Ref: 20250220JF:HP

20 February 2025

Anna Collyer
Chair
Australian Energy Market Commission
GPO Box 2603
SYDNEY NSW 2000

Dear Ms Collyer,

ERC0399 – Real-time data for consumers – Submission in response to directions paper

Essential Energy welcomes the opportunity to respond to the Australian Energy Market Commission (AEMC or the Commission) on its directions paper proposing a rule change to provide real-time data for consumers. Essential Energy has actively engaged in the AEMC's review of the metering framework, which led to this rule change proposal, and this submission follows our November 2024 response to the consultation paper preceding this directions paper.

Essential Energy strongly supports the objective of providing real-time data for consumers, enabled by an accelerated deployment of smart meters. Access to real-time data for consumers, distribution businesses (DNSPs) and other participants can provide substantial and far-reaching benefits. With the rapid growth of Consumer Energy Resources (CER) and electrification of households and businesses, access to real-time data can empower consumers to optimise their energy choices and extract greater value from their assets. For DNSPs, access to real-time data can enable service innovation that respond to consumers' needs, and to develop solutions that enhance network efficiency, which can flow through into lower costs for consumers.

Real-time data reforms should be shaped around the best interests of consumers

With access to real-time data comes opportunity, but also complexity. Consumers stand to benefit from the value real-time data can bring, but only if they have the time, resources and interest in engaging with how they can derive value from this data. The directions paper asserts that real-time data will yield benefits for consumers, enabled by their retailers, metering service providers (MSPs) and networks. However, these benefits will not materialise if consumers face barriers to using the data, are unaware of the potential benefits it can provide, or if the incentives of the businesses providing access to consumers' data are not aligned those of consumers.

Essential Energy is concerned that the approach to implementing the reforms proposed in the directions paper could limit the potential benefits that real-time data can bring for consumers, or worse, have adverse impacts on consumers. In particular, the proposed approach has the potential to increase costs and complexity for consumers, burden them with technology risk they cannot manage, and limit the capacity of networks to provide consumers with innovative services at least cost.

Essential Energy believes this rule change should be shaped around what is in the best long-term interests of consumers. The consumer preference principles proposed by the Commission in its consultation paper for the ongoing Pricing Review are a good starting point and could be applied to the design of this rule change.[1] However, it is unclear how these consumer preference principles have been applied to the design of this rule change. By requiring consumers to consider with an additional process and cost for access to real-time data, there is a risk that this rule change could be a step in the wrong direction in terms of consumers' need for simpler, more consistent pricing and value for money.

There should be no cost for consumers to access their own data in real time, or to share this with DNSPs or other service providers

Essential Energy strongly believes that consumers should not have to pay for access to their own energy usage data. As the Commission has asserted in reports over many years, including in this directions paper, consumers' data has value, and this value can be leveraged to better manage load, in turn reducing network and other costs for consumers.[2] Essential Energy agrees with this proposition, but queries why then the costs incurred by MSPs cannot be recovered through the value generated by the data, for example through the development of products and services for third parties built on aggregated data with consumers' consent, rather than via an upfront cost incurred by individual consumers.

Currently, consumers see real time data provided to them through their solar PV inverters, electric vehicles and other devices such that that there may be little value of real time data from their electricity meter. Further, third party applications in development – for example those enabling Home Energy Management Systems – that will be able to provide real time data to customers where additional costs to provide that data from the meter may not be needed. If the outcomes sought through this proposal could be achieved through other means that consumers are already engaging with, then these alternatives should be examined through a detailed options assessment. The 'one-size-fits-all' approach proposed by the AEMC may not be the best option for many consumers today and is likely to become less valuable over time as the sophistication and interactivity of CER improves.

A broader question that is not answered in the directions paper is whether the benefits of real-time data outweigh the costs for consumers. It appears that Commission has quantified neither the benefits nor costs of this proposed rule change. Additionally, it would be useful to understand how net benefits would vary for different consumer groups (for example, the draft consumer archetypes proposed in the AEMC's Pricing Review[3]), based on consumers' varying levels of interest and resources to engage with real-time data. If retailers choose to bundle real-time data costs as part of broader retail offerings, consumers may be given no choice but to pay for data that may be of little to no use to them, particularly if these consumers have low levels of engagement or are unable to invest in CER that leverages the value of the data. The 31% of Australian households who are renters and 15% of households living in flats or apartments[4] are two major cohorts of energy consumers who may not be well-placed to access the potential benefits of real-time data.

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[1] AEMC, *The pricing review: Electricity pricing for a consumer-driven future: Consultation paper*, November 2024.
[2] For example, see the AEMC's 2023 Review of the regulatory framework for metering services, and the AEMC's 2012 Power of choice review.
[3] AEMC, *The pricing review: Electricity pricing for a consumer-driven future: Consultation paper*, November 2024.
[4] Australian Institute of Health and Welfare, *Home ownership and housing tenure*, July 2024.

Further, Essential Energy does not believe that DNSPs should have to pay for access to this data. Under the proposed approach, consumers would already have had to pay for access to data via their bills. Requiring DNSPs to pay MSPs for access to that same data would mean consumers are paying at least twice for data that belongs to them, with the potential for MSPs to levy ongoing charges to DNSPs for access to data that was originally paid for by the customers themselves. If DNSPs receive consumers' real-time data at no cost, this will maximise the net benefits arising from networks using this data to efficiently meet current demand and optimise future investment in the assets consumers will need and must ultimately pay for.

If the Commission's assertions about the value of consumer data hold true, then it is in all consumers' best interests to have as many consumers accessing – or providing access to their representatives – their real-time data as possible. The best way of securing this outcome is to remove barriers such as upfront costs, to consumers accessing and sharing their real-time data. If retailers opt to set a high upfront price for consumers to access their real-time data, the value of all consumers' data will be diminished, and the potential benefits of this reform suppressed.

Essential Energy does not agree with the AEMC's assertion in the directions paper that the incremental benefits of access to real-time data for DNSPs outweighs its costs, and that access to basic power quality data (PQD) is sufficient. It is not clear what evidence the Commission has used to draw this conclusion, but Essential Energy contends that it is not correct today, and will certainly not hold true over the proposed 15-year timeframe. Access to real-time data is likely to be a catalyst for the development of innovative and unforeseen changes in technology and consumer demands as well as boost growth in CER and electrification.

The Commission should consider whether the definition of real-time data proposed in the directions paper ("voltage, current and phase angle recorded every second and delivered within a second") is adding unduly to the costs of implementing the proposed changes. The directions paper provides no indication of these costs, the costs of an alternative definition of real-time data, or what definition provides the greatest net benefits to consumers. However, it is logical to assume that a lower standard such as near real time in five-minute intervals, could be delivered at lower cost, or no upfront cost to consumers. The standard proposed by Energy Consumers Australia and supported by Essential Energy in its submission to the consultation paper – that is, received within no more than five minutes – would be aligned to existing settlement periods and more economically efficient and fit-for-purpose at this stage. This standard could be reviewed in future to determine if it remains efficient and appropriate as the costs of meeting this standard decline or the benefits of data provided at this or greater frequencies increase.

The Commission should consider which entities are responsible for supplying data more broadly

This rule change proposal presents an opportunity for the Commission to reconsider data supply responsibilities more broadly, encompassing both real-time and historical metering data. Under Rule 86A(1) of the National Energy Retail Rules (NERR), distributors carry a data provision obligation to customers:

> *In the case of electricity, a distributor must, on request by a customer, customer authorised representative or a customer's retailer, provide information about the:*
>
> *(a) customer's energy consumption or export for the previous 2 years in the manner and form required by the metering data provision procedures; or*
>
> *(b) distributor's charges.*

Essential Energy facilitates these requests to supply customer data through a portal on our website for Customer/Third Party Data Requests.[5] These data requests must be provided at no direct charge, but are not without costs to the business. These requests can be large in scale, with some individual requests seeking data for hundreds of National Metering Identifiers (NMIs), representing an administrative burden to the organisation.

There is a disconnection between these obligations and the arrangements proposed in the rule change proposal as to value and the entity most appropriate to fulfil all data requests for consumers, particularly as the penetration of smart meters is expected to accelerate substantially over the next four years. For data sets from Type 5 and 6 meters which DNSPs own and maintain, the distributor remains best placed to provide this data to customers.

However, as customers move to smart meters, historical and interval data provision should shift from DNSPs – which would need to obtain and handle this data on customers behalf from MSPs – to retailers and MSPs who have responsibility for this data. This approach would be more efficient, and given it is consumers who must ultimately meet the total costs of this service, would put downward pressure on their electricity bills. Alternatively, a fairer and more efficient approach would see real-time data provided at no cost to DNSPs, who are well-placed to add value to consumers' data alongside existing retroactive datasets and, which can then be provided back to consumers or third parties nominated by consumers to manage their CER and other consumer facing technologies.

The proposed approach and 15-year timeframe shift technology risk to consumers

The proposed 15-year timeframe for implementation of this reform is based on a technology-specific assumption (i.e. the nominal 'average physical life' of a smart meter). This is an indicative timeframe at best, and by using the technology to dictate the timeframe rather than a user-focused outcome, shifts a risk to consumers that most cannot reasonably manage. Consumers do not choose their smart meter, and even those who have sought to access real-time data must install separate devices on or around their meter at their own, additional cost, which is acknowledged in the directions paper.

The energy technology landscape of 2025 bears little resemblance to that of 2010. Given the pace of growth of CER and rate of technological change underpinning the energy transition, the potential leap in energy technology of 2040 is likely to be much greater than seen in the past. Levying a one-off charge on consumers today based on an assumed technology horizon of 15 years appears impractical and ties consumers to a singular view of the future energy technology landscape that may not be fit-for-purpose in five years, let alone 15 years. Crucially, this 15-year timeframe also does not align with the Commission's call in its Pricing Review for a future-focused view of consumers' energy needs in terms of what and how consumers will engage with the energy market and pay for services.

Some meters may face technical limitations in providing instantaneous data, and may only be able to provide data at intervals of up to 30 minutes. By allowing the industry 15 years to switch these meters for real-time data enabled meters, many consumers may instead opt to receive real-time data from other smart enabled devices, such as their vehicle, inverter and HEMS. If this transpires, some consumers will face a charge for connecting a real-time data enabled smart meter they do not need. This also risks

[5] See Essential Energy's Meter Data Request: https://www.essentialenergy.com.au/partners/meter-data-requests

making the bank of data from smart meters irrelevant, with disparate forms of real-time data from a range of smart devices, which may not be recorded or shared in a consistent format to smart meter data.

Additionally, the proposed definition of real-time data may be more difficult to achieve in regional and remote areas, where telecommunications connectivity cannot provide adequate levels of reliability and latency to record and deliver data within one second. The consultation paper acknowledges this issue, and suggests that 'remote access' may provide a suitable workaround solution. However, under the Commission's proposed approach, consumers wanting real-time data in areas with inadequate telecommunications connectivity would need to pay the same cost as other consumers for a quality of service that does not meet the definition of real-time data.

The AEMC should consider the potential equity and cost implications of this change for regional and remote consumers. If there is to be a charge for consumers to access real-time data, Essential Energy contends that there should be no charge for consumers to access data until such time as the retailer can ensure the data service reliably meets the definition of real-time data as it applies to all consumers.

The proposed approach is likely to suppress innovation and competition

Essential Energy does not share the Commission's confidence that the proposed approach will provide sufficient competition to enable efficient pricing – for consumers or for DNSPs seeking access to real-time data.

For consumers, the proposed approach of requiring the Australian Energy Regulator (AER) to annually publish the prices set by retailers for access real-time data for each smart meter model on its website is highly unlikely to support effective competition. Aside from the unreasonable expectation that consumers will have the requisite levels of engagement or knowledge to access and understand this information on the AER website, as an ex-post dataset it will always be out of date. Even for consumers who access this information, it adds another layer of complexity to their consideration of electricity service offerings and their decision making and also what appears on their electricity bills, which are already complex. This is made more complex by the nature of the charge – a one-off impost – which must be balanced against the other ongoing costs of service provision by retailers. In areas where there is limited or no retail competition – a reality for many regional and remote energy consumers – the proposed approach will provide little choice for those customers.

In the event that consumers feel the cost to access real-time data is too high, or the retailer deliberately sets it too high to discourage uptake, users will not pay to access their data. This will result in no benefits being received by these consumers, and reduced value for all consumers due to the diminished value of data to improve the efficiency of network planning.

For DNSPs, the market for metering data is already highly concentrated, with few firms and high barriers for potential new entrants. The proposed approach – an extension of the current arrangement – relies on commercial negotiation between DNSPs and MSPs. However, there is no meaningful or transparent mechanism for price discovery, with MSPs incentivised to extract effectively monopoly rents. The proposed rule change, including the 15-year timeframe, would be likely to further entrench the competitive advantage of incumbent MSPs, and limit the potential for innovation and disruption in the market until 2040. The ultimate result will be higher costs for DNSPs, which when passed on to consumers will result in higher electricity bills.

In Attachment A, we provide detailed responses to the consultation questions, reflecting the positions stated above.

If you have any queries regarding this submission, please do not hesitate to contact me on 0419 818 115 or via email at hilary.priest @essentialenergy.com.au or alternatively Essential Energy's Regulatory Strategy Manager, Jon Frazer, via email at jon.frazer@essentialenergy.com.au.

Yours sincerely,

Hilary Priest
Head of Regulatory Affairs

Attachment A: Responses to selected consultation questions

Consultation Question	Essential Energy Response
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 time-frame for industry to achieve cost efficiencies in delivering real-time data access from smart meters? Are there ways to support industry to reduce this time-frame? b) Would the marginal cost to each consumer be material in the long-term if costs were smeared across all consumers after 15 years? c) Are there other ways to facilitate efficiency and equity and support industry to lower costs to consumers? d) What incentives would our approach create for retailers, MSPs and third parties?	The proposed timeframe shifts technology risk to consumers that they are not best placed to manage, while also entrenching competitive advantage for incumbent MSPs. Essential Energy is concerned that the consultation paper is not putting consumers' interests first. Essential Energy contends that establishing a framework that gives consumers a choice between paying a one-off charge – at an as-yet unknown price to be set with few real competitive forces – for a piece of technology that may be obsolete within the proposed 15-year timeframe does not represent a good deal for consumers.
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? b) What other measures would incentivise retailers to offer real-time data at competitive prices?	Whilst there may be benefits to prices being transparently published, it is unclear how the approach will foster competition or adequately protect consumers to ensure the prices charged for access are aligned to the efficient costs of providing the service. There is concern that consumers will not have the power to negotiate with their retailers on the price for the data. Consumers will face a choice between accepting the price as offered, switching to another retailer that may offer a lower price for access to data but higher electricity prices, or not accessing real-time data. Also, as retailers continue to offer products that have additional benefits, such as financing of CER or even subscriptions, consumers will face other perceived or real barriers to changing retailers. In any case, if consumers face a price for real-time data, this will add complexity to their bills and represent an additional variable to

	consider as part of their decision making. This is not aligned to the principles put forward in the AEMC's Pricing Review. Essential Energy's position – as proposed in response to the consultation paper – is that consumers should not pay a financial charge, either upfront or ongoing, for access to their own real-time data.
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? b) What other features of a real-time data definition should be described in AEMO procedures?	As Essential Energy proposed in response to the consultation paper, real-time data should include (on top of what is already received through our Network Visibility Platform) at 5 minutes intervals (including min/max/average value): 1. voltage / phase 2. current / phase 3. apparent power (kVA) / phase 4. reactive power / phase 5. real power / phase 6. Active and neutral power/state Other important functionality includes: 7. Meter Status 8. Neutral Integrity (Loop) Impedance2 (Ω) 9. Voltage Total Harmonic Distortion (THD) average – per phase 10. Last gasp/ First gasp Compared to the approach proposed by the Commission in the directions paper, the less stringent approach of using 5-minute intervals may assist with limiting the costs of implementing this reform in the near term. The definition could be reviewed, with a few to reducing this reporting interval, at set points in future.
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? b) Are there circumstances where the obligations on retailers to offer and give real-time data access upon customers' request,	As detailed previously, this rule change proposal should provide the catalyst for other data reporting obligations to be amended to provide the most efficient overall approach for consumers. This should include shifting the obligations for reporting interval data to consumers, detailed in Rule 86A of the NERR, from distributors to retailers.

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