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COAG Energy Council Secretariat
Department of the Environment and Energy
GPO Box 787
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Dear COAG Energy Council Secretariat,

EnerNOC response to HoustonKemp Economists' draft report *Facilitating access to consumer electricity data* dated February 2018.

EnerNOC is an independent demand response aggregator that has been active in the NEM since the late 2000's. Access to consumers' energy data is fundamental to the services EnerNOC provides – and we consider that the NEM's existing data-access frameworks are hindering innovation in distributed energy resources and the provision of value added services. EnerNOC is supportive of COAG Energy Council's initiative to improve data access for third parties, and grateful for the opportunity to comment on this draft report. The views in this submission are drawn from EnerNOC's recent experience developing demand response flexibility in the NEM:

1) Developing reserves for AEMO in the recent Long Notice RERT procurement
2) As a participant in the AEMO-ARENA demand response trial
3) As a Small Generator Aggregator (SGA)
4) As the NEM's first Market Ancillary Service Provider (MASP)

In summary, EnerNOC considers that AEMO is best placed to develop a centralised consumer electricity data access scheme, and should be given responsibility to establish the systems and processes needed to provide access to authorised representatives. EnerNOC is supportive of creating uniform procedures for the accreditation of third party representatives, and supportive of data delivery via a standardised format. EnerNOC suggests that, in addition to single ad-hoc access requests, any scheme should cater for continuous (daily) automated access to electricity data.

Please reach out to me with any queries related to this submission. EnerNOC would be glad to contribute further to COAG Energy Council's investigation into facilitating access to consumer electricity data.

Regards,

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General comments

EnerNOC is supportive of COAG Energy Council's initiative to improve access to consumer electricity data for authorised third parties, and we consider that the HoustonKemp Economists' draft report well describes the impediments and obstacles in the NEM's current frameworks.

We make the comment that there are two types of data access that will be required for the NEM to effectively navigate the ongoing transition to a more distributed, data driven energy system:

1) **One-time or ad-hoc transfers** of a consumer's historic meter data to an authorised third party, used (primarily) to facilitate the assessment of available retail supply offers and,

2) **Continuous, ongoing (likely daily) transfers** of a consumer's meter data to an authorised third party, used (primarily) to facilitate, optimise, and report on the daily operation of behind-the-meter distributed energy resources (DER), including batteries and demand response capabilities.

The draft report correctly notes that most of the national conversation on this topic has related to access type #1, and accordingly, the draft report deals mostly with this type of access. However, we encourage COAG Energy Council to ensure that any eventual solution also caters for access type #2, and we consider it an equally important reform[1].

In general, we envisage a solution whereby whenever a metering provider transfers a flat-file to AEMO's central settlement system for distribution to the retailer[2] and DNSP, that file is also delivered ("pushed") to any authorised third parties associated with the NMI. However, a framework whereby an authorised third party can make a daily "pull" request from AEMO's central database would also be suitable.

For an independent aggregator like EnerNOC, access to an ongoing, daily feed of meter data for the customers for whom we are providing value-added services is an essential component of our service offering. Aggregators need to be able to calculate baseline consumption profiles and undertake load availability analysis on a daily basis in order to effectively manage portfolio risk, assess available demand response capabilities, predict demand outcomes, make accurate offers to the NEM's wholesale markets, and calculate settlement for demand response activities. Absent a simple and effective framework for collection of this data, EnerNOC (and other aggregators we have observed in the market) often choose to install their own gateway meter data collection device at their customers' premises, a duplicative solution which can increase the cost and complexity of the services aggregators provide to consumers.

Accordingly, as COAG Energy Council is considering the shape of its scheme and related rule changes, it should consider that many third parties who will utilise the scheme are likely to do so on a daily basis.

[1] The ECA's data portability project as described on p5 of the draft report seems to draw this same distinction, and well characterises the benefits of increased data access – though EnerNOC suggests that AEMO is better placed to administer the scheme than DNSPs.
[2] i.e. the Financially Responsible Market Participant (FRMP) for the NMI.

Questions for stakeholders

1. Is the proposed objective for the consumer electricity data access scheme appropriate?

EnerNOC considers the proposed objective for the consumer electricity data access scheme***: "To facilitate on-demand access to retail customers or a customer's authorised representative to consumer electricity data***" is appropriate for the proposed electricity consumer data access scheme, with particular emphasis on the "on demand" element of the objective.

From EnerNOC's perspective, this is extremely important and most valued by EnerNOC and its customers when deciding whether a customer's load profile is suitable for enrolment in one or more of EnerNOC's demand side response programs and other product & service offerings. This includes the Reliability and Reserve Trader (RERT) program and Frequency Control Ancillary Services (FCAS) markets administered by the Australian Energy Market Operator (AEMO).

Timely access to a customer's electricity data is also very important following any dispatch event where a customer has voluntarily curtailed load in response to the dispatch event. As an aggregator, EnerNOC needs to be able to track load and load reduction levels for numerous customers. Therefore having timely and on-demand access to customer data is crucial to tracking performance and following up with customers following an event. EnerNOC and customers also use this data to ensure contractual requirements are met and to determine commercial outcomes.

The objective appears to be silent on the potential *costs* to third to third parties for accessing customer data via the scheme. Presumably, the intent of the scheme is to provide low-cost, or no-cost access to a customer's data, to enable innovation by authorised third party consumer representatives. It seems reasonable that, where a consumer is paying monthly fees for the provision of an IT connected meter at their premises, the customer should have the authority to grant a third party on-demand access to that data, without the third party needing to pay an incremental fee. COAG Energy Council might consider whether reference to costs is worth exploring further in the defined scheme objective.

2. Should AEMO or an alternative agency be given responsibility for developing the consumer electricity data access scheme?

EnerNOC agrees with the report that having a government led solution would result in less risk of delays as it would not require lengthy consultation with an industry that has disparate interests. In addition to being a more efficient and cost-effective solution by reducing the number of parties involved, there would also be less risk of privacy/security issues with government involvement. EnerNOC considers that as the Market Operator for the NEM, AEMO is best placed to develop a centralised consumer electricity data access scheme for all NEM jurisdictions. Relying on DNSPs to facilitate access will result in the unnecessary development and maintenance of multiple duplicative IT systems and business processes.

AEMO should also be given responsibility to establish the systems and processes needed to provide access to authorised representatives. This is primarily because AEMO has the necessary systems, infrastructure and expertise, given its familiarity with and knowledge of existing data transfer

processes and its governance arrangements for registering market participants as part of the B2B e-hub. AEMO would be able to leverage their current access mechanism to ensure timely and secure access to customer electricity data.

3. Are there additional elements that the scheme should incorporate to facilitate access to consumers' electricity data by authorised representatives?

EnerNOC considers the current elements of the proposed scheme are sufficient, and that *consumer electricity data* should encompass both the customer's interval metering data, along with other consumer electricity data which may be used for value-added services to customers.

4. What changes can be done in the short term without a rule change and what changes require a rule change to implement?

Even where it is not the Financial Responsible Market Participant (FRMP) for a customer, as a Market Participant EnerNOC has commercial obligations to its Demand Response customers (including for RERT). Therefore, timely access to a customer's metering data is crucial as it is used for commercial settlement and refinement of customers' demand response strategies. EnerNOC understands AEMO receives data from all Meter Data Providers for validation and therefore maintains a central repository for all customer metering data. However, EnerNOC has been advised by AEMO it is restricted under the National Electricity Rules (NER) from providing ad-hoc customer meter data to RERT providers such as EnerNOC.

AEMO has suggested all RERT providers make their own arrangements to receive customer meter data required for the purposes of the RERT program, including arrangements with customers' retailers and/or MDPs. Although EnerNOC has established systems, databases and processes for requesting, retrieving and storing customer meter data, there are still several problems with receiving this data from MDPs in a timely and accurate manner.

EnerNOC's main issue has been the inconsistency in approach between the different MDPs. Some MDPs respond relatively quickly and deliver NEM12 files in .csv format, which is consistent with the format used by AEMO, and EnerNOC's systems are set up to handle these files smoothly. However, several other MDPs have different approaches. Some do not provide interval data unless the customer has signed a Direct Metering Agreement (DMA) with the MDP, even when EnerNOC has presented the MDP with a signed Letter of Authority (LOA) from the customer. As DMAs for customers are very rare, EnerNOC is not able to have a seamless and regular access to its customers' regular interval data under the MDP access arrangement. Other MDPs can only send files by e-mail and not in .csv format. This presents heightened data security risks and creates additional administrative work for EnerNOC.

In these instances, EnerNOC cannot obtain customer meter data during and immediately following Demand Response events, and must wait for AEMO's post-event data to be manually compiled, then delivered to EnerNOC via emailed spreadsheet. This presents significant challenges in being able to track dispatch event performance but also provide guidance and performance outcomes to customers. Building an entirely new solution for these MDPs is not scalable and EnerNOC's preference would be to use a centralised customer meter data system administered by AEMO that

works all the time for all customers. In any case, EnerNOC would prefer a framework that removes the time cost and administrative burden of contacting, and then fact-finding, negotiating, and troubleshooting with individual MDPs.

EnerNOC considers there is merit in having industry develop a common approach to facilitating third party access to customer meter data, however given the costs and time involved to reach consensus and establish separate systems the best approach would still involve a rule change to the NER.

5. Are there alternative approaches to managing verification of consumer identity and third-party authorisation that should be considered and which are consistent with the scheme objective of providing on-demand access to data by authorised third parties?

EnerNOC appreciates that any approach to managing verification of consumer identity and third-party authorisation needs to balance privacy concerns and the risk of fraudulent use of data, against the need to provide on-demand access to authorised third parties. On this basis, EnerNOC supports the report's recommendation that the electricity sector adopt a process of pre-accreditation of third party access to consumer data. This process would allow privacy obligations to be managed through an agreement to a uniform set of systems and processes, ahead of a data provider seeking access to the specific data of a consumer.

EnerNOC agrees with the reports' recommendation that to provide on-demand access to consumers' energy data, while managing privacy obligations, the framework for accreditation should satisfy the following objectives:

- comply with the requirements and obligations as set out in the Privacy Act, the NER or Common Law;
- allow an accredited third party to access data from any retailer or distributor; and
- provide a standardised process for proving identity and authorisation.

As noted above in point 4, in order to obtain customer meter data, EnerNOC is required to engage with several MDPs, distributors and retailers who have varying processes for verification and consent. From EnerNOC's perspective, the requirement to satisfy different processes and obligations for each is certainly an impediment to third party access to consumers' data. Although not all MDPs require signed forms as proof of authority, EnerNOC considers this would present a significant impost on consumers and their third party providers, and further contribute to delays in accessing meter data.

Accordingly, EnerNOC considers it appropriate that accredited third parties obtain and retain identity and authorisation information, including for possible subsequent audit by data providers. Third parties should also agree to a process for collecting and storing customer identity and authorisation information prior to requesting customer meter data from the MDP, and then include basic customer information whilst fulfilling consent information requirements. COAG Energy Council should consider whether the proposed scheme should require prospective third parties to sign an undertaking indicating that they agree to maintain data security and business processes that meet a minimum specification, or adhere to specific principles set out in the scheme design.

6. Should AEMO or another agency be given responsibility for accrediting third parties?

EnerNOC agrees accreditation applications should be assessed by AEMO, consistent with the requirements of the consumer data access scheme. EnerNOC agrees with the report's proposal for AEMO to have responsibility for both developing the accreditation scheme and subsequent implementation of the scheme by assessing parties seeking to become accredited.

This is because AEMO has the necessary systems, infrastructure and expertise, given its familiarity with existing data transfer processes and its governance arrangements for registering market participants. As AEMO currently performs similar roles in market operations and settlements, it would be well placed to monitor and enforce obligations imposed on third parties.

7. Should authorised and accredited third parties be given access to more than just a consumer's metering data upon the commencement of the data access scheme?

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8. What are the arguments for and against providing third party access to retail and/or network tariff data?

In general, all data collected by Metering Providers, and provided to retailers and DNSPs (for example in NEM-12 or NEM-13 format) should be made available to authorised third parties. We note that these standard formats often provide for the collection and transmission of interval consumption data in 15-minute intervals, and submit that this data is useful and would be collected and put to good use by authorised third parties. Said otherwise, COAG Energy Council should not restrict its scheme design narrowly to the provision of 30-minute interval consumption data[3] – if 15-minute interval data is available for multiple meter channels, access to it should be an option. Similarly, we suggest that the scheme should revolve around the use of a NMI as a unique identifier, and apply equally to all customer types/classifications: large, small, residential, commercial, etc.

Exposing authorised third parties to retail tariff information via the scheme would represent a departure from current practice, and seems likely to add IT costs, as such details are not currently stored in any individual system of record, nor currently transmitted via AEMO's B2B MSATS systems. Further, this information is typically considered commercial-in-confidence, and customers will always retain the option of manually sharing these details with third party service providers, in the form of a bill.

A NMI's network tariff is already public information (it can be discerned from any NMI's standing data in MSATS) and as such, it seems reasonable to include network tariff codes in the scheme.

9. What changes are required to existing AEMO metering data formats to facilitate access by third parties to consumer electricity data?

[3] i.e. the 'e' channel of a meter, which reports watt hours

From EnerNOC's perspective, the current NEM-12 meter data in '.csv' format works well and EnerNOC's systems have been built to recognise and handle NEM12 data. This metering data format appears to be the market standard, and EnerNOC does not see any major benefit for the format to be changed.

10. Are the estimated costs for development and ongoing maintenance a centralised or decentralised implementation of the system reasonable?

EnerNOC does not have definitive view on whether the estimated costs for development and ongoing maintenance (either via centralised or decentralised implementation of the system) are reasonable. However based on the figures provided in the report, EnerNOC considers that the centralised approach to handling data requests and delivery would likely be a lower cost option compared to a decentralised approach led by distributors.

EnerNOC agrees that a centralised implementation of the system administered by AEMO, would also have lower implementation risks and lower costs, due to the need to develop and modify only one system rather than multiple systems. More importantly from EnerNOC's perspective, the centralised system would also mean lower costs and time spent by authorised third parties requesting consumer data, as there is only one system to integrate with.

Finally, EnerNOC is also supportive of a centralised approach that could create a national consumer data repository that links account holders with NMIs and metering data, making it easier to access a customer's historical data.

11. What are reasonable timeframes for implementation under each of the options considered?

As proposed in the report, EnerNOC considers it reasonable for the scheme to be developed by AEMO within 12 months of the rule changes giving effect to the scheme.