

15 December 2021

Dr Kris Funston
Executive General Manager, Network Regulation
Australian Energy Regulator
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Sent via email: AERinquiry@aer.gov.au

Dear Dr Funston

Submission on Customer Export Curtailment Value methodology

SA Power Networks welcomes the opportunity to comment on the AER's Issues Paper on the Customer Export Curtailment (CECV) Methodology. We are pleased to share our perspectives as one of the rule change proponents behind the reforms governing access, pricing and incentive arrangements for Distributed Energy Resources (DER) which introduced the concept of the CECV.

The CECV was introduced to serve, for export services, the same key function as the Value of Customer Reliability (VCR) – to provide an insight, in preparing a network expenditure proposal and designing service performance incentives, on how much customers value and may be willing to pay to avoid a service outage / constraint.

Our key concern is ensuring that collectively the valuation methods reflected in the CECV, Value of DER (VaDER) and broader DER Integration Expenditure Assessment Guidance Note, support levels of expenditure commensurate with customers' willingness to pay, for which market benefits is only one input. Further, as customers of export services will increasingly be paying network tariffs to recover DER hosting capacity costs, appropriate consideration must be given to how much these customers would value avoiding service curtailment. To this end, our submission, attached to this letter proposes that:

- if the CECV is to only capture one category of market-wide value as proposed in the Issues Paper, then it must serve only as a 'floor' value of the detriment of service curtailment; and
- on-top of the CECV, there must be flexibility to consider other value streams shared by all customers, as well as analysis on the willingness of customers to pay to avoid service curtailment.

Our submission also responds to specific matters of estimation methodology raised in the Issues Paper.

If you have any queries or require further information in relation to our submission, please contact Bruno Coelho on [REDACTED] or [REDACTED]

Yours sincerely

[REDACTED]
Mark Vincent
General Manager Strategy and Transformation

1. The role of the CECV

The AER should clarify the precise role that it envisages the CECV to play in the broader process of determining the prudence and efficiency of network expenditure proposals for DER integration and export service performance incentives. On its own, the CECV as proposed in the Issues Paper is likely to under-value the detriment to DER customers arising from curtailment to their energy exports, and must therefore only be interpreted as indicating the ‘floor’ value of that detriment (i.e. the benefit value of investing in more network capacity to minimise curtailment).

At the broadest level, network expenditure on DER integration will be efficient and consistent with the National Electricity Objective (NEO) if it is sufficient to enable a level of DER network hosting capacity that customers are willing to pay for. To provide for this outcome, we would envisage that:

- the CECV, as proposed in this Issues Paper, would form a starting point or floor value because it is only valuing the effect on the National Electricity Market (NEM) wholesale market, which all customers (including those without DER) ultimately experience, and indeed, only one wholesale market value stream via changes in generator dispatch costs;
- distributors should have the option of also considering other categories of value that are shared by all customers, as described in the draft AER VaDER, including network value (e.g. losses), upstream network value (e.g. changes in transmission network investments) and other wholesale market value (e.g. changes in generator capacity investment and changes in Frequency Control Ancillary Services costs); and
- distributors should then be able to analyse and undertake engagement with customers, on the extent to which customers, particularly those with DER (i.e. customers of export services) would be willing to pay for higher levels of network hosting capacity. It is particularly important that this be tested with customers of export services, as:
 - it is these customers who in future will increasingly be paying for the costs of DER hosting capacity that is incremental to the intrinsic network hosting capacity enabled by the consumption service; and
 - while there is a relationship between the payments DER customers receive from their retailers / intermediaries for exported energy and changes in wholesale market costs arising from DER exports, the two may not be equivalent. Customers have visibility / expectations on likely future payment streams from their retailers / intermediaries based on how much those parties anticipate that energy to be valued in the wholesale market.

The abovementioned approach appears appropriate as:

- a compromise, noting that the proposed CECV approach does not directly consider the detriment to DER customers arising from a constraint¹, and how much they would value / be willing to pay to avoid that detriment. The AEMC Rule Determination envisaged that the detriment to both DER customers and all customers would be considered; and
- an alternative to the option in the Issues Paper of deriving two CECVs, one for customers with and without DER. The practicality of this option is unclear, noting it is DER customers who will pay tariffs for network hosting capacity costs. This is unless the AER envisages this addressing the likelihood that some costs of DER network hosting capacity may temporarily continue to be recovered from all customers where the new export tariffs are phased-in to manage impacts.

¹ The AEMC Rule Determination stated: “...the values may need to capture not only the detriment of export curtailment to the customers using the export service but also the potential detriment to all customers from lower levels of customer exports”. AEMC, Rule Determination: Access, pricing and incentive arrangements for DER, 12 August 2021, p.63.



2. Estimation methodology issues

We comment below on the methodology for estimating the CECV as proposed in the Issues Paper

Table 1: SA Power Networks comments on issues of CECV methodology

Topic	Our view
Value streams to capture in valuations	<p>In outlining the value streams that the AER considers appropriate to capture in cost benefit analyses of network expenditure, the Issues Paper refers to changes in the costs of customer DER investments (i.e. the costs of customers purchasing DER).</p> <p>The AER should confirm our understanding, based on the AER DER integration expenditure assessment guidance note and the associated public forum, that these costs would only be required to be included in valuations if a distributor was proposing to alter its DER penetration forecasts between its base-case and its network investment case.²</p>
How to express a CECV	<p>It is appropriate that CECVs be expressed on the basis of a dollar per MWh value, as described in the Issues Paper, which should enable simple application to a distributor’s analysis of the volume of energy likely to be curtailed under different investment scenarios (e.g. a base case scenario).</p>
Relationship between the CECV and export tariffs	<p>The relationship between the CECV’s role and export tariffs will be more direct than as described in the Issues Paper. While the introduction of export tariffs may be gradual and subject to transition management (e.g. by phasing in prices to existing DER customers), ultimately it is customers of export services that will pay for the network costs of enabling this service, and therefore it is important that the value they see in avoiding service curtailment (arising from insufficient network hosting capacity) is considered as we noted in section 1 above.</p> <p>The Issues Paper appears to mis-describe the costs to be recovered (subject to customer impact management transition) via export tariffs. We expect these tariffs can recover any costs associated with DER hosting capacity that are incremental to the intrinsic DER network hosting capacity – these may include future network costs but also any sunk costs that may have already been incurred in providing additional DER hosting capacity (i.e. above the intrinsic capacity) and which was incurred specifically for the export service.³</p>
Locational nature of costs	<p>CECVs should be estimated by NEM region, as wholesale market costs will be influenced by regional factors, such the status and operation of interconnectors. A whole of NEM CECV will inaccurately value the detriment to all customers within each distributor’s state jurisdiction.</p>
Temporal nature of costs	<p>CECV should consider the value of foregone solar generation by considering the time profile of electricity exports, by time of day and season. The AER should also clarify:</p> <ul style="list-style-type: none"> ▪ the type of annual CECV update intended—if this an inflation update, or something more extensive which poses challenges to the long process of preparing a regulatory proposal; and ▪ the timing of the 5 yearly CECV methodology reviews (required by the NER), which should occur on the same timeframes as the VCR given their similar regulatory purpose.
Modelling issues	<p>CECV’s should be estimated using full market modelling (i.e. ‘long-hand method’). This method may produce more accurate and complete values. Further, as the AER (rather than individual distributors) will be estimating CECVs for all NEM regions, there will be synergies in this work, compensating for the higher cost of this form of modelling.</p>

² Our views on this issue were discussed in our submission to the AER Guidance Note. SAPN, *Submission on Distributed Energy Resources integration expenditure guidance note and explanatory statement*, 31 August 2021, p.6.

³ Export tariffs would unlikely seek to recover network costs incurred for the specific purpose of the consumption service (i.e. with an identified need pertaining to the consumption service), which has a consequent effect on DER hosting capacity.

