

6 May 2022

Dr Kris Funston
Executive General Manager, Network Regulation
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Sent via email: AERinquiry@aer.gov.au

Dear Dr Funston *Kris*

Submission on Draft Customer Export Curtailment Value methodology

SA Power Networks welcomes the opportunity to comment on the 'Draft Customer Export Curtailment Value (CECV) methodology' and 'Explanatory Statement', collectively, the 'Draft Methodology'.

Our main concern is in ensuring that the CECV and broader DER Integration Expenditure Assessment Guidance Note support network expenditure commensurate with the value that customers place on the service. Regulation must enable delivery of an export service that customers want and value, particularly as the users of that service, DER customers, will be paying tariffs for using this service. Our key views are:

- CECVs must only set the 'floor' value of the customer detriment of export service curtailment;
- there should remain flexibility, as appears intended, to quantify other value streams pertaining to the wholesale market that we believe are likely to make a material difference to CECV estimates, namely changes in centralised generation capacity investment (if not included in the CECV); and
- crucially, there must also be flexibility for distributors to engage with customers, particularly their DER customers who will be paying tariffs for using export services, and to undertake research on the value they perceive / their willingness to pay to avoid curtailment in their export service.

On other specific issues, our views are that:

- a review / workshop should be undertaken to determine methodology factors that appear to be driving the AER's CECV estimates to be materially lower than alternative estimates;
- it is more efficient for distributors to develop their own integrated DNSP model, rather than having to use the AER's DNSP model, providing that a distributor's model is transparent and accords with expectations of the AER's Guidance Note; and
- the CECV methodology should ideally be reviewed by the AER prior to the commencement of each round of distribution determinations in order to capture the most up-to-date settings given that the CECV is likely to be highly uncertain and dynamic as the electricity sector continues to transform.

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
Executive General Manager Strategy and Transformation

1. Network investment must align to what customers value

The value for customers who pay to use export services must be considered

We note that the CECV Methodology is only one input to DER integration business cases, with broader AER expectations to be set out in its Guidance Note. However, we are concerned that the AER appears to discount the merit of distributors engaging with customers, particularly their DER customers, on the service levels and network investment that they value and are willing to pay for. This appears misaligned with the development of customer centric proposals, as set out in the Better Resets Handbook.

The AER's stated intent of focussing on examining the costs of network expenditure against 'shared benefits' appears driven by its description of the export service as being a shared service – that is, if it is a Common Distribution Service within the Standard Control Services classification. Even if the export service is classified in this way, which is our current position, it is important to note that:

- the service would be more correctly described as being 'shared across customers with DER' rather than all customers – that is, it is customers of the export service that will in future be paying for the costs of DER hosting capacity (incremental to intrinsic network hosting capacity enabled by the consumption service) through distribution tariffs, and it is these customers that will find their service curtailed if network investment is insufficient;
- the only aspect of the export service that will be shared among all customers will be the benefits that more exported energy (and lost benefits if exports are curtailed) may drive, such as by avoiding greater costs in the National Electricity Market (NEM), i.e. market benefits;
- as it is DER customers who will increasingly pay for export services, it is important that distributors be permitted to engage with these customers on the extent to which they would be willing to pay for higher levels of network hosting capacity; 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 may 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.

CECVs should only be a starting point for a customer centric network proposal

To align network expenditure on DER hosting capacity with customer expectations, our views are that:

1. the CECV, as proposed in the Draft Methodology, should only form a starting point or floor value because it is only valuing the effect on the NEM wholesale market, which all customers (including those without DER) ultimately experience, and indeed only some value streams;
2. there should also be the option of considering other categories of value that are shared by all customers, as described in Table 2.1 the Draft Explanatory Statement,¹ including network value (e.g. losses), upstream network value (e.g. changes in transmission network investment) and other wholesale market value (e.g. changes in NEM generator capacity investment); and
3. distributors should then be able to undertake engagement and research, on the extent to which customers, particularly those with DER, are willing to pay for higher levels of network hosting capacity - this research, may seek to express in dollar terms, customers perceived financial and non-financial benefits (e.g. energy flexibility, and / or environmental benefits, etc) of exporting their DER energy.

¹ AER, *Explanatory Statement: Draft Customer Export Curtailment Value Methodology*, April 2022, P.9



While the AER discounts the validity of valuing environmental benefits, either directly via the CECV or indirectly via customer willingness to pay, we think this position needs further consideration noting that:

- even without a formally legislated emissions reduction policy in place, environmental considerations are implicitly included in the AEMO ISP assumptions (i.e. the emissions trajectories in the scenarios are consistent with a target of net zero emissions by 2050); and
- while we are yet to undertake customer value research to express value in monetary terms, we consider it likely, based on our broader qualitative research to date, that customers may value environmental outcomes highly and independently of the decisions of policy makers.

2. The draft CECV may undervalue wholesale market benefits

We welcome the Draft Methodology extending the CECV's scope to capture not only 'avoided marginal generator short-run marginal costs' (SRMC), but also, 'avoided transmission or distribution losses', and 'Essential System Services' (ESS).

However, even with this broader scope, the Draft Methodology is likely to undervalue the potential wholesale market benefits of energy exported from DER, as it does not capture the value stream of 'avoided generation capacity investment' (the long run marginal costs). In our view:

- if network investment costs are to be assessed over the long-run, then it is appropriate for long-run expectations about changes in NEM generation investment to also be considered;
- despite the potential for NEM generation SRMC to be low or even zero at times, there remains a strong value proposition for customers investing in DER as reflected in the continued strong forecasts of DER penetration forecast by AEMO – this would likely reflect the NEM value of DER energy displacing the need for centralised generation in the NEM;
- while we are yet to commission analysis on potential avoided generation capacity investment in the South Australian context, we understand from analysis undertaken by consultants HoustonKemp that CECVs without this value stream included (i.e. the published Draft AER CECVs) will likely be materially lower than CECVs with this value stream included. We encourage the AER to consider the HoustonKemp analysis prepared for the NSW, ACT, and Tas distributors and the separate note on methodology observations prepared for Energy Networks Australia (ENA), attached to its submission;² and
- therefore, the AER should either extend the CECV's scope to include forecasts of NEM generation capacity investment, likely saving administrative costs for all distributors and stakeholders, or otherwise grant distributors discretion to commission their own forecasts.

² Refer to ENA submission to AER Draft CECV methodology, Attachment - Memo: observations on the AER's proposed CECV methodology, May 2022



3. The CECV modelling approach and assumptions may need review

We have not been in a position to fully assess the reasonableness of the modelling assumptions applied by the AER's consultants in the Draft CECVs. However, we are very concerned that the Draft CECVs:

1. appear to be materially lower than alternative CECVs estimated by consultants HoustonKemp as part of their work for the NSW, ACT, Tas distributors, even after accounting for the additional value stream of NEM generation capacity investment; and
2. present several concerns of methodology, as outlined in HoustonKemp's memo to the ENA submission,³ in particular:
 - questions, such as how the very low long term Draft CECV estimates are consistent with a level of market value required to support the mix of NEM solar capacity assumed in AEMO's ISP 'step change' scenario; and
 - concerns that assumptions included in the Draft CECV lead to a downward bias in the CECV estimates.

We encourage the AER to consider the HoustonKemp analysis and potentially host a technical modelling workshop to facilitate proper critique of the modelling approach and assumptions.

4. Distributors should be able to use their own network models

We wish to understand the desire of the AER to produce a 'DNSP model' for distributors to input their constraint / alleviation information into, as this appears to us to be impractical.

We prefer that distributors have discretion to create their own 'integrated DNSP model', i.e. one model where distributors forecast network constraints and various investment options to alleviate export constraint, as this is likely to be more efficient noting that:

- there are likely to be a high number of scenario runs to undertake during preparation of distributors' business cases, including continual model refinements, investment scenarios and sensitivities;
- it would provide much greater insight for distributors, the AER, customers and other stakeholders on the performance / economics of different network investment options down to the individual asset level, i.e. we will be able to see the CECV value release for each investment; and
- it will enable distributors to provide a faster turn-around of insights in response to queries from stakeholders during distributors' extensive consumer / stakeholder engagement programs.

Distributors could simply be required to ensure that:

- their modelling approach is transparent and able to be assessed; and
- the model operates consistent with AER expectations as per the DER Guidance Note

Our proposal would be equivalent to the current discretion that distributors have in developing their own network augmentation load constraint models, or network asset replacement risk / cost models – the latter according with specific AER expectations as set out in the repex guidance note.

³ Refer to ENA submission to AER Draft CECV methodology, Attachment - Memo: observations on the AER's proposed CECV methodology, May 2022



5. CECV reviews should coincide with regulatory determinations

As CECVs are to be a key input to distributors' cost benefit analyses and business cases, and the consumer / stakeholder engagement that they undertake on these, any changes, by way of annual updates and / or changes in methodology should be timed appropriately.

In our view, material changes in methodology, such as changes in the scope of wholesale market benefits captured (e.g. the range of ESS) should be undertaken by the AER prior to the commencement of each round of AER Distribution Determinations. This is particularly noting the rapid rate of change in the DER market, regulatory developments, and the evolving scope of ESS in the NEM.⁴

⁴ This includes for example, new ESS for Fast Frequency Response, and new inertia services. Other changes may occur over coming years.

