Government of South Australia
Department for Energy and Mining

D18096731

7 August 2018

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Mr Pierce,

RE: ERC0227 – DRAFT RULE DETERMINATION – NATIONAL ELECTRICITY AMENDMENT (REGISTER OF DISTRIBUTED ENERGY RESOURCES) RULE 2018

The Energy and Technical Regulation Division (Division) of the Department for Energy and Mining thank you for the opportunity to make a submission on the *National Electricity Amendment (Register of Distributed Energy Resources) Rule 2018* draft rule determination consultation issued by the Australian Energy Market Commission (AEMC) on 26 June 2018 (ERC0227).

South Australia has a significant penetration of distributed energy resources (DER), with over 200,000 solar photovoltaic (PV) systems approved and connected by SA Power Networks (SAPN), and 1,500 new connections being approved each month. When coupled with the information provided in the latest Energy Consumer Sentiment Survey (December 2017)[1], which shows solid interest from consumers purchasing and using more energy efficient systems and technologies in South Australia within the next 12 months and beyond, it is reasonable to expect that the installation of DER will continue to increase further as the cost of these technologies continues to decrease.

South Australian consumers will also be incentivised by the South Australian Government's commitment for a $100 million Home Storage Subsidy Scheme, averaging $2,500 per household towards the cost of installing a battery in the home.

Further, AGL, Simply Energy and Tesla have committed to conducting virtual power plant (VPP) trials in South Australia. The Tesla South Australian VPP, for example, is currently in trial Phase One and will have installations of home energy systems in 100 South Australia Housing Trust homes. An additional 1,000 systems are also included in Phase Two. Phase Three, which is subject to successful trial phases and private financing, will include the full roll out of 24,000 systems on Housing Trust homes and 25,000 systems on private homes. These trials and VPPs will generate, store and feed energy back into the grid whilst providing stability to the network – utilising DER to achieve this.

As a result, the Division is supportive of the AEMC's draft determination and notes that it has adopted the Council of Australian Governments (COAG) Energy Council's proposed amendments. The Division considers that increased visibility of DER via the DER register will improve power system and network security and operation, through

[1] Energy Consumers Australia – Energy Consumer Sentiment Survey (December 2017) – Essential Research

the provision of better information to both the Australian Energy Market Operator (AEMO) and the Network Service Providers (NSPs).

This submission provides the Division's view on specific aspects of the draft determination which are particularly important given the transformation taking place within the South Australian energy market.

The Division agrees that static DER-related data and information is appropriate to be captured in the DER register first. Further, we agree that the AEMC's broad view on the meaning of DER in the draft as, constituting distributed generation and load that is responsive to either the demand for, or price of, electricity – is an appropriate view. The Division considers that the AEMC should, in the first instance and in the future, refrain from legislating a definitive definition for DER – noting that this should instead be captured within AEMO's DER register information guidelines. This is due to the fast paced, innovative nature that DER-related systems and technology poses and the speed and scale in which DER is being installed within the National Electricity Market (NEM). Defining this within the national rules may hinder this technology from being deployed, as rule changes would be required to amend the definition. Therefore, capturing the definition within the DER register information guidelines will ensure that, when appropriate, AEMO can consult on expanding and broadening the definition of DER to consider new technologies and systems that come to market.

Like the AEMC, we recognise that this draft rule is part of a broader package of work considering the changes faced by increasing DER installation. As noted within the AEMO and Energy Networks Australia (ENA) *Open Energy Networks* consultation, South Australian rooftop PV is forecast on minimum demand days to provide all demand by as early as 2025. To ensure that the South Australian energy market can both suitability manage these forecasts, and utilise DER as an asset rather than as a hinderance, the South Australian Government has already begun to proactively trial VPPs and plans to begin other Demand Response and Demand Aggregation Trials – giving consumers the tools and opportunities to manage their own demand when their actions can help reduce peak power demands and take pressure off prices.

Proactively working with the Office of the Technical Regulator (OTR), the Division has begun to consider whether the electronic Certificates of Compliance (eCoC) system operating within South Australia is a robust, appropriate method for collecting DER-related data and information during installation. We have begun to both engage and work with AEMO and SA Power Networks (SAPN) to ensure that DER-related data and information is collected and ready for upload prior to the operation of the DER register.

The Division considers that the DER register information guidelines should explicitly capture minimum and maximum capacity limits, noting that DER, in aggregate, could exceed traditional generation. Further, as part of their consultation process, AEMO and NSPs should be informed on whether said DER is part of an aggregated, orchestrated system – noting that awareness and visibility of these aggregated, orchestrated systems will improve power system and network security and operation, through the provisions of better information to both AEMO and the NSPs.

AEMO should ensure that the DER register has an appropriate 'tagging' mechanism whereby users of the DER register can gain visibility and search for DER that has been 'linked' into an aggregated, orchestrated system (for example, at a minimum, 'South Australia Tesla VPP' and the separate DER systems that form said VPP). Equally, the DER register should be capable of searching 'independent' DER (for example, a battery system that is not part of any VPP) – as this may be relevant in understanding how DER operates for AEMO forecasting and NSP network management. For the South Australian Government, the DER register should be able to be used in two main ways – as a method of searching individual DER-related data and information for

systems that are 'independent', and as a way of identifying larger, aggregated DER systems and the functionality and capacity that said aggregated, orchestrated systems operate at within the NEM.

Finally, the Division notes the Consumer Data Right (CDR) regulatory framework which will be implemented within the energy sector after the banking sector, and the implications this might have for the DER register. Whilst the AEMC should consider the interaction between the CDR and the DER register in finalising its framework, it should not delay the DER register. With the continued installation of DER, there is an urgent need to have greater visibility of these resources to manage the system, which will be provided by the DER register. The framework should ensure the ongoing costs associated with the CDR and DER register are efficient.

The Division looks forward to the AEMC's further consideration of this draft rule determination over the remainder of this rule change proposal.

Thank you for accepting our submission. Should you wish to discuss this further, please contact Mr Mark Pedler, Principal Policy Officer – Energy and Technical Regulation Division, on 08 8429 3361.

Yours sincerely,

Vince Duffy

Executive Director, Energy and Technical Regulation

Department for Energy and Mining

7 August 2018