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Draft DER integration expenditure guidance note

Essential Energy welcomes the opportunity to provide a submission to the Australian Energy Regulator (AER) on its *Draft DER integration expenditure guidance note* (draft guidance note).

Support for the DER integration expenditure guidance note

The electricity supply chain is currently undergoing a fundamental transformation and whilst all network businesses across Australia are at uniquely different stages of Distributed Energy Resources (DER) penetration and associated issues, it is clear that the rapid and continually evolving pace of change in these technologies will increase over time. Such is the pace of DER growth, that traditional methodologies for valuing the costs and benefits of investments are no longer well-defined under existing rules and approaches. Left unaddressed, future DER investments will impact security, reliability, equity and affordability outcomes for consumers across Australia's many networks.

At present, there is no uniform methodology for networks to conduct hosting capacity assessments and thoroughly value DER investment benefits. As such, the earlier that simplified and transparent methodologies for assessing the value of DER are integrated across the National Energy Market, the more optimal the benefits of DER investments that can be applied to all energy system users. To that end, Essential Energy welcomes the AER's approach in developing a methodology for distribution businesses to apply in valuing DER benefits which is practical, proportionate, repeatable and capable of flexibly accommodating jurisdictional differences and differences in network visibility.

Inclusion of DER integration strategy within regulatory proposals

Essential Energy supports the requirement for DNSPs to develop a DER Integration Strategy within future regulatory proposals. In our view, such a requirement will provide stakeholders with a coherent and coordinated overview of our approach to DER integration across tariff design, capital expenditure and other innovative programmes such as demand management. It will also allow customers to influence these plans as we engage with them on the regulatory proposal.

Whilst supportive of the DER Integration Strategy, we would note that some of the new obligations such as DER penetration forecasts (at least ten years into the future) and the future implications of the network, are new requirements for many distribution businesses, and will therefore have new

associated costs for compliance. This is particularly true if any jurisdictional obligations place further additional requirements on distribution businesses' reporting requirements.

As such, we would encourage the AER to ensure that any reporting duplications are minimised, in particular we note the similarities across the *AEMC's Access, Pricing and Incentive Arrangements Final Rule Determination* and those outlined in section 3.1 of the draft guidance note.

Principles-based approach preferred

The AER's integration expenditure guidance note sets out the overarching methodology, modelling technique and broad approach to setting efficient DER expenditure for distribution businesses.

Essential Energy is of the view that a principles-based guidance note over time will be most accommodative and adaptive to rapidly changing DER developments, relative to a more prescriptive-based approach. In practise, a principles-based guidance note will allow individual DNSPs to determine the most fit-for-purpose approach to the unique set of jurisdictional obligations, licence conditions, customer preferences and DER capabilities that pertain to their network. As such, at the next stage of consultation we would encourage the AER to outline further specific principles, potentially drawn from a combination of the National Electricity Objective (NEO) and the existing National Electricity Rules (NER) revenue/pricing principles for stakeholder feedback.

Standardised input assumptions

The final CSIRO and Cutler Mertz Value of Distributed Energy Resources (VaDER) report, recommended the AER develop standardised input assumptions which may be used as inputs to DER integration cost-benefit assessments including:

- Long run marginal costs and generation profiles for standard large-scale generation types;
- Wholesale electricity prices over a long-term investment period by region;
- Emission intensity of generation; and
- DER investment costs by region.

Nonetheless, we note that the AER is yet to decide on the ultimate commissioning of the development of standard input assumptions. From our perspective, Essential Energy sees value in the AER developing standardised input assumptions from which DER benefits can be quantified from base case scenarios. As with other types of AER inputs, the development of such inputs could be subject to consultation and contribution from other stakeholders, adding to the robustness of the methodology process.

In practise, this also would avoid DNSPs individually commissioning consultants to provide unique input assumptions; such an outcome is an inefficient use of resources and may ultimately produce inputs which are in conflict with each other. For these reasons, we support the development of standardised input assumptions.

Further acknowledgement of customer led DER expenditure

Essential Energy supports the AER's approach to quantifying wholesale market and network benefits as outlined in the previous VaDER work undertaken by CSIRO and Cutler Mertz. The approach set out within the draft guidance note appropriately recognises the fundamental role customer engagement plays in determining network investment and capital expenditure priorities. Nonetheless, we note discussion in the draft guidance note that 'intangible' (or non-monetary) customer benefits such as network resilience may not be able to be accurately captured within a standardised economic cost benefit framework. Whilst we are sympathetic to some of the practical concerns associated with quantifying 'intangible' benefits, we do believe these issues should be further examined in greater detail.

As a regional network, Essential Energy's approach to this issue, and network resilience in general, is informed by the 2019-20 bushfire season which had a catastrophic impact on both the communities we serve and the assets we manage. Through this lived experience, Essential Energy is currently experiencing growing community expectations for greater network resilience investments to be provided, particularly in relation to standalone power systems. These community expectations were echoed in recommendations following the recent *NSW Bushfire Inquiry* and the *Royal Commission into National Natural Disaster Arrangements*, which identified that at present there is no corresponding methodology within the regulatory framework to value the resilience component of these community expectations.

In a similar vein, we note the CSIRO/CutlerMerz recommendation that 'environmental' benefits may only be quantified if there is an identifiable tax, levy associated with environmental costs which producers are required to pay or where jurisdictional legislation directs distribution businesses to consider the impact of these externalities. Whilst cognisant of the complexity of including environmental benefits which don't confer a strictly quantitative financial value, we think there is value of including environmental benefits in DER expenditure decisions if such activity is customer led, regardless of whether they are reflected in a tax or not.

As such, we would encourage the AER to further examine this issue and explore how customer led 'intangible' and 'environmental' benefits can inform part of the decision-making process of DER investments.

Network visibility (smart meters)

The falling costs of DER installation and the greater uptake of new technologies such as batteries and even electric vehicles, is accentuating the requirement for greater understanding of the operating environment of the low voltage network in a way that was not previously required.

Access to smart metering data is fundamental for non-Victorian DNSPs to provide accurate expenditure assessments. The draft guidance note accurately highlights the vital role smart meter data provides in producing hosting capacity estimation modelling. Nonetheless at present Essential Energy has a smart meter penetration of only 20% across our regional network and access to smart metering data is largely cost or contractually prohibitive¹. Improved access to smart meter penetration is a foundational underpinning for the types of innovation and DER related benefits the guidance note intends to deliver to customers. This includes time of use pricing, demand management services, quicker customer transfers, reduced energy theft and the facilitation of different billing cycles.

Given the underlying role data will have in delivering customer benefits, we encourage the AER to further contemplate how such services will be delivered (and importantly funded). It may be appropriate to examine these operating expenditure costs as a step change basis across successive regulatory periods for DNSPs businesses investing in capability uplifts. We would also encourage the AER to contribute to the AEMC's current *review of the regulatory framework for metering services* as a means of supporting greater (and cost efficient) facilitation of smart metering data.

Conclusion

Essential Energy supports the draft guidance note as a positive contribution to the regulatory treatment of DER. We have raised a number of issues for further consideration above, which we believe will provide improved guidance to both the AER and network businesses. Essential Energy thanks the AER for their consultative approach and thorough analysis.

¹Issues such as poor access to smart metering data were well identified in the *AEMC's Review of the Regulatory Framework for Metering Services (2020)*.

If you have any questions in relation to this submission, please contact Anders Sangkuhl, Regulatory Strategy Manager via [REDACTED] or via phone [REDACTED].

Yours sincerely,

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