Government
of South Australia

Department for
Energy and Mining

Our Ref: D20029591

Ms Merryn York
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Merryn

Dear Ms ~~York~~

Consultation Paper – Distributed Energy Resources Integration – Updating Regulatory Arrangements

Thank you for the opportunity to comment on the Australian Energy Market Commission's (AEMC) consultation paper *Distributed Energy Resources Integration – Updating Regulatory Arrangements.*

Consumers have and continue to be enthusiastic adopters of Distributed Energy Resources (DER). However, as highlighted in the Australian Energy Market Operator's (AEMO) 2020 Minimum operational demand thresholds in South Australia Technical Report, high levels of DER resources are presenting challenges to the secure operation of our power system.

The Energy and Technical Regulation Division (the Division) therefore welcomes the discussion on how best to integrate increasing DER with distribution networks. As stated in *South Australia's Energy Solution*, the government believes that households and businesses should have the greatest possible access to renewable energy and smart energy technologies to improve the community's quality of life as well as the State's prosperity whilst reducing carbon emissions.

As the AEMC's 2019 *Economic Regulatory Framework Review – Integrating DER for the Grid of the Future* report stated, the potential benefits of effectively integrated DER are substantial for all consumers. However, as the Review and subsequent report from Cambridge Economic Policy Associates (CEPA) highlight, there is a significant lack of

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robust and available information on low voltage networks where consumer-owned DER is connected. This lack of information hinders stakeholder understanding of the existing network hosting capacity and the quantification of the potential network impacts and benefits from DER on which the assessment of future investment should rest. The Australian Energy Regulator's (AER) approval of SA Power Networks' (SAPN) Future Network Strategy expenditure will assist in building this information within South Australia's distribution network but is not expected before 2022/23.

The current distribution network frameworks associated with consumption services have been developed from the premise that electricity is an essential service and accordingly seek to ensure consumer access to a competitive, safe and reliable electricity supply. The AEMC should therefore proceed with caution in progressing regulatory change to simply apply this framework to export services. Applying the current framework could have a significant impact on network investment and electricity prices.

That being said, the Division acknowledges that the current rules may not adequately recognise that low voltage networks are being used as two-way networks allowing both the import and export of electricity. The use of distribution networks in this manner is beginning to result in the need for network investment, as evidenced in the recent SA Power Networks 2020-2025 regulatory determination. To this end, we see merit in amending the rules to provide a clear and transparent framework for electricity export at the distribution network level. It is also, therefore, the appropriate time for discussing who these new costs should be recovered from, as currently they are recovered from all electricity consumers including those that may not be able to afford DERs.

Future expenditure by DNSPs to increase DER export capacity and potentially charging for export services needs to be based on accurate and available information and subject to consumer scrutiny. The three rule change proposals offer different solutions on how the rules could be amended to deal with export services and it may be that there is merit in combining components of each to make a preferable rule change.

The Total Environment Centre and the Australian Council of Social Service (TEC/ACOSS) proposal, for example, under which DNSPs would be required to prepare a DER Integration Strategy is one that will improve transparency of possible future network investment needs for export capacity. In addition, the proposal's recommendation that future expenditure occur where there is a clear net market benefit could represent a measured approach. We do note, however, that undertaking a net benefit test when the potential DER benefits and impacts are yet to be accurately quantified may be difficult. The Division notes that the AER is working on potential methods for valuing DER exports.

Similarly, CEPA's suggestion of a reputational incentive for DNSPs to publish statistics on their performance related to export capacity could increase transparency and potentially inform any future expenditure assessment or incentive schemes.

The question remains, however, how should costs related to export capacity be recovered. In relation to SAPN's and St Vincent de Paul's proposals to remove the current prohibition on DNSPs to charge for exports from the rules, the Division has strongly supported cost reflective pricing for electricity consumption over the past two revenue resets for SAPN. As the various DER-related work programs progress, an accurate cost-reflective pricing mechanism for DER exports could be established which sends appropriate pricing signals to consumers. This allows consumers to make informed decisions regarding investment in DER and for those that do invest, their individual usage pattern that will influence their exports to the distribution network.

As with cost reflective pricing for electricity consumption, export pricing has the potential to lower or alleviate the need for network investment in the long run and therefore reduce the risk of higher network prices. Potentially, a DER pricing mechanism could also assist in achieving the objective of *South Australia's Energy Solution* of minimising power system security issues by managing the level of DER exports, including during periods of low electricity demand.

The Division notes that any framework implemented by the AEMC will require a strong role for consumer engagement. There is likely to be a broad range of consumer views in relation to network investment to support export capacity. There would be merit in determining whether this diversity of views needs to be catered for in the development of the framework.

As the electricity grid transitions further towards two-way flows within networks, numerous programs of work (such as the South Australian government's Smarter Homes program and the Energy Security Board's and Australian Energy Market Operator's development of DER Technical Standards) are seeking to influence the performance of DER to maximise the benefits of this decentralised generation to the broader network and community. The Division also notes the current work of the AER on the '*Assessing Distributed Energy Resources Integration Expenditure*' guideline, and encourages the AEMC to take account of these various programs, where relevant, in its determination. These programs may provide additional information that can be used to inform proposed DNSP expenditure on DER integration, such as increasing

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hosting capacity or more efficiently managing exports. It is important that the AEMC articulate the interconnections of the various DER work programs and how the programs can add transparency to future expenditure assessments.

In conclusion, the Division welcomes the broad objective of the rule change proposals which is to develop a clear and transparent framework for electricity export at the distribution network level. The Division looks forward to further engagement with the AEMC on this matter.

Should you have any questions in relation to this submission, please contact Ms Rebecca Knights, Director, Energy Policy and Projects, Department for Energy and Mining on (08) 8429 3185.

Yours sincerely

Vince Duffy
EXECUTIVE DIRECTOR, ENERGY AND TECHNICAL REGULATION DIVISION

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