17 December 2021

Dr Kris Funston
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Submitted electronically at: AERinquiry@aer.gov.au

Dear Kris,

Customer export curtailment value methodology

The Australian Energy Council (AEC) welcomes the consultation opportunity in the Australian Energy Regulator (AER) issues paper on the customer export curtailment value (CECV) methodology.

The AEC is the industry body representing 22 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

The AEC supports the AER publishing a CECV methodology to be used to calculate CECVs each year. This is to value the economic loss to customers and the market when Distributed Energy Resources (DER) are curtailed, which is then reflected into an informed calculation as to the value of the additional DER exports from any augmentation to avoid curtailment.

Question 1 Do you agree with our interpretation of export curtailment in the context of calculating CECVs?

The AEC agrees with the AER that a broader approach than that of individual or small classes of customers is necessary to defining curtailment scenarios for the purposes of calculating CECV's. However, whilst this can be moderated, the AER is concerned (as were most non-market body stakeholders in earlier reviews) that the CECV methodology must take into account location specific (intra-regional) as opposed to NEM region wide signals, as costs of curtailment or augmentation differ most significantly by location.[1]

Question 2 Which value streams should be captured in the CECV?

The value streams that should be captured in the CECV fit into two groups:

[1] Oakley Greenwood, Pricing for the Integration of Distributed Energy Resources, Report for ARENA, June 2020 http://oakleygreenwood.com.au/wp-content/uploads/2020/06/DER-pricing-project-summary-report-June-2020.pdf

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Those that are independently estimable (from publicly available information):

- Wholesale energy market,
- Environmental costs/values, and;
- Social values.

And those relying upon DNSP estimates:

- Avoided costs of investment in the poles and wires network.

Question 3 Should CECVs reflect the detriment to all customers from the curtailment of DER exports, or particular types of customers?

The AEC supports the principle of cost reflective pricing, and therefore an approach that reflects the detriment from DER curtailment to customer classes is preferred. As the consultation paper observes, all customers benefit from greater levels of DER exports but to different degrees, as DER exporters have the ability to engage with orchestration services. The AEC also believes that developing a more explicit link between export tariffs paid by DER exporters and CECVs would require CECVs to be specific to two classes of customers; DER and non-DER.

Question 4 How should CECVs be expressed?

The AEC supports an approach whereby intra-regional CECVs are expressed as $ per MWh of curtailed solar PV generation. In practice this will require additional intra-regional locational costs (as opposed to the NEM region costs) in the calculation of wholesale market costs. We agree broadly with the approach to compare the total forecast volume of solar PV generation under different scenarios, to estimate the total additional costs faced by customers in the scenario where DER exports are lower, and then to convert this to a $ per MWh basis.

The AEC recognises that DNSPs will be permitted to estimate other costs and benefits in their investment proposals that are specific to their proposed investments. From a DNSP perspective, expenditure is likely best viewed as a locational averaging of the replacement cost of distribution assets serving all of those customers. Our view is that a comparable approach to DER expenditure incorporating the (locational) avoided costs of investment in the poles and wires network in pricing curtailment would be constructive as a compromise position should this component (network) be a significant value stream at that location. This also creates a more direct link between CECV's and more granular cost reflective tariffs.

Question 5 Do you agree with our overall interpretation of CECV?

The AEC agrees that whilst export curtailment is difficult to objectively measure, we are equally concerned with DNSP provided assumptions estimating the benefits/costs to customers under a regulatory regime that increasingly permits vertical integration by regulated distribution businesses. AEMO provided assumptions create no such concerns.

We acknowledge that value represents the detriment to all customers from the curtailment of customer exports, or more generally the detriment to all customers from lower levels of customer exports. Like the RIT-D, the CECV reforms are intended to achieve a social good, driving better network and private decision making, reducing the costs to all electricity users, and improving regulatory outcomes generally rather than having the benefits or costs accruing to specific consumers.[2] Unlike the RIT-D, there is no apparent carve out for specific customers or customer classes to be exposed to cost or benefits. Export tariffs represent the opportunity to address this

[2] Projects where specific consumers benefit and pay the network for the service are excluded from the RIT-D coverage

and should be linked as a prerequisite to the implementation of any CECV, or as the AEMC hypothesises, to calculate CECVs for DER customers and non-DER customers.

We agree that CECVs can and should be expressed as $ per MWh.

Question 6 Should there be a more explicit link between CECVs and export tariffs?

We have addressed this above.

Question 7 & 9 How could we estimate CECVs across different customer groups? Should CECVs for a particular NEM region reflect the impact of DER export curtailment that occurs in other NEM regions?

Distributors should not be able to capture any economic losses from DER exports during negative price periods to justify a proposed augmentation. DER exports which are made during negative price periods where feed in tariffs are still paid will be by nature inefficient and should therefore not be considered to be an economic loss to customers and the broader market. In these circumstances, there is a need to incorporate broader wholesale market modelling as there is a risk that adopting such a simple modelling approach to these kind of negative price events would risk networks overestimating value of DER in these instances.

Question 10 What is the appropriate temporal aggregation for estimating CECVs?

.The AEC proposes that CECVs need to be captured on a granular level to the extent possible by using short interval CECVs, aligned to 5MS, which are applied to an intra-regional level at a minimum of hourly. This exposes the true costs to augmenting network to accommodate daytime export. Alignment with 5MS also better identifies wholesale market benefits. We acknowledge that networks could aggregate this with reference to their own infrastructure build or pricing proposals, such as pricing a storage investment for one quarter in a year, where they have CECVs aggregated by month (and not by year) for that investment case.

Any questions about this submission should be addressed to David Markham by email to [redacted] or by telephone on [redacted]

Yours sincerely,

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