Friday 25th September, 2020

Energy Transformation Taskforce

Energy Policy WA

Electronic submission to energytransformation@energy.wa.gov.au

To the Energy Transformation Taskforce,

RE: ENA submission to Energy Policy WA – Issues Paper: Distributed Energy Resources Orchestration Roles and Responsibilities

Energy Networks Australia (ENA) thanks the Energy Transformation Taskforce (Taskforce) for the opportunity to provide a submission to the Distributed Energy Resources Orchestration Roles and responsibilities Issues Paper (Paper).

ENA is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

We applaud the Western Australian Government's leadership in collaboratively developing a vision for integrating DER between customers, market bodies, retailers, aggregators and network businesses. Specifically, in clearly setting out the roles and responsibilities of each stakeholder in future Wholesale Electricity Market (WEM) design.

In the ENA Position Paper on OpEN[1], we recommended that learning from the practical application of trials would remain a critical milestone in DER Integration and we strongly support the work that the Taskforce is undertaking with customers, the Australian Energy Market Operator (AEMO), Synergy and Western Power through Project Symphony.

As the Distribution Network Service Provider we believe that Western Power is the most appropriate party to identify issues and opportunities for DER in the medium voltage and low voltage distribution network through the role of Distribution System Operator (DSO) as noted in the paper.

To this end, we believe that network services should be directly engaged between the DSO (Western Power) and the aggregators to ensure that local and network safety obligations are met. Involving additional parties in this chain of communication increases complexity and risk for marginal benefits.

We also believe that those customers not actively participating in aggregation services should adhere to minimum, static export limits. This not only encourages more participation in

[1] https://www.energynetworks.com.au/resources/reports/2020-reports-and-publications/open-energy-networks-project-energy-networks-australia-position-paper/

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aggregation but also minimises adverse network effects and provide additional DER hosting capacity "headroom" for active participants.

DSO-owned DER such as community batteries is also of keen interest to ENA and our members. In some of our member's jurisdictions such as Ausgrid[2] and United Energy[3], customers are incredibly supportive of initiatives that promote these and other forms of DSO-owned DER. However, the initial purpose of these assets should be to support required network services as a priority with extra latent capacity used for other purposes such as wholesale market services or peer to peer energy trading. ENA would be more than happy to discuss and explore these projects further with the Taskforce in more detail.

During our work on the OpEN project we explored a range of system architectures for DER integration, ranging from a centralised to a decentralised approach. The centralised approach is broadly similar to the OpEN Single Integrated Platform, while the OpEN Two-Step Tier model is a decentralised approach. In reviewing a number of papers[4, 5, 6]. It is clear that the centralised approach is highly complex and costly for customers, while the decentralised (layered) model supports incremental, scalable, cost-effective developments and proportionate responses as DER penetration increases.

The WA Roadmap[7] clearly sets out a route where, as DER penetration increases, the next phase of optimisation development is advanced as needed. Energy Networks Australia strongly supports this proportionate response as it maximises optionality and minimises risks and costs for customers.

We will be keenly awaiting the outcomes and learnings from Project Symphony as we believe it will also help inform the broader direction of DER Integration and Market Design for our other members in the National Electricity Market (NEM). Similarly, we believe the projects being developed and trialled by our members and the DER Integration workstream of the Energy Security Board's Post 2025 Market Design project will be able to offer further insights to the Taskforce over the coming months.

If you have any other queries, please contact Dor Son Tan, Head of Distribution on dstan@energynetworks.com.au or (03) 9103 0411.

Yours sincerely,

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[2] https://www.ausgrid.com.au/In-your-community/Community-Batteries/Benefits-of-community-batteries
[3] https://www.unitedenergy.com.au/bayside-battery/
[4] https://www.aemo.com.au/-/media/files/electricity/nem/der/2019/oen/newport-intl-review-of-der-coordination-for-aemo-final-report.pdf?la=en&hash=851E3DC18FB798A0B3C8EF54E733F5F8
[5] Kristov, Lorenzo & Martini, Paul & Taft, Jeffrey. (2016). A Tale of Two Visions: Designing a Decentralized Transactive Electric System. IEEE Power and Energy Magazine. 14. 63-69. 10.1109/MPE.2016.2524964.
[6] https://aemo.com.au/-/media/files/electricity/nem/der/2019/standards-protocols/epri-activation-of-der-in-the-energy-market-report.pdf?la=en
[7] https://www.wa.gov.au/sites/default/files/2020-04/DER_Roadmap.pdf