Wholesale Electricity Market Rule Change Proposal Submission

RC_2018_03
Capacity Credit Allocation Methodology for Intermittent Generators

Submitted by

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Submissions on Rule Change Proposals can be sent by:

Email to: rcp.secretariat@rcpwa.com.au

Post to: Rule Change Panel
Attn: Executive Officer
C/o Economic Regulation Authority
PO Box 8469
PERTH BC WA 6849

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

I support the proposed rule change for the same reasons that Collgar has outlined in their rule change proposal.

I consider the current Relevant Level Methodology (RLM) to not be logical, and to be discriminatory against intermittent generation technologies - contrary to Wholesale Market Objective (c) - because it is overly conservative in allocating Capacity Credits to Intermittent Generators who generate reliably at system peak demand times.

I agree with Collgar's main concern, that the Load on Scheduled Generators (LSG) concept does not provide a direct link between the requirement for capacity to meet system peak period demand and the ability of Intermittent Generators to make capacity available during those peak periods.

I consider the current RLM to be illogical in that the greater the total intermittent generation output in the time periods of system peak demand, the more likely that other demand periods – when dispatchable generation output is highest (the peak LSG Trading Intervals) and, by virtue of that, total intermittent generation output is lower – are used by the current RLM to determine a (lower) total capacity credit allocation to intermittent generators.

In other words, it seems the better that intermittent generation performs at system peak demand times, the lower its overall capacity credit allocation under the current market rules. This seems illogical and inconsistent with Wholesale Market Objectives (a) to (d).

Collgar proposes to replace the use of peak LSG Trading Intervals in the Relevant Level Methodology with the use of actual system peak Trading Intervals, defined as those Trading Intervals where the sum of total metered generation and any voluntary or involuntary load reduction is greatest. Collgar suggests that this will provide a more direct link between the requirement for capacity in peak periods and the ability of Intermittent Generators to provide capacity during the periods with the highest demand on the system.

I agree with Collgar's proposed approach and outcome.

Having said the above I also suggest that, in the absence of energy storage facilities, solar generation capacity credit allocations are likely to trend to zero under the proposed rule change. This is because, as more behind-the-meter solar PV is installed, the timing of the system peak demand Trading Intervals will tend towards sunset or later when solar generation has little or no output.

The current rules may in fact allocate more capacity credits to solar generators in future than under the proposed rule change.

The proposed rule change is still more reflective of the value of intermittent generation at system peak demand times, even if solar generation receives zero capacity credits. This would incentivise the installation of energy storage at solar generation sites.

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

The rule change will better facilitate achievement of Wholesale Market Objectives (a) to (d), and have no material impact on (e). It will ensure that capacity credits are allocated to intermittent generators in quantities that better reflect their likely generation output at times of system peak demand. This is what the Reserve Capacity Mechanism aims to do – to ensure that there is adequate generation capacity to meet the Reserve Capacity Target (RCT) which is based on forecast system peak demand.

If intermittent generators are allocated less capacity credits than their generation output at system peak times, more capacity will be required from other generators to ensure there is sufficient generation capacity to meet the RCT, and this will cost more.

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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.

Not applicable. No impact.

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

Not applicable. No time impact.