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Australian Energy Market Commission
Submitted via: www.aemc.gov.au

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Dear Jashan

Access, pricing and incentive arrangements for distributed energy resources, Draft rule determination

AGL Energy (**AGL**) welcomes the opportunity to respond to the Australian Energy Market Commission's (**AEMC**) Access, pricing and incentive arrangements for distributed energy resources, Draft rule determination, 25 March 2021 (**Draft rule determination**).

As a leader in DER products and services, AGL has actively participated in bringing the consumers' view and interests into the development of a range of policies, regulations, and technical standards applicable to DER. We have been engaged in a range of industry forums focused on DER integration including the Distributed Energy Integration Program (**DEIP**) and the Energy Security Board's Maturity Plan Pilot Stakeholder Steering Cohort. We have consistently advocated in these forums that the regulatory framework governing DER integration should empower consumers with choice to utilise and optimise DER assets and to participate in competitive market services which address broader energy system needs.

Our feedback on the Draft rule determination is based on providing feedback how pricing and access arrangements for connecting DER to the electricity system can promote the long-term interest of consumers based on our operational experience with DER products and services and ongoing engagement in DER policy and regulatory reform.

AGL's position

AGL supports the Draft rule determination which provides an important package of reforms to improve access of DER to the electricity system. This will be facilitated through clearer distribution network export service obligations and a more sustainable regulated revenue model for the provision of distribution network infrastructure to support export services into the future.

We support the removal of NER clause 6.1.4 which prohibits the use of system charges for export services to address equity concerns regarding the extent to which non-DER participants cross-subsidise DER customers' use of the distribution network. We also consider it important to establish a more viable financial stream to support distribution networks' planning and investment in export services. This is particularly so given the substantial role that DER is anticipated to play in Australia's energy markets and the risk of curtailment in the absence of appropriate distribution network infrastructure investment.

AGL also welcomes the AEMC's proposed reforms to support network tariff innovation, including to enable pricing to retailers or market small generator aggregators. We consider these changes will facilitate greater retail market innovation to support the continued uptake and market participation of DER.



Nevertheless, in implementing these reforms, we consider it important that the regulatory framework continues to support simplicity to facilitate consumer engagement.

Moreover, the introduction of two-way network pricing should not empower distribution networks with *de facto* market functions associated with the co-optimisation of DER services that would be better served by a more competitive-based framework, that is driven by consumer preferences and market participants responding to these preferences by offering products and services that maximise the value of consumer DER investments.

Safeguards to mitigate consumer impact

We consider the following safeguards should be established to complement the proposed reforms and maximise the consumer benefits that will flow from the proposed reforms:

1. The proposed AER guideline on export pricing should be established as a mandatory guideline to inform distribution networks' approach through the Australian Energy Regulator's (**AER**) Tariff Structure Statement (**TSS**) process. While we appreciate that distribution networks' ability to introduce export and reward pricing is intended to be regulated with a degree of flexibility through the TSS process, we consider additional safeguards are required to support a consistent approach to these new export pricing arrangements and a mandatory guideline is appropriate.
2. The AER's export pricing guideline should also give due consideration to the two-sided market reforms in its applicable methodologies and inputs so that consumers are able to respond to a range of market signals to support the broader energy market system.
3. In the context of the regulatory determination and TSS processes, the AER should carefully consider the range of operational challenges associated with implementing a network use of system charge, including:
 - The risk of placing distribution networks in the position of determining the market value of DER that could impede upon aggregators ability to co-optimize different value streams;
 - The need for more robust forecasting methodologies and inputs to inform the setting of applicable charges, taking in account the fixed charge, capacity tariff and time-of-use components of customers' tariff structures; and
 - The ability for customers to respond in the desired way, having regard to customer experience.
4. To ensure network tariff trials do not negatively impact customers, an additional safeguard should be established requiring that distribution networks undertake preliminary desktop analysis on the number of customers impacted, the materiality of any proposed tariff trial and make this information publicly available to inform consumers of the impacts.
5. The AER should capture the following customer value impacts in its customer export curtailment value methodology to ensure a fit-for-purpose methodology:
 - Impact of technical standard requirements.
 - Impact of imposing dynamic export limits on DER customers as compared with scenarios where network constraints are more comprehensively managed through network capital and operational expenditure to address underlying infrastructure issues.



We elaborate on key elements of the Draft rule determination in the **Attachment**.

Should you have any questions in relation to this submission, please contact Kurt Winter, Regulatory Strategy Manager, on 03 8633 7204 or KWinter@agl.com.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Elizabeth Molyneux', written in a cursive style.

Elizabeth Molyneux

GM Policy and Markets Regulation



ATTACHMENT

1. Recognising export services in the regulatory framework

AGL supports the following recommendations:

- a) *The proposed definitional changes.* We believe this provides a clearer mandate to distribution networks to provide export services to customers, given that the National Electricity Rules (**NER**) do not provide any specific guidance. As we elaborated in our submission to the AEMC's Consultation Paper,¹ the NER needs to facilitate new operational modes, such as orchestration and customer usage optimisation, by ensuring that networks effectively facilitate the interaction of DER with the energy market system. We agree with the proposed approach that existing regulatory mechanisms would shape the treatment of export services, with the AER vested with a degree of flexibility in how service classifications are set.
- b) *To incorporate exports services into the existing distribution network planning and assessment framework.* We also support the proposal to capture the associated requirement that distribution networks provide information on how networks intend to manage the integration of DER and explain the proposed approach against alternative options.
- c) *The AER's development of further guidance through its Expenditure Forecast Assessment Guidelines (EFA Guideline).* As we observed in response the AER's 2019 inquiry into the regulatory framework for assessing distribution networks' proposed expenditure to manage DER², we do not consider that the AER's EFA Guideline is fit-for-purpose to assess DER integration expenditure as the latest revision was in November 2013 and the EFA Guideline did not contemplate DER integration. We support revision to the EFA Guideline in several key respects including:
 - Sampling and modelling;
 - Options analysis and options value;
 - DER visibility;
 - A common approach methodology to valuing consumer exported electricity; and
 - DER integration expenditure categories.

¹ See AGL submission in response to the Australian Energy Market Commission's (AEMC) Distributed Energy Resources (DER) Integration consultation (15 September 2020), Available at <https://thehub.agl.com.au/articles/2020/09/agl-supports-reforms-to-better-facilitate-der-integration>.

² See AGL submission to AER on assessing distributed energy integration expenditure (20 January 2020), Available at <https://thehub.agl.com.au/articles/2020/01/submission-to-aer-on-assessing-distributed-energy-integration-expenditure>.



2. Incentive arrangements

AGL supports the Draft rule determination to amend distribution network incentive arrangements to support export services.

As we noted in response to the Consultation Paper, there is currently little incentive for networks to invest in measures to reduce export constraints as the regulations do not currently impose a penalty for constraining DER exports. We believe that any incentives framework needs to be appropriately structured to provide simpler penalties/ incentives to drive more efficient operation of hosting capacity.

We agree with the proposed approach to extending the Service Target Performance Incentive Scheme (**STPIS**) to support export services and, in the near term, improve distribution networks' reporting obligations.

As we highlighted in our response to the Consultation Paper, we anticipate a range of operational challenges that would impede the effectiveness of the STPIS scheme in driving improved customer outcomes in the immediate term. Accordingly, we support the proposed 18-month timeframe for the AER to undertake a review focused on the feasibility of extending the STPIS and look forward to engaging in this process. We also welcome the determination that distribution networks be required to report a range of new metrics relating to export service performance in their Distribution Annual Planning Report. Given the current lack of robust data to establish appropriate benchmarking for distribution networks' performance in export services, near terms actions are also required to improve distribution networks' disclosure of export service levels to then inform the development of an appropriate performance standard.

We also support the Draft rule determination to establish a new AER responsibility to develop a customer export curtailment value methodology to be used as an input into investment decisions and the STPIS methodology, akin to the value of customer reliability. We consider this will support a more robust approach to valuing the impact of network investment decisions on the market value of DER. We appreciate that this responsibility will entail substantial complexity in ensuring a fit-for-purpose methodology that is forward-looking and variable by time of day. In this regard, we agree with the proposed timeframe that the AER develop the methodology by July 2022 in consultation with industry.

In developing an appropriate methodology, we would recommend the AER capture the following customer value impacts:

- *Impact of technical standard requirements.* Current Standards Australia processes only consider engineering factors in setting standards and do not consider how these engineering solutions impact customers' investments and pay back of DER assets. For example, power quality response modes regulated through AS 4777.2:2020 inverter standard were not subject to customer assessment and are likely to result in a loss of customer value that no one has assessed.
- *Impact of imposing dynamic export limits on DER customers* as compared with scenarios where network constraints are more comprehensively managed through network capital and operational expenditure to address underlying infrastructure issues.

Factoring in these additional parameters will provide a more accurate modelling framework to assess the value of customer export curtailment value. It would also closely align with the determination to clarify distribution networks' obligation to provide export services to customers.



3. Pricing

AGL supports the Draft rule determination to remove NER clause 6.1.4 which prohibits the use of system charges for export services.

In the short-term, we consider this will assist in addressing equity concerns regarding the extent to which non-DER participants cross-subsidise DER customers' use of the distribution network.

In the longer-term we believe the introduction of export pricing should improve investment certainty for DER customers' by supporting greater market access through the provision of relevant network infrastructure. AGL appreciates that the increased use of distribution networks by DER to export electricity into the system will eventually drive the need for new network expenditure as the inherent 'hosting capacity' of the existing assets is used up. However, export pricing in principle should delay this expenditure. Further, the reallocation of costs in financing export services will support a more viable network revenue model to support substantial DER market participation into the future. We agree with the AEMC's view that a "do nothing" approach would also result in losses to DER customers through increased curtailment.

The benefit of these pricing reforms in delivering improved consumer outcomes will be reinforced by the complementary reforms provided in the Draft rule determination to explicitly recognise export service obligations and shape the supporting incentive framework.

AGL supports the ability to implement export pricing equally to all distribution level customers. As we observed in response to the Consultation Paper, access and pricing arrangements should be consistent, noting that for larger commercial and industrial customers there is scope to negotiate access arrangements through connection agreements. We also note the AEMC's commentary that application to larger distribution-level generators and DER exporters could be beneficial to the extent that these customers can negotiate the relative balancing between up-front connection charges and on-going usage charges.

Whilst AGL in principle supports the move towards reward pricing, we anticipate a range of operational challenges with implementing a network use of system reward that should be carefully considered in the AER's regulatory determination and TSS processes. As we elaborated in our response to the Consultation Paper:

- From a market design perspective, in the absence of a more mature market mechanism such as a distribution market operator that could facilitate DER bidding for wholesale and network support services, reward pricing intermediated by distribution networks alone risks placing distribution networks in the position of determining the market value of DER that may not fully account for the value of services that could be provided by DER asset owners. This could also impede upon aggregators ability to co-optimize different value streams across the energy supply chain.
- From a network operational perspective, reward pricing would require the development of a range of forecasting methodologies and inputs to inform the setting of applicable charges, taking in account the fixed charge, capacity tariff and time-of-use components of customers' tariff structures.
- From a customer experience perspective, the introduction of reward pricing assumes that customers would respond in the desired way.

We would recommend the proposed AER guideline on export pricing be established as a mandatory guideline to inform distribution networks' development of export charges and reward methodologies. While we appreciate that distribution networks' ability to introduce export and reward pricing will be regulated



through the AER's TSS process to provide a degree of flexibility, we consider additional safeguards are required to support a consistent approach to these novel pricing arrangements.

As we observed in response to the Consultation Paper, these pricing reforms should not empower distribution networks with *de facto* market functions associated with the co-optimisation of DER services that would be better served by a more mature market-based framework, including the potential establishment of a distribution market operator.

AGL is closely engaged with the current national policy programs to develop a market-based framework to allow customers to engage and share in DER value beyond the direct energy bill benefits, including the ESB's Post-2025 Market Design Program and the Australian Energy Market Operator's (**AEMO**) Project EDGE³.

Accordingly, we would also recommend that the AER's export pricing guideline give due consideration to the two-sided market reforms in its applicable methodologies and inputs so that consumers are able to respond to a range of market signals to support the broader energy market system. This will enable DER customers to maximise the value of their investment whilst reducing cost for the broader energy market.

AGL welcomes the proposed reforms to support network tariff innovation, including to enable pricing to retailers or market small generator aggregators and to introduce transitional arrangements to increase the tariff trials threshold for the next two regulatory control periods.

We consider the proposed changes to enable pricing to retailers or market small generator aggregators will facilitate greater retail market innovation to support the continued uptake and market participation of DER. By way of example, we would encourage further consideration of the bulk wholesale network tariff model. Under this model, distribution networks charge cost reflective network tariffs to retailers based on an aggregated load profile of the retailers' customers. This approach could better incentivise retailers to manage the risks associated with network costs thereby promoting greater innovation in the development of products and service and investment.

With respect to the proposed transitional arrangements to increase the tariff trials threshold, we would recommend an additional safeguard be established requiring that distribution networks undertake preliminary desktop analysis on the number of customers impacted and the materiality of any proposed tariff trial. In our view this would ensure network tariff trials do not negatively impact customers.

³ Project EDGE (Energy Demand and Generation Exchange) seeks to demonstrate an off-market, proof-of-concept Distributed Energy Resource (DER) Marketplace that efficiently operates DER to provide both wholesale and local network services within the constraints of the distribution network. See further AEMO, Project EDGE, Available at <https://aemo.com.au/en/initiatives/major-programs/nemdistributed-energy-resources-der-program/der-demonstrations/project-edge>.