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Newcastle, CSIRO Energy Centre  
Commonwealth Scientific and Industrial Research Organisation  
10 Murray Dwyer Circuit, Mayfield West,  
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### **Value of Distributed Energy Resources: Methodology Study**

Essential Energy welcomes the opportunity to provide a submission to the Commonwealth Scientific and Industrial Research Organisation (CSIRO) on its' *Value of Distributed Energy Resources: Methodology Study* (the study).

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 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.

#### **Support for the methodology study**

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 can be applied to all energy system users.

To that end Essential Energy welcomes the CSIRO's approach in developing a methodology for DNSPs to apply in valuing DER benefits which is practical, proportionate, repeatable, and capable of flexibly accommodating jurisdictional differences and differences in network visibility. Specifically, Essential Energy supports the following recommendations:

1. That the AER prepare a guidance note or practice guide setting out a principle-based approach to preparing business cases for DER integration which identifies the types of DER benefits which may be included, how wholesale market benefits are calculated, as well as setting out a methodology for how businesses investment cases should be reported.
2. The AER should annually commission, the development of standard input assumptions which may be used as inputs to DER integration cost-benefit assessments, and wherever possible

these assumptions should be consistent with other regulatory bodies methodologies, eg AEMO's ISP.

3. The AER to develop guidance for networks to follow when assessing the hosting capacity of their networks.
4. That individual State jurisdictions should investigate methods for the valuing of environmental benefits as a way of further informing network's DER hosting capacity decisions and investments.

### Further Considerations

The recent *NSW Bushfire Inquiry* and *Bushfire Royal Commission* made a number of recommendations relating to how network resilience is currently valued in network investment decisions, in particular in relation to standalone power systems. Despite the growing community expectations for greater network resilience to be provided, there appears a recognition in both the inquiry and royal commission findings that at present there is no corresponding methodology within the regulatory framework to value the resilience component of these community expectations.

As such, we would encourage the study to contemplate how "resilience" could also form part of the recommendation four jurisdictional considerations listed above.

### Conclusion

For the reasons above, Essential Energy supports the methodology study as a positive contribution to the regulatory treatment of DER and, if the recommendations are adopted, they will provide improved guidance to both the AER and network businesses. Essential Energy thanks the CSIRO and Cutler Mertz for their consultative approach and thorough analysis.

If you have any questions in relation to this submission, please contact [REDACTED].

Yours sincerely,



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