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Violette Mouchaileh
Executive General Manager – Reform Delivery
Australian Energy Market Operator

Via email: cerdataexchange@aemo.com.au

Dear Ms Mouchaileh,

Ausgrid response re CER Data Exchange Industry Co-Design Consultation Paper

Ausgrid is pleased to provide this submission to the Australian Energy Market Operator (**AEMO**) Consultation Paper on the Customer Energy Resource (**CER**) Data Exchange Industry Co-Design Project (the **Paper**).

Ausgrid is a Distribution Network Service Provider (**DNSP**) which operates a shared electricity network that powers the homes and businesses of more than 4 million Australians living and working in an area that covers over 22,000 square kilometres from the Sydney CBD to the Upper Hunter.

Customers are telling Ausgrid that they plan to invest more in CER (rooftop solar, batteries and electric vehicles) and support a proactive approach to us enabling those investments. By the end of FY2024, there were 262,000 solar systems on Ausgrid's network, covering 14.5% of all our customers. This is projected to rise to 550,000 systems and 27.9% of customers by 2034. The number of behind the meter batteries is expected to rise from 17,000 to 240,000 over the same period.

We are committed to utilising Ausgrid's network as a platform to safely, efficiently, and equitably enable CER in a way that meets the needs of customers, stakeholders and facilitates a net zero future. Our focus is on allowing customers to invest in CER and take part in new energy solutions as they choose, while providing incentives for customers to manage their usage in ways that optimise network utilisation to achieve the most efficient balance of cost, safety, and reliability for all customers.

Ausgrid supports the objective of the CER Data Exchange "to establish a secure, efficient, equitable and integrated CER Data Exchange that empowers all customers, enhances the grid reliability & supports Australia's transition to Net Zero". We consider our role, providing a network platform for enabling CER, consistent with this objective.

We have set out below areas for further consideration relevant to the design of the CER Data Exchange, as AEMO progresses the Project.

We support the need for improving exchange of CER data between organisations to address existing challenges

We recognise that CER is increasingly being connected through the internet to cloud technology platforms, virtual power plants (**VPPs**) and DNSP servers. The quantity of data being exchanged is ever increasing and, as identified by AEMO, is occurring at all layers: between organisations, organisation-to-device and device-to-device. We support the need for improving the exchange of organisation-to-organisation data through a shared CER data exchange. The exchange needs to be

secure, flexible and scalable for the medium to long-term data exchange needs. Sharing more CER data between organisations will help break down data silos which inhibit efficient decision making and targeted investment.

Ausgrid agrees with the Paper's classification of the four key data exchange challenges: complex sharing, duplicative administration, fragmented availability and integration burdens. One example of complex sharing is customer consent and willingness of OEMs and aggregators to share data with DNSPs about their customers/CER, and vice-versa. However, we caution AEMO and industry about building bespoke interfaces for Australia where there are industry standards that technology providers have developed for a global market.

Ausgrid understands that AEMO is not considering that the Data Exchange will be used for organisation-to-device and device-to-device communications. Ausgrid's view is that for simple use cases, organisation-to-device communications will be provided by DNSPs through international standards such as the Common Smart Inverter Profile – Australia (**CSIP-AUS**) based on IEEE standard 2030.5, and Distributed Network Protocol (**DNP3**). For more complex use cases, we expect that technology providers and VPP aggregators will have responsibility for the organisation-to-device and device-to-device communications, although DNSPs will still have a role in exchanging operational data with these other organisations.

DNSPs should retain responsibility for exchanging operational CER data rather than using a CER data exchange for this

Ausgrid considers that DNSPs should retain direct control and responsibility for exchanging CER data for network management and system security use cases (including those categorised as 'System Operation & Security'). Our view is that data exchange for these operational use cases (i.e. operational control) should not be through a CER data exchange, supporting the Paper's proposition that the Data Exchange 'is not intended to operate or control CER devices'. Cyber security of these operational communications is critical to operating distribution networks and the power system as CER uptake increases.

Instead of flowing through an exchange, communications should continue to flow between DNSP servers and devices (either directly or via cloud platforms of technology providers/VPP aggregators). DNSPs, CER OEMs and technology providers across Australia have implemented standards-based solutions for operational CER use cases such as communication of dynamic operating envelopes (**DOEs**) for flexible exports and as an emergency backstop mechanism. Notably, CSIP-AUS is the application programming interface (**API**) being progressively implemented for these use cases across the mainland states.

Dynamic network pricing should be sent from DNSPs directly, not through a data exchange

Dynamic network prices allow customers, VPPs and retailers to receive more cost-reflective price signals that vary by forecast network use. This pricing information provides customers with more opportunities to trade in energy markets and enables price-responsive network support.

Ausgrid, in conjunction with VPPs, technology and retailer partners, has been undertaking a proof of concept and proof of capability for dynamic network pricing through Project Edith. There are over 1,100 customers receiving dynamic prices and DOEs through an API compliant with the IEEE 2030.5 standard and CSIP-AUS.

Ausgrid considers that DNSPs should retain primary responsibility and control for sending dynamic network prices from DNSP servers out to devices (directly or via cloud platforms) not through a CER data exchange. Like DOEs discussed in the previous section, dynamic network prices are an operational tool for managing distribution networks.

Ausgrid supports stakeholder views reflected in the consultation paper that 'defining a standardised implementation should be the immediate priority' for scaling dynamic network pricing. Ausgrid is a member of the DER Integration API Technical Working Group (**DERIAPITWG**) through the Australian

Renewable Energy Agency (**ARENA's**) Distributed Energy Integration Program (**DEIP**). The DERIAPITWG is responsible for updates to CSIP-AUS and there is currently an activity to incorporate the transfer of pricing data (both retailer and network pricing). DERIAPITWG has broad industry representation including from DNSPs, Original Equipment Manufacturers (**OEMs**), VPPs and retailers. Ausgrid considers that this industry collaboration will ensure a standardised approach to sending dynamic network prices.

Figure 17 of the consultation paper suggests a timeline of '5 years+' for the 'Scaling Dynamic network pricing' use case. Ausgrid instead suggests a timeline of 'within next 5 years' for this use case as preparing dynamic network pricing data by DNSPs for sharing through a CER data exchange will be very similar to preparing site level network limits for the 'Sharing Network Limits' use case.

Investment in a CER data exchange needs be justified

The Paper set out three guiding principles: 'Prudent & Efficient', 'Adaptable & Scalable', and 'Trusted & Secure'. We support all three guiding principles. In particular, we view that "Prudent and Efficient: manage expenditure judiciously to deliver a fit-for-purpose and cost-effective outcomes" will be crucial over the next phases of the project and any future implementation. Costs for industry's investment in data exchange capabilities are ultimately passed through to customers in their electricity bills and investment in CER.

With this in mind, we consider that a detailed cost-benefit analysis is required to support any data exchange implementation plan. This analysis needs to cover costs across industry including DNSPs, AEMO, OEMs, Retailers and Aggregators. Through Ausgrid's involvement in the Expert Working Group and Industry Workshops, we have not yet seen cost-benefit analysis that would justify initial investment from industry in any foundational use cases.

Where a business case is justified for the implementation of data exchange to be utilised by the industry, DNSPs must be able to recover their full efficient costs, without penalty under our respective efficiency incentive schemes, to integrate with and use the data exchange. Our view is that subsequent use cases will also need to be justified on a case-by-case basis.

Ausgrid supports Energy Networks Australia's submission

Ausgrid is a longstanding member of Energy Networks Australia (**ENA**) and supports collaboration with other networks and broader industry through ENA. Ausgrid is committed to streamlining and standardising processes with other DNSPs to ensure that installers, OEMs and other industry stakeholders have as consistent an experience as practicable and have access to the required data to support CER uptake and share these benefits.

Ausgrid has collaborated with other ENA members on ENA's submission to the Paper. Ausgrid supports the key points in the consensus view put forward in the ENA submission:

- Create a pathway to secure, extensible and scalable shared industry data platform;
- Purpose is for business-to-business data exchange and never for operational control for network management or system security purposes;
- Any new platform should be an enabler of data sharing and not to perform operations on the data that passes through it;
- No investments should be made in data exchange capabilities by AEMO unless there is high confidence they return net positive value to customers;
- DNSPs must be able to recover their efficient costs to integrate with and use the platform;
- The Industry Data Exchange (**IDX**) / Identity and Access Management (**IDAM**) program should be leveraged in developing the pathway to the future CER data exchange;
- The proposed phased implementation approach should be preceded by, and validated through, a strategically focused, consultative review phase; and
- The timing and capabilities of any new CER data exchange should align with and support other regulatory and policy reforms.

We welcome further collaboration with AEMO in this co-design project. Please contact Alan Luc, Distribution System Operator Systems Lead at aluc@ausgrid.com.au should you wish to discuss our response further.

Regards,

Junayd Hollis
Group Executive – Customer, Assets and Digital