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Re: Issues Paper – Demand Side Participation Information Guidelines
19 January 2017

Response from EnerNOC to AEMO's Issues Paper – Demand Side Participation Information Guidelines - dated 21 November 2016

EnerNOC is a global provider of energy intelligence software and demand response services. We work with commercial and industrial end users to offer their demand side flexibility into wholesale capacity, energy, and ancillary services markets, as well as demand response programs offered by retailers and utilities. Locally, EnerNOC is a market participant in the Wholesale Electricity Market (WEM), the National Electricity Market (NEM) and the New Zealand Electricity Market (NZEM). EnerNOC's regional head office for Asia-Pacific is located in Melbourne.

The recent AEMC rule change *AEMO access to demand forecasting information* was a worthwhile initiative, and EnerNOC is eager to contribute to AEMO's development of an effective guideline. We offer these perspectives in response to the questions posed in AEMO's issues paper:

1. What are the costs and impacts of AEMO's proposed data requirements? Please break down and describe these costs based on:
a. Upfront once-only costs versus ongoing costs
b. Separation of internal labour costs, contracted labour, system improvement

Impacts: EnerNOC expects that the primary impact of the new guideline will be an improvement to PD PASA and related short-term demand forecasts. We are doubtful that the new rule & guideline will "encourage greater DSP participation by consumers in Australia's energy markets"[1] – but the added visibility into the amount of DSP occurring in the NEM should prove insightful to AEMO and participants, particularly in assessing whether further reforms or rule changes are required in order to encourage DSM. In terms of increasing greater DSP participation, the recently-shelved *Demand Response Mechanism* rule change would have been an effective tool to encourage participation, and would have provided an additional source of accurate, transparent information to AEMO and participants regarding the amount of price-responsive DSM happening in the NEM. Further, the *5 minute settlement* rule change currently under consideration should

[1] AEMO's Issues Paper, p3

encourage greater DSP participation. Nonetheless, improved demand forecasts and increased understanding of existing DSM quantities are worthwhile outcomes of this initiative.

Costs: In general, AEMO's proposed guideline and related timelines should be minimally burdensome for participants. In requesting raw (vs aggregated/analysed) data, and only requesting it once a year, AEMO has designed a simple process that participants should be able to comply with at low cost. In complying with the proposed guideline, EnerNOC - as a participant in the energy market and as a Small Generator Aggregator - will not incur any costs related to contracted labour or system improvement, and no up-front, once only costs. We anticipate that providing this information to AEMO will require less than one day per year of staff time. Most of this information can be exported cleanly from EnerNOC's existing IT systems without requiring significant manipulation.

2. What time of year should the information be submitted to AEMO?

The time of year does not matter to EnerNOC from a cost perspective. We would suggest that AEMO design the timing of the exercise to best suit AEMO's reporting schedule – ensuring the data is collected in advance of analysis cut-off times for the NEFR, NTNDP, etc. Ensuring that the collected data flows through to downstream reports, and is not many months out of date by the time it makes its way into downstream reports – is important.

Regarding timing, AEMO's guideline needs to be clear what it's asking participants to provide: is it a 'snapshot in time' from a single day, or are participants supposed to list NMIs that they've undertaken DSM with previously, or over a period of time? Further, the guideline should be clear on whether the participant should list NMIs for which they have a distinct formal role in serving (i.e. as FRMP or DNSP), or should participants list NMIs that they are aware of, but do not serve directly? For example, third party DSM providers like EnerNOC may run DSM programmes on behalf of other participants, and may be aware of NMIs that participate in DSM, despite having no formal role (from AEMO/MSATS perspective) in serving that NMI. Should third-party providers list such NMIs in their submission to AEMO? For the sake of maximising the accuracy of the data provided to AEMO, we suggest that they should.

If AEMO takes a 'snapshot in time' approach (i.e. asking participants to only list DSM-participating NMIs that the participant served on a particular day, then there may be value in considering retail contract cycles. The majority of retail agreements end on 31-December or 30-June. If a NMI is new to a retailer's book, the retailer may not yet be familiar with the NMIs DSM capabilities. As such AEMO is likely to get more accurate DSM information from retailers if they choose a 'snapshot in time' date of 30-June, versus say, 1-July.

3. What would be the incremental cost if AEMO requested the data twice annually, rather than once annually?

We would expect the incremental cost to participants to double.

4. How much time do Registered Participants think they will need to prepare for compliance with the DSP Information Guidelines? If longer than three months, please provide evidence-based reasons.

EnerNOC does not anticipate it will require any time to prepare for compliance with the new guideline. We have provided DSM participation to AEMO in the past on a voluntary basis, and do not see the new guideline process as significantly more burdensome than the old process.

5. What DSP information do Consulted Persons want to see published by AEMO?

In general, it will be useful to better understand how much DSM is happening in the NEM, and for what purpose. This will be useful in assessing the health of demand side participation in the NEM, and allow participants to compare the NEM against peer markets, and make better-founded decisions about whether new market reforms are required in order to encourage greater levels of DSM participation in the NEM.

One challenge EnerNOC anticipates AEMO will have in collecting and reporting DSM participation levels is "how often" and "under what circumstances" a NMI provides DSM. Just because a NMI *can* provide DSM, or *has provided* DSM in the past, does not mean that they *always* provide DSM. For NMIs participating in DSM to avoid high spot prices, simply asking for the quantity of load reduced, and the strike price is unlikely to paint the full picture. A NMI's decision to provide DSM will involve multiple variables that may be difficult for AEMO to collect and quantify with any certainty. For instance, EnerNOC has worked with NMIs that have decision trees along the lines of: "We will reduce demand by X MW when the spot price exceeds $Y, but only if the spot price arrives in the first Z dispatch intervals within in the trading period". The decision may be complicated by other variables such has "only between hh:am and hh:pm" or "only if the size of our product stockpile is exceeds X threshold". AEMO may wish to encourage participants to provide this information via free text, or should otherwise find a way to capture the information in the data model. A dropdown option for participants to indicate qualitatively "how often does this NMI provide the described DSM" (always / most of the time, / some of the time / rarely) may improve the data collected by AEMO.

Another key element AEMO's data model needs to be prepared to handle is the possibility that one NMI provides multiple types of DSM, at the request of/benefit to multiple participants. In our

view, DSM is the energy market (i.e. avoiding high spot prices) is entirely different and distinct to DSM for network support, or DSM for network tariff management. As such AEMO's data model should be designed to accommodate, and successfully report on, a single NMI providing multiple types of DR on behalf of multiple participants. These DSM responses may or may not be concurrent – AEMO will have to carefully consider how to sum and report on DSM quantities of this nature.

Thank you for the opportunity to comment on the issues paper. Please do not hesitate to contact me if you have any queries.

Regards,

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