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Warwick Anderson
General Manager, Network Pricing
Australian Energy Regulator
GPO Box 3131
Canberra, ACT, 2601

Lodged via email

Dear Warwick,

AER's connection charge guideline review issues paper

Jemena Electricity Networks (**JEN**) welcomes the opportunity to respond to the Australian Energy Regulator's (**AER**) connection charge guideline review issue paper (**the issues paper**). JEN supports the AER's engagement on matters relating to customer energy resources (**CER**), including the role that distribution network service providers (**DNSPs**) play in safely and securely managing customers' export service levels.

We also support the AER's open and transparent engagement process leading up to the publication of this issues paper. The AER circulated a draft issues paper and hosted a forum for stakeholders to provide feedback on its draft positions. We found this early engagement valuable and would support a similar approach throughout future consultations.

The issues paper explores the circumstances under which DNSPs may offer static zero export limits to micro-embedded generators. We agree with the Australian Energy Market Commission's (**AEMC**) statement that it would be inappropriate to completely prohibit DNSPs from imposing static zero export limits because there may be limited circumstances where it is efficient or necessary for DNSPs to apply them.[1] Overall, we consider DNSPs should have the flexibility to adapt to the changing network characteristics, including limiting the size and type of connections to comply with the National Electricity Objective (**NEO**) and to ensure services are delivered to our customers efficiently.

In the issues paper, the AER defines micro-embedded generators as "predominantly solar PV systems on residential properties". We consider that this definition is too vague and recommend that the AER clarify the definition of micro-embedded generators based on clear criteria, such as customer type or CER capacity size. This will provide certainty to JEN about the circumstances where we can provide static zero export limits to exporting customers.

We respond to the AER's consultation questions in appendix A below. If you have any questions regarding this submission, please contact me on [redacted]

Kind regards,

Matthew Serpell
Manager Electricity Regulation
Jemena Electricity Networks

[1] AEMC, *Rule determination, National electricity amendment (Access, pricing and incentive arrangements for distributed energy resources) rule 2021,* August 2021, p. iv.

Appendix A

Below we respond to the consultation questions in the AER's issues paper.

Question 1 – Under what limited circumstances should distributors be able to impose static zero limits?

DNSPs should impose static zero export limits when a customer's CER connection request is likely to cause *system limitations* on the distribution network. *System limitation* is defined in clauses 5.10.2 and 5.13.1(d)(2) of the National Electricity Rules (**NER**), where limitations can be caused by one or more of the following factors:

(i) forecast load or use of distribution services by embedded generating units exceeding total capacity
(ii) the requirement for asset refurbishment or replacement
(iii) the requirement for power system security or reliability improvement
(iv) design fault levels being exceeded
(v) the requirement for voltage regulation and other aspects of quality of supply to other network users
(vi) the requirement to meet any regulatory obligation or requirement.[2]

We consider DNSPs should manage these system limitations.

In some cases, consistent with the AER's customer export curtailment value (**CECV**) methodology[3], it will be economic to address these system limitations, e.g. augmenting low-voltage (**LV**) distribution transformers to alleviate export constraints. However, in other cases, it may not be economic to augment the LV network to facilitate a non-zero export level. Therefore, we consider that DNSPs should be able to impose static zero export limits under these circumstances.

In short, we consider that DNSPs should be able to impose static zero export limits in the following limited circumstances:

- a customer requests a static zero export limit[4]
- where there are system limitations (as defined above) and the cost of alleviating those limitations exceeds the benefit (i.e. the investment is not economic)
- where there are limitations related to customers' facilities or devices[5], e.g. when customers' equipment is not capable of responding to instructions from the network operator.

Question 2 – Under what circumstances should we take into account equity issues when considering the application of static zero limits?

We consider that equity issues are implicitly addressed through the AER's CECV methodology. This methodology outlines the expected benefits to all shared customers of alleviating network constraints and all customers would contribute to the cost of alleviating these constraints. We also highlight that the AER's CECV methodology will need to adapt and evolve to changing market dynamics to ensure that the correct value streams are captured and that customers benefit from economic investments.

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2 NER, cl. 5.13.1(d)(2).

3 This methodology shows when the value of alleviating export constraints in the network, via lower wholesale market production costs, is expected to exceed the costs of alleviating the constraint.

4 AEMC, *Rule determination, National electricity amendment (Access, pricing and incentive arrangements for distributed energy resources) rule 2021,* August 2021, p 42.

5 AER, *Connection charge guideline review issues paper,* August 2022, p. 9.

Question 3a – What are your views on networks using a 'standard approach' to decide on whether to impose a zero export constraint for each individual application?

Overall, we support a fit-for-purpose and flexible methodology that is consistent with our internal planning standards to determine whether or not to apply static zero export limits on a case-by-case basis. As outlined in our response to question 1, DNSPs should be able to impose static zero export limits when a customer's CER connection request is likely to cause system limitations on the distribution network.

Question 3b – If you consider a 'standard approach' to be inappropriate, what depth of analysis or study should networks be required to do in the limited circumstance where a static zero limit may need to be imposed? What would be the likely costs of this level of study? Should the costs of the study be charged on a requester or treated as a general network administration cost?

JEN is already obligated to model the hosting capacity of its network in the Distribution Annual Planning Report (**DAPR**). As part of this reporting requirement, JEN is developing an export rating calculation model to determine the intrinsic export capacity in the network.

Importantly, this modelling assessment is not limited to an LV or distribution substation level; it provides a holistic and integrated assessment of the export constraints on the broader network. We consider this depth of analysis is crucial when assessing and determining whether static zero export limits should be imposed on new connection applicants.

Regarding the costs of these activities, as noted above, JEN is already obligated to model the hosting capacity of its network in the DAPR. We will continue to refine our annual planning process, including improving our export rating calculations and using our AMI data to validate our methodology. The costs of these activities should be treated as a standard control service (**SCS**) cost for basic connection services and should be charged to connection applicants for bespoke studies.

Question 4a – What information should the distributor provide the connection applicant when a distributor proposes a static zero limit and how should that information be provided?

We agree with the AER that customers should receive adequate information from a DNSP when a static zero export limit is applied. We also agree that in these circumstances, DNSPs should provide the connection applicant with a clear explanation of the methodology, data and calculations used to determine that a static zero export limit should apply. We note that DNSPs are already obligated to publish the hosting capacity of their networks in the DAPR.

Question 4b – What's the best way to communicate the steps to inform customers' investment decisions?

We agree that communicating key information to help inform connection applicants' investment decisions is critical. In particular, we see that there are likely to be communication timing challenges with prospective connection applications. For example, it would not be in the customer's interest to buy a solar PV system or other CER device and then subsequently be told that there is no intrinsic hosting available in the network and that alleviating the constraint or limitation is uneconomic. Therefore, we consider proactive communication, wherever possible, will allow customers to be most informed ahead of their CER investment

decisions. The best vehicle for this communication is JEN's DAPR, which is available online and is updated annually.

Question 5 – Are there exceptional circumstances where it would be appropriate for a distributor to impose a static zero limit where it has already been funded under revenue determinations to augment the network?

Yes. DNSPs may receive capital and operating expenditure allowances during a price reset for a program of work to facilitate greater CER hosting capacity and export levels. However, there could still be pockets of the network where system limitations remain and where it is not economic to augment and facilitate non-zero export levels or a greater level of hosting capacity.

In addition, circumstances and network dynamics can change and it is the DNSP's responsibility to manage its network accordingly. For example, economic analysis may indicate that it is economic to alleviate export hosting capacity constraints in a particular area during a price reset, but the underlying calculations and value streams may change over time. The ex-ante incentive-based framework intends for DNSPs to manage these changing dynamics.

Regarding this ex-ante framework, in recent decisions the AER has stated:

> *"DNSPs may need to undertake programs or projects that they did not anticipate during the reset. DNSPs also may not need to complete some of the programs or projects proposed if circumstances change. We consider a prudent and efficient DNSP would consider the changing environment throughout the regulatory control period and make decisions accordingly."*[6]

Overall, we do not consider that DNSPs should be prescriptively required to remove all static zero export limits because they have received price reset allowances. This approach moves away from an ex-ante incentive-based framework toward ex-post regulation.

Question 6a – What conditions must be met in the limited circumstance that a static zero limit is applied? Do you consider the above controls adequate?

See our response to question 1.

Question 6b – In the limited circumstance that they are imposed, should static zero limits be subject to regular review? If so, what should the length of the period be?

DNSPs should have the flexibility to adapt to the changing network characteristics. As outlined in our response to question 5, circumstances and network dynamics can change and it is the DNSP's responsibility to manage its network accordingly. In the limited circumstances where a static zero export limit may apply, DNSPs would review these limits on a case-by-case basis. We consider that these review processes should be linked to our annual planning processes, such as the DAPR. This reporting is a part of our ongoing business operations, consistent with current practice and in our view the most efficient option to review static zero export limits.

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6 AER, *Final decision – Jemena distribution determination 2021 to 2025, Attachment 5 capital expenditure,* April 2021, p. 5.

Question 7 – At locations where it is not prudent nor efficient to augment the local network to increase the rooftop solar hosting capacity, should customers bear the cost for network augmentation if they wish to avoid export limitations?

We consider that customers should be provided with this option, consistent with the AER's preliminary position paper in the 2024-29 framework and approach (**F&A**) for NSW, ACT, NT and TAS electricity networks.[7] However, we do not consider there will be many instances where a customer will solely fund a network augmentation, such as upgrading a low-voltage distribution transformer, to gain a marginal increase in export capacity.

In these instances, it would be important for customers to understand that the proposed investments would not be economic and the shared customer base should not be expected to fund the investment. It would also be important for customers to know that if the investments were economic, then they would be funded through the shared customer base, consistent with the AER's CECV methodology.

Question 8 – Do you consider that the above charging practice is reasonable? If not, what do you consider is a reasonable charging practice?

We consider that the proposed charging practice is reasonable and consistent with the revenue and pricing principles in the National Electricity Law (**NEL**).[8]

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7 AER, *F&A preliminary position paper – 2024-29, NSW, ACT, NT and TAS electricity networks,* December 2021, p. 16.

8 NEL, chapter 7A, version 20.5.2021. accessed at National Electricity (South Australia) Act 1996 (legislation.sa.gov.au).