20 February 2025

Australian Energy Market Commission
Level 15, 60 Castlereagh Street
Sydney NSW 2000

Submitted: via online portal

RE: ERC0399 – Real-time data for consumers, Directions Paper

About Shell Energy and Powershop in Australia

Shell Energy delivers business energy solutions and innovation across a portfolio of electricity, gas, environmental products and energy productivity for commercial and industrial customers, while our residential energy retailing business Powershop, acquired in 2022, serves households and small business customers in Australia.

As one of the largest electricity providers to commercial and industrial businesses in Australia.[1] Shell Energy offers integrated solutions and market-leading[2] customer satisfaction, built on industry expertise and personalised service. Our generation assets include 662 megawatts of gas-fired peaking power stations in Western Australia and Queensland, to provide back-up for rising levels of renewable energy, and the 120-megawatt Gangarri solar energy development in Queensland. Shell Energy also operates the 60MW Riverina Storage System 1 in NSW.

Shell Energy Australia Pty Ltd and its subsidiaries trade as Shell Energy, while Powershop Australia Pty Ltd trades as Powershop. Further information about Shell Energy and our operations can be found on our website here.

General Comments

Laying the foundation for a secure and consumer-focused energy market relies on the AEMC to carefully design regulatory interventions that address market failures without prematurely stifling innovation.

While Powershop supports empowering customers to make real-time decisions about their energy usage and integrating consumer energy resources (CER), we consider this rule change poses significant unmitigated risk to consumer privacy, unnecessary complexity and ultimately potential cost for all consumers. Powershop supports market-led innovation and believes that real-time data capabilities will develop when consumer value can be clearly demonstrated.

The AEMC has rightly identified that access to data is an important component to unlocking the gains and efficiencies of CER that households have adopted over the last decade.

However, the approach detailed in this proposal is unlikely to deliver the behavioural changes or efficiency gains that AEMC has identified in the benefits chapter of the Directions Paper. Today, a significant proportion of the value of the data generated by consumers is in the long-term usage and habituation patterns it can reveal. For consumers willing and able to respond to data (those with smart meters), this can in theory be a powerful motivator to drive the behavioural and usage patterns changes needed to materially improve their electricity bills. For example, our small customers can monitor their usage and usage patterns to better understand their habits through our Powershop app. Retailers or third parties aiming to build enhanced data capabilities are likely to respond to consumer demand and competitive pressure to develop least-cost technical capabilities, without regulatory intervention. The existence and take up of low-cost behind the meter solutions to enable the

[1] By load, based on Shell Energy analysis of publicly available data.
[2] Utility Market Intelligence (UMI) survey of large commercial and industrial electricity customers of major electricity retailers, including ERM Power (now known as Shell Energy) by independent research company NTF Group in 2011-2021.

orchestration of CER demonstrates the market is already efficiently solving this problem and responding to consumer demand.

With the limited use case[3] and need for regulatory intervention to one side, there are very clear risks this proposal presents for consumers and their data. Currently, retailers are required to protect consumers from harms associated with unauthorised or undesired data access. The Consumer Data Right (CDR) includes stringent protections and requirements that control who can access consumer data,[4] allowing retailers to refuse and revoke data sharing permissions in specific instances to protect consumers from undue harm (e.g. if necessary to prevent physical or financial harm or abuse [5]). We would anticipate that similar measures would be needed to sufficiently protect energy consumers' real-time data.

Powershop has significant concerns with this proposal and has reservations about the complexity of implementing and administering it. Given low consumer demand, the limited in-built real-time data functionality of smart meters[6], the existence of low-cost add-ons that can already produce the required data[7], and the significant risks to consumer privacy, we ask that instead of rushing to a solution and a draft Rule, the AEMC undertake more detailed cost benefit analysis and revisit the assessment criteria[8] to ensure any changes focus on low cost and effective outcomes for consumers.

It will also enable the AEMC to undertake further work to determine the right mix of protocols needed to facilitate a least-cost mechanism for delivering on its objectives. For example, while we support the adoption of the privacy safeguards developed in the CDR to mitigate material privacy considerations, it would be inefficient to duplicate this regulatory framework for the purposes of real-time data. To facilitate the rollout of this proposal, the increased investment required adds significant costs to consumers. We encourage the AEMC to consider if there are lower cost pathways to secure the marginal gains in scope of this proposal.

We have provided further comments around the proposed approach in the submission that follows.

Powershop thanks the AEMC for the opportunity to provide comment on this matter. If you would like to discuss any part of this submission, please contact Carmel Forbes at carmel.forbes@shellenergy.com.au.

Yours sincerely

[signed]

Libby Hawker

General Manager – Regulatory Affairs and Compliance

[3] AEMC, Real-time data for consumers, Directions Paper, 30 January 2025, pg iii

[4] Office of the Australian Information Commission - Consumer Data Right privacy safeguards

[5] Powershop Consumer Data Right Policy

[6] AEMC, Real-time data for consumers, Directions Paper, 30 January 2025, pg 11

[7] Such as Powerpal and other in-home monitoring devices connected to smart meters and inverters

[8] Does the rule change proposal promote: (1) outcomes for consumers; (2) principles of market efficiency; (3) innovation and flexibility; and (4) effective implementation. AEMC, Real-time data for consumers, Consultation paper, 10 October 2024, pg ii

Proposal for a transitional approach to universal access to real-time data from smart meters

The call for universal access to real-time data from smart meters assumes that consumers/third party providers and retailers use the data to respond to price signals in real-time.[9] There is low customer demand for real-time data, something the AEMC itself acknowledges. For example, in Victoria, where all residential customers are on smart meters, only 0.1% of customers use the functionality.[10]

Customers with CERs already have behind the meter solutions with access to real-time energy production and consumption data.[11] Retailers that operate virtual power plants have identified specific inverter models and low-cost add-ons[12] that can produce the data required for efficient operation of CER. The existence of these low cost, off the shelf products that support market activities and consumer demand demonstrate that there are multiple pathways to accessing the data needed to maximise CER resource use.

Likewise, for CER and non-CER households, distributors in Victoria provide consumers with free access to near-live 30-minute interval data.[13] Additionally, the current fleet of smart meters are already capable of providing sufficiently high quality and timely data to help consumers optimise CER resources, such as Powershop's solar energy monitoring app.

We question whether the marginal gain and cost to consumers of generating 1,800 times the data (60 data points per minute, 3,600 per hour, 86,400 per day) is materially greater than the benefit of 30-minute smart meter interval data (48 data points per day) currently available. As such, before a draft Rule is made, a cost-benefit analysis is integral to determine if the impact of harnessing CER informed by instantaneous data has significant gains on the overall impact to the electricity grid compared to 30-minute data.

Further, recent regulatory decisions which are aimed at providing energy service providers with the ability to separate and manage 'flexible' CER from 'passive' loads in the energy markets to support to innovative products and services for consumers are yet to come into effect.[14] The AEMC should wait to see the market response to these requirements before proposing additional intervention.

In addition, while the AEMC is proposing that retailers can charge consumers who choose to access real-time data from their smart meter via a one-off payment, clarity is required on how this approach aligns with AEMC's work on a rule change proposal to remove fees and charges from consumer bills.[15]

We ask the AEMC to provide further clarity about the need for regulatory intervention when there is clear evidence that the value of real-time data for most consumers today is low. A more preferrable approach is to prioritise the rollout of smart meters[16] and ensure they are capable of complying (through retrofit or otherwise) with the requirements identified by the AEMC over their useful lives.

Mandating this for all smart meters and consumers, without AEMC demonstrating a clear need or use case, imposes an unjustified additional metering cost on all energy consumers. To satisfy the AEMC's assessment criteria, a cost-benefit analysis is essential to demonstrate that the benefits to consumers (and ultimately their energy costs) outweigh the cost of the suggested method for delivering real-time data.

Without the business case with clear benefits to consumers, there is a significant risk that this proposal creates a rigid regulatory pathway, stifling low-cost alternative innovation behind the meter. As a result, consumers could be locked into an expensive smart-meter overhaul and ongoing data provision requirements, ultimately increasing the cost of energy supply. This may recreate the suboptimal outcomes in the smart meter and in-home

[9] AEMC, Real-time data for consumers, Directions Paper, 30 January 2025, pg 3,4
[10] AEMC, Real-time data for consumers, Directions Paper, 30 January 2025, pg 12
[11] Energy Meter with Modbus Connection Solution | SolarEdge
[12] Solar curtailment to maximise feed-in earnings – Amber Electric
[13] Electricity Outlook - [Jemena]
[14] AEMC, Unlocking CER benefits through flexible trading, Rule determination, 15 August 2024. Effective from 1 November 2026
[15] Removing fees and charges | AEMC
[16] Accelerating smart meter deployment | AEMC

data display rollout by Ofgem in the United Kingdom, which has exceeded cost expectations and retrospectively delivered minimal consumer benefit.[17] Demonstrating the existence of the benefits and ensuring they outweigh the costs and risks to consumers should a priority for the AEMC.

The value of any significant uptake lies not in the real-time data itself but in how it is used to provide additional services to customers. As such, the market should be able to develop naturally on as needed basis without imposing unnecessary costs or complexity onto consumers.

Consumer safeguards

We agree with the AEMC that the lion's share of benefits that flow from access to real-time data are expected to flow to third parties that offer products and services,[18] making robust privacy and security measures around the collection and transmission of real-time data paramount. Powershop is committed to complying with Australia's privacy laws, and in particular the Australian Privacy Principles[19] as well as adhering to Shell's General Business Principles and Code of Conduct.

We are concerned that due diligence has not been conducted regarding the real risks posed to consumer privacy and data security with this proposal. The AEMC considers that a customer consent requirement and potential adoption of third-party accreditation criteria featured in the CDR would mitigate risks. However, Powershop believes that further work is required by the AEMC to determine if its proposal supports the Australian Privacy Principles and consumer protections under the National Energy Customer Framework (NECF). Third parties are not subject to the NECF, so it is unclear how consumer protections – such as protections for customers experiencing family violence[20] – would be ensured.

Further, we have concerns with the practicalities of 'ongoing and subsequent free access at a connection point[21]'. The AEMC envisages that if a customer who has paid for access moves house, the new occupant would receive real-time data for free. With this approach there is a real risk that third parties will have access to the new occupant's meter data without the customer providing consent for their energy consumption data to be collected and used by the third party. It is critical that the proposal does not directly or indirectly result in a breach of confidentiality under the National Electricity Rules or be used to identify individuals without proper authorisation. The exacerbated risk of breaches is significant and requires careful consideration by the AEMC.

Real-time data definition

The AEMC is proposing that real-time data be defined as '*being voltage, current and phase angle recorded every second and delivered within a second*'.

Powershop does not support defining 'real-time data' or including data transfer timeframes in regulation. This definition does not account for any limitation related to the speed, latency or reliability of data transfers, for example, delays in data creation or transmission, network congestion, system responsiveness and performance, data processing if systems are not optimised for real-time analytics, any security measures, infrastructure limits, data accuracy.

A best endeavours approach should apply to align with the CDR.[22] The CDR does not define data transfer rates but rather is principles-based and requires data to be transferred in a way that is timely and secure to provide consumers with a seamless experience. This accounts for the fact that real-time data is complex and not necessarily instantaneous but frequent enough to enable effective customer services.

If a more rapid and constant stream of data than what smart meters currently provide is needed to support third-party services, the additional cost to upgrade the meter or device installed behind the meter should be the

[17] UK Parliament, Committee of Public Accounts, Update on the rollout of smart meters, 20 October 2023
[18] AEMC, Real-time data for consumers, Directions Paper, 30 January 2025, pg 4
[19] Office of the Australian Information Commission – Australian Privacy Principles
[20] National Energy Retail Rules, Part 3A
[21] AEMC, Real-time data for consumers, Directions Paper, 30 January 2025, pg 14
[22] Consumer Data Standards

responsibility of the third-party. Ultimately, if the consumer decides that this service is valuable, the service fees paid the provider would support the development and ongoing costs of maintaining this data flow.

Data retention, storage and costs

The implementation and ongoing costs of the proposal outweigh the benefits for consumers.

AEMO and retailers made significant investments in CDR implementation, which to date has had low uptake by energy customers.[23] We question the AEMC's preference not to utilise the CDR to achieve the outcomes of the rule change proposal – given the infrastructure and cyber security protections that have been built to deliver this. While we recognise that the CDR sits within Commonwealth Government legislation and is outside the AEMC's scope, it would be in the best interest of consumers for the AEMC to work with the Commonwealth to optimise the CDR to deliver real-time data for consumers. Given penetration of smart meters is only around 30 per cent[24] and the aim is universal smart meter deployment by 2030[25], before completely rejecting this as an option, the AEMC should test whether the CDR could be amended within a 15-year timeframe.

Otherwise, the continued development of a regulatory framework that sits parallel to the CDR and is essentially delivering the same outcome will only add unnecessary cost which is ultimately borne by all consumers. A recent review into the compliance costs associated with CDR indicates that implementation costs fell heavily on data holders (i.e. energy retailers) with costs far exceeding the original regulatory estimates and overall costs across data holder implementation activities ranging from under $1 million to well over $100 million each.[26] Further, from 1 July 2023 to 30 June 2026, AEMO's Electricity Retail Markets fee includes cost recovery relating to the CDR reforms. For the FY2024, this included a revenue market requirement of $2.33 million.[27,28] These are significant costs, and we are not confident that the proposed approach to deliver real-time data for consumers is at least-cost.

A review into meter data retention and disposal period obligations is necessary given the volume of meter data that will be generated under this proposal. This will need to satisfy the billing of retail customers, network billing, and market settlement obligations. While Chapter 7 of the National Electricity Rules provides clear time periods for data retention for metering data providers, there is some ambiguity around retailer obligations.

The usefulness of data is not so much in the energy consumed in real-time, but rather, weekly, monthly and seasonal consumption patterns that may help consumers understand how their energy use impact their energy bills (and/or greenhouse gas emissions). To support consumers, enough storage is needed to understand longer-term trends and patterns, which will have to increase over time as more data is collected. The ongoing cost (both financial and environmental) of storing the data has not been addressed by the proposal.

The costs of developing and providing enhanced data services – updating smart meters to enable the instantaneous function desired in the rules, ongoing software and telecommunication services fees, and replacement of existing smart meter units – should not be borne by all consumers through market offers, but through direct cost recovery from the users of these services. By addressing the ongoing cost implications and allowing retailers to recover costs directly from consumers who use and benefit from these services, we can avoid imposing an undue cost burden on all consumers.

We are encouraged that the AEMC acknowledges the high upfront costs associated with enabling meters to access to real-time data. This proposal comes during the smart-meter roll out with the current fleet installed and next generation on order for install not meeting the required functionality with this proposal. Given the expected useful life of a meter is 15 years,[29] there is a risk that, retailers and metering services providers will be required to

[23] Performance | Consumer Data Right

[24] AEMC, Review of the regulatory framework for metering services, draft report, 3 November 2022

[25] AEMC, Accelerating Smart Meter Deployment, Rule determination, 28 November 2024

[26] The Australian Government the Treasury, Consumer Data Right Compliance Costs Review, December 2023, pg 2

[27] AEMO, Budget and Fees FY 24, pg 29

[28] Noting, AEMO's loan agreement with Federal Treasury to fund the amended scope of the Consumer Data Right (CDR) program. The loan balance at 30 June 2024 was $4.8m, fully drawn. AEMO Annual Report FY 24, page 54

[29] National Electricity Amendment (Real-time data for consumers) Rule 2025, AEMC, pp. III

double up on installing new meters during the useful life of the existing smart meter fleet creating inefficiencies and significant loss of sunk costs. This would create unnecessary costs for consumers as the true cost of installing the new 'real-time ready' meter is significantly higher for consumers with smart meters installed when accounting for the premature redundancy of their existing units and the installation of a new unit ahead of schedule. This third and unaccounted for cost will increase the cost base of compliance with the new rules, making it more challenging for a cost-benefit analysis to demonstrate overall increase in benefits.

Aggregated customers

While the Directions Paper outlines an approach to real-time data access for smart meters, in drafting the Rules it is critical that customers who have consented to aggregate their consumption under Part 1, Division 2, Rule 5 of the National Energy Retail Rules be excluded. These are business customers who have elected to be treated as large customers and have sophisticated contracting arrangements and systems that cater for the impacts of load shifting and tariff optimisation. As proposed this rule change would be unworkable for such customers and provide no additional benefit as they have existing means to access their data[30] with many having arrangements in place for third parties to access their data for analytical purposes.

[30] For example, the Shell Energy portal provides a customer portal which allows large customers to access NMI data, metering data, billing data, and product/tariff data.