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Dear Mr Feather,

Ausgrid response to Flexible Export Limits Issues Paper

Ausgrid is pleased to provide this submission to the Australian Energy Regulator (**AER**) in response to its Flexible Exports Limits (**FELs**) Issues Paper (**Issues Paper**).

Ausgrid is a distribution system operator (**DSO**) which operates a shared electricity network that powers the homes and businesses of more than 4 million Australians living and working in an area that covers over 22,000 square kilometres from the Sydney CBD to the Upper Hunter.

We see DSO as an evolution of the role of the distribution network system provider (**DNSP**) with a greater focus on the end-to-end energy system and facilitating active customer participation in markets to reduce costs for everyone. With more active customer and network energy resources connected to the distribution network, DSOs dynamically manage and optimise network capacity. This allows distribution networks to support the clean energy transition at a lower cost than would otherwise occur, though solutions like flexible exports limits.

Attachment A outlines our key responses to the Issues Paper and are summarised as follows:

1. The level of solar take up and impact on service levels are very different across the National Electricity Market (**NEM**). DSOs should have appropriate flexibility in whether and when they implement export flexibility;
2. A principles-based approach to allocating FELs is appropriate, but principles should acknowledge we are still learning how these solutions operate in the NEM;
3. Reporting and approvals requirements should be adaptable and proportionate to the maturity and extent of how FELs apply to a network area;
4. Existing connection agreement arrangements are appropriate and the benefit of changing this does not outweigh the additional complexity;
5. There would be benefit in exploring options for fleet-wide compliance enforcement for technology providers of FELs compliance services rather than individual customer penalties; and
6. Flexibility in the interaction between pricing and FELs should be maintained to encourage innovation such as the Project Edith dynamic pricing concept.

Attachment B provides our responses to the consultation questions. We would be happy to discuss this submission with the AER and the ESB.

Regards,
Alida Jansen van Vuuren
Head of DSO

ATTACHMENT A: DETAILED RESPONSE

1. DSOs should have appropriate flexibility in whether and when they implement export flexibility

There is currently significant diversity between networks across the NEM regarding the density of customer energy resources (**CER**). In particular for rooftop solar and the relative strength of distribution networks in managing exported energy. Therefore, DSOs' maturity and type of response to applying flexible export services is highly diverse. In this context, it is important to maintain adaptability for each DSO to develop and implement flexible export solutions depending on the suitability for each network and to trial different implementations so that we can rapidly learn as an industry before converging on common approaches.

It should be pursed where consistency across networks helps original equipment manufacturers (**OEMs**) and other service providers to develop consistent end-customer products across network areas. An example is the use of CSIP-Aus for interoperability when flexible export services are applied. Ausgrid supported this in our submission to the Energy Security Board's (**ESB's**) Interoperability Policy Consultation Paper. Diversity in calculation principles and methodologies on the other hand does not require product differentiation by service providers and so is one example of where flexibility may be retained.

2. A principles-based approach to allocation is appropriate, but principles should be non-binding

We agree that guiding principles for both flexible and static export limits can be helpful to all stakeholders, and we support continual refinement of principles as the industry learns about how they apply to and operate within the NEM over time. We do not agree the principles should be binding due to the limited practical experience in the field and the need to adapt to each network's conditions.

We agree with the capacity allocation principles 1,2,3 and 5. Principle 4 states that *Capacity should be allocated to small customers irrespective of the size or type of customer technology (e.g., solar or batteries) at the customer premises.* We contend that size and capabilities should be taken into account such that capacity is not necessarily allocated beyond a customer's ability to use it, since this capacity could be used by others.

3. Reporting and approvals requirements should be flexible and proportionate to the maturity and extent of flexible exports application

Ausgrid is not currently planning to mandate flexible exports for our customers, nor mandate that installations be flexible-exports ready. As our capabilities develop, we expect to include flexible exports as an option where static limits would otherwise be necessary.

The question of whether participation should be opt-in or opt-out needs further context on if and how such mandates apply. Opt-out only makes sense if there is a flexible-exports-ready mandate, else the required supporting hardware/firmware may not be present and so flexible exports could be applied as a default to be opted out of. In any case, we think that each DSO should have freedom to choose whether to apply flexible exports as opt-in or opt-out, due to the influence of individual network needs, state of technology readiness and related jurisdictional requirements.

The questions around approvals and monitoring could depend on whether flexible exports are mandated for customers. Where this is not the case, there is a natural motivation for DSOs to develop and communicate flexible exports in a way that is fair and engages customers. In this case, it is not necessary to include allocation methodology in CER integration strategy, publish

methodologies elsewhere or require AER approval, though a DSO may choose to publish methodologies anyway to assist development in consultation with their customers and stakeholders. We consider that requiring publication in the CER integration strategy or elsewhere in a DSO's regulatory reset proposal may result in flexible exports being applied either too early or too late due to the five-year regulatory cycle.

Where a DSO chooses to mandate flexible exports on the other hand, then greater transparency and AER approvals process may be justifiable.

4. Existing connection agreement arrangements are appropriate

Conditions for FEL compliance could be set out either in the connection agreement with the customer or, as a condition to access to a tariff where FELs as part of a published tariff. In the comments that follow, references to 'connection agreement(s)' should be interpreted to include both the above scenarios.

We agree that connection agreements should include operating parameters, conditions for revision, communication processes and compliance obligations. However, we do not agree that performance expectations should be included in legal documents. Performance expectations will change over time, will depend on NEM conditions and cannot be guaranteed. This is particularly where FELs are not mandated, as DSOs will be motivated to communicate expectations through other channels to encourage customers to participate and this should be sufficient.

Where an agent (or 'trader') is involved in ensuring that customer energy resources meet flexible exports requirements, we contend that the primary responsibility for compliance remains with the customer. Agreements that customers make with agents to control resources on their behalf should include requirements to comply with flexible exports as set out by the relevant connection agreement. While we recognise that most customers have limited knowledge of connection agreements and associated documents, from a legal perspective, the connection agreement currently includes all other requirements on network connections and establishing legal agreements with agents on top of this risks creating ambiguity and complication in responsibilities. This is consistent with broader regulatory principles and approaches in the NEM. We recommend that the AER look into arrangements for appropriate customer protections regarding customer-agent agreements to ensure agents are appropriately committed to rectifying issues when they provide services to comply with flexible exports. This should include an audit, compliance, inspection and penalty framework.

5. Fleet-wide compliance enforcement should be considered

Although we support the responsibility for compliance with flexible exports remaining with the customer, practical enforcement of compliance will likely be difficult. We agree that customers should not face significant penalties for non-compliance with export limits, particularly while the space is undergoing rapid change. Where flexible exports are optional, one option for dealing with non-compliance is to move customers onto a more restrictive static export limit, or in cases where flexible exports are associated with a specific opt-in tariff, to move customers back to a default tariff. However, if the cause of non-compliance would also result in the resource not meeting the requirements of the static export limit then options for enforcement are limited. One possibility is to maintain a whitelist of approved technologies and/or agents for complying with flexible export limits, with the threat of removal from listing for technologies or agents responsible for repeated non-compliance. There would be benefit from NEM-wide consistency and so we encourage the AER to consider options for fleet-level compliance enforcement.

6. Flexibility in the interaction of pricing and flexible exports should be maintained to encourage innovation

Ausgrid is currently trialling dynamic network pricing in Project Edith[1]. It is aimed at agents representing customers with price-responsive devices participating in two-sided markets (e.g. through virtual power plants). Our expectation is that with prices more accurately reflecting network congestion in both time and location, CER optimisation algorithms will result in less network usage at those times, making more capacity available for others and therefore requiring less-restrictive export limits.

Project Edith is in the early stages of exploring the interactions between dynamic operating envelopes[2] (**DOEs**) and dynamic pricing. This is one example of why the AER and ESB should take a dynamic and discretionary approach in implementing FELs in the near-term. This will best support innovation and best create opportunities for participation in two-sided markets while avoiding unnecessary network expenditure.

Flexible exports are one of many tools that DSOs will need to manage CER. Static export pricing is an important tool to both incentivise efficient investment in CER and recover network costs of investments to manage CER. Customers with flexible exports are likely to see lower static export prices relative to similar customers with static export limits, as any curtailment is likely to coincide with the export charging window.

[1] https://www.ausgrid.com.au/About-Us/Future-Grid/Project-Edith
[2] The flexible limits of both exports and imports.

ATTACHMENT B: BRIEF RESPONSE TO SELECTED CONSULTATION QUESTIONS

	Question	Answer
General	Do stakeholders agree with the primary use case for the implementation of flexible export limits?	Yes
Capacity allocation	Do stakeholders agree with the DEIP Working Group principles for capacity allocation? Why / why not?	Partly. Suggest to remove principle 4 as discussed in point 2 of attachment A.
	Should these principles for capacity allocation be binding for DNSPs?	No
	Should the application of capacity allocation principles by DNSPs be auditable to assure consumers of fairness?	No
	Should principles for static export limits also be developed for use by DNSPs going forward?	Yes
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?	Yes
	Do stakeholders agree that DNSPs should include their capacity allocation methodology in their CER integration strategy?	Only where a DNSP mandates FELs for all CER
	Should DNSPs be required to publish their capacity allocation methodologies, clearly outlining the trade-offs considered in setting their approach?	No, principles only.
	Should the AER have a role in approving DNSP capacity allocation methodologies? If so, what form should this mechanism take?	Only where a DNSP mandates FELs for all CER
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?	Yes
	Should consumers be expected to opt-in or opt-out of flexible export limits (where available)?	Prefer opt in, but should be at DSO discretion
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?	Possibly, see point 4 of attachment A
	Do stakeholders agree with the rights and obligations outlined above?	No - cannot put performance expectations in agreement
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?	No
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?	Yes

Integration with export pricing	How do stakeholders see flexible export limits and network tariffs interacting, for example, on the basic export level?	Opportunities for innovation – see project Edith