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EPWA

Submitted via email: energymarkets@dmirs.wa.gov.au

19 October 2023

Dear EPWA

RE: Reserve Capacity Review – WEM Amending Rules Exposure Draft

Thank you for the opportunity to provide feedback on the exposure draft of the RCM Review amending rules.

Enel X works with commercial and industrial energy users to develop demand-side flexibility and offer it into capacity, energy and ancillary services markets worldwide, as well as to network businesses. In Western Australia, Enel X helps energy users minimise their capacity charges through the IRCR mechanism. We also built a 22 MW portfolio of supplementary reserve capacity for 2022-23, and have recently been contracted to supply 120 MW of flexible demand capacity under the NCESS framework for 2024-26.

This submission sets out our feedback on the amending rules. It focuses on those changes relevant to demand side programmes, and in particular the capacity deficit refund framework. In summary:

- We do not support the proposed method of calculating deficit refunds as currently drafted. We recommend an alternative approach that will enable a DSP to change its Minimum Consumption dynamically to respond to changing portfolio conditions.
- We do not support the proposed rate of Capacity Deficit Refunds for DSPs. We recommend an alternative approach that scales the rate to better reflect DSP obligations and characteristics, using the same logic that applies to generators.
- We seek clarification on the intervals in which the capacity deficit calculation applies, and request that it not apply within dispatch intervals, and for a certain period on either side of a dispatch interval, so that a DSP is not penalised for ramping down and up around a dispatch event.

If left unaddressed, these issues present a significant disincentive to participate as a DSP in the RCM, because the risks are simply too great compared to the potential benefits.

We would like to thank EPWA for conducting such a thorough and consultative process throughout this review. We look forward to continuing to work with EPWA on other ways in which the demand side can play a greater role in delivering security and reliability in the WEM.

If you have any questions or would like to discuss this submission further, please contact me.

Regards

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Calculation of DSP capacity deficit refunds using actual DSP demand instead of Relevant Demand

Under the proposed rule, DSP shortfalls for the purposes of calculating the Peak Reserve Capacity Deficit Refund would be measured using actual demand rather than the assessed Relevant Demand. This means that a DSP would be liable for deficit refunds in any trading interval where its actual demand falls below its Relevant Demand. This liability covers any trading interval during the 12-hour availability window for DSPs (i.e. 8am to 8pm), not just dispatch intervals.

The purpose motivating this clause is to prevent a DSP from overinflating its capacity credit nomination, and we support this in principle. However, this clause will have a detrimental impact on a DSP operator's ability to reasonably manage its programme, particularly where the DSP is made up of an aggregation of multiple loads. It is normal for a load's demand level to fluctuate throughout the day, for example due to temperature, site shutdown, and general site operations. As currently written, there is no way for a DSP operator to manage a scenario where DSP Load falls below the Relevant Demand, for example due to a shutdown at one of its participating load sites.

For example, suppose a DSP has 200 MW of curtailable load. A prudent DSP would seek capacity certification for less than this full amount (e.g. for 100 MW), in order to manage the inherent variability of load and ensure that it is always able to deliver 100 MW of capacity if called on to dispatch. In this scenario, the DSP would nominate a Minimum Consumption of 100MW, reflecting the difference between Relevant Demand and the number of capacity credits allocated. However, if 50 MW of load within its portfolio goes on outage one day (e.g. due to site maintenance), the rules as drafted would:

- only value a drop of 50 MW to the Minimum Consumption level of 100 MW, even though there is 150 MW of curtailable load across the portfolio

- mean that the DSP operator would be liable for deficit refunds, even if there is sufficient curtailable load.

The incentive to participate as a DSP in the RCM will be significantly diminished if this rule is made as written. We therefore recommend that this clause be amended to enable a DSP to change its Minimum Consumption dynamically to respond to changing portfolio conditions. This approach still holds DSPs to account for any periods of unavailability, whilst allowing them to manage the inherent characteristics of an aggregated portfolio of load. We recommend that any variations to this nomination be submitted alongside the Withdrawal Profile (Rule 7.4A).

The consultation paper on EPWA's Demand Side Response Review proposes that the performance of DSPs be measured against a dynamic baseline, rather than the static approach under the existing rules. However, it is our understanding that the dynamic baseline approach will only be used to calculate event performance, and not the assessment of a DSP's available capacity outside of dispatch intervals. Therefore, a solution to the issue raised above is needed regardless of whether the dynamic baseline approach is ultimately implemented.

Capacity deficit refund rate

The proposed rate of Capacity Deficit Refunds is also problematic for DSPs as drafted. The proposed per-interval price is the monthly RCP divided by the DSP Dispatch Requirement.

This means that if the DSP Dispatch Requirement was 24 hours (for example), a DSP would erode 125% of its capacity credit value if its load had a full outage for just 2.5 days, even if there was no chance of the DSP being dispatched. Under this approach, Enel X considers that the risks of participating in the RCM as a DSP would far outweigh the benefits, particularly when compared to other participation options (e.g. SRC).

Enel X is not opposed to a penalty regime. We agree that it is important to have a penalty regime in place to ensure the integrity of capacity credited resources. However, the refund calculation is excessive compared to a DSP's obligations and the likelihood of it being dispatched.

We recommend that the refund rate be scaled to reflect DSP obligations and characteristics, using the same logic that applies to generators. For generators, the per-interval price (specified in 4.26.1(b)) is based on the proportion of the year they must be *available* to be dispatched. We therefore recommend using the minimum number of intervals a DSP is required to be *available* to be dispatched, per 4.10.1(f)(vi) – which is 12 hours on all business days.

To be clear, we are only proposing changes to the refund calculation that applies in trading intervals outside of dispatch events. DSPs are obligated for fewer hours than supply-side forms of capacity, and it is therefore appropriate that underperformance *during events* is penalised at a more severe rate than for generators.

Application of the peak capacity deficit calculation

The peak capacity deficit appears to apply to DSPs in all trading intervals between 8am-8pm. This raises a couple of issues:

1. We cannot see any rule that explicitly says that the peak capacity deficit calculation does not apply during intervals when the DSP is dispatched, and so it appears that a DSP could be liable for peak capacity deficit refunds for faithfully responding to a dispatch instruction.

2. Further, all loads comprising a DSP must start ramping down ahead of a dispatch to ensure that it is fully dispatched by the time the dispatch obligations commence, and will take time to ramp back up after a dispatch.

To address these two issues, we recommend that the peak capacity deficit calculation not apply after a dispatch instruction is received, and for some time (e.g. 4 hours) after a dispatch has ended. An alternative, simpler approach would be to suspend the peak capacity deficit calculation on any trading day when the DSP is dispatched.