Department of Energy, Environment and Climate Action

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By electronic lodgement: NetworkVisiblity@aer.gov.au

Dear Mr Desai

CONSULTATION PAPER – BENEFITS OF INCREASED VISIBILITY OF NETWORKS

Thank you for the opportunity to make a submission on behalf of the Victorian Government to the Australian Energy Regulator (AER) Benefits of increased visibility of networks consultation paper. The Victorian Government appreciates the commitment from the AER to enabling low-voltage network data access, and strongly supports regulating provision of the identified datasets. These actions will promote technology innovation and support the smooth integration of distributed energy resources (DER – also known as consumer energy resources or CER) into the network, unlocking value for consumers and community.

The Victorian Government has previously advocated the need for regulatory reform on this issue via submissions to Australian Energy Market Commission (AEMC) and AER processes, including:

- the AEMC *DER Integration – updating Regulatory Arrangements* consultation paper in 2020
- the AER *Network Information Requirements Review* in 2022
- the AER *Incentivising and Measuring Export Service Performance* draft report in 2023.

We continue to support the public provision of the datasets identified in the consultation paper and call for the AER to go further in the inclusion of more detailed voltage data in the priority datasets.

Supporting innovation and integration

The Victorian Government's landmark $10.92 million Neighbourhood Battery Initiative (NBI) was the first project of its kind to fund trials and demonstrations of a broad range of neighbourhood battery ownership and operational models. Throughout this trial, access to low-voltage network data was a near-universal barrier to project development and delivery. Inability to find locations where non-network parties could install a neighbourhood scale battery to efficiently provide network services caused delays to multiple Round 1 NBI projects. This also impeded the value proposition of these projects.

The Victorian Government has since committed to installing an additional 100 neighbourhood batteries across Victoria, while the Commonwealth Government is deploying 400 community batteries across Australia. This large-scale rollout of batteries at the distribution scale will play a significant role in the energy transition while delivering benefits to consumers and communities but will drive a growing need data on low-voltage network constraints and opportunities.

In addition, innovation and efficient placement of emerging products such as virtual power plants (VPP) and in time, vehicle-to-grid technologies, will also require timely, consistent and transparent provision of these data to underpin efficient innovation and integration of DER.

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The need for regulation

Energy networks are fundamental to a wide variety of stakeholders, underpinning an evolving essential service. For example, a growing uptake of behind the meter batteries and electric vehicles (EV) in response to government subsidies and legislated targets[1], is likely to underpin a proliferation of business models seeking to unlock the value of storage in smoothing the transition of the energy market. To promote a level playing field, opportunities for innovation and competition should be accessible to all parties, enabling efficient investment in DER solutions.

Low-voltage network data held by distribution network service providers (DNSPs) is needed to identify optimal locations to efficiently deploy DER technologies and non-network solutions. Current inconsistencies in the availability of the required data, and lack of transparency in processes to access it, is preventing real competition and market innovation. Public provision of network constraint information on the low voltage network is required in a consistent, accessible and timely manner, to unlock innovation and better serve the long-term interests of energy consumers.

The Victorian Government recommends that the AER update its Distribution Annual Planning Report (DAPR) requirements to include the provision of the datasets identified in the consultation paper.

The regulation of low-voltage network data will also enable DNSPs to recover the costs associated with increased data reporting requirements, by allowing them to include data provision as part of their regulatory proposals and ensuring cost-efficiency. It is not anticipated that the provision of the datasets identified in the consultation paper will require significant additional resourcing by DNSPs. DNSPs already collect and use this data in their own operations, including to undertake network planning and their Electricity Distribution Price Review proposals.

More detailed voltage data is required

In 2022/23, the Department of Energy, Environment and Climate Action (DEECA) undertook a Voltage Management in Distribution Networks consultation, and released a subsequent directions paper which found that requirements in Victoria for distributors to publish average voltage data is limited in its usefulness. Use cases which could improve the value of data reporting to consumers and third parties and be unlocked by providing additional datasets include identifying where voltage excursions could have damaged equipment, or where voltage is impacting inverter performance. This will add value for consumers whose DER are already providing voltage services to the network, and for third-party innovators offering non-network solutions that benefit the network.

A key theme in stakeholder submissions to the DEECA consultation was on the role of transparent performance reporting to ensure DNSPs are accountable for delivering on approved investment in network voltage. The Victorian Government welcomes the AER proposal to require reporting on average voltage data every six months (at a weekly timescale and to a distribution substation level). Since similar reporting of average voltage data in Victoria commenced in 2020, averages have continued to trend down across all Victorian distribution businesses. This trend is driving down energy costs for all Victorian consumers by enabling more solar and reducing overall energy consumption.

The Victorian Government recommends that the following additional datasets be considered by the AER as part of Phase 1 of the Network Visibility for Market Planning workstream. These will help overcome the limitations associated with only providing historical averages:

1. Average voltage data by time period (for example, the 'morning peak', the 'solar generation peak' and the 'evening peak') to identify critical voltage management periods.
2. Statistical metrics and their associated durations, specifically the percentage of customers experiencing voltages above or below particular voltage compliance thresholds, and for what time period. In order to avoid duplication, this should align with existing requirements, such as voltage compliance and performance reporting [2] from the Victorian Essential Service Commission.

[1] For example, the Victorian Government has committed to delivering energy storage targets of 2.6 gigawatts (GW) of renewable energy storage capacity by 2030 and 6.3 GW of storage by 2035.
[2] https://www.esc.vic.gov.au/electricity-and-gas/market-performance-and-reporting/voltage-performance-data. DEECA notes that this should be provided to the distribution substation level, in line with proposed reporting of average voltage data.

Victorian DNSPs have the advantage of excellent visibility of customer voltages in Victoria due to the near-universal roll out of smart meters. The Victorian Government recommends that the AER consider regulating the provision of datasets that leverage the benefits of high smart meter coverage in Victoria, with other jurisdictions working to meet this standard as smart meter penetration increases. The recently released AEMC independent review of the regulatory framework for metering services, recommends that smart meter deployment should be accelerated to target reaching 100 per cent of residential and small commercial or business customers by 2030.

Reviews of data requirements required every two years

The significant growth in DER and EV uptake will require frequent and regular review of evolving data requirements in coming years, to help address the dynamic nature of the energy sector transition. Data transparency is increasingly important as our energy system modernises, consumer preferences change, and DER are increasingly able to offer efficient solutions for new markets and services. For example, the imminent rapid uptake of EVs in Victoria, where the AEMO 2023 Inputs, Assumptions and Scenarios Report forecasts EV uptake of over one million EVs by 2030-31, will present a significant opportunity for provision of network services from this vast storage capacity.

The AEMO 2023 Electricity Statement of Opportunities (ESOO) report also emphasises the role of batteries coordinated through a VPP in addressing both peak demand and minimum operational demand. The ESOO outlines that over 6 GW of orchestrated VPP and vehicle-to-grid is possible by 2033 across the National Electricity Market (NEM)[3], further emphasising the growing need for revisiting the requisite datasets. Victoria's near-universal smart meter penetration can support these outcomes, providing increased visibility of the low voltage network and data to support network operation and planning.

The Victorian Government recommends that the data reporting requirements of the DAPR are reviewed every two years to ensure that data reporting keeps pace with the transition of the energy market and rapid evolution of DER uptake. This will also account for the three different regulatory control periods across the NEM jurisdictions and enable all DNSPs to account for the changing requirements as part of their Electricity Distribution Price Review proposals.

The Victorian Government welcomes the commitment of the Victorian DNSPs in voluntarily providing datasets to third parties, such as neighbourhood battery proponents and VPP providers. While significant progress is being made, in the absence of regulation DNSPs lack incentives and certainty in releasing all the required datasets. This is apparent in the current inconsistencies between networks in the types of information that they provide. The regulated provision of the datasets in this consultation paper, plus the additional voltage data recommended, will promote a systemic, consistent, and long-term solution to network data provision, for the benefit of all network users.

Thank you again for the opportunity to provide input. If you would like to discuss any of the issues raised in this submission further, please contact Katie Brown, Acting Executive Director, Energy Strategy, DEECA on [redacted] or by email at [redacted]

Yours sincerely

[redacted]

Elizabeth Molyneux
Deputy Secretary, Energy
Department of Energy, Environment and Climate Action

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[3] https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/nem_esoo/2023/2023-electricity-statement-of-opportunities.pdf