

6 May 2022

Dr. Kris Funston  
Executive General Manager, Network Regulation  
Australian Energy Regulator  
GPO Box 3131  
Canberra, ACT, 2601

Dear Dr Funston

### **AER Customer Export Curtailment Values Methodology**

Evoenergy welcomes the opportunity to respond to the Australian Energy Regulator's (AER's) Customer Export Curtailment Value (CECV) methodology and explanatory statement. The CECV will serve as an important input to the distributed energy resources (DER) framework to guide efficient levels of network expenditure for the provision of export services.

The key points of the AER CECV methodology include:

- CECVs reflect the detriment to all customers from the curtailment of DER exports;
- CECVs are estimated on a half-hourly basis by National Electricity Market (NEM) region over a 20-year forecast period based on the Australian Energy Market Operator's (AEMO's) Draft 2022 Integrated System Plan (ISP) step change scenario;
- CECVs are estimated by NEM region with distribution network service providers (DNSPs) to apply the CECVs for their region; and
- CECVs are to reflect the wholesale market benefits in the form of wholesale market costs that could be avoided through network investments to avoid export curtailment.

Evoenergy is supportive of the decision for the CECV to contain wholesale benefits but is concerned that:

- the AER draft CECV methodology appears to have resulted in the CECVs materially understating wholesale market benefits; and
- the material understatement of wholesale market benefits may prohibit a DNSPs' ability to expand export hosting capacity in a way that would efficiently integrate rooftop solar Photo Voltaic (PV) systems into the NEM to an appropriate level that provides a net benefit to all customers.

A driver of the AER's CECVs understatement of wholesale market benefits appear to be in part due to the exclusion of the avoided generation capacity investment value stream. This is explained in detail below.

The Value of Distributed Energy Resources (VaDER) study, produced by CSIRO and CutlerMerz and released by the AER in November 2020, proposed both longhand and shorthand approaches to calculating wholesale market benefits. The longhand approach involved commissioning electricity market modelling to assess the impact of the change in DER services on the wholesale market, to be quantified in terms of both avoided investment and avoided operational costs. The VaDER study also stated that the shorthand method is a simplified method that does not require electricity market

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modelling and is generally conservative.

As there is a range of methods that could be used to quantify market benefits, Evoenergy collaborated with economic consultant Houston Kemp as part of a joint-DNSP engagement to provide guidance and estimates on potential CECV models that reflect the wholesale market benefits. HoustonKemp proposed a framework for quantifying both avoided dispatch and investment costs, and captured both the period-by-period changes in dispatch benefits and the additional investment benefits premium above dispatch benefits. The proposed framework applied a full market model of the NEM, populated with assumptions from AEMO's draft 2022 ISP. HoustonKemp's approach to the estimation of dispatch and investment benefits is consistent with the longhand approach discussed by the AER in its guidance note.<sup>1</sup>

HoustonKemp found that investment effects are particularly important in the present context. This is due to the significant future levels of generation and transmission investment and the role of CECV in ensuring efficient investment trade-offs between reducing export curtailment and investing in new generation.

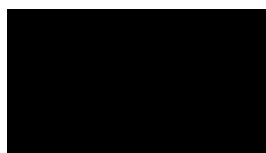
Upon comparing the CECVs, derived by the AERs shorthand methodology and HoustonKemp longhand methodology, Evoenergy found the AER's approach to be materially lower during daytime periods. The difference in values between the two approaches is consistent with the point raised in the VaDER study that the shorthand approach is generally conservative.

Evoenergy is concerned that the AER's CECVs may have unintended outcomes which could impact customers and reduce the overall efficiency of the NEM. Understating the market benefits stream and therefore the value of DER exports will, when used in conjunction with expenditure assessment tools, incorrectly indicate that an alleviation of export curtailment does not provide a net benefit to all customers. Therefore, the AER's CECV methodology risks prohibiting networks from undertaking the future network augmentations necessary to efficiently integrate additional export services.

To address these concerns Evoenergy recommend the AER adopt a longhand methodology that includes avoided investment costs.<sup>2</sup>

If you wish to discuss Evoenergy's submission further, please contact Luke Cowen on [REDACTED] or at [REDACTED]

Yours sincerely



Peter Billing

General Manager Evoenergy

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<sup>1</sup> AER July 2021, 'Draft DER Integration Expenditure Guidance Note'

<sup>2</sup> The Energy Networks Australia submission includes a memo prepared by HoustonKemp on this matter. ActewAGL House 40 Bunda Street Canberra ACT 2600 | GPO Box 366 Canberra ACT 2601