

20 January 2019

Mr Arek Gulbenkoglou  
A/General Manager, Distribution  
Australian Energy Regulator (AER)  
GPO Box 520  
Melbourne, Vic, 3001

Dear Mr Gulbenkoglou,

## CONSULTATION PAPER – ASSESSING DER INTEGRATION EXPENDITURE

Endeavour Energy appreciates the opportunity to provide this response to the AER's *Assessing DER Integration Expenditure* consultation paper and supports the AER providing guidance on how DNSPs can demonstrate DER integration investment is prudent and efficient.

Overall, we support the principles underlying the expenditure assessment framework (the capex and opex objectives, criteria and factors) and consider they are suitable for promoting efficient investment in both existing and new categories of expenditure. These principles are supported by the assessment tools outlined in the AER's Expenditure Forecast Assessment Guideline (the EFA Guideline). The range of tools included in the EFA Guideline should cater for DER integration and optimisation expenditure. Notwithstanding this, the EFA Guideline was developed in 2013 and DER expenditure is a more recent and growing investment driver. We therefore support the AER providing further clarification and detail on the type of evidence required to demonstrate the efficiency of this emergent category.

This will also provide confidence to stakeholders that the rigour and scrutiny applied by the AER is sufficient to ensure only efficient and prudent expenditure is justified. However, it is important to note that this is a developing (at varied rates across the NEM) expenditure category. Whilst similar assessment tools will be applicable to DER integration and optimisation, the level and quality of supporting evidence and valuation methodologies will not be as refined and consistent as more well-established investment drivers.

### The challenges of forecasting and assessing DER integration investment

As noted by the AER, assessing DER investment presents a challenge as project costs may be attributed to multiple expenditure categories with each assessed using a different combination of techniques from the AER's assessment toolkit. Also, the level and rate of DER connections will impact each network differently and requires the AER to develop an understanding of each networks' unique DER circumstances and capabilities. Where the DER integration investment is justified, the lack of information and unit cost data on comparable projects makes it difficult for the AER to assess the efficiency of proposed costs.

From a network perspective, DNSPs are moving towards optimising capacity from the existing network by leveraging from opportunities from new technologies and changes in customer energy usage behaviour. Making this transition is not without challenges and we consider the AER's assessment approach should be cognisant of the difficulties DNSPs face when developing DER enablement plans. Some of these include:

- Forecasting investment needs: Strong DER uptake and changing customer behaviours makes it difficult to predict the location and timing of constraints and accurately forecast the efficient costs of managing their impact at the time of lodging a regulatory proposal. Improving our forecasting capability will require; increased LV network data/monitoring, consumer metering data from Metering Coordinators (which will come at a cost) and improvements from expert third parties that provide input to our forecasts.
- Planning constraints: There are increasing planning requirements (e.g. DAPR, RIT-D) and evolving determination assessment tools and guidance notes. It is important that any assessment tool is cognisant of the planning constraints networks face. As unlimited planning resources and perfect information do not exist, and determinations require up to 7 years' worth of forecast information, a degree of engineering expertise and judgment is required in developing investment plans. For new and

emerging investment drivers it is important to be cognisant of these practical constraints (along with the forecasting difficulties outlined above) when setting expectations and evidentiary requirements.

- Optimising existing network capacity: The effectiveness of dynamic export limits is dependent on the capabilities of customers' equipment and provides minimal benefits to customers where exports are curtailed frequently or for long periods due to severe local capacity constraints.
- Transitioning to a distribution system operator (DSO) role: A coordinated approach to integrating DER in the NEM requires networks to transition to an active system operator role. DER is impacting some networks to an extent that this transition is occurring prior to the optimal DSO design and NEM-wide framework being finalised.

In addition to these, it is difficult to demonstrate the priorities of consumers have been appropriately balanced in investment plans where DER and non-DER customers have conflicting views on the case for DER investment.

#### A flexible, principles-based assessment approach

In many regards, DER integration investment differs from the categories of network investment in the EFA Guideline. Although this means some of the AER's assessment techniques would not be suitable for assessing DER investment (e.g. benchmarking, trend analysis and predictive modelling), others remain valid (e.g. cost benefit analysis and detailed project review). In short, we believe the AER has the techniques and information gathering tools in place to ensure customers only pay for efficient DER enabling projects.

However, it would be appropriate for the AER to adopt a more flexible approach towards applying these techniques to work through the complexities of DER integration proposals. This would allow to AER to better consider the merits of proposed investment in the context of a DNSP's DER circumstances and determine whether proposed investment contribute towards optimising network capacity for the benefit of all customers. Furthermore, a flexible approach would allow the AER's assessment and information requirements to evolve as networks' DER management capabilities mature and DER becomes more embedded in the system.

As an example of an effective and robust framework, it may be useful to have regard to the principles underlying the RIT-D. Although the RIT-D process does not provide the flexibility required in a DER assessment framework, the principles on which the process is based encourages networks to perform transparent investment efficiency assessments and engage effectively with stakeholders. These outcomes reflect good practice and should be replicated in the framework for assessing DER investment.

To ensure the DER assessment framework improves consistency, transparency and predictability of the regulatory process and produces outcomes that are valued by customers, the AER's guidance should focus on the following key considerations.

#### *Capturing the benefits of DER*

There can be several benefits associated with an investment that can form part of a business case and the RIT-D provides a useful listing of potential market benefits that could be considered. A formulaic approach to justification and assessment can result in a narrow, well-defined and commonly used set of benefits and values being relied upon. In establishing and prioritising investment plans, DER integration projects may be relegated or difficult to justify on similar terms to traditional network solutions (e.g. justifying repex and augex by reference to energy at risk using VCR values or reliability corrective actions against minimum standards).

It will therefore be important that a broad set of market benefits are considered in assessing DER integration projects. These projects may in some instances improve network resilience, safety or reliability and/or materially improve consumer, social and environmental outcomes. It is important that an orthodoxy or hierarchy is not established that precludes projects that offer less traditional market benefits.

#### *Determining the value of DER*

At a basic level, a cost-benefit analysis requires a comparison of the value to customers from a proposed investment against the cost of the investment. However, the absence of a methodology to derive the value of DER (or the cost of restricting DER) makes this comparison for DER enabling investment problematic. As noted

above, it will be difficult for DER integration projects to compete with more well-established investment drivers that are more readily measurable. Developing a methodology to value DER and/or providing some case study examples as part of the AER's guidance paper should therefore be a priority for networks and the AER.

*Considering emerging trends*

As future DER trends and behaviours are unknown, networks should be careful not to invest in long-term DER solutions that only provide value in the short-term. To help reduce stranding risks, the AER has proposed a requirement for networks to assess emerging alternative options. However, we caution that investment decisions based on an assumption that current constraints are temporary, on the basis a particular trend or technology will emerge in the future to provide a more efficient solution.

Any assessment of DER integration expenditure should be viewed with regard to the obligations DNSPs have to respond efficiently to network constraints as they present on the system. This can only be achieved by having regard to the viable options that are currently (not potentially) available.

*Incorporating customer feedback and industry initiatives*

Notwithstanding the issues of diverging customer views, understanding the priorities of customers will be integral in achieving improved customer-centred DER outcomes. Customer feedback can provide useful insight into identifying and valuing the benefits associated with DER. This input should support and/or validate (rather than replace) the economic justification underpinning any proposed investment. Also, the AER's assessment process should be cognisant of the various industry-wide DER related initiatives and projects. Understanding the progress made in these forums will help the AER to form a holistic view of the capabilities needed to optimise DER investment and better inform their decisions.

If you wish to discuss this submission further please contact Jon Hocking, Manager Network Regulation at Endeavour Energy on [REDACTED] or via email at [REDACTED]



**Rod Howard**  
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