Wholesale Electricity Market
Rule Change Proposal Submission Form

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

Submitted by

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Submission

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

Background

A key objective for the Wholesale Electricity Market (WEM) is to ensure that electricity and electricity related services are provided reliably and economically. The provision of capacity in Western Australia is achieved through the Reserve Capacity Mechanism (RCM) - a set of processes through which the IMO determines the amount of generation and Demand Side Management capacity required to meet future demand and reliability requirements.

The RCM is a price based mechanism whereby the number of potential Capacity Credits is not fixed. Price based markets use administered price curves where the price adjusts formulaically as the amount of "excess" capacity varies in order to send signals to the market to "start" or "stop" investment as appropriate[1].

[1] In comparison, quantity based mechanisms use administered demand curves and rely on auctions involving forward price discovery.

As such, there can be too many or too few Capacity Credits assigned – when either occurs the Reserve Capacity Price must adjust accordingly to signal whether more or less capacity is required. Therefore, the basis and extent of any price adjustments are key. If the Reserve Capacity Price stays above the cost of new entry (even where there is sufficient capacity) then investors may build additional capacity that is not needed, and customers will be required to pay for that additional capacity and receive virtually no benefit.

The challenge with either type of market (price based or quantity based) is sending the right signal to the new investor without significantly impacting on current market participants.

The WEM has experienced increasing excess capacity for a number of years due to a range of both external (demand growth rate variation) and internal (policy-driven) events. The events include the Global Financial Crisis and subsequent economic slowdown - including the deferral of several large loads, mandatory renewables, Demand Side Programmes, a 46.6% increase in the Maximum Reserve Capacity Price across two years[2], the Vesting Contract/Replacement Vesting Contract and uptake of rooftop solar PVs.

In 2011 the IMO commissioned The Lantau Group to undertake a review of the RCM. The RCM review considered a wide range of issues but primarily focussed on fixing the issues while not creating winners and losers. In doing so, the review looked to enhance market responsiveness of key RCM mechanisms in order for the market to self-correct appropriately.

In considering the results of The Lantau Group's review the IMO Board concluded that the RCM had promoted capacity development and supply reliability in the WEM, but that refinement was needed to improve its responsiveness to changing market conditions. As such, the IMO Board requested that The Lantau Group prepare a paper[3] outlining the key areas identified for further review by the Market Advisory Committee (MAC).

The MAC then formed the RCM Working Group (RCMWG) to consider, assess and develop changes to the Market Rules associated with the issues and recommendations made by The Lantau Group in its report. The RCMWG focussed on four work streams:

- Reserve Capacity Price (RCP);
- Harmonisation of Demand Side and Supply Side Resources;
- Reserve Capacity Refunds; and
- Individual Reserve Capacity Requirement.

[2] The Maximum Reserve Capacity Price increased from $164,100 in 2011/12 to $240,600 in 2013/14 which was associated with excess capacity spiking to 14.6% in that year compared with just 5.8% two years earlier.
[3] See: Review of RCM: Issues and Recommendations. Available on the IMO's website: http://www.imowa.com.au/docs/default-source/Governance/Market-Advisory-Committee/MAC-Working-Groups/09-_agenda_item_8_lantau_report.pdf?sfvrsn=2

The outcomes from the RCMWG's deliberations were presented to the MAC at its 20 March 2013 meeting[4]. Due to the interrelated nature of the RCP and Reserve Capacity Refunds streams, these recommendations were presented as one package.

Summary of this proposal

The IMO has proposed the following amendments:

RCP formula:

- RCP to move above the Maximum Reserve Capacity Price (MRCP) as capacity supply and demand approach balance (such that the RCP is 110 percent of the MRCP when 97 percent of the Reserve Capacity Requirement has been fulfilled);
- Slope of the RCP formula to be increased to -3.75 (from the current -1 slope) so that the rate of downward adjustment is accelerated as excess capacity increases; and
- Rename the 'Maximum' RCP to the 'Benchmark' RCP.

Reserve Capacity Refund regime:

- A dynamic Reserve Capacity refund regime to be implemented, where the refund factor is determined from the capacity margin available in each Trading Interval;
- Refund revenue to be recycled to eligible available capacity in the form of rebates; and
- Eligibility for rebates is proposed to be based on an assessment of actual dispatch of a Facility in the previous 30-day rolling period.

Synergy's[5] views on the Rule Change Proposal

While Synergy has been concerned about the excess capacity prevalent in the WEM over the past few years, it considers that this Rule Change Proposal should be deferred until the outcomes of the State Government's holistic review (WEM Review) of the design and functions of the WEM are published.

Synergy understands that the role and functioning of the RCM will form a significant part of the WEM Review, and as such, Synergy considers that it is inappropriate to continue with this proposal in the face of further significant review.

[4] See the combined MAC meeting papers: 20 March 2013 meeting. Available on the IMO's website: http://imowa.com.au/docs/default-source/Governance/Market-Advisory-Committee/combined_papers_mac_meeting_58_complete_set.pdf?sfvrsn=2

[5] Effective from 1 January 2014, the Electricity Generation Corporation trading as Verve Energy changed its name to Electricity Generation and Retail Corporation trading as Synergy. This name change was instituted to reflect the merger of Verve Energy and the Electricity Retail Corporation trading as Synergy as detailed in the Electricity Corporations Amendment Bill 2013 (WA) (passed by the parliament of Western Australia on 12 December 2013 and received Royal Assent on 18 December 2013).

Synergy notes that the RCM is a complex administrative mechanism and changing too many aspects of such a mechanism, or changing the aspects too frequently creates significant regulatory uncertainty and risk. As such, Synergy suggests that the prudent approach of deferring this work would be the most appropriate outcome under the current circumstances.

However, should the IMO continue with this proposal, Synergy's general comments on the proposed amendments are below.

Amendments to the RCP formula

As outlined above, the RCM is a price based mechanism whereby the number of potential Capacity Credits is not fixed. Price based markets use administered price curves where the price adjusts formulaically as the amount of "excess" capacity varies in order to send signals to the market to "start" or "stop" investment as appropriate. Therefore, the basis and extent of any price adjustments are key. Despite including an excess capacity adjustment the WEM has experienced increasing excess capacity for a number of years, indicating in part that the form of the price adjustment has not functioned as initially intended.

Synergy recognises that this proposal seeks to make the RCP more responsive to the capacity balance – a concept that Synergy supports in principle.

However, with greater responsiveness comes greater volatility (an unavoidable result of using price to ration supply). Due to this increased volatility risk Synergy considers that the IMO should also consider a price floor in order to limit the extent to which the administered capacity price can be adjusted downward.

The specific level for the floor should be consulted on, but a level of 70% of the MRCP should balance the objective of achieving a low enough price to ensure there is no residual investment signal while recognising the importance of a stable and predictable long-term investment environment.

Dynamic Reserve Capacity Refund Regime

Currently Market Generators are liable for Reserve Capacity Deficit Refunds for Forced Outages. These refunds are based on a time based schedule of multipliers with up to 6 times maximum applying during peak Business Days in February and March and a minimum of 0.25 times during off-peak non-Business Days in April to November. The refund factors are weighted to when high demand is more likely and spare capacity may be low. However, while providing certainty of what refund factor applies when, the current refund regime does not generally align with the time periods of greatest system need.

While administratively more difficult to plan or budget for, on balance Synergy supports the IMO's dynamic refund multiplier proposal on the basis that basing the refund multipliers on the reserve margin better signals when capacity is scarce. As such, the proposal should incentivise generators to be available (e.g. defer maintenance if possible and accelerate return from forced outage). Specifically, Synergy considers that it is unreasonable that on a mild February day, with substantial available capacity, that generators should face a 6 times refund multiplier if a Forced Outage occurs.

Interaction of this proposal with RC_2013_09

While supportive of the proposal, Synergy is concerned about the interaction of this dynamic refunds proposal and RC_2013_09: Availability Incentives of Scheduled Generators (both of which provide incentives for generators to maximise their availability).

Synergy considers that the dynamic Reserve Capacity refund regime leads to additional, undue, risk for Market Generators which have Facilities above the refund exempt Planned Outage cap who make a decision to undertake further Planned Outages.

As part of RC_2013_09: Availability Incentives of Scheduled Generators the IMO has quite rightly recognised that a rational Market Participant would not risk the high costs of plant failure by failing to undertake necessary maintenance, even where a Facility has reached the proposed cap on refund exempt Planned Outages. A rational Market Participant would appropriately schedule this additional maintenance for a time when there is sufficient margin available to ensure system security can be maintained.

However, under the proposed dynamic Reserve Capacity refund regime, the Market Participant – despite having scheduled its maintenance at an appropriate time - may now be exposed to a far higher refund factor resulting from unforeseen supply interruptions. Synergy considers that this is not the correct outcome for the Market Participant who has acted appropriately by scheduling its maintenance at a time that was deemed suitable for the market (via its approval from System Management).

The IMO has noted that the proposed dynamic Reserve Capacity refund regime is "expected to strengthen the incentives for maximising the availability of capacity in the energy market through **efficient scheduling of maintenance**…and reducing the risk of price spikes in the event of **unforeseen supply interruptions**[6]**"**. The Market Participant that schedules its maintenance appropriately (i.e. a planned supply interruption), and has the necessary approval to undertake that maintenance at that time, should not be penalised at a higher rate due to other **unforeseen** supply interruptions. Synergy can accept that there will be a penalty for taking Planned Outages over the proposed cap, but it cannot accept that this penalty be applied anywhere from a 0.25 refund factor to a maximum of 6 refund factor. Synergy considers that it is unreasonable to expose a Facility on an approved Planned Outage, albeit that it has exceeded its Refund Exempt Planned Outage, to potentially punitive penalties because of unforeseen Forced Outages.

Recycling Refunds to Generators

While Synergy supports the adoption of dynamic refund multipliers[7] Synergy does not support the recycling of refunds to generators. On balance, Synergy considers that the proposal to recycle refunds to generators will not generally lead to a change in the

[6] Page 2 of the IMO's Rule Change Notice for RC_2013_20: Changes to the Reserve Capacity Price and the dynamic Reserve Capacity refund regime.
[7] Subject to Synergy's concerns around the interaction of this Rule Change Proposal and RC_2013_09.

availabilities for either energy or peaking generators and is in fact an unjustified increase in costs transferred to tax payers. Synergy's reasons for this view are outlined below.

Refunds incentivise generators to be available

The current capacity credit structure is balanced: in return for the right to receive capacity payments from the market, generators must make their capacity available to the market. Where generators fail to keep their part of the bargain, they must make a refund i.e. they must compensate the market for not providing the contracted service. The prospect of refunds provides sufficient incentive for a generator on a forced outage to return to service.

The IMO's proposal, to recycle refunds to generators, means generators not on forced outages will get paid twice for delivering the contracted service. Synergy considers that this "unbalances" the Capacity Credit structure by transferring value from retailers to generators for questionable improvements in overall system reliability.

Energy producing generators already minimise forced outages

Generators with bilateral energy contracts are exposed to price risk when they suffer Forced Outages. This is because their bilateral energy commitments to retailers will be supplied from the market at prevailing prices. This acts a strong incentive for such generators to minimise Forced Outages.

It is therefore open to question whether the possibility of receiving refunds (from other generators experiencing forced outages) will change the way energy producing generators respond to forced outages.

Peaking generators unlikely to change behaviour

Typically, peaking generators sell their capacity to the IMO so unwinding existing bilateral contracts to reallocate capacity refund risk would not arise. Such generators have high short run marginal cost and are infrequently dispatched. Peakers can perform necessary maintenance when the reserve margin is high and therefore be ready to dispatch when the system is under stress. This practice ensures that they are available when needed and minimises their exposure to capacity refunds. Reallocating refunds to peaking generators is unlikely to result in any decrease in their Forced Outages and so will similarly not improve system reliability to the benefit of electricity users.