to the Reserve Capacity Price (RCP);
- The obligations of Demand Side Programmes and the harmonisation with supply-side capacity resources (*being progressed via RC_2013_10*);
- A dynamic Reserve Capacity refund regime; and
- The calculation of Individual Reserve Capacity Requirements (*progressed via RC_2013_11*).

Discussions with respect to the RCP focussed on the perceived issues associated with the lack of responsiveness of the existing RCP formula to changing market conditions. This was considered to lead to inefficient signals for investment in the WEM.

Likewise, those discussions with respect to the existing framework for determining capacity refunds focussed on the current lack of alignment between the refund values and actual market conditions. This was considered to lead to inappropriate incentives to capacity providers to present capacity to the market during times of greatest need.

The Lantau Group was engaged by the IMO to recommend solutions to these two particular issues. As the RCP and refund regime signal the attractiveness of investment in the WEM, the IMO determined to progress the recommendations from these two streams of work as a comprehensive package so as to avoid any unintentional perverse outcomes.

Proposed changes

Based on The Lantau Group's recommendations, the IMO proposes the following suite of changes relating to the RCP and refund regime:

Capacity Price

- Adjust the RCP formula (Issue 1) as follows:
    - Enable the RCP to move to 110% of the Maximum RCP (MRCP) when 97% of the Reserve Capacity Requirement (RCR) has been fulfilled; and
    - Steepen the slope function embedded in the excess capacity adjustment to -3.75 (currently -1) to enable the rate of downward adjustment to accelerate as excess capacity rises;
- Adjust the ceiling price in auction to 110% of MRCP (Issue 2);
- Rename the MRCP to Benchmark RCP to better reflect the fact that the MRCP signals the expected rather than maximum price for providing capacity (Issue 3);

Capacity refund regime

- Adjust the refund table such that the refund factor in a Trading Interval is calculated using a formula and equal to the lesser of:
    - Six; and
    - The greater of the dynamic refund factor (calculated based on spared capacity) and floor refund factor (calculated based on available capacity for dispatch which is based on the capacity for the Facility that was on Forced Outage during the previous 90-day rolling period).
- Replace the concept of off-peak and peak trading interval rates (currently reflected in the refund table) with the concept of an Interval Refund Rate (determined as the product of the applicable refund factor in the relevant Trading Interval and applicable Monthly RCP);
- Align the magnitude of refunds for generators and DSM;
- Recycle capacity refunds to generators rather than customers based on their eligibility (i.e. that they have generated a non-zero MW value in any one Trading Interval during the previous 30-day period).

Alinta's views during second consultation period

Alinta continues to not consider it desirable at this time to progress changes to the RCP formula or to introduce dynamic capacity refunds despite the material presented in the IMO's draft report. In particular Alinta does not support:

- The proposed amendments to the RCP formula as they will introduce significant potential pricing volatility and investment uncertainty for any capacity that is not bilaterally contracted[1]. This is particularly the case given the lack of price floor and could ultimately limit the ability to attract investment in power generation within the WEM; and
- The proposed dynamic refund mechanism as it will result in:
  - further uncertainty for participants with respect to their refund exposure at any specific time which will potentially result in increases to bilateral energy prices;
  - changes to the incentives for providing energy at various times of the year as a result of the dynamic nature of the proposed mechanism changing the potential financial exposure of generators to capacity refunds; and
  - potential inefficiencies being introduced with respect to facility outages as a consequence of the incentives for providing energy at various times of the year changing.

However rather than simply reiterating the contents of its first round submission Alinta has just provided additional commentary on some of its original concerns and to respond to some of the points raised by the IMO in its report. We encourage you to read this submission in conjunction with our previous submission of 24 February 2014.

Electricity Market Review

The State Government is currently undertaking a review of the design and functions of the WEM which includes a review of a design of the capacity mechanism. It is preferable that issues such as the responsiveness of the capacity mechanism to market conditions are considered as part of this more holistic review of the market design. This will ensure that significant changes in the direction that the market is developing towards are not made in quick succession given the associated implementation costs and investment uncertainty this would create. On this basis Alinta recommends that the progression of this rule change should be deferred until after the findings of the State Governments review are published.

While the IMO cannot cease the rule change process it can reject the proposal and progress it at a later time once the outcomes of the review are available. Alternatively the IMO could extend the timeframe for making its final decision out to allow time for the review to be completed and a clear outline of the future direction of the market to be available. Alinta suggests that the IMO further investigates these options to determine an approach which can ensure that:

- the reviews findings can be appropriately taken into account so as to avoid changes in quick succession thereby reducing investor uncertainty; and

[1] Alinta acknowledges that the design of the capacity mechanism is based on the assumption that the majority of capacity is bilaterally contracted

- uncertainty as to how the RCP will be determined in future years is not unnecessarily created i.e. this may necessitate rejecting the changes at this time rather than leaving the proposal awaiting the IMO's final decision for a number of years.

Incorporation of a Price Floor into RCP formula

Alinta continues to not support the progression of the proposed changes to the RCP formula. However if the IMO determines to continue to progress the proposed changes a price floor should be incorporated into the formula. This will ensure symmetry with the inclusion of a price ceiling and provide greater certainty to investors as to the minimum price their investment may receive from Capacity Credits if traded through the IMO.

Price ceilings are a widely recognised option to limit the risk that a price exceeds acceptable levels; thereby providing greater cost certainty. The mirror instrument is a price floor which ensures a minimum price is received. Fundamentally the introduction of a price floor and ceiling within a market is intended to truncate the possible range of prices and hence reduce price volatility. Investment certainty is an important consideration in any market which may warrant the introduction of a price floor. Alinta considers that this is particularly relevant to investment in power generation assets which involve long-term investment horizons.

The introduction of a price floor could be argued to potentially result in surpluses of capacity occurring in the WEM due to the distortionary impacts of price controls in allocating resources. Likewise the introduction of a price ceiling could be argued to potentially result in shortages of capacity occurring. Nonetheless the IMO's draft decision suggests it is reasonable and appropriate to put a ceiling on the RCP. Alinta assumes this is the case because should a shortage of capacity occur there is already a mechanism provided under the rules for procuring additional capacity, aka Supplementary Reserve Capacity. Alinta however does not consider that the rationale for not including a price floor has been sufficiently investigated.

To avoid excess capacity occurring in the WEM any price floor would need to be set so as to discourage the introduction of the market's cheapest form of capacity. In the WEM, Demand Side Management (DSM) would likely be the lowest fixed cost capacity to enter the market and so the floor would need to be set so as to discourage the entry of DSM. Using this rationale as the basis to set a price floor would result in a low value being adopted (potentially close to zero). Setting the price floor at this low level though would not however provide any form of investment certainty for capacity developers. A trade-off against allocative efficiency would need to be made to provide greater investment certainty in the WEM.

Attracting investment from private-sector participants that are of a scale and capitalisation sufficient to facilitate long-term stability and investment is one the stated objectives of the current Electricity Market Review[2]. Likewise the concept of providing investment certainty is embodied within Market Objective (b), i.e. investment certainty would be required to facilitate the entry of new competitors. Consistent with these objectives providing greater investment certainty should be a key consideration in making the IMO's determination with respect to

[2] To the extent that there is any uncertainty as to whether this stated objective of the Electricity Market Review has any relevance in considering the current Rule Change Proposals being progressed Alinta recommends that the Public Utilities Offices advice on this matter should be requested.

this proposal. On this basis Alinta requests that the IMO incorporates an appropriate price floor into the RCP formula that will provide greater investment certainty.

As an aside the introduction of a capacity price floor would be consistent with the arrangements that are currently in place in PJM, NYISO and ISO-NE. Alinta however acknowledges that the arrangements in these capacity markets were initiated due to market power concerns with respect to net buyers offering their generation at low prices so as to influence auction outcomes[3]. It is unclear whether it would be necessary to introduce a capacity price floor into the auction process at this time, particularly given it may result in lower cost technologies not clearing in the auction and therefore missing out on a capacity payment, and, in some cases it may not be counted towards satisfying the relevant retailer's capacity obligation. Alinta suggests that this is not an important consideration at this time given the lack of auctions that have been held since the markets inception.

Uncertainty created by Dynamic Reserve Capacity refund factors

Alinta continues to not support the introduction of dynamic refund mechanism on the basis that it creates greater uncertainty as to the refund rate that will apply at any time. In particular under the dynamic refund mechanism it is not possible to be 100% certain of the amount of spare capacity in the market in advance and so this will mean that there will be a level of uncertainty as to the exact financial exposure of a generator to refunds in any one trading interval.

It is important that in making its decision as to whether to introduce a dynamic refund mechanism that the IMO is fully aware of the potential implications of the proposed changes in a broader sense. Introducing greater uncertainty into the Market Rules will not come without cost. Some of these costs may however not be immediately obvious as they will not be demonstrated within the STEM and Balancing markets. The real impact of the uncertainty associated with the proposed changes will likely play out within the bilateral market where it is possible that the uncertainty will drive generators to apply a higher risk premium when pricing so as to account for the worst case financial exposure of the generator to refunds.

There will also be other potential implications associated with the proposed changes which the IMO should be aware of in making its decision. For example when a generator experiences a Forced Outage it will likely undertake a cost-benefit assessment so as to identify what approach should be adopted to rectify the issue and get the plant back online. If the refund rate is low the generator may determine to undertake a more permanent fix, whereas if the refund rate is high they are likely to simply complete a quick fix to reduce the magnitude of the refunds they will need to make. Under a dynamic refund mechanism the exact financial exposure of the generator to refunds will be largely unknown and so it is likely that they will need to assume the full level of exposure. This may result in more quick fixes to facilities occurring so as to reduce their immediate exposure to refunds. This may in the long-run be to the detriment of system security.

Recycling of Capacity Cost Refund Revenue

As noted previously Alinta remains generally supportive of the IMO's proposal to recycle capacity refunds to available generators. However Alinta considers that the IMO has not

[3] http://www.ferc.gov/CalendarFiles/20130826142258-Staff%20Paper.pdf

identified all of the potential inefficiencies that could be created by requiring a facility to have generated electricity during any one Trading Interval in the past 30-day period

The proposed new "eligibility criteria" for generators to receive capacity refunds will create an incentive for some peaking generation to run at non-peak times so as to be entitled to refunds. As noted previously this will be a commercial decision for generators based on whether they consider the likely capacity refund income will be greater than the costs that they incur in ensuring a non-zero level of generation occur during the relevant time period.

This behaviour will have implications for the mix of generation running in the WEM during any relevant Trading Intervals. While as the IMO illustrates there may be a downward pricing impact from peaking generation bidding into the market at low prices to ensure they are dispatched (and therefore satisfy the eligibility criteria for the rebate pool) this behaviour will not be without broader consequences.

Bidding a generator at a level below its cost stack simply to be dispatched and meet the eligibility criteria is not necessarily a good use of resources from a broader economic perspective as those factors of production used for generating electricity (i.e. fuel supply) have alternative uses in many cases. Bidding a generator below cost will also potentially result in naturally cheaper facilities being displaced in the economic merit order.

The WEM design should not create perverse incentives for behaviour that will distort the normal economic allocation of resources without having good reason for doing so. In this case truly least cost resources may not be used to meet the WEM's energy requirements in some trading intervals and it's unclear that this distortion is warranted. While the behavioural implications will overlap with those currently created by the capacity testing regime (i.e. there are already incentives to bid in a similar manner so as to allow self-testing for capacity purposes) this will be a potentially more frequent behaviour.

To date the IMO's consideration of this issue has simply focused on the impact on energy market prices rather than taking a broader consideration of the impacts on resource allocation and whether the distortionary impacts are indeed warranted. While this might be appropriate given the specific rule making test that is required to be applied by the IMO, Alinta suggests it is prudent that the IMO also identifies and considers the broader implications of its regulatory changes.

Cost-Benefit Assessment

The costs of approximately $285,000 - $440,000 for implementation of the proposed changes are significant and any associated benefits may only accrue over a short period of time (or potentially not at all) depending on the outcomes of the Electricity Market Review and given the recent Ministerial direction with respect to the 2014 Reserve Capacity Cycle. As raised at the March 2014 Market Advisory Committee meeting the IMO needs to demonstrate that the benefits to the market associated with the proposed changes over the potentially short time period during which they may apply will outweigh the estimated costs of implementation. Alinta requests that the IMO completes this detailed cost-benefit assessment and presents it to industry for consultation prior to making its final decision.

If you require any further clarification of the matters raised in this submission please directly contact Fiona Edmonds, Wholesale Regulation Manager.