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Mr Mark Feather

General Manager, Strategic Energy Policy and Energy System Innovation

Australian Energy Regulator

GPO Box 520 Melbourne VIC 3001

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#### Dear Mr Feather

AGL welcomes the opportunity to provide a submission to the Australian Energy Regulator's (**AER**) paper "Interim Export Limit Guidance Note – For Consultation" (**consultation paper**) published in November 2023.

Proudly Australian since 1837, AGL delivers around 4.3 million gas, electricity, and telecommunications services to our residential, small, and large business, and wholesale customers across Australia. We operate Australia's largest electricity generation portfolio and have the largest renewables and storage portfolio of any ASX-listed company, having invested \$4.8 billion in renewable and firming generation over the past 20 years and added more than 2,350 MW of new generation capacity to the grid since 2003.

Australians' own investments in domestic rooftop solar systems are a valuable resource. Today, one-third of detached homes in the National Electricity Market (**NEM**) have rooftop solar. By 2034 in AEMO's Step Change scenario, over half of the detached homes in the NEM would do so, rising to 79% in 2050, driven by ever-falling costs.<sup>1</sup> At that time, forecast total rooftop solar capacity is 72 GW. When rooftop solar growth is combined with growth in PV non-scheduled generation, total solar generation grows by four times between today and 2050.

These new investments in consumer energy resources (**CER**) are an opportunity to advance Australia's transition to a decarbonised economy. Zero or low emissions technologies can provide individual device owners with a source of secure and reliable electricity supply. Further, when devices export excess energy to the power grid, non-device owners can benefit from the clean and reliable electricity generated and stored by these devices. CER devices can also support system security and reliability. However, the ability of CER to contribute to the broader power grid depends on the extent to which these devices operate consistently and predictably. AEMO highlights that this growth in CER reduces the need for utility-scale solutions, especially if the assets can be coordinated or 'orchestrated' to complement and support the grid more efficiently. However, if the right mix of regulatory and policy frameworks are not established, appropriate utilisation of these solutions for customer owned assets will not work.

The four themes identified in the AER's Flexible Export Limits Final Response (**Final Response**) addressed concerns raised by stakeholders in response to the previous issues paper. The four themes included increased consistency, increased transparency, stronger governance and increase consumer understanding.

<sup>1</sup> AEMO, Draft 2024 Integrated System Plan, p47

https://aemo.com.au/-/media/files/stakeholder\_consultation/consultations/nem-consultations/2023/draft-2024-isp-consultation/draft-2024-isp.pdf?la=en



However, when finalising the interim guidance note and developing the rule change proposal, AGL recommends that we do not lose sight of the sector-wide outcomes we should look to uphold, including:

- Customer choice should remain paramount centralised control over the installation and use of the services provided by CER may make it easier for distribution network service providers (DNSPs) to manage their networks in a technical sense but it does not support or maximise the value of the services that those resources could provide.
- Competitive markets are a key enabler of unlocking value for the customer as consumers have invested in their own assets, it should be their choices and preferences that influence the types of products and services that are offered. To facilitate such a competitive market, it is essential that consumers can express their preferences. It is only then that there will be efficient use of, and investment in, CER across the sector. This is a fundamental role of a retailer in the energy market.
- Effective price signals encourage efficient investment in, and operation of, CER if signals about the value of CER are not reflected in network tariffs, the full value CER can provide is unlikely to be realised. Market participants must work together to ensure price signals remain a key enabler for the efficient deployment of CER and share those benefits with customers.
- **Transparency around network and curtailment capacity** clarity and transparency needs to be provided in relation to current granular LV network capacity and the methodology to how that is calculated and /or measured. Customers and CER system retailers alike should be able to understand why there is a specified limit on their maximum export and the reduced capacity on that specific part of the LV network for system design. Customers should also (through their respective energy retailer) be afforded access to when and how much curtailment has affected their CER.

The AER has stated that the primary purpose of this reform effort is to analyse the potential regulatory gaps with respect to flexible export limits' implementation and identify actions that address consumer risks where applicable. AGL emphasises that the AER, when developing the guidance note and the rule change proposal look to the core issues and take a first principles perspective of why flexible exports is being utilised and why it requires new regulation. Ultimately, flexible export limits provide an alternative to the current static export limits imposed by DNSPs as a way to maximise existing hosting capacity and integrate more CER. While flexible export limits offer one solution, issues remain that are much broader than how to effectively provide guard rails for the introduction of flexible export limits.

The Final Response introduced the proposal to develop and publish interim guidance on export limits as well as initiate a formal rule change proposal. We appreciate the need of an 'interim' guidance note while progressing a formal rule change. However, we urge the AER to include consideration of the fundamental issues, rather than a narrow and solutions-focused lens in progressing the rule change. The proposal should not be limited to providing the AER with the appropriate head of power to develop and publish an Export Limit Guideline. It should take a first principles perspective and ask the AEMC to explore the issue that flexible export work is being undertaken for - to enhance DNSP capability to maximise capacity for existing and future CER installations.

While this consultation paper notes that stakeholder responses to the previous issues paper underscored a range of challenges and barriers to the integration of CER that are beyond the scope of this work, these challenges limit the effectiveness of this work and therefore it cannot be carried out in isolation. The issues encompass technical compliance, governance concerns related to roles and responsibilities of various parties accessing CER and issues surrounding access to smart meter data. Resolving these issues will support the efficient integration of CER more broadly and will enhance the effectiveness and benefits derived from implementing flexible export limits.



Throughout our response in Appendix A, we have provided feedback based on AGL's operational experience with CER products, our role as one of Australia's largest virtual power plant operators and ongoing involvement in a number of trials and projects that seek to test flexible exports. We are keen to continue to help provide our practical insights throughout our additional engagements in this process.

If you have any queries about this submission please contact Emily Gadaleta, Regulatory Strategy Manager at

Yours sincerely,

Chris Streets General Manager, Policy and Markets Regulation



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## Appendix A - Responses to the Consultation Questions

### **Capacity allocation**

| Capacity allocation principles  |   |
|---|---|
| What are your views on the AER's<br>proposed approach for amending<br>the DEIP capacity allocation<br>principles? Do you have any<br>specific views on the nature of<br>amendments required to achieve<br>the AER's policy objectives?  | AGL supports the utilisation and proposed amendments to the<br>DEIP principles as consistent and nationally harmonised principles<br>for guiding DNSPs capacity allocation methodologies. However, we<br>do not support each DNSP creating their own methodologies.   |
| Should the capacity allocation<br>principles be binding, and if so,<br>should these be codified in<br>the National Electricity Rules or set<br>out in a binding AER Guideline?  | AGL supports the capacity allocation principles be binding, as this will help to enact adherence to the principles as a relevant factor that the AER considers when assessing DNSP expenditure proposals.   |
| Capacity allocation methodology   |   |
|   | We do not support each DNSP developing their own capacity   |
| What are your views on our<br>proposed approach for improving<br>transparency in DNSPs' capacity<br>allocation methodologies? Is the<br>guidance provided sufficiently<br>targeted and proportionate for<br>achieving the AER's policy<br>objectives? Are there any other<br>areas where further guidance is<br>required? | <ul> <li>allocation methodology, leading to a piecemeal approach and fragmentation that may distort the aggregator market and create unnecessary complexity that will be difficult to unwind at a later stage.</li> <li>However, transparency on any capacity allocation methodologies that are developed (nationally harmonised or not) will be key in ensuring trust with industry and consumers is built and maintained. This information is also likely to be especially useful for third-party providers in identifying market opportunities to provide non-network solutions to networks experiencing capacity constraints. As such, we expect that DNSPs will make results of their hosting capacity analysis and allocation publicly available and keep this information regularly updated, to the greatest extent possible.</li> <li>Additionally, the consultation paper focused on transparency of how flexible exports may be calculated and allocated. We believe the AER should also require DNSPs to demonstrate the system need to introduce flexible export limits prior to demonstrating how they will go about implementing them.</li> </ul> |



| What areas of the National<br>Electricity Rules and National<br>Energy Retail Rules do you<br>consider will likely require<br>amendment to give effect to the<br>AER's proposed approach for<br>improving capacity allocation<br>methodologies and transparency? | The NEM is made up of 13 distribution networks, each with their<br>own approach to engaging stakeholders and in how they manage<br>their network. As networks are defined by their geographic<br>boundaries, they have identified as being the closest to the<br>communities we serve. Networks, during their consultation with<br>customers, are hearing that they are wanting them to do more than<br>just deliver a safe, secure and reliable energy supply and expect<br>them to support the transition. Through that lens, integration of CER<br>is seen as falling into the remit of network responsibilities.  |
|--|---|
|  | This challenges traditional energy sector roles and responsibilities<br>as DNSPs are increasingly perceiving their role to include<br>centralised control over the installation and use of the services<br>provided by CER. While this may make it easier for DNSPs to<br>manage their networks in a technical sense, it does not support<br>consumer choice or maximise the value of all services that those<br>resources can provide.   |
|  | We see a clear role for the AER in developing a standardised<br>methodology for all DNSPs, as well as approving and auditing<br>compliance with the methodology. We encourage the AER to<br>support uniform methodology-setting among all DNSPs which will<br>not only facilitate ease of entry for new market participants and<br>support aggregator markets, but also reduce the burden for the<br>AER in having to periodically review and approve iterative DNSP<br>methodologies that are likely to change over time.  |
|  | The forthcoming rule change should propose the AEMC consider<br>the costs to consumers and industry of allowing individual DNSPs<br>to develop their own methodologies.   |
| What time periods should DNSPs<br>consider in allocating network<br>hosting capacity? For the allocation<br>model, over what timeframe should<br>capacity allocation be considered?  | AGL considers that export limits should be considered temporary and subject to periodic review every 12 months.   |
|  | It will also be critical for the AER to be consistently reviewing how<br>effective flexible exports are, in effect, in achieving the end-goal of<br>maximising and increasing utilisation of CER. The AER should<br>consider the complexity in the design of flexible export solutions. If<br>a DNSP designs an approach that opens up additional network<br>capacity but is ultimately so complicated that it results in increased<br>CER costs, reducing customer uptake, or lower customer uptake<br>due to a real or perceived impact on the value gained from their<br>CER, then we should determine that the particular design of flexible<br>exports has failed in the stated policy outcomes. |



#### **DNSP** revenue determination process

#### **Consumer Energy Resources Integration Strategy**

What are your views on the nature of changes required to address the issues identified in the problem statement and promote the AER's intended policy outcome? AGL supports the recommendation that DNSPs should be required to include commentary on how their capacity allocation methodology reflects the capacity allocation principles and how it has been shaped by industry feedback.

We also emphasise that transparency and collaboration from DNSPs with the rest of industry will be key in investigating initiatives to support the efficient integration of CER. This will help to build confidence in how the DNSP has considered the use of other complementary tools, such as two-way pricing, in setting export limits.

| Developing flexible export limits business case  |   |
|--|---|
| What should be considered the<br>minimum level of information in<br>relation to hosting capacity<br>assessment that networks should<br>provide during their regulatory<br>determination? | AGL supports the inclusion of potential additional options for<br>managing network capacity, as summarised in Figure 6 of the<br>guidance note. This should further encourage DNSPs to manage<br>network capacity according to a hierarchy of functions, utilising<br>voltage management and cost reflective pricing prior to curtailment.<br>When reporting, the DNSP should share whether other approaches<br>to managing network capacity, such as tariffs, were a credible<br>option and any costs differences between the various approaches.<br>This could be supported with rationale behind the decision to<br>implement curtailment, including studies on the viability of<br>alternative management options, activities, and customer feedback. |
| What are your views on whether<br>the AER should expand the<br>guidance within our DER<br>integration expenditure guidance<br>note?  | AGL recommends that the AER should expand the guidance within<br>the DER integration expenditure guidance note to require DNSPs to<br>not only demonstrate how they have considered other least cost<br>measures, but also how they have sought out non-network<br>solutions.   |
|  | A key area for the AER to examine is the interaction between the DER integration expenditure guidance note and the Ringfencing Guideline. As noted in the expenditure guidance note, if DNSPs are to consider network battery solutions, evidence demonstrating how the DNSP has considered and provided for efficient and prudent non-network options is required, including the provision of those services by potential third-party providers.   |
|  | One of the four themes in the Final Response by the AER was<br>greater transparency. However, the ability of the AER to approve<br>ring fencing waivers through a streamlined process without<br>consultation for battery energy storage systems does not promote<br>this outcome. This was most recently demonstrated in the approval<br>of ring fencing waivers for Ergon Energy and Energex.   |
|  | We do not believe the AER has substantiated a case for winding<br>back competitive market protections and while the AER reserves<br>the right to conduct consultation at their own discretion in a<br>streamlined process, this is no longer appropriate. We recommend<br>the AER amend the ring-fencing guideline to remove this provision<br>in order to protect competitive market outcomes, especially during<br>this crucial, formative stage of non-network solutions for network<br>constraints.   |



# Key considerations in implementing and using flexible export limits

| Connection agreements and consumer participation   |  |
|--|--|
| Model standing offers  |  |
| Should DNSPs have a positive<br>obligation to notify consumers of<br>non-compliance with flexible<br>export limits once becoming<br>reasonably aware?  | There is currently no explicit requirement for DNSPs to monitor and<br>report on non-compliance, despite compliance with technical<br>standards being a part of connection agreements. Any role DNSPs<br>can play in notifying customers of non-compliance will help to<br>increase their ability to support customers to connect and export<br>from new CER devices.<br>Non-compliance is a problem for all NEM customers, as such we<br>consider this is an urgent problem requiring immediate resolution.<br>From the AEMC's Final Report on their Review into CER Technical<br>Standards, recommendation 8 is for DNSPs to introduce a<br>commissioning process for new CER connections. This will help to<br>reduce the likelihood that devices are incorrectly installed and<br>therefore non-compliant with CER technical standards.<br>However, DNSPs have limited incentives to help return assets to<br>an active state if any issues are encountered as a result of non-<br>compliance. Recently, a test of the 'Smarter Homes' initiative in<br>South Australia caused a number of inverters to be left inactive<br>once the test was completed. Advice customers received was that<br>if reconnection did not occur, the responsibility for addressing the<br>issue now was with either the inverter manufacturer or the solar<br>installer. This demonstrates a poor customer experience,<br>demonstrating that DNSPs are not well-equipped or incentivised to<br>interact with customers. The AER should consider what incentives |
| Should the connection agreement<br>include provisions for amending or<br>seeking a review of the flexible<br>export limit? What do stakeholders<br>consider an appropriate minimum<br>timeframe and circumstances for<br>flexible export limits to be<br>amended, while still providing<br>investment certainty to consumers | AGL recommends that the AER introduce a requirement for a review period of 12 months in the connection applicant as a requirement. Each customer should then be notified about the review and any impact it may have to their ability to export.   |
| who invest in CER?<br>What are your views as to whether<br>the AER should seek such a rule<br>change regarding<br>Model Standing Offer and<br>connection policy requirements?  | The harmonisation of network connection agreements across all<br>DNSPs in the NEM will be critical to achieve consumer trust based<br>on consistency of connection agreements that clearly spell out the<br>rights of CER owners with respect to enabling flexible exports, how<br>this might impact their experience in flexible energy services and<br>their rights to correction of faults and errors with the behind the<br>meter device not adhering to agreed national standards and<br>performance.<br>While this interim guidance note provides a good temporary<br>measure, a formal rule change will be key in considering the<br>fundamental questions on changes to service delivery.  |



| Information to help consumer decision-making   |   |  |
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| Is there any additional information<br>DNSPs should provide consumers<br>to enable them to make an<br>informed decision about whether<br>to opt-in to flexible export limit<br>arrangements?   | AGL supports that customers should opt-in to flexible export limits<br>for both existing and new connections and agree that empowering<br>customers by seeking their active, informed consent will foster<br>acceptance for flexible export limits, build a social license and<br>promote active consumer participation.<br>Consistent with our general observations in this consultation, we<br>consider that consumers would benefit from a level of<br>standardisation in the information they are provided by DNSPs and<br>how and when that information is shared. |  |
| Subsequent implementation  | Subsequent implementation   |  |
| What are your views on the need<br>to amend relevant provisions in<br>Chapter 5A of the NER to provide<br>greater clarity on the need for<br>MSOs to include specific terms<br>and conditions that address issues<br>relevant to flexible export limits? | AGL supports the amendment to relevant provisions in Chapter 5A<br>of the NER to provide greater clarity on the need for Model<br>Standing Offers to include specific terms and conditions that<br>address issues relevant to flexible export limits. Any information or<br>measures the AER can enact to provide greater clarity on industry<br>obligations and the expectations of the AER will lead to more<br>consistent outcomes for consumers no matter which part of the<br>NEM they reside.   |  |

| Consumer and industry engagement  |  |
|---|--|
| What additional engagement or<br>information do you consider<br>DNSPs should undertake or<br>provide to ensure consumers are<br>well-informed in the decision-<br>making process and<br>continue to be engaged<br>throughout the later stages of the<br>customer journey? | <ul> <li>AGL advocates for empowering consumers through unhindered access to relevant, easy-to-understand information, a right to choose the most appropriate offer for the customer's energy needs and commensurate rewards and incentives. Provision of information should be incumbent on DNSPs where that information relates to: <ul> <li>a projection of the overall dollar impact to the customer as a result of entering into a dynamic connection agreement,</li> <li>whether the customer will be better offer compared to other options available to the customer in the market;</li> <li>export capacity impact; and</li> <li>total percentage of the time that the flexible export limit will be applied to the customer's CER assets.</li> </ul> </li> </ul> |



| What are your views on what<br>effective engagement looks like<br>between DNSPs and<br>relevant industry stakeholders? | Retailers should have a level of visibility at the point of the customer entering into the agreement as it could impact the retailer offerings available to the customer and other factors. As part of this stream of work, we encourage the AER to work closely with AEMO to consider the impacts on data that is held in the DER register (including future updates and data agreed to as part of the recent rule change by AEMO to include EV Supply Equipment standing data) and standing information provided to retailers as we believe access to this information has a place both in the DER register and MSATS.   |
|--|--|
|  | Additionally, a significant market reform from the last couple of years is the network access and pricing review which was initiated with the goal of optimising existing, and incentivising additional hosting capacity for CER, was the allowance of export pricing. The AER should be considering the role that pricing signals can play as an alternative to curtailing solar exports, by providing commercial signals that incentivise the uptake of more behind the meter storage or time shifting loads like EV charging, hot-water or air conditioning.  |
|  | The rule change should ask the AEMC to consider how roles and responsibilities are being challenged through the energy transition and how this may impact customer choice and competitive market outcomes that the current regulatory framework is built on. In 2023 AGL, SA Power Networks and Plus ES launched a smart hot water trial to test whether dynamically managing customers' hot water systems through smart meters can support grid stability and lower energy costs for consumers. The technology will allow AGL to shift controlled load to the middle of the day and manage hot water systems in near real time to respond to market signals and network constraints.  |
|  | As electric hot water systems are considered a predictable load for<br>residential customers and with more than 15 GW of hot water<br>systems across the NEM, PLUS ES and AGL will use the learnings<br>from South Australia to advocate for recognition of the benefit of<br>retailer-orchestrated CER for customers, retailers and the network.  |
|  | AGL encourages that the AER's rule change proposal recommends<br>the AEMC to consider how networks should engage with industry<br>on non-network solutions to test opportunities for low cost solution<br>that could help to address system issues across the NEM.   |
| What, if any, additional information<br>should DNSPs seek to provide to<br>industry stakeholders?                      | <ol> <li>Curtailment Events including end time and NMIs affected</li> <li>Validation that inverters revert to standard operation</li> <li>Detailed design documentation of the DNSPs implementation</li> <li>Forward notice of any updates to the DNSPs software solution</li> <li>Forward notice of any maintenance to the DNSPs software solution</li> <li>DNSPs should provide a pre-production environment for retailers to validate product compatibility with</li> <li>Clear and concise information regarding what inverters are supported by the DNSP</li> <li>When a DNSP intends to add a new inverter to their supported list, they should inform retailers to ensure retailer lead products are not impacted, and DNSPs should provide adequate testing time in their pre-production environment for retailers to validate this</li> </ol> |



| Which stakeholders should be<br>responsible for conveying<br>information to consumers at each<br>step of the consumer energy<br>resources journey? | Consumers should receive key information about an energy service<br>or product before they sign onto a contract. This will support them<br>to make well informed decisions that best suit their needs.<br>In relation to providing information about flexible export limits,<br>information should be provided to customers at each step of the<br>consumer energy resources journey. The AER should re-utilise the<br>approach they used in analysis of mapping risks using 'customer<br>journey' undertaken in the Final Advice for the Review of consumer<br>protections for future energy services. The report outlined a broad<br>process that consumers go through regardless of the specific<br>energy product or service they engage with: |
|--|--|
|  | <ul> <li>pre-engagement</li> <li>point of sale</li> <li>use of service</li> <li>switching providers</li> <li>end of service.</li> </ul>  |

| Compliance with technical standards  |  |
|--|--|
| Should DNSPs be required to<br>demonstrate the compliance<br>actions that they have taken when<br>putting forward expenditure<br>proposals?  | Yes. A significant lack of compliance and enforcement of technical standards for flexible export limits could have far-reaching implications for the roles and responsibilities in the industry, which in turn, will affect the end-user experience.<br>As one of the DNSPs requirements for a customer's connection is to be compliant with technical standards, DNSPs should take part in actioning rectification. Solving the issue of compliance with technical standards with devices currently deployed will require industry-wide effort.   |
| What are appropriate processes<br>for DNSPs to go through if a<br>consumer asset is identified to be<br>non-compliant with a relevant<br>technical standard?<br>For example, should a customer<br>be reverted to a static export limit<br>(note: this would only occur after a<br>period where the DNSP and<br>retailer have communicated with<br>the customer to rectify the<br>problem)? | If DNSPs are to utilise the tools available to them to help them<br>address non-compliance, consumers should not be penalised to<br>the fullest extent possible. A grace period to rectify non-compliance<br>should be provided to installers and customers once they have<br>been notified and if the asset does not pose an imminent threat to<br>the network. If the ultimate outcome is that customers will be<br>penalised as a last resort measure, there needs to be appropriate<br>recourse available to them to achieve rectification.<br>Prior to the development of processes for DNSPs to enact in the<br>case of non-compliance, roles and responsibilities need to be more<br>clearly established to determine how notification of the issue and<br>resolution will occur. This alleviates the need for voluntary actions<br>by industry to solve a problem occurring from lack of clarity around<br>roles and responsibilities. |



## Complaint handling and dispute resolution

| What information should DNSPs collect to facilitate complaints to be resolved?   | AGL support's the AER's emphasis that disputes between<br>customers and DNSPs about the application of flexible export limits<br>are potentially significant. A lack of clarity for consumers around<br>resolving concerns or disputes can erode consumer trust and lead<br>to minimal uptake of flexible export limits.<br>DNSPs should be able to, as the customer's request, demonstrate<br>the impact of their network decisions on consumers' export<br>abilities. For example, DNSPs should be able to demonstrate when<br>a consumer was constrained, what was happening in the network<br>at that time, and the amount of energy that was exported. This<br>advice should be required to be provided to customers within a<br>timely manner.  |
|--|---|
| What is the role of DNSPs to co-<br>ordinate complaint resolution,<br>including identifying the<br>responsible party, which may be<br>the OEM, installer, or<br>trader/aggregator? | As identified in the AER's Final Advice on the Review of consumer<br>protections for future energy services, there is a risk that<br>consumers may be unable to resolve disputes because of barriers<br>to access to dispute resolution, including cost and complexity<br>barriers. This is particularly the case if ombudsman schemes are<br>unable to resolve CER related complaints. There is also a risk that<br>matters are not resolved fairly and in a timely manner.<br>Consumers should be able to access independent dispute<br>resolution that covers all energy services that affect the supply of<br>energy to their household or business premises. DNSPs should<br>work with the AER to proactively develop an interim solution under<br>this guidance note on how complaint resolution can easily be<br>achieved for customers while the recommendations under the<br>consumer protections review, and the Commonwealth's CER<br>Roadmap are being finalised. |