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10 February 2025

Australian Energy Market Commission
Submission online at www.aemc.gov.au
project reference code ERC0399

Our focus is on the electrification of apartment buildings, particularly on the installation of electric vehicle charging. We have done numerous designs for buildings in the Australian Capitol Territories (ACT).

The electrical grid in Canberra is undocumented and it is difficult to assess what power is available. Electric Vehicle Charging is the tip of the iceberg. There is also the need to heat and cool buildings, provide hot water, and supply power to amenities such as restaurants which use large quantities of natural gas.

The smart meters could be useful to us if they were locally accessible, to determine the load on the main power inputs to the building. We are finding it difficult to attach current transformers to switchboards that are crowded. Smart meters could provide this information without adding to space constraints. Our preference is that the information be provided by ethernet cabling or by WIFI.

Providing data in a loop from meter to retailer to customer is not going to be useful. It is much better for the smart meter to provide information at the local level. One second real time data is not needed.

In conversations with EVO energy, the DNSP for Canberra, it has become apparent that the information from existing smart meters and future ones could be extremely useful to determine how much excess power is available and could assist in planning upgrades that will be required to reach net zero.

It is urgent that EVO be freely given all the possible data immediately.

Please feel free to contact me if you have any questions about this issue.

My answers to your questions follow:

Question 1: Do you agree with a staged implementation approach for when consumers pay for access to real-time data?

a) Is 15 years the right timeframe for industry to achieve cost efficiencies in delivering real-time data access from smart meters? Are there ways to support industry to reduce this timeframe?

Fifteen years is way too long. Lets get with the program. One way to reduce this timeframe is to examine the actual frequency that data is needed. It may be that hourly increments are sufficient. High data band width may not be necessary. Requiring second by second information may not be necessary. High bandwidth is technically challenging and environmentally expensive.

b) Would the marginal cost to each consumer be material in the long-term if costs were smeared across all consumers after 15 years?

Smart meters are not that expensive in the grand scheme of things. Already they are freely supplied by electricity resellers when a solar system is installed. One reason for this is that the cost of meters is already factored into the daily cost to be connected to the grid which is approximately one dollar per day or \$365.00 a year, before one watt of electricity is consumed.

c) Are there other ways to facilitate efficiency and equity and support industry to lower costs to consumers?

It is possible to equip smart meters with the ability to signal when conditions are out of the historical norm and for the network to also send signals back so that an abnormal concern could be resolved. This would significantly reduce the data requirements. If the same thing happens at the same time every single day, or second, or minute. is it really necessary, to talk about it?

d) What incentives would our approach create for retailers, MSPs and third parties?

The approach is ok.

Question 2: Should the prices for real-time data access be published by the AER?

a) How and where should the AER publish prices to access real-time data?

Use an existing website that compares electricity bills, such as this one:

<https://compare.energy.vic.gov.au/>

No need to reinvent the wheel and extra costs. Change the rule and make the information available.

- b) What other measures would incentivise retailers to offer real-time data at competitive prices?

Let the consumer decide what they need by making the information available.

Question 3: Do you agree with our proposed definition of real-time data?

- a) Does the proposed definition enable real-time data products and services to deliver the benefits of real-time data to consumers?

It seems that collecting and delivering data via some sort of loop from the meter to the retailer and back to the consumer is overkill. A more constructive approach would be to deliver data directly from the smart meter to the consumer for local use. It would be more useful to deliver signals to the network when something that does not agree with yesterday's history, that an anomaly is in progress. If the sky is blue every single day at 12:01:01, is it really necessary to discuss it between 12:01:01 and 12:01:02? Making the smart meter central to the consumer would make more sense. The one second real time requirement will not work in a loop. Internet latencies can be as much as nine hundred milliseconds, which would be 1.8 seconds.

Similarly, if the network has an issue that needs to be addressed such as a lack of load or available power, it could send signals to the smart meter so that a local decision could be made to sell power or reduce load. Reducing load during grid stress could be incentivized by reducing power charges. Similarly, if there is excess power it could be stored in hot water systems, heating systems, electric vehicles and so on.

Rather than making the retailer a granular data collector, make the information from the network available as needed and vice versa to the smart meter. Have the smart meter store the historical data, and allow the DNSP or other parties, to access it if needed would save a lot of data bandwidth.

- a) What other features of a real-time data definition should be described in AEMO procedures?

Electric Vehicle charging poses a large load and requires at this time that additional current transformers be installed to prevent system overloads. Having a standard definition of the data format and a port to supply the data from the smart meter, could eliminate the need for additional current transformers in crowded switch boards.

Question 4: Do you agree with the obligation on retailers to provide real-time data access?

- a) Are the proposed timeframes of 10 business days and 20 business days sufficient to enable retailers to give customers access to real-time data?

This is going to be a moot issue soon as direct access to the meter would give the customer real time data locally.

- b) Are there circumstances where the obligations on retailers to offer and give real-time data access upon customers' request, and the timeframes within which to give access should not apply?

- c) Are additional obligations on retailers required to enable the provision of real-time data access to consumers?

The point is moot. The only reason for a retailer to supply data that is available directly from the meter is for a billing dispute. Remember balancing a check book and trudging to the bank to compare the check book? Online banking eliminated that, and I do not miss it.

Question 5: Do you agree that MSPs should ensure multi-party, interoperable and secure access to real-time data?

- a) Are there requirements that we should impose on MSPs in addition to multi-party, interoperable and secure access obligations?

Data security is important. One concern is, if the premises are unoccupied a third party could determine that.

Question 6: Which consumer consent pathway do you consider to be the most practical and why?

- a) Are there any barriers to implementing this pathway?
- b) Are there any viable alternative pathways that better deliver outcomes for consumers?

Meter Service Provider consent verification is the easiest to implement.

Question 7: What should third party access consent look like?

- a) Should the form of consent be left to third parties to determine?
- b) Should there be specifications placed on the form of consent that third parties must obtain from consumers? If so, what could this look like?
- c) Should the process for the withdrawal of consent also be specified?

There should be no implied consent or so called OPT out. The exception to this might be equipment installed on the customers premises that regulates the use of power and is crucial to their operation. This equipment should be able to send fault signals to supporting organizations and the DNSP.

Question 8: Should additional requirements be placed on third parties that request access to consumer data?

- a) Should third parties be accredited by AEMO under the NER?
- b) Are there any other safeguards required to ensure third parties do not misuse data?

This might prove to be an unnecessary expense.

Question 9: What features of the consumer data right (CDR) can we adopt?

- a) What specific features of the CDR would be beneficial to apply to third parties who seek access to real-time data?

No Comment