7 November 2024

Richard Montano
Australian Energy Market Commission
GPO Box 2603
Sydney NSW 2000

Submitted electronically via www.aemc.gov.au

Dear Richard Montano,

Clean Energy Council Response to ERC0399 - Real Time Data for Consumers

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Australian Energy Market Commission (AEMC) on the "Real time data for consumers" Rule Change submitted to the AEMC by Energy Consumers Australia (ECA).

The CEC is the peak body for the clean energy industry in Australia. We represent and work with Australia's leading renewable energy and energy storage businesses, as well as a range of stakeholders in the National Electricity Market (NEM), to further the development of clean energy in Australia. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC is supportive of this Rule Change and believes that improved consumer access to data has the potential to provide several benefits across industry and to consumers:

- It will enable customers with greater insights into their own energy consumption patterns and can aid in behavioural shifts to help manage electricity retail bill shocks.
- Real time data use can help highlight when customers have the highest energy consumption, which can help pinpoint high energy using appliances; shift to more energy efficient practices; and/or change to alternative tariff structures that better suit their energy consumption practices.
- Greater insights into energy consumption habits can also assist customers with choosing, and right-sizing, consumer energy resources (CER) for their homes such as rooftop solar PV and behind-the-meter battery storage systems.
- In some instances it can help aggregators and electricity retailer's structure more innovative retail pricing and customer products – like virtual power plants (VPPs) for customers to access greater benefits from their installed CER.

- Real time smart-meter data would not just measure energy consumption, it would also provide real time data for net energy exports. This provides myriad other benefits when it comes to network planning, policy decision making, and system wide planning.

It is important to note, however, that not all of these benefits will necessarily be recognised across the full market, and we would encourage the AEMC to continue to work with interested stakeholders to ensure that what is being proposed is providing genuine benefit to customers. To this end, it would also be helpful for the AEMC to consider the costs versus the benefits of different types of access.

The Clean Energy Council will continue to work collaboratively with the AEMC towards the effective communication the ongoing Rule Changes related to real time data, small meter deployment and safeguard protections for customers. We are interested in ongoing consultation with the AEMC, and it is expected that in addition to the above benefits, customer access to real-time data will further build social license for the smart meter acceleration program and ensure customers can realise the full suite of benefits of smart meters.

If you have any queries or would like to discuss the submission in more detail, please contact Con Hristodoulidis (christodoulidis@cleanenergycouncil.org.au)

Kind regards,

Con Hristodoulidis
Director of Distributed Energy
Clean Energy Council

Feedback on AEMC consultation questions

1. **What are the benefits of improving access to real time data?**

As noted above, the CEC sees that there are benefits in this Rule Change in providing customers with the tools they need to change their own energy consumption habits; improve choices in their selection of energy efficient appliances and CER, and opt-in to smarter retail and VPP arrangements.

As noted in the consultation paper there are also likely benefits to distribution network service providers (DNSPs) and other agencies in having improved, real-time data access. Data on residential customer energy demand and/or energy exports will also be important in improving system wide planning for the Australian Energy Market Operator (AEMO)[1] as well as more localised network planning by DNSPs.

The CEC believes this should also have flow-through benefits to customers and improve policy planning. For instance, real-time data access may be able to inform how frequently the solar emergency backstop mechanism is likely to be used; or highlight the need for certain product incentives or investments.

As mentioned in the consultation paper, real-time data is available for customers willing to install and pay-for their own additional device. As a result, this data is far from ubiquitous and only available from a select number of customers – generally those that also have CER installed. Noting the recent AEMC Rule Change to roll smart meters out across all Australian households by [2030], having real time data available through smart meters will provide a much broader dataset. It also reduces costs for consumers in having to pay for an additional piece of equipment (both the upfront cost and any annual payments where required).

2. **What are the costs of improving access to real-time data?**

The costs of improving access to real-time will likely depend on the approach that is ultimately adopted by the AEMC in the final Rule Change. We would encourage the AEMC to consider the cost benefits of what is being proposed. In considering the benefits, we think it is worth considering future customer offerings as well as current, and how this work ties into other reforms underway, such as the “Electricity Pricing for a Consumer Driven Future” work.

It may be that there are near term options that are more cost effective – such as local data access via unsealed ports. If remote data access is being considered then the CEC would suggest that the AEMC works with market participants to understand the costs of these services, as well as working with consumer groups to understand the benefits. We would also support efficiencies in leveraging existing, or under development, policy mechanisms such as the Consumer Data Right (CDR) work and/or the AEMO CER Data Exchange.

[1] This is also relevant to the Integrating Price Responsive Resources (IPRR) which looks to improve data from CER that is not operating in dispatch mode. In the CEC response to the AEMC on that Rule Change, we questioned what data sources might be available to support that. This Rule Change should provide more ubiquitous.

3. Do metering parties have a competitive advantage?

Currently, most market participants and others offering VPPs and orchestration services are not blocked from doing so by smart meters. There are other products in market - inverters and home energy management systems (HEMs) - that can provide smart services regardless of the smart meter functionality. These products generally collect data at the meter, rather than directly from the meter.

We acknowledge that there is a potential future state, where metering parties might gain a competitive advantage. This may be the case in where retailers and aggregators are looking to create innovative retail plans – particularly plans VPP offers that are more closely linked with the electricity market. In the event that retailers or aggregators are not able to access that data directly from the on-site smart meter, then yes that would represent a competitive advantage.

As noted above, there are other assets in market currently providing asset or site level data at different levels of granularity. These datasets are currently being used to enable smart services and provide compliant datasets. For the most part, we do not believe that this Rule Change will change that approach. The "real-time" definition of 5-minute datasets may support for energy bidding and settlement, but it is still not granular enough for a range of other services. All contingency frequency control ancillary services (FCAS) markets, for instance, require a data granularity between 50 milliseconds and 4 seconds. If aggregators or other market participants, such as electricity retailers, wish to offer these services, they will still need to ensure that they have an additional device – either in-built within the inverter, or through a separate device.

Aside from providing local access to meter data, the CEC also believes that the risk of monopoly behaviour from smart metering providers could also be prevented by ensuring that any service specifications developed within the National Electricity Rules (NER) or by AEMO, should avoid specifying that compliance data needs to be provided directly from the site meter.

4. Do DNSPs need better access to real time data?

Real time power quality data (PQD) appears to be sufficient for the most part in establishing flexible export limits and other innovative offers (such as real time pricing and other tariffs). There may be some use cases for improved data sources that improve customer outcomes – such as improving timelines for supply restoration. We would encourage the AEMC to work with DNSPs to understand these value propositions as part of a cost benefit analysis.

5. Who should have access to real-time data?

The CEC agrees with all parties listed in the Consultation Paper as potential recipients – real time data should be available to consumers, aggregators or customer agents (like market participants).

It may also be a valuable data source for AEMO to understand behaviour of unorchestrated CER, where it could be easily passed through into an existing portal. This latter point was considered in the AEMC "Integrating Price Responsive Resources into the NEM" in respect of working with AEMO and the Australian Energy Regulator (AER) to develop an improved monitoring and reporting framework for unscheduled CER. This Rule Change may be able to effectively interact with the Integrating Price Responsive Resources Rule Change to create a solution.

6. **How should real time data be defined?**

The definition proposed within the Consultation Paper (five-minute data) seems to be suitable for the purposes considered. As noted above there are more granular products in market already that can provide other market services.

7. **How should real time data be accessed and shared?**

The Consultation Paper considers local access to meters via ensuring that ports are unsealed. There were several concerns noted by the AEMC in the Consultation Paper regarding why this is not feasible, including:

- Backstock of metering products that do not currently have local communications ports; and
- Cyber security risks.

The CEC acknowledges both concerns, but do not think they're necessarily a barrier to progression of the most effective version of the Rule Change.

In respect of the backstock concern, this seems like an issue that can be managed with a well-designed start date of this Rule Change. It would seem very unlikely that metering providers would have multiple years' worth of backstock of meters waiting to be installed. If multiple products need to go through a level of redesign to include a communications port, then the AEMC should consider the right amount of time for products to come up to meet the appropriate technical specifications. Australian standards introduced for inverters and other products usually provide industry with a year lead-time to ensure that products have enough time to go through hardware updates.

The AEMC could consider a staged approach whereby all smart meters installed with a communications port are required to have that unsealed effective shortly after the final rule, with a future requirement that all smart meters need to be installed with a communications port within 12 months of an effective Rule Change. Changing product requirements is a feature of the CER industry, and backstock of products has never been considered as a proper rationale to not expect changes.

In regard to cyber security there also seems to be myriad work around cyber security for CER happening at the moment. Including reviews from Standards Australia and DCCEEW as well as work being done by Energy Networks Australia on Public Key Infrastructure (PKI) requirements. This work should explicitly consider and include smart meters.

The ECA Rule Change also notes that in-home displays provided with the smart meter has proven to be very effective in other jurisdictions. This approach does not seem to be considered in the AEMC Consultation Paper Figure 3.1 explicitly, rather it assumes that data will be provided in real time to consumers direct through a device. If this is likely to be of benefit to customers, then the AEMC may need to further consider how this could be incorporated into the Rule Change.

If the Rule Change is also considering remote access – as well we local access – then the costs and benefits of this approach should be considered.

8. **Who should bear the costs of real time data?**

This question is closely linked to the previous question regarding how data is provided to customers, as well as the understanding of who benefits from the data. For instance, if in-home displays are provided with smart meters, then this provides a direct benefit to customers who are able to see their energy consumption in real time and adjust their energy consumption behaviour accordingly. In that instance, it may not be unreasonable to expect customers to pay for the additional smart meter costs associated with a more advanced product – similar to how metering costs are currently captured in bill.

If real time data is going directly to aggregators or customer retailers to craft innovative customer offerings, then it would make sense that they incur the costs. Similarly, where data is of value to DNSPs and AEMO they should also treat it as a commercial offering.

Ultimately metering providers should not expect windfall gains in selling the same data to multiple parties, and we need to ensure that the commercial value of the data contributes to reducing customer data cost under the first possible scenario mentioned above.

9. **What changes would be required to enable interoperability?**

There is a lot of work being done on interoperability through the DCCEEW CER Roadmap and a variety of different working groups. The majority of interoperability work at the moment assumes a level of control of devices that goes beyond a standard data pull/ push that would be relevant to this Rule Change.

If interoperability is considered important then the CEC is primarily focused on national consistency of approach. CSIP-Aus is the accepted communications protocol, and the CEC would recommend that time is invested into building a strategy that creates the simplest pathway for data extraction from several different metering providers to a number of different sources. As we have seen with the implementation of emergency backstop mechanisms, utilising CSIP-Aus is not enough in itself. There needs to be a solid plan in place to ensure consistency, and we would encourage the AEMC to consider the necessary investments and process to be implemented to ensure this is the case.

10. **Consumer privacy and customer protection?**

The CEC agrees with the points raised by the AEMC regarding consumer protection and generally believe that smart meters should be considered within the broader cyber security workstreams currently underway to ensure complete coverage.