



Part of Energy Queensland

17 December 2021

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

Dear Dr Funston

Customer export curtailment value methodology – Issues Paper

Ergon Energy Corporation Limited (Ergon Energy) and Energex Limited (Energex), operating as distribution network service providers in Queensland, welcome the opportunity to provide comment to the Australian Energy Regulator (AER) in response to its consultation on the Customer export curtailment value methodology - Issues Paper.

Ergon Energy and Energex have provided responses to the consultation questions in the attached submission, which is available for publication.

Should the AER require additional information or wish to discuss any aspect of this submission, please contact either myself, on [REDACTED] or Barbara Neil on [REDACTED]

Yours sincerely

[REDACTED]

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Acting Manager Regulation

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Customer export curtailment value methodology Issues Paper

Joint response to the AER

17 December 2021



Part of Energy Queensland



Customer export curtailment value methodology

ABOUT ERGON ENERGY

Ergon Energy Corporation Limited (Ergon Energy) is part of Energy Queensland and manages an electricity distribution network which supplies electricity to more than 740,000 customers. Our vast operating area covers over one million square kilometres – around 97% of the state of Queensland – from the expanding coastal and rural population centres to the remote communities of outback Queensland and the Torres Strait.

Our electricity network consists of approximately 160,000 kilometres of powerlines and one million power poles, along with associated infrastructure such as major substations and power transformers.

We also own and operate 33 stand-alone power stations that provide supply to isolated communities across Queensland which are not connected to the main electricity grid.

ABOUT ENERGEX

Energex Limited (Energex) is part of Energy Queensland and manages an electricity distribution network delivering world-class energy products and services to one of Australia's fastest growing communities – the South-East Queensland region.

We have been supplying electricity to Queenslanders for more than 100 years and today provide distribution services to almost 1.4 million domestic and business connections, delivering electricity to a population base of around 3.4 million people via 52,000km of overhead and underground network.

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Customer export curtailment value methodology

CONTENTS

1	INTRODUCTION.....	1
2	TABLE OF DETAILED COMMENTS.....	2

Customer export curtailment value methodology

1 INTRODUCTION

Ergon Energy Corporation Limited (Ergon Energy) and Energex Limited (Energex), operating as distribution network service providers (DNSPs) in Queensland, welcome the opportunity to provide comment to the Australian Energy Regulator (AER) in response to its consultation on the *Customer export curtailment value methodology - Issues Paper*.

Ergon Energy and Energex broadly support reforms which enable more distributed energy resources (DER) to be integrated into the network in a cost-effective manner and which provide net benefits to all customers, both those with and without DER.

Both Ergon Energy and Energex have a significant amount of connected solar capacity, with almost 39% of detached houses and over 11% of businesses across Queensland having rooftop solar. Forecasts suggest an annual average uptake of 500MW of solar photovoltaic technology, as well as 250MWh of storage capacity in battery energy storage systems. Electric vehicles (EVs) are expected to be the fastest growing component of DER over the next 15 years, with 1700% growth over the next 5 years and an annual uptake of 100,000 – 200,000 new EVs per annum in 15 years' time.

In demonstrating a net benefit of network investments which enable more DER exports, we agree CECVs should reflect the extent to which these investments are valued by customers and the market. We broadly support a market-based approach to valuing the wholesale market benefits component, such as avoided dispatch costs as suggested in the Issues Paper. However, we note this may result in a lower value than that regarded by customers who have already invested in DER and who would wish to maintain or improve their export capabilities. To that end, we agree that the AER employ an electricity market modelling methodology approach to developing the CECV while the DNSP's cost benefit analysis allows for the flexibility to incorporate network specific benefits which are bespoke to the investment, as well as customer specific benefit values as part of the value stack.

Customer export curtailment value methodology

2 TABLE OF DETAILED COMMENTS

Consultation Paper Feedback Question	Ergon Energy and Energex response
<p>1. Do you agree with our interpretation of export curtailment in the context of calculating CECVs?</p>	<p>Ergon Energy and Energex agree with the AER’s assertion that it is challenging to measure the frequency of curtailment and estimate the volume of exports curtailed¹. We broadly support capturing the wholesale market costs and benefits by changes in generator dispatch costs in quantifying the CECV.</p> <p>Furthermore, we believe the AER should also consider differing values for the CECV depending on the type of curtailment (for instance, whether the curtailment is the result of a reduced export capability or whether it is the lost value where a generation system is required to be zero export due to a network outage or other system event).</p>
<p>2. Which value streams should be captured in the CECV?</p>	<p>Ergon Energy and Energex suggest the CECV should capture values which DNSPs may not be able to adequately determine themselves, such as the avoided generation capacity investment, as this requires specific market knowledge which DNSPs do not generally possess and cannot easily obtain.</p> <p>We suggest additional benefits mentioned in Table 2 of the Issues Paper, such as avoided replacement / asset derating, could be included by DNSPs as part of the value stack where appropriate, as this is something that DNSPs could determine more efficiently themselves. We agree DNSPs should have flexibility to include additional value streams in their cost benefit analysis at their discretion, including customer-specific valuations of the benefit of maintaining or improving their export capabilities.</p>
<p>3. Should CECVs reflect the detriment to all customers from the curtailment of DER exports, or particular types of customers?</p>	<p>It is our view that the CECV should contain a mixture of detriments to all customers (as a net market benefit) as well as for particular types of customers, such as those with export capability. This should be viewed in combination with the detriment to all customers that comes from limiting export and the associated wholesale market cost increases.</p>
<p>4. How should CECVs be expressed?</p>	<p>We agree that \$/MWh is an appropriate expression for CECVs.</p>
<p>5. Do you agree with our overall interpretation of CECV?</p>	<p>Ergon Energy and Energex agree with the AER’s proposed practical use of the CECV to compare scenarios where network investments would enable more DER exports to occur and to capture the benefit to all customers as a result. We note the AER has suggested that it may be possible to calculate CECVs</p>

¹ Issues Paper, page 13

Customer export curtailment value methodology

Consultation Paper Feedback Question	Ergon Energy and Energex response
	for particular customer groups, such as DER customers and non-DER customers, and we support this approach.
6. Should there be a more explicit link between CECV and export tariffs?	Ergon Energy and Energex do not agree that a more explicit link between the CECV and export tariffs is required.
7. How could we estimate CECVs across different customer groups?	Ergon Energy and Energex suggest a similar approach to the methodology for calculating the Value of Customer Reliability (VCR) (i.e. through willingness to pay surveys) could be used to capture different customers groups. Furthermore, as per the VCR categorisation, we suggest it would seem reasonable to also calculate CECVs in different climate zones.
8. Should CECVs be estimated by NEM region?	Ergon Energy and Energex agree that CECVs should be estimated by NEM region and consider that these could also be sub-categorised by climate zone.
9. Should CECVs for a particular NEM region reflect the impact of DER export curtailment that occurs in other NEM regions?	We suggest CECVs for one particular NEM region could reflect the impact of DER export curtailment that occurs in other NEM regions only if there is sufficient evidence that the impact of curtailment was great enough to have an effect on the interregional flows and wholesale prices.
10. What is the appropriate temporal aggregation for estimating CECVs?	Ergon Energy and Energex believe there is significant difference between daytime exports and peak load exports and, accordingly, there would be value in time varying CECVs. However, we acknowledge the difficulty in obtaining these values and, given that DNSPs would forecast values on an annual basis, this may be a more appropriate temporal aggregation. Notwithstanding, we would support the AER developing values over different time periods where the incremental cost and effort of doing so is sufficiently low.
11. Should we also estimate CECVs into the future, or allow DNSPs to forecast changes in CECVs over time?	Ergon Energy and Energex suggest changes to CECVs could be included as part of the sensitivity analysis in cost-benefit calculations, whether estimated by DNSPs or the AER.
12. Do shorthand approaches provide sufficient forecasting ability or is electricity market modelling necessary for calculating CECVs?	Ergon Energy and Energex consider the most important feature of the calculation of the CECV is its accuracy, and therefore it would be preferable for the AER to utilise market modelling to determine the CECV.

Customer export curtailment value methodology

Consultation Paper Feedback Question	Ergon Energy and Energex response
13. How should generator bidding behaviour be modelled?	Ergon Energy and Energex have no comments.
14. How should interconnector behaviour be modelled to determine regional CECVs?	Ergon Energy and Energex have no comments.