Wholesale Electricity Market
Rule Change Proposal Submission Form

RC_2012_10: Limits to early entry capacity payments

Submitted by

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Submission

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

Background

Since the WEM's inception, new facilities have been allowed a four month window in which to be commissioned. Initially this window was from 1 August to 30 November. RC_2009_11 moved the window forwards, so that it is now 1 June to 30 September.

Facilities are only required to arrive by the end of the window, but are incentivised, through being able to earn Reserve Capacity payments, to aim to arrive at the beginning of the window. This reduces the risk that they would arrive late, should things not go to plan.

The purpose of this window was discussed extensively during the consultation over RC_2009_11. Synergy, the proponent of the current rule change proposal, in its submission on RC_2009_11, described it as follows:

> *The problem in not encouraging early arrival is that late arrival of facilities can result in the IMO having to call a Supplementary Reserve Capacity (SRC) auction. Therefore having an incentive for early arrival is important and is the reason Synergy would avoid recommending no payment or reduced payment to facilities arriving earlier than 1 October.*[1]

Similar sentiments were echoed by the IMO in the RC_2009_11 Final Rule Change Report:

> *Developers taking risk around project completion timeframes can place the whole power system at risk if the capacity is not delivered on time.*[2]

It is important to note that the original argument for making Reserve Capacity payments to facilities entering early was to reduce the risk of late arrival of new facilities. Neither "post-commissioning reliability problems" nor "post commissioning remedial work", the issues highlighted in the current rule change proposal, were considered as reasons for advancing the early entry window. EnerNOC's comments will therefore focus on the original reasoning, the risk of late arrival.

In principle, the penalties associated with arriving late should incentivise developers to ensure their new facilities arrive on time. However, as discussed by Marchment Hill Consulting, one reason for paying for what they call "Early Certified Capacity" is that "*the risk to the market of late commissioning could be much higher than the penalty borne by the late-commissioning provider*".[3]

Marchment Hill suggest that it does not necessarily follow from this higher market risk that the right level of compensation for Early Certified Capacity is the full Reserve Capacity Price. The issues raised by Marchment Hill have not yet been examined; they should be. Synergy seems to agree: they have prepared a Concept Paper incorporating some of the Marchment Hill ideas.[4]

Since the timing of entry of new facilities is an integral part of the Reserve Capacity Mechanism, the Reserve Capacity Mechanism Working Group (RCMWG) is the correct forum for this evaluation. It makes no sense to proceed with this proposed rule change outside of that holistic review: it would be like introducing a rule change to alter next year's Reserve Capacity Price arbitrarily, while ignoring the work of the RCMWG on pricing mechanisms.

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1 Synergy, 24 April 2009: Submission to RC_2009_11, p. 1
2 IMO, 7 August 2009: RC_2009_11 Final Market Rule Change Report, p. 19
3 Marchment Hill Consulting, 2 November 2010: Report to IMO on PRC_2010_30, paragraph 9
4 Synergy, 30 July 2012: Improving the cost benefit trade-off of early capacity payments

Fundamental misconception

The proposed rule change is founded upon an assumption: that there is great uncertainty around the date on which generators will be commissioned, but no uncertainty for any other forms of capacity. This is fundamentally not the case, and the proposed change makes little sense given the error in this underlying assumption.

EnerNOC does not have experience with Dispatchable Loads or with Interruptible Loads in the WEM (although our experience in other markets suggests that they can be challenging to commission), so our comments in this submission are confined to Demand Side Programmes (DSPs).

Large-scale demand response aggregation is relatively new to the WEM, so it is possible that the proponent of this rule change proposal imagines that commissioning a DSP is a simple exercise in contractual paperwork. This is not the case: commissioning a new DSP is a lengthy and complicated exercise, involving numerous moving parts and third parties in many locations.

EnerNOC's typical DSP may involve over 150 sites spread across the SWIS, each of which requires:

- Assessment of meter data and types, load profiles, site operations, and opportunities for curtailment
- Commercial negotiation and contracting
- Potential change-out of non-interval metering by Western Power
- Development of detailed energy reduction plans
- Development and testing of staff communications and dispatch protocols
- Enabling of pulse outputs on one or more meters by Western Power
- Installation of real-time telemetry equipment
- Acceptance testing: a test dispatch to verify proper operation and confirm the capacity available at the site

Activities associated with metering and equipment installation may cause disruption to the site's operations, in which case they must be scheduled to align with site maintenance periods or similar planned production outages. Some sites may also require standby generator installation or the upgrading of site infrastructure, such as transfer switches or control systems, or reprogramming of building management systems. Where generators are to be synchronised, liaison with Western Power is also needed. The timing of many of these actions is dependent upon third parties. There also tends to be a post-commissioning shake-down period lasting several months, during which issues such as intermittent telemetry faults are identified and eliminated.

While the steps in commissioning a new DSP may generally be simpler than some of those involved in commissioning a generation facility, the sheer number of requirements and the many external dependencies can lead to as much uncertainty in the project duration as is found in generation projects.

EnerNOC's own experience in the WEM provides a concrete example of this uncertainty in project delivery. We have two new DSPs in the 2010 Reserve Capacity Cycle. Both were originally intended to be commissioned on 1 June 2012. While one DSP was fully commissioned and entered the market as planned on 1 June, the other DSP, due to various delays, has not yet entered the market. It is currently running 10 weeks later than planned.

Categorising complexity

The rule change proposal makes a further assumption: that all generators are alike. However, this is not the case. Some generation projects, such as large baseload plants, are very long and complex bespoke projects, and hence may be particularly susceptible to lengthy delays. Others, such as small liquid-fuelled reciprocating peakers, are short, relatively simple, and routine projects.[5]

The rule change proposal also assumes that all DSPs (and Dispatchable Loads and Interruptible Loads) are alike, and have no risk of delay. As discussed above, this is wrong.

Technologies that can be used to provide Reserve Capacity do not, as suggested in the rule change proposal, fall neatly into two categories: one subject to delay and the other not. Rather, there is a spectrum. It seems likely that large baseload plant is at the high risk end of the "delay risk spectrum" and diesel peakers are at the low risk end, with other generation technologies and the various demand-side options, including DSPs, falling somewhere in between.

At present, the Market Rules take the simplest possible approach: treating all new entrant providers of Reserve Capacity alike. As well as being simple, this approach is the fairest, avoiding any question of discrimination.

Let us assume for the moment, as the rule change proposal suggests, that a more efficient outcome could be achieved by providing early entry windows of differing sizes to different categories of capacity provider. It is clear that the size of the window provided for each category should relate to the degree of delay likely to be experienced by members of that category.

It is not immediately obvious how many categories would provide an optimal trade-off between efficiency and simplicity. There could, for example, be the following categories:

5 It is probably also the case, although not relevant to this argument, that large, complex baseload plant is more susceptible to extended post-commissioning reliability issues than a simple diesel genset.

1. Baseload coal
2. Combined cycle gas turbines
3. Open cycle gas turbines
4. Reciprocating plant
5. Renewables
6. DSPs
7. Dispatchable Loads
8. Interruptible Loads

To determine how to cluster technologies into an optimal number of categories would require data on the probability distribution of delays for each technology. It seems unlikely that sufficient data would be available to provide a reasonable basis upon which to decide on a particular number of categories. Certainly no evidence has been presented to suggest that the correct number of categories is two.

Discrimination justified?

When the concept underlying this rule change proposal was last considered, as a result of Alinta's Pre Rule Change proposal PRC_2010_30, the IMO commissioned Marchment Hill Consulting to assess the proposal in relation to the Market Objectives. They concluded:

> *MHC finds the most significant impact of the proposed Rule Change to be negative in terms of Objective (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.*[6]

Synergy's revived proposal asserts that, based on new legal advice, it is reasonable to discriminate against DSPs, and other load-based forms of capacity, because of "a technical difference" from generation. This is further clarified with the suggestion that DSPs, Dispatchable Loads, and Interruptible Loads "do not suffer extended periods of post commissioning remedial work which could materially affect their reliability".[7]

As discussed above,

- Concerns about "post commissioning remedial work" were not the rationale behind early entry; rather, it was to reduce the risk of delays leading to late commissioning.
- DSPs and the various generator technologies are all susceptible to delays in commissioning, such that there is no justification for drawing a line between (a) DSPs, Dispatchable Loads and Interruptible loads, and (b) all forms of generation.

However, overlooking these points for now and considering Synergy's new legal advice,

6 Marchment Hill Consulting, 2 November 2010: Report to IMO on PRC_2010_30, paragraph 21
7 Synergy, 14 June 2012: RC_2012_10 Rule Change Notice, p. 4

which was eventually disclosed to the MAC on 26 July,[8] the advice makes no mention of discrimination on the basis of technical differences, commissioning delays, or reliability. Instead, the advice is based entirely upon a rather ill-informed discussion of cost structures, a consideration which is not relevant to the rationale for early entry payments being made available in the first place.

Given this reliance on cost discrimination, it is not clear that the legal advice provided supports the kind of technical discrimination proposed by Synergy. We conclude that this new legal advice has no relevance to the debate, and should be ignored.

The irrelevance of "indirect discrimination"

The "indirect discrimination" argument made in the rule change proposal,[9] and outlined in the legal advice,[10] is curious, and deserves comment.

If we have understood correctly, Synergy is asserting that technologies that suffer from reliability problems are being discriminated against because a mechanism that works to protect the market from the consequences of those reliability problems is not restricted to the exclusive use of those technologies with reliability problems.

This proposition seems equivalent to arguing that, in a building with many wheelchair ramps, wheelchair users are discriminated against if any more able-bodied people are also allowed to use the ramps.

Retrospective rule change

"Regulatory risk" is a significant concern frequently raised by investors and participants. Investments undertaken on the basis of current market rules can be significantly impacted if those rules are later changed. Given the evolution of markets, some level of regulatory risk must be carried by all participants. However, proposing rule changes specifically to affect capacity already certified and under development sets a dangerous precedent which is likely to spook future investors. Since this directly impacts customers, it risks shattering their confidence in the stability and governance of the market.

We cannot believe that the proponents would support a rule change proposal which similarly unnecessarily impacted their customers. Absent some compelling reason that a rule change must be retroactive, it should be made prospective. Synergy has demonstrated no such extraordinary need. Hence, if the RCMWG determines that changes are needed to the early entry mechanism, they should only affect capacity that is not yet certified.

8 Lavan Legal, 13 June 2012: Letter to Will Bargmann
9 Synergy, 14 June 2012: RC_2012_10 Rule Change Notice, pp. 3, 9
10 Lavan Legal, 13 June 2012: Letter to Will Bargmann, paragraphs 1.8, 7.2, 7.10

Self-interest, rather than market efficiency?

EnerNOC welcomes debate and proposals designed to promote the efficient functioning of electricity markets. We participate in numerous such exercises across multiple markets in Australia, New Zealand, Europe, and North America. However, we always do so in the expectation that other parties are also participating in a good faith effort to achieve a reasonable result. We are concerned that this does not appear to be the case here.

It seems likely that Synergy is focusing on the short-term cost implications *for Synergy*, rather than conducting a balanced assessment of the long term efficiency of the market as a whole.

Summary

In summary, the proposal seeks a retroactive change which discriminates against one class of capacity provider. The reasoning behind the proposal is based on flawed assumptions and legal advice that does not address the main technical arguments outlined by the proponent. It fails to satisfy any of the market objectives, and should be rejected.

The IMO has questioned in the draft change paper whether early entry should be abolished altogether. EnerNOC recommends that the whole issue of the timing of entry of new facilities be considered by the RCMWG as part of its holistic review.

2. Please provide an assessment whether the change will better facilitate the achievement of the Market Objectives.

As well as the currently-drafted proposal, the table on the next page also includes an assessment of the IMO's suggestion of avoiding discrimination by removing the concept of early entry capacity payments in their entirety;[11] since the IMO has not specified the timing of this proposed change, we have assumed that they intend it to be introduced from the next Reserve Capacity Cycle, so as to avoid the problems with retroactive rule changes.

11 IMO, 22 June 2012: RC_2012_10 Rule Change Notice, p. 2

Market Objective	Synergy Proposal	Removal of all early entry, starting with 2013 Reserve Capacity Cycle
(a) To promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system.	**Slightly negative** Reduces costs, but also risks reducing reliability.	**Slightly negative** Reduces costs, but also risks reducing reliability.
(b) To encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors.	**Negative** Discourages new entrant DSPs, Dispatchable Loads, and Interruptible Loads by directly discriminating against them. Lack of commissioning window increases risks for new entrant DSPs, Dispatchable Loads, and Interruptible Loads.	**Negative** Lack of commissioning window increases risks for new entrants.
(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.	**Strongly negative** Introduces direct discrimination against particular technologies.	**Neutral**
(d) To minimise the long-term cost of electricity supplied to customers from the South West interconnected system.	**Negative** Although there may be cost reductions in the short term, in the long term the main effects are discouragement of demand-side participation, increased reliability risks, and a general perception of increased regulatory risk, all of which increase costs.	**Neutral**
(e) To encourage the taking of measures to manage the amount of electricity used and when it is used.	**Negative** Discourages demand-side participation.	**Neutral**

3. Please indicate if the proposed change will have any implications for your organisation (for example changes to your IT or business systems) and any costs involved in implementing these changes.

The proposed change would have a significant, unplanned negative financial impact on EnerNOC, estimated to be in excess of $1 million.

More importantly, the proposed change would increase the risk that our 2013/14 capacity facility may not be fully commissioned and ready-to-respond by 1 October 2013.

4. Please indicate the time required for your organisation to implement the change, should it be accepted as proposed.

We do not believe it is practicable to implement the change as proposed, as it would be retroactive, affecting Reserve Capacity Cycles which are already underway. To put it another way, it would take two years to implement, so as to avoid retroactive changes to customer commitments.