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REVIEW OF THE PARTICIPATION OF DEMAND SIDE RESPONSE IN THE WHOLESALE ELECTRICITY MARKET - CONSULTATION PAPER

Synergy welcomes the opportunity to provide comment on Energy Policy WA's (**EPWA's**) *Review of the Participation of Demand Side Response in the Wholesale Electricity Market Consultation Paper* (**Paper**). The Paper outlines EPWA's recommendations from Stage 1 and Stage 2 of the Demand Side Response (**DSR**) Review in the Wholesale Electricity Market (**WEM**).

The DSR Review, as noted in the Paper, includes only contestable customers and excludes Distributed Energy Resources (**DER**) which are being actioned under the WA Government's Distributed Energy Resources Roadmap (**DER Roadmap**). The Paper highlights that DSR can play an important role in the WEM in the future due to the energy transition and changing demand and generation profiles. Synergy's comments on the proposals are provided **below**.

Regulatory considerations for constrained access connections for loads

Proposal 1 considers transparency regarding constrained access connections should be provided for and, to the extent practicable, constrained access loads should be integrated into the processes in the WEM Rules. Consequently, it is proposed the WEM Rules should set out:

- the requirements for Western Power to share information on constrained access loads with AEMO;
- the manner in which AEMO integrates curtailable loads in determining the Reserve Capacity Target and Network Access Quantities; and
- how curtailment of constrained access loads is considered in the Real-Time Market and constraint equations/optimisation processes.

In addition, it is proposed that changes to the commercial and regulatory framework to set out the information that must be made available to a customer seeking to connect on a constrained basis will also be developed.

Synergy considers the review of the changes required to the commercial and regulatory framework should also carefully consider the changes required to the access regime. The review should adopt a similar approach to that taken when the Electricity Network Access Code 2004 (**ENAC**) was amended to support the operation of security constrained economic dispatch in relation to entry covered services, for the export of electricity into the network (generation).

Synergy notes substantial and material changes were made to the ENAC including replacing key instruments, approved by the Economic Regulation Authority (**ERA**), under the access arrangement to give effect to constrained access connections for generation. Therefore, Synergy considers a key element of the changes to the access regulatory framework for the transfer electricity out of the network (loads) will require holistic consideration of:

- The users and customers rights to use exit and bi-directional covered services, approved by the ERA, under the access arrangement and ENAC. Including a user's prior contractual rights under the ENAC.
- The operation of the Applications and Queuing Policy under the ENAC.
- The operation of the Contributions Policy under the ENAC.
- The operation of user's rights to use covered services under an ETAC, established and approved by the ERA under the ENAC.
- The prohibitions on hindering access under the Electricity Industry Act 2004.

Synergy considers this holistic review is particularly important to ensure the amendments to the WEM Rules in relation to constrained access connections for loads does not create a legal and regulatory inconsistency with the access regime.

Considerations for hybrid facilities

Proposal 2 suggests that hybrid facilities consisting of a load and an Electric Storage Resource (**ESR**) may be required under the WEM Rules to register as a Scheduled Facility and will not be able to be registered as both Demand Side Programme and a Scheduled Facility. Synergy considers that this approach may unintentionally limit the full ability of DSR participation in the WEM and notes that a hybrid facility may be able to provide market services from both the load component and the ESR component independently. In terms of capacity provision, the load component can independently reduce demand (via turning off machinery etc) and the ESR component can be dispatched to inject into the WEM, delivering a higher total capacity overall, than would be achieved solely by one of the components.

In addition, Synergy is of the understanding that Scheduled Facilities have firmer operational and dispatch obligations and seeks clarity on how these firmer obligations will be applied to hybrid facilities. In particular, clarity is sought in relation to the following questions:

- Are withdrawal/injection obligations placed on the Facility as a whole, or at the component level?
- Will the ESR component of the facility be required to "smooth" out the load component of the facility to ensure that the facility "as a whole" meets the withdrawal/injection targets or can the ESR be operated independently of the load component?
 - Synergy notes that this may influence the metering requirements under proposal 3 as the ESR's ability to participate in Essential System Services (**ESS**) will be limited if it is required to "smooth" the load.
- Do the obligations associated with a Scheduled Facility only apply to the hybrid facility for the Electric Storage Resource Obligation Duration, or do they apply for the whole day?
- How is the size comparison of the ESR component to the load component considered and how will the size differential between the two impact the obligations for a hybrid facility?

Synergy notes that these matters will influence the financial outcomes of hybrid facilities and may influence customer decisions on ESR investment and size. Synergy considers that further analysis and customer understanding may be needed to fully consider the customer drivers for ESR investment and should be considered alongside the DER Roadmap to ensure that any proposed amendments for hybrid DSR facilities aligns with the proposed treatments for DER. Synergy notes that balancing individual customer desires and individual benefits with that of the system as a whole is a complex matter and caution is needed to ensure that both needs can be reasonably achieved.

Considerations for Supplementary Reserve Capacity

Proposal 5 outlines that no changes are required for Supplementary Reserve Capacity (**SRC**) to allow for DSR participation, however Synergy considers that improvements can be made to assist with increased participation DSR containing DER assets. Synergy notes that AEMO's approach of using a forecast baseline position for existing DER assets will limit the ability for aggregated DER and DSR to participate in the SRC. Synergy understands that this a complex matter with DER being able to operate on the "demand" side and the "generation" side of the market, however notes that DER as an unregistered facility does not have any obligations to perform in a particular manner to ensure the actual dispatch aligns with AEMO's "forecasted" baseline expectations. The complexities create a difficult balancing act. Synergy suggests that further consideration is needed for DER and DSR participation in the SRC process and ensuring that customers are provided the right incentives and obligations to perform "as expected".

Considerations for Electricity Industry (Metering) Code 2012

Proposal 6 outlines that amendments are required to allow Western Power to share metering data with AEMO where necessary. Synergy considers this approach is consistent and aligned with clause 1.2(1)(f), 5.6(2), 5.6(3), 5.7. In particular, Synergy notes clause 5.6(3) requires Western Power must in accordance with the Metering Code provide validated, and where necessary substituted or estimated, interval energy data for a metering point to AEMO before 5pm on the first business day after it obtains energy data for the metering point under clause 5.3(1)(a) (or such other time as agreed in writing).

DSR participation in the STEM

Proposal 7 seeks to amend the WEM Rules to remove possible barriers for direct DSR participation in the STEM. Synergy seeks to understand expected costs and benefits associated with this proposal, and considers that there is likely to be limited uptake of DSR participation in the STEM.

Considerations for DSR participation in the Real-Time Market and ESS

Proposal 9 outlines that the WEM Rules currently allow for DSR participation in the Real-Time Market (**RTM**) however direct participation of DSR is expected to have limited uptake due low cost benefit outcomes. Synergy agrees that current costs and effort requirements may be a barrier for direct DSR participation and considers that further investigation into how to better encourage direct DSR participation may be needed as the WEM evolves. Synergy considers that further investigation may be a needed alongside the DER Roadmap to fully understand the potential value that DSR (and DER) could provide to the WEM as whole, what the costs and potential benefits are for DSR and what participation barriers exist for DSR.

Synergy considers that Proposal 11, reviewing the size and potential technical limitations for ESS provision, will assist with support DSR participation. Synergy acknowledges that EPWA is currently undertaking extensive work on DER participation and considers that there may be aspects for the DER work program that could be applied to DSR to reduce barriers and increase participation.

Synergy agrees with Proposal 12, that DSR should be able to register as both Interruptible Load and DSP provided it can meet the requirements of the relevant services. Synergy suggests that considerations should be made for DSR in relation to the new Flexible Capacity Product that is an outcome of EPWA's Reserve Capacity Mechanism (**RCM**) Review, and notes that Interruptible Loads may also be able to meet the requirements for Flexible Capacity.

Conclusion

Synergy appreciates the opportunity to provide comment on EPWA's work thus far on the DSR Review and the proposed outcomes of the review.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R. Bedola', with a stylized, cursive script.

**RHIANNON BEDOLA
MANAGER ELECTRCITY MARKETS**