4 May 2021

Ms Nicola Cusworth
Chair
Economic Regulation Authority
Level 4, Albert Facey House
469 Wellington Street
Perth WA 6000

Dear Ms Cusworth

ERA Issues Paper – Framework and approach for Western Power's fifth access arrangement

Energy Networks Australia appreciates the opportunity to provide a response to the Economic Regulation Authority's (ERA) Issues Paper on the framework and approach for Western Power's fifth access arrangement.[1]

Energy Networks Australia (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.

The energy industry has seen substantial technological change over the last few years, which has provided opportunities to enhance the way in which Distribution Network Service Providers (DNSPs) provide safe, efficient and reliable network services to customers. The ERA's framework and approach paper considers a number of innovative network solutions that Western Power can provide in place of traditional network investment, such as stand-alone power systems (SPS) and energy storage devices, for example, network connected batteries.

ENA strongly supports a regulatory framework that facilitates network businesses providing innovative solutions that are in the long-term interests of customers. Innovative network solutions are an important part of efficient service delivery and will increasingly become relied upon by DNSPs as changing operating environments pose increasing challenges.

Energy storage devices

Energy storage devices, such as network connected batteries, represent an increasingly efficient option to provide a number of network services, including:

» Voltage support to enable additional hosting of distributed generation,

[1] Economic Regulation Authority, Framework and approach for Western Power's fifth access arrangement review: Issues Paper, 1 April 2021.

- Peak demand management to defer network upgrades – both at a local level and at a regional level,
- Optionality – can deal with an increase in load and an increase in generation,
- Managing fault levels in areas with high levels of solar generation to ensure appropriate operation of protection schemes, and
- Phase balancing.

Network connected batteries are primarily installed for the purposes of providing network services but DNSPs can increase the viability of these services by, for example, leasing out spare capacity or offering customers access to a shared storage service. This is commonly referred to as value stacking and allows the same storage device to be used for multiple purposes.

The Australian Energy Regulator is considering the role of energy storage devices in the national electricity market, and a recent issues paper[2] identifies a number of consumer benefits from value -stacking, including:

- Location – DNSPs can optimise the location of storage devices to maximise value, and
- Access – enabling DNSPs to serve as platform providers.

Enabling value-stacking also reduces the cost to all consumers of DNSPs providing network services and would foster the energy storage market and provide incentives for third parties to enter.

When considering whether network connected batteries should be considered an 'excluded service', the costs of additional regulation, including potential delays to implementation thereby partially eroding customer benefits, should be balanced with possible benefits to customers. ENA is strongly supportive of a flexible regulatory framework that accommodates energy storage devices, including value-stacking, when it is in the long-term interests of consumers.

Stand-alone power systems

SPS can provide a cost-efficient alternative to traditional poles and wires investment, increasing reliability and safety for SPS connected customers, and lowering costs for all customers over time.

Western Power has been trialling SPS in their community for six years, developing their understanding about the types of SPS that are appropriate and workable for their customers. This proactive approach to testing SPS to meet community requirements has put Western Power in an industry-leading position to roll out suitable and targeted SPS for their customers.

[2] Australian Energy Regulator, Issues Paper: Updating the Ring-fencing Guidelines for Stand-Alone Power Systems and Energy Storage Devices, November 2020.

Following emergency situations, such as Western Australia's recent cyclone and bushfire events, SPS can be an effective part of a DNSPs disaster recovery response, depending on the extent of network damage and customer density.

SPS can also pre-emptively improve resilience against the loss of electricity supply in emergency situations when installed prior to natural hazard events, such as bushfires and major storms. Grid-connected customers are susceptible to outages caused by environmental damage to poles and wires, whereas SPS customers are not. ENA's *Opportunities for stand-alone power systems to enhance network resilience* report found that the business case for deploying SPS is enhanced after accounting for the benefits of resilience.[3]

Changing operating environment

The environmental conditions that DNSPs operate within are changing as a result of climate change. Severe weather events are occurring more often with increasing severity, presenting additional operational challenges for DNSPs. These climate trends are likely to continue into the future and are a material consideration for DNSPs.

In addition to identifiable events such as cyclones and bushfires, general increases in temperature are also impacting Western Power's operating environment. The number of total fire ban days declared by the Department of Fire and Emergency Services in 2019-20 increased significantly from 2018-19.[4]

Western Power must take additional precautions to eliminate or manage potential risks, which can lead to wider and longer power outages. The Department of Primary Industries and Regional Development is forecasting average annual temperature increases of between 1.1 to 2.7 degrees by the end of the century.[5]

It is becoming increasingly challenging for DNSPs to meet service standards and customer expectations with the impacts of climate change on the operating environment. SPS and other innovative technologies provide an avenue for Western Power to improve network resilience and their ability to respond to severe weather events.

ENA supports flexible and adaptable regulation that supports the use of innovative technologies, particularly given the evolving environmental conditions faced by DNSPs. This ensures that the benefits of technological development and innovative network solutions can continue to flow to customers.

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[3] Energy Networks Australia, *Opportunities for stand-alone power systems to enhance network resilience* (October 2020), p. vii.
[4] Department of Fire and Emergency Services, *Number of total fire ban declarations per fire season*.
[5] Department of Primary Industries and Regional Development, *Climate projections for Western Australia*, (April 2021).

Thank you again for the opportunity to comment. If you would like to discuss any of the material within this submission, please contact Chris Gilbert, Senior Economic Adviser at cgilbert@energynetworks.com.au.

Yours sincerely,

Garth Crawford
General Manager, Economic Regulation