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

Submission to proposed Rule change: Small Generation Aggregator Framework

It is encouraging that the Australian Energy Market Operator (AEMO) has developed a Rule change proposal to address issues related to small generation in the NEM. As the instigator and architect of AEMO's original work to investigate small generation participation I broadly agree with the intent of this Rule change, being to reduce barriers to small generation. I do, however, have reservations with the statement of the problem in the Rule change proposal with its focus on participants, i.e. the aggregator, and not the consumer or, in this case, the asset owner/operator.

Through my efforts to investigate this issue during my time with AEMO I saw that the focus of the problem statement should be as far down stream as possible. We have situations in the NEM, for example, where a load and a generating capability exist at the same property. There are a variety of scenarios but essentially these are distilled down to either;

- Load and generation being owned and operated by the same party, and
- Load and generation being owned and/or operated by different parties.

The question is, therefore, how do these parties, often at the same connection point, maximise the value of their asset, i.e. the load and the generation. In many cases, or at least until the market matures in this area, the best value for the owner/operator may be to separate the two and go to market as distinct competitive assets.

It is through this lens, and not through the proposed solution of Small Generator Aggregator (SGA), that the AEMC should consider this Rule change proposal. There is, for example, at least one other option in the market where Market Customers could, at least in theory, trade, or extract value from, the negative load of the small generator. There are, however, issues with this approach when considered from the perspective of the owner/operator in terms of how to get maximum value for their load and their generation, particularly when spot market prices create trading opportunities, or networks require the provision of a particular service.

The AEMC raised a number of questions to which I have provided responses below;

1. *Does the existing registration process create barriers to small generators entering the NEM?*
 - a. Yes
2. *Will introducing a Small Generation Aggregator promote greater participation in the NEM by small generators? Is this consistent with the NEO?*
 - a. Yes but there may be other solutions, e.g. market customer, that should also be considered and options weighed up.

- b. Yes but the focus should be on the best option for the owner/operator, not the focus on the SGA solution, to maximise the value of their asset in the competitive market.
- 3. *Do entities currently exist, or will they enter the market, to fill the role of Small Generation Aggregator?*
 - a. Yes but there are other associated issues with forward trading the potential value of the generation that also need to be considered in order to promote the emergence of 'new' participants to fill this SGA role. The current application of the market Rules is likely to favour incumbent market participants over new entrants.
- 4. *Is there an alternative way to reduce administrative costs to small generators that would better encourage NEM entry by small generators?*
 - a. One solution may be to consider generation the same as loads in terms of financial responsibility, therefore removing the need for a new class of participant. Obviously with the transfer of a generation asset there may be an associated financial transaction where ownership is also involved, but this may be the exception in the future. Where registration of the generation asset is required, or other technical data required by AEMO, there may be thresholds applied and a sliding cost scale depending on the size¹ of generation to any fees and the nature of the data required. Limits on the size of unit able to be aggregated would also have to be considered for a range of reasons including operation of the power system through to directions and settlements.
 - b. An aspect of the investigation should look beyond "administrative" costs and also explore transaction costs. Other questions emerge when considering this broader perspective, particularly when considering the trading of the forward market and in dealing with networks at a local level.
 - c. I concur with the proposal that transfer of financial responsibility for small generation should be facilitated through MSATS as a means of reducing transaction costs.
- 6. *Will this rule change lead to positive benefits to NEM participants?*
 - a. It is disappointing that the AEMC asks this question as opposed to seeking to identify the benefits to consumers (owners/operators) as required in the National Electricity Objective. The benefit to the consumer should be couched in terms of expanding their options to choose, to maximise the value of their asset(s) and to source tailored solutions to suit their needs.
 - b. There will be benefits to NEM participants;
 - i. **Generators**; opportunity to expand portfolio and leverage their existing trading capabilities
 - ii. **Retailers**; opportunity to extend into generation and, potentially for small and new entrant retailers, to develop a micro vertically integrated model. Opportunity to manage financial

¹ An existing principle is that the generation technology (i.e. fuel source) should not be a discriminating factor in the operation of the market.

responsibility and associated transfer of role for small generation in similar fashion as current competition for load, i.e. via MSATS.

- iii. **Networks;** opportunity to deal with a smaller, more sophisticated, number of stakeholders in the sourcing of DSP options for network services. Clarity will be required, however, over whether this rule change proposal only gives the SGA the right to trade generation capability on the spot market or whether this also gives them rights over contracting for network services. This is a complex area with a number of considerations to work through and needs to be explicit, either way, in the final Rule. In terms of maximising the value of their asset, there are two markets, excluding the ancillary services and RERT markets, to trade; energy market and network service market. A challenge for the networks is the growing presence of small generation throughout their networks. While this rule change proposal aims to all greater access to the market it should not, of itself, encourage materially greater levels of small generation. Any discussion that may give the impression of networks dealing with small generation should be separated from this rule change as mutually exclusive. Clearly the networks will have to deal with this issue, which may require further development of the Rules, but the driver for growth in small generation is due to other factors other than this rule proposal.
- iv. **AEMO;** greater visibility for forecasting of small generation locally and regionally. Greater visibility for power system reliability (i.e. directions).
- c. Benefits to consumers of the ability to contract with an aggregator, but not necessarily a SGA, align with the benefits above but, more importantly if the Rule is constructed correctly, the ability to potentially separate the generation from the load and to be able to shop for the best offer available in the market. This could be from the one provider (Retailer & SGA) or they could be separate.
- d. A question that has not been addressed is what happens to the existing Rules for small generation? The AEMC should consider, at some length, these Rules in terms of their ongoing relevance in terms of value to the owner/operator and the implications to all existing small non market generation if these Rules are removed. What will the transition look like? A current limitation in the Rules is the almost discretionary nature of the Rule applying to the purchase of energy by the Local Retailer. Perhaps a way of strengthening this Rule is to require the Local Retailer to make an offer for the sent out generation.
- e. A further issue that has not been addressed is the question of metering. The implication of the Rule change is that the SGA would be responsible for metering of the small generator. There is, however, an arrangement in the market where DNSP's are 'generally' responsible for metering of

small connection points. There are a number of exceptions, which of themselves should be reviewed in the context of efficiency, competition and benefits to the consumer. It is with these aspects in mind that I conclude the appropriate approach to metering is through the DNSP's provision of the meter. The standard of meter would be, by necessity, at least a Type 4 interval remotely read meter for, at least, the generation component of the site (or a meter with 'smart meter' capabilities). The Rules allow, however, for the Financially Responsible Market Participant (FRMP) to be the Responsible Person (RP). This creates issues at the point of transfer of FRMP role and is therefore an impediment to the owner/operator maximising value. The challenge with the DNSP approach is the very low driver for ongoing improvements in metering and service provision over time. This is an issue that needs to be addressed more broadly, particularly with the imminent end of the Victorian Order in Council for Advanced Metering Infrastructure (AMI).

Another associated issue that warrants investigation is the potential for a single physical meter and two logical meters at the connection point. Rule 7.2.4 addresses this situation. In this case it is also worth considering that the meter should record the gross², not net, output of the generation.

7. *Are there any additional benefits that the rule change is likely to facilitate?*
 - a. Other than the issues raised above in relation to the problem statement identified by AEMO, the solution does provide incidental benefits in relation to visibility in the power system of generation assets and provides the benefit for the market of being able to better model and forecast this aspect of the market as IT systems and capabilities improve (see 6.b.iv. above). The benefit of this will be limited to the extent that small generators do not opt in to the use of an aggregator to deliver value for their asset.
 - b. Not stated in this Rule change, but an issue that lies behind its ultimate success, is the market structure that adversely impacts the level of liquidity of the wholesale market, price discovery and the apparent divergence between the wholesale price and retail price for energy.

Thank you for the opportunity to provide a submission on this consultation.

Yours sincerely

² A capability AEMO argued for with the development of the market to accommodate small generation in mind and the anticipated wind back, as currently experienced, of the level of feed-in-tariff for solar PV. This was rejected during the development of the National Smart Metering Program.

Mark Johnston