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23rd August 2023

Clare Savage
Chair
Australian Energy Regulator
GPO Box 3131
Canberra, ACT, 2601
Email: NetworkVisibility@aer.gov.au

Dear Ms Savage,

RE: Benefits of increased visibility of networks

SwitchDin welcomes the opportunity to provide feedback to the Australian Energy Regulator (AER) Consultation Paper on the benefits of increased visibility of networks.

SwitchDin is an Australian energy software company that bridges the gap between energy companies, equipment manufacturers and energy end users to integrate and manage energy resources on the grid. SwitchDin's technology enables our clients to build and operate vendor-agnostic virtual power plants and microgrids, and to optimise performance across fleets of diverse assets. Founded in Newcastle NSW in 2014, SwitchDin now operates in all states of Australia, including in leading-edge distributed energy projects like Project Symphony, Simply Energy's national VPP, Flexible Exports (in SA and Victoria), and the Solar Connect VPP (NT), among others. We are one of Australia's main providers of technology solutions for the operation of community batteries.

As the AER develops its approach we would recommend consideration of the work being undertaken in parallel by the United Kingdom (UK) Department for Business, Energy and Industrial Strategy and Ofgem. The groundbreaking report of the UK's Energy Data Taskforce recommended:

To maximise the value of data, the Taskforce proposes the core principle that Energy System Data is **Presumed Open**. To create the maximum impact, open data should be *Discoverable, Searchable, Understandable*, adopt a sensible approach to *Structures, interfaces and Standards* and ensure that it supports a *Secure and Resilient Energy System*¹

The approach proposed by the Energy Security Board (ESB) and its consultants is that access to network data should only be considered if industry is able to convince policy makers that there is a use case of value. This approach would stifle innovation. Energy service providers will be far less likely to invest in new applications and services for their customers if access to the necessary data relies on them justifying their use case publicly, in full view of their competition. Relying on policy makers and regulators to identify all possible use cases as a precondition for data accessibility risks overlooking potential use cases. A better approach would be for policy makers to identify network services that could be satisfied using a market-based approach and the data the market would need to be able to scope a business plan to meet the needs of the distribution network.

¹ Sandy, L. et al (2019), *A strategy for a Modern Digitalised Energy System: Energy Data Taskforce report*, available at <https://www.gov.uk/government/groups/energy-data-taskforce>

Energy system data should be ***Presumed Open***. The weakness of the ESB report is that energy system data will remain (be presumed) closed, unless policy makers can be persuaded that there is a convincing case for data access.

Thank you for the opportunity to respond to these important issues. I remain available for further discussions and inputs.

Best regards,



Andrew Mears PhD
Founder

Responses to questions raised in the Consultation Paper

QUESTION 1: Is the set of use cases in Appendix 6.4 representative of the use cases that you are aware of?

No, it is not. In addition to the use cases in appendix 6.4, we would also recommend further elaboration on the use cases for “investors in network support”, including use cases that would require real time data.

QUESTION 2: What additional use cases should be added?

Any network embedded community battery will need real time data from the relevant node where it is connected. In this use case, “real time” refers to data available at 1 Hz or more. The use case listing in Appendix 6.4 asserts that the use case for providers of community batteries only require connection information at a location. This is insufficient for the ongoing operation of the battery for network support.

Implementation of dynamic operating envelopes (DOEs) would also be facilitated by open access to real time network data. In its role assisting distribution network service providers (DNSPs) to implement DOEs, SwitchDin is indirectly dependent on third party service providers (eg Gridsight or Zepben) who obtain data from the DNSP. An open access framework for data would enable these service providers to provide relevant data directly. This would accelerate innovation and deployment in and would ultimately reduce costs to consumers.

In the long term, access to data from network meters will be useful for building a network model for future advanced control services. However, this is a long term ambition whereas community batteries and dynamic operating envelopes are applications where there is an immediate need for open network data.

QUESTION 3: Are there other sources of data that should be considered?

The main sources of data will be the customers’ meters, the customers’ inverters and the meters owned and operated by the DNSP on its network.

QUESTION 4: Do you agree with the framing parameters that were used? If not, why, and what should have been included or left out?

We disagree with the way that the consultants employed by the Energy Security Board (ESB) framed the data access issue. We strongly prefer the framing employed by the UK’s Energy Data Taskforce.

The ESB has framed the issue as:

- Which use cases do we think are important?
- What data exists and could be made available to enable these use cases?
- Should we make that data available?

The UK’s Energy Data Taskforce framed the issue as:

- Network data should be **Presumed Open**
- What data exists and how can that be made available?

The question of the use cases for the energy data should be left to the private sector to determine, based on the needs of customers. Providers of energy as a service will find innovative ways to use data when it becomes available. If we only make available the data that the ESB has identified as having a potential use case then we risk missing out on applications and new customer services that have not been considered by the ESB or its consultants and which might not have been shared with them due to issues of competition and concerns about confidentiality.

QUESTION 5: Are the data sets that have been identified and prioritised the correct ones? Are there others that are needed? Are any of the ones listed NOT needed?

The ESB has been too quick to dismiss the potential use cases for real time network data. This is data that could be required by investors in network support, distribution networks would be willing to invest in non-network solutions

QUESTION 6: Do you agree with the conclusions reached regarding the need for real-time data?

No. The analysis does not appear to have considered that an investor in network support (which could be provided by the operator of a community battery or by other forms of energy storage on distribution networks) will need real time from the relevant node. To address this, in reports for future stages of this work we recommend that the AER include investment in network support as one of the use cases for which real time network data may be required.

QUESTION 7: Are there more issues that should be considered regarding the balance between customer protection and reasonable data collection?

We strongly support the stated position that customers have a right to own and control their own data and they also have a right to privacy. In addition, we believe that customers should have a right to access their own data in a form that is useful to them.

We welcome and strongly support the indication by the Australian Energy Market Commission (AEMC) that it will consider establishing a framework to enable customer access to a real-time data stream from their smart meters. Access to real-time meter data would enable customers and their agents to:

- Optimise CER asset life, performance and compliance,
- Orchestrate behind-the-meter, and
- Respond to emerging network services like dynamic operating envelopes.

It should be simple for customers to assign access to their data to authorised agents and service providers, such as aggregators. This data must be in a useful format which is real-time, granular and includes standards compliant measurements of frequency, power (real and reactive) and energy consumption for import and export on all phases connected through the meter.

QUESTION 8: Is there any other feedback on the data set definitions?

The data set definitions should include real time network congestion data to assist with optimising the provision of non-network solutions and to accelerate innovation in related areas.

QUESTION 9: Do you agree with the criteria?

We agree with the proposed criteria regarding data quality, availability and cost of providing it. However, we disagree with ESB's approach of filtering according to whether their consultant feels that the data might be of value in future. All network data should be **Presumed Open**. If the network data exists, is of usable quality and can be made available at relatively low cost, then it should be made available - even if the ESB has not yet identified a use case. This approach allows industry to innovate and not rely on recognition of potential or future use cases by regulators.

QUESTION 10: Do you see value in these data sets being made readily available to the public?

Yes. Network data should be **Presumed Open** unless there is a very good reason for maintaining its confidentiality. The process should not require industry to identify a use case, submit it to the ESB or the AER, obtain approval as a legitimate use case, and then pursue the process for data access. Industry should be able to develop use cases without such strict regulatory oversight, and the data to enable that to happen should be made available within the limits of customer privacy. As regulated monopolies, DNSPs should not be able to invoke commercial confidentiality as a reason to hoard network data. Opening networks to additional competition from non-network solutions will benefit all consumers.

QUESTION 11: Is any important data missing?

Yes. The ESB has been too quick to dismiss the need for real time network data for applications such as network support and use of software as an alternative to investment in network hardware. This demonstrates the downside of the ESB assumption that network data should only be made available if it supports a use case that the ESB or its consultants consider to be of value. It should be left to industry to create value for its customers using network data. It should not be necessary for industry to prove its use case to the regulator before data access can be considered.

Energy system data should be **Presumed Open**.