
Wholesale Electricity Market Rule Change Proposal Submission Form

RC_2011_25 & RC_2011_37 Capacity Credit Allocation to Intermittent Generators

Submitted by

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Date submitted:	30 th November 2011

Submission

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

APA finds the course of action taken by the IMO confusing. In releasing a third (unofficial) submission period and requesting feedback on “proposed solutions” to issues that have been raised in the second submission process, it appears as if the IMO is seeking to ‘negotiate’ its preferred outcome with the market, using an additional step in the process to refine a response to positions that have already been clearly commented on and mostly rejected by the majority of market submissions.

Instead of arguing the merits of the IMO’s ‘proposed solutions’ – solutions which appear to add further complexity to already overly complicated and discredited concepts, APA prefers to reiterate its opposition to the 2 concepts in question in their entirety.

The U-Factor is not warranted. It differentiates between intermittent generation and scheduled generation in that a scheduled generation facility does not have its capacity credit allocation influenced by other generators. Perversely, it does not then differentiate between intermittent generation facilities when it should. An IGF with its output highly correlated to temperature is treated the same as an IGF with a low correlation of output to temperature. This is a clear discrimination between technologies and evidence enough to abandon the U-Factor concept.

The U-Factor is also overly conservative. By introducing the U-Factor, we are locking in a permanent discount (even if a discount is not appropriate) due to what is described as an absence of a 1-in-10 year hot season, even if a 1-in-10 year hot season is or has been encountered. If a 1-in-10 year hot season is encountered this year, or indeed if one was already encountered last year (the second round submission from Synergy suggests that last hot season may well have been such an event), then the U-factor becomes doubly erroneous. IGFs are awarded capacity based on their output during peak periods. If an IGF has produced a low output during a 1-in-10 year hot season (or any other season), then their capacity allocation will reflect this. Additionally, the proposed methodology is based over a 5 year average rather than a 10 year average, suggesting that an IGF's output in a 1-in-10 year hot season will influence its capacity credit allocation by 20% rather than 10%.

With the debate over the perceived lack of data and how often a 1-in-10 year hot season has actually occurred (at least once and possibly twice since the market started 5 years ago), it should not be forgotten that in a lesser period the market has experienced two significant gas supply curtailments.

LSG creates more distortions to the Market Rules than it delivers benefits. LSG is the only concept retained from the original MMA methodology produced in the REGWG, which the IMO has gone out of its way to discredit. The concept has never had the support of the market nor has it been discussed in any detail. APA struggles to understand the IMO's insistence in trying to make the LSG concept work effectively within the Rules, by adding layers of additional complexity (and still not removing obvious distortions or discriminations), when such an obviously simpler, better, more preferred and more natural solution exists. Quite simply, and in line with the responses from the majority of submissions, LSG intervals should be replaced with peak demand intervals.

The main reason, throughout the lengthy REGWG and subsequent rule change process, that a sensible capacity allocation methodology based on output during peak demand periods could not be agreed upon was the insistence from System Management, and to a lesser extent the Office of Energy, that, rightly or wrongly, the security of the SWIS would be adversely impacted if an allocation methodology incentivised more intermittent generation. Arguments were made throughout the process that the security of the SWIS was a separate issue and should be dealt with via a different process, allowing the REGWG process to concentrate on delivering an appropriate capacity credit allocation methodology. In their second submission, System Management conceded that:

System Management wishes to add that the major concern is not the capacity credits assigned to a facility but rather the contribution that the various types of generation that is procured during the reserve capacity cycle make to system security.

This is sensible. In real-time, when system security is at risk, there is nothing that System Management can do if a particular facility is unavailable. This is true for a wind farm when the

wind is not blowing, for a solar PV facility when it is overcast, or for a thermal generator that has a fuel supply constraint. System Management goes on to say:

System Management believes that the contributions cannot be influenced in realtime however it can be done as part of the Reserve Capacity procurement process.

This can be facilitated by predetermining the minimum quantities of various types of generation and demand side resources that must be sourced. This is already taken into account for Demand Side options in development of the availability curve.

System Management then outline how such a solution could be easily achieved through changing Market Rule 4.5.12(b) and adding a further definition to the Rules.

While it is unfortunate that such a concession from System Management has come at so late a stage in this process, it appears to APA that the admission of impotence in real-time as well as the proposal of a more robust manner to deal with the 'circuit breaker' issue of system security renders efforts to include additional conservatism in the capacity credit allocation methodology unwarranted. From the IMO Draft Decision: 7.1 Reasons for the IMO Board's Proposed Decision:

Given the lack of available data on the performance of Intermittent Generators during peak periods and the complexity of the matter at hand, a more conservative approach is required.

APA suggests that the most appropriate action for the IMO Board at this stage of the lengthy REGWG and subsequent rule change process would be to introduce the modified RC_2010_25 methodology but to replace the use of LSG intervals with peak demand intervals and to remove completely the overly conservative and discriminatory U-Factor. It should then instruct the IMO and the MAC to investigate, and if appropriate, provide options to deal with any issues around system security, as identified by System Management in its second submission.