Part of Energy Queensland

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Mark Feather
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Submitted via email to NetworkPolicy@aer.gov.au

Dear Mr Feather

Australian Energy Regulator – Flexible Export Limits - Issues paper

Ergon Energy Corporation Limited (Ergon Energy) and Energex Limited (Energex), both distribution network service providers (DNSPs) operating in Queensland, welcome the opportunity to provide comment to the Australian Energy Regulator (AER) on its *Flexible Export Limits - Issues paper* (the Issues Paper).

Ergon Energy and Energex suggest the AER has missed an opportunity by not considering the entire dynamic operating envelope framework. In our opinion, introducing a framework for flexible exports in isolation has the potential to limit opportunities for DNSPs to create a more stable and reliable network as the connection of flexible loads increases.

We note that the Issues Paper refers to "The term 'consumer energy resources', also known as distributed energy resources". We think it is important for the AER to consider the terms used in the broader energy legislation, International and Australian Standards, products and the industry more generally. Although we understand the use of the term CER, the current National Electricity Rules and Guidelines refer to DER and therefore we suggest careful consideration of terminology along with further engagement to ensure clarity for consumers and the entire industry. For this reason, we will use DER throughout this response.

Responses to the Issues Paper questions are included in the attached response template.

Should the AER require additional information or wish to discuss any aspect of this response, please contact me on [redacted] or Laura Males on [redacted].

Yours sincerely,

[redacted]

Alena Chrismas
Acting Manager Regulation

Telephone: [redacted]
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Encl: *Ergon Energy and Energex's comments on the consultation questions*

AER - Flexible export limits issues paper

General questions	Ergon Energy and Energex response
• Do stakeholders agree with the primary use case for the implementation of flexible export limits? [The primary use case is the efficient and increased utilisation of the shared hosting capacity on the distribution network to enable consumers to obtain the benefits of exporting their energy resources such as solar PV to the grid]	In principle, Ergon Energy and Energex agree that flexible export limits will improve utilisation of the distribution network. In our view, the primary use case is the efficient and increased utilisation of the shared hosting capacity on the distribution network for all customers to obtain benefits from both export and import of Distributed Energy Resources (DER) while minimising network augmentation.
Immediate actions	
Capacity allocation	
• Do stakeholders agree with the DEIP Working Group principles for capacity allocation? Why / why not?	Ergon Energy and Energex agree to the proposed draft principles. In particular, we support transparency and stakeholder consultation, and that capacity would be measured at the customer's point of connection to the network. However, we seek further clarity on the interpretation of 'near term', specifically in relation to proposed principle 5. It is our position that flexible export limits would become offered on an opt-out basis once dynamic operating envelopes evolve, and dynamic connections are incorporated into connections contracts.
• Should these principles for capacity allocation be binding for DNSPs?	Ergon Energy and Energex note the Distributed Energy Integration Program report suggests further work is required to define how the principles would be applied in practice and that further stakeholder engagement is required. Furthermore, the proposed principles largely incorporate interim processes. Accordingly, we suggest the principles be provided in a guideline format and not binding in legislation at this stage.
• Should the application of capacity allocation principles by DNSPs be auditable to assure consumers of fairness?	Ergon Energy and Energex agree in principle but would appreciate further clarity related to the audit process before confirming full support. Specifically, we seek clarity as to the intent of audit requirements. We suggest this would be on an exceptions basis as an internal DNSP process. Notwithstanding, we note the concept of 'fairness' is subjective, and the principles would benefit

	from greater clarity to this end. The capacity allocation principles should align with the National Electricity Objective to deliver an efficient allocation that benefits all users of the shared network system.
• Should principles for static export limits also be developed for use by DNSPs going forward?	Ergon Energy and Energex have developed static limits based on engineering calculations to mitigate risk to their respective networks, we therefore agree this should continue.
• Do stakeholders have a view as to whether existing AER guidance material is sufficient to communicate expectations regarding capacity allocation principles for flexible and/or static export limits?	Ergon Energy and Energex suggest existing guidance material could require review.
Capacity allocation methodology	
• Is the approach outlined above [see section 3.3.2] in allowing flexibility for DNSPs to develop their capacity allocation methodologies appropriate?	In our view, networks will have differing levels of data and acceptance of risk. Ergon Energy and Energex therefore suggest flexibility in capacity allocation methodology is appropriate. Further, we support an implementation plan that can be updated as technology and strategies evolve.
• Do stakeholders agree that DNSPs should include their capacity allocation methodology in their CER integration strategy?	Ergon Energy and Energex agree that including the capacity allocation methodology in the DER Integration Strategy seems appropriate for transparency and accountability. However, we note this is part of the regulatory determination process and suggest there should be greater flexibility to review and amend the methodology more frequently than the current five yearly process. Flexibility and the ability to be agile to update and improve the methodology is critical. This is especially so in the early stages of development and implementation of flexible exports and dynamic capacity allocation.
• Should DNSPs be required to publish their capacity allocation methodologies, clearly outlining the trade-offs considered in setting their approach?	Given this is a rapidly evolving field, DNSPs may make updates and improvements to the specifics of their capacity allocation methodology. As noted, methodologies will require updates. Ergon Energy and Energex suggest that publishing guiding principles on DNSP websites may be of more relevance

	than the detailed methodology. This would allow for flexibility in review while providing transparency into the methodology applied for each distribution network.
• Should the AER have a role in approving DNSP capacity allocation methodologies? If so, what form should this mechanism take?	Ergon Energy and Energex suggest that AER approval should be limited to the extent it is a requisite part of the regulatory proposal process associated with the DER Integration Strategy.
Consumer participation (opt-in or opt-out)	
• Do stakeholders agree with the expectation that over the near to medium term, consumers should continue to have the option of static export limits?	Ergon Energy and Energex agree to the extent it complies with the conditions outlined in the Export Tariff Guideline. However, it is important to note that static limits are not an option for some network areas, for example, certain isolated network locations.
• Should consumers be expected to opt-in or opt-out of flexible export limits (where available)?	In the near term, consumers should have the option of choosing whether to enter into a dynamic or fixed contract for export limits. However, over time, where sufficient education and information accompanies the purchase of a compliant inverter, the default position should be to opt-out. Ergon Energy and Energex suggest it would provide greater clarity to have standardised terms or allowing for standard terms to be developed by DNSPs and approved by the AER (similar to a Model Standing Offer (MSO)).
• Is it necessary for this expectation to be captured in the Model Standing Offer?	An MSO is part of Chapter 5A of the National Electricity Rules (NER) and is primarily aimed at establishing or altering a connection. Ergon Energy and Energex is concerned that this may potentially create a gap with customers that move into a premises with existing generation installed, in which case the deemed standard connection contract under the National Electricity Retail Rules (NERR) and National Energy Retail Laws (NERL) will apply. The deemed standard connection contract has minimal terms/provision in respect of generating units (i.e., it simply points to a DNSP standards and what to do if the units are to be removed or changed). We suggest consideration should be given to developing a deemed standard connection contract that is aimed at load where generation is already installed or may be installed in future. A similar approach to MSOs could be considered

	under the NERR/NERL rather than the NER.
Governance of traders and consumer energy resources	
Do stakeholders require further guidance with regards to the interactions of retailers and aggregators and flexible export limits outside of what is being explored through the existing workstreams?	Ergon Energy and Energex believe the DNSP signal for the dynamic operating envelope should get priority in the situation where the same communication channels are being used for the export limit and third-party control, and the DER potentially receives coinciding and possibly conflicting commands. It would be appropriate for this to be defined in a contract under the NERR and NERL (rather than the NER), ensuring clarity for obligations for all parties.
Connection agreement	
• Should DNSPs be required to set out expectations of flexible export limit operation within the connection agreement where there is no trader, or third party involved in the operation? Do stakeholders agree with the rights and obligations outlined above?	Ergon Energy and Energex agree the arrangements between the customer and DNSP should be contained in the connection agreement. However, defining an expected export level does not support flexibility and is contrary to the principles of a dynamic connection. As such, we do not support defining expected export limits in the connection agreement. Ergon Energy and Energex have commenced offering dynamic connection agreements for non-registered generators with dynamic capability. These connection agreements note the maximum export limit as well as the fact that the value of the export limit is dynamic and may vary over time in response to the conditions and operational status of the distribution system. We believe this informs the customer that the maximum export should not be the expected export limit at all times.
Governance arrangements for flexible export limits	
• Do stakeholders have concerns about the approach to governance outlined above, particularly embedding elements of the rectification process in the connection agreement?	Ergon Energy and Energex believe compliance and enforcement obligations should be detailed in the connection agreement. In our view there should be clear legal obligations on the relevant parties to ensure certainty. We acknowledge consumers may require further education to understand what they are agreeing to and support education campaigns to facilitate this. Further, given the interaction of third parties (potentially outside a contract), it may also be useful to impose regulatory requirements. We suggest this could be achieved at a jurisdictional level.

• Is it appropriate for a technology provider/OEM be held responsible for devices that do not conform to the export limit set by the DNSP (i.e., where this is no active control)?	Ergon Energy and Energex agree the technology provider/Original Equipment Manufacturer is held responsible for design faults and compliance with relevant technical requirements.
• What is the appropriate governance arrangement for managing flexible export limits?	Ergon Energy and Energex suggest all parameters should be defined in the connection agreement. If they are not in the connection agreement, there should be clear legal obligations on the relevant parties to ensure certainty. Where a consumer engages with a third party, they should be made aware of obligations between the customer and DNSP.
• Is it necessary to develop a separate framework to manage governance where a trader or technology provider is involved in passing-through the flexible export limit (i.e., where there is active control)?	Ergon Energy and Energex agree that a framework is required to manage compliance and enforcement. We suggest this could be achieved at a jurisdictional level.
• Do stakeholders agree with our view of that consumers should not face significant penalties for non-conformance of their energy resources for flexible export limits?	Ergon Energy and Energex suggest participant obligations are contained in the connection agreement, including requiring the customer to engage an electrical contractor to rectify any non-conformance of the energy resource. If it is not in the connection agreement, there should be clear legal obligations on the relevant parties to ensure certainty. Given the interaction of parties (potentially outside a contract), it may be useful to impose regulatory requirements. We suggest this could be achieved at a jurisdictional level.
• Do stakeholders believe there needs to be a standardised approach to enforcement for consumer energy resources under the control of a trader? For example: o If notified by the DNSP of an issue with device conformance (where no trader is involved), it is appropriate for the responsibility of rectification to rest with the consumer?	Currently, where a device is non-compliant it is the customer's responsibility to resolve. In our view, device conformance of this nature should be no different. Where the customer has engaged a third party, they too are responsible for ensuring the customer's obligations are met and that any directions issued by DNSPs are followed.

○ Where a trader is involved, should responsibility for rectification rest with the trader?	
• What should be the responsibilities of traders in ensuring consumer energy resources do not exceed any export limit set by the DNSP?	It is Ergon Energy's and Energex's position that traders should be fully responsible for ensuring devices do not exceed the set export limit when they are acting with the customer's consent. An aggregator operating on behalf of the customer is responsible for ensuring its customer's obligations under the connection agreement are maintained. If aggregators are unable to ensure DER do not exceed export limits, these systems will be deemed non-compliant and reverted back to static limits.
Notification period for a dynamic limit	
• Does the issue of a framework for providing forecast information on expected dynamic limits need to be considered in the short term?	Ergon Energy and Energex intend to publish basic 24 hour ahead forecasts (in the medium term). However, these are likely to be conservative underestimates while the dynamic operating envelope (DOE) forecasting capability is being developed. As such, we do not believe a framework is required in the short term while the DNSP's forecasting capabilities are being developed.
• Do stakeholders consider this will be sufficiently addressed through the Scheduled Lite workstream?	Ergon Energy and Energex suggest the Scheduled Lite workstream will improve visibility. However, it still works on an opt-in basis. In our view, this may be sufficient in the short term.
Broad questions regarding immediate actions	
• Do stakeholders agree with the areas identified above as requiring immediate attention?	Ergon Energy and Energex agree that the current focus on compliance is appropriate, and we look forward to ongoing stakeholder engagement on these topics.
• Do stakeholders consider there are additional matters requiring immediate attention not covered here? If so, what are they, and what specific factors should we be considering?	Ergon Energy and Energex feel the AER has missed an opportunity in not considering the entire dynamic operating envelope framework. In our opinion, introducing a framework for flexible exports in isolation has the potential to limit opportunities for DNSPs to create a more stable and reliable network as the connection of flexible loads increases. While we note the AER's intent is to use learnings from the framework for flexible exports to inform work on flexible loads, we suggest this is not keeping pace with the rate at which flexible loads are

	connected which could fast outpace the regulatory framework. In particular, we anticipate electric vehicle charging to potentially have a significant impact on peak demand in the future. Supporting the integration of flexible loads sooner will increase the aggregate capacity to consume excess generation, minimising curtailment and reducing the contribution to peak demand.
Leverage existing work	
Monitoring export limit performance and information provision	
• Are there any additional metrics that should be considered that have not been incorporated into the broader export services review?	Ergon Energy and Energex provide no comment.
• Should the AER publish data on the performance of individual DNSPs in terms of their flexible export service for consumers?	Ergon Energy and Energex consider existing self-reporting requirements are sufficient to meet this requirement, including in the Distribution Annual Planning Report, DER implementation plan and network performance report.
Device capability to respond to flexible export limits	
• Regarding the governance of a potential CSIP-Aus requirement, do stakeholders consider there should be a mandate for devices to be CSIP-Aus compliant for new connections in the NEM?	Ergon Energy's and Energex's view is that it is inadequate to mandate flexible export limits at the time of installation without having first mandated behind-the-meter interoperability. For example, a photovoltaic (PV) system that is compliant in isolation via a cloud provider may no longer be compliant in the future if the customer were to purchase additional DER from a different manufacturer. Furthermore, a cloud provider could cease operating, making these previously compliant sites ineligible for dynamic connections without modifications to the installation.
• Do stakeholders have views on how this mandate could be most effectively implemented?	Ergon Energy and Energex suggest this should reference an appropriate standard once such a standard exists. Further, the wording should cater for future versions/updates without having to update the NER. For example, this could be achieved in the same manner as for inverters which reference AS4777.2.2020 in the NER.

Interval length	
• Do stakeholders agree that DNSPs are best placed to determine the interval length of flexible export limit operation? If not, what guidance would stakeholders like to see on this issue?	Ergon Energy and Energex agree that DNSPs are best placed to set export limits and therefore determine interval length. Ergon and Energex intend to publish DOE limits at five-minute intervals. However, other intervals may be appropriate and DNSPs are best placed to determine this. For example, one-minute intervals or less may be required for isolated networks, stand-alone power systems or other future use cases. It may also prove prudent to change to a larger interval at time of stable constraints, such as 30-minute intervals at night-time.
Demonstrating investment need	
• Do you agree the AER has sufficient guidance on what information DNSPs are expected to provide to justify specific flexible export-related proposals?	Ergon Energy and Energex agree the AER has sufficient guidance on DNSP information requirements.
• Do DNSPs need more information than is currently available to demonstrate the investment need for flexible export limits?	Ergon Energy and Energex consider there is sufficient information to demonstrate investment needs.
Consumer protections	
• Beyond the issues being canvassed in the Review of Consumer Protections for Future Energy Services and the AEMC's review of CER technical standards, are there any other specific consumer protection issues we should explore in the context of the implementation of flexible export limits?	Ergon Energy and Energex suggest the AER consider appropriate consumer protections where control is given to a third party and the third party does not act in the best interest of the customer.
Data protection and privacy	
• Are more data protection and privacy requirements needed for the implementation of flexible export limits beyond those already available in the current framework and what is being considered in the ESB data strategy?	Recent cybersecurity events have highlighted how easily vulnerabilities can be exposed. In our view, where a significant proportion of energy use is dynamic and remotely controllable, cybersecurity risks are significant and there should be a strong requirement for data protection and privacy requirements.
• What impact is there likely to be on metering	Ergon Energy and Energex provide no comment.

service providers from the implementation of flexible export limits?	
Consumer understanding and interest	
• Should the Customer Insights Collaboration workstream be leveraged to improve consumer understanding of flexible export limits and/or for consideration of impacts upon consumers and consumer sentiment?	Ergon Energy and Energex support further consumer education which encourages and supports participation in dynamic connections.
• What do consumers need to know about flexible export limits at each step in the journey to properly understand and engage with them?	Ergon Energy and Energex note that, while flexible export limits may increase export over fixed limits, it must be understood that this will not be the case for every day. Indeed, there may be some days where the export limit is lower. While this is better for the power system overall, and all consumers, the implications must be understood to gain acceptance.
• What communication materials do consumers need to understand the opportunities offered by flexible export limits?	Ergon Energy and Energex suggest standardised terminology would reduce confusion related to dynamic connections and flexible trading limits. Communication materials should be clear, consistent, and targeted at both consumers and installers.
Integration with export pricing	
• How do stakeholders see flexible export limits and network tariffs interacting, for example, on the basic export level?	Ergon Energy and Energex envisage that the basic export level will be the 'floor' for flexible export limits. However, consistent with previous responses above, basic export levels will not be possible at all locations. For example, stand-alone power systems and some isolated areas.
• What types of tariff structures could apply to flexible export limits?	Ergon Energy and Energex support well-structured and efficiently priced network tariffs.
• Do stakeholders have views on how export tariffs and flexible export limits could be implemented to complement each other?	Ergon Energy and Energex provide no comment.

Compliance and enforcement of technical standards that facilitate flexible export limits	
• Are there any issues stakeholders consider will fall outside the AEMC's review of technical standards and consideration of associated roles and responsibilities the AER should be aware of?	Ergon Energy and Energex do not support product testing for compliance with the technical standards being the responsibility of the DNSP.
• Are there any issues that stakeholders consider will fall outside of CSIP-Aus that the AER should consider?	Ergon Energy and Energex provide no comment.
• Do stakeholders foresee issues with DNSPs monitoring device performance?	It is Ergon Energy and Energex's view that locations not connected to the NEM may need further consideration as these remote locations may not be able to operate in a dynamic operating envelope. Further to this, the cost/benefit and impacts on static limits in remote locations should also be considered.
Future actions Efficient communication of flexible export limits at scale	
• Do stakeholders have any views on which data exchange model may be the most efficient for the NEM?	Ergon Energy and Energex will be using Apache Kafka Event Streaming to publish DOE internally and could potentially provide access to these to external parties if appropriate.