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

Submission in reference to:
ERC0399 Directions Paper - Real-time Data for Consumers

Secure acknowledges AEMC's Directions Paper – Real-time Data for Consumers, dated 30 January 2025, and recognises the objectives within the paper of enabling consumers, improved energy visibility, and supporting new solution within the energy sector. Secure is committed to liaising and working with the wider industry and AEMC to reach a balanced and cost-effective approach for meeting the objectives set out in the paper.

Secure Meters is a global company specialising in the development and manufacture of smart meters and energy monitoring products. Founded in 1987, it has grown into a multinational business with operations across Asia, Europe, and Australia, and a focus on providing solutions for metering, billing, and energy automation. Secure Meters is a major supplier of smart meters in Australia.

Secure has provided responses to the questions raised in the paper with consideration for the technical complexities, operations requirements and external dependencies that may arise via the adoption of the real-time-data provisioning. It is advisable that any approach or solution proposed takes an outcome-based view while maintaining a focus on consumer outcomes.

Secure welcomes the opportunity to collaborate further with the industry and AEMC for real-time data requirements to provide valued outcomes for consumers.

Yours sincerely,

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Question 1: Would our draft rule encourage consumers and energy service providers to access real-time data from smart meters? What is the benefit of this?

The draft rule is a positive step toward consumer empowerment thereby creating the foundation for a more dynamic, data-driven electricity market. The access to real time data, if adopted by a sizeable consumer based, should benefit service providers in assisting them to provide valued outcomes to consumers. However, real time data may not be a priority for all consumers. Particularly the provision and usage of such data within one second requires investment in infrastructure with need for additional tools and/or products at the consumer's end to receive and process the one second data.

Most consumers can already obtain the processed past-day energy profile data (in 5- or 30-minutes intervals) -or- near-real-time energy profile data (in 15 second intervals within the home-area-network), to assist them in managing their energy usage either via free or Retailer provided platforms.

Real-time one-second data to consumers will require processing at the consumers end to provide meaningful insights to allow outcomes such as – dynamic pricing signal, load-shifting in response to time-of-use pricing, improve self-consumption of solar generation, or support automated demand-response participation. Equally important allow for the likelihood of multiple service providers requesting access to this data within a complex and growing Customer Energy Resources (CER) environment.

To ensure that this change delivers measurable consumer and system benefits as proposed under the draft rule determination, the CBA should more clearly define success metrics along with use cases which will help ensure that the changes not only enable real usage of data but also deliver on the core objective: empowering consumers and fostering innovation that reduces overall energy costs.

Question 2: Should the min specs be changed to require all new meters installed from 2028 to be able to communicate real-time data both wirelessly and through a wired connection? Would changing the min specs increase benefits whilst imposing low costs on all consumers?

Smart meters provide aggregate consumption data and other quality of supply data at the connection point. In a modern household or business equipped with several CER devices — such as rooftop PV, batteries, EV chargers, and smart HVAC systems — meaningful energy monitoring and/or optimisation requires device-level coordination and in some cases controllability. Without an ecosystem alignment, the meter can report data in real-time, but to facilitate true sources of consumer benefit like load-shifting, demand response, or cost optimisation will require connectivity with devices beyond the meter.

To address this, the AEMC should ensure that the forthcoming Real-Time Data Procedures and related standards:

- Define how real-time meter data interfaces with home energy-management systems (HEMS) and other CER controllers without compromising cyber security measures.
- Encourage pilots or market trials demonstrating practical use case delivery of how coordinated metering and CER control can deliver the desired outcomes.

With respect to the question about wireless vs. wired interface. We recommend the option of wireless is the practical and beneficial option .

A wireless solution enables –

i) reduction in installation cost - by removing the need for a physical wire to be installed from the meter to another physical device;
ii) reduced need for a third-party to interact with the physical meter - thereby reducing safety and asset-damage risks;
iii) ability for more than one wirelessly connected device/solution/service-provider to poll and receive the real-time-data; and
iv) reduced hardware and processing requirements on the meter - as the meter does not need to simultaneously allow for real-time one-second data to be available on both wireless and wired channels.

A wired solution will require the physical wire to be connected to another physical receiver device, thereby, adding further cost, time and complexity to the overall installation at a consumer's premise.

Based on the real-time-data requirements as outlined by AEMC and explored under this rule change, we recommend that requiring an additional wired communication interface from meter adds site complexity, does not provide additional value and should be omitted from future consideration.

Question 3: Do you agree with the costs the CBA estimates would be incurred to implement our draft rule? Would these costs decrease over time?

Secure believes the costing in the CBA appears underestimated and will need an in-depth review for further market alignment.

In addition, the costing in CBA is based on today's figures which remain uncertain over the next 5-15 years given the likely changes in technology, consumer's requirements and the changing electricity landscape. The biggest unknown is the emerging behaviours of the consumers that are not predictable today. Consumer's interest and/or need in real-time-data may diminish as new technology makes its way into house-house appliances allowing for home-energy management systems to connect and communicate directly with the appliances.

Some metering products on the market already provide near-real-time-data wirelessly within the local home-loop, thereby allowing consumers that need such data to take informed decisions and/or change their energy use. Not all consumers are likely to

require real-time data. Most retailers already provide consumer's consumption data through its portal.

The CBA needs to further consider likely and practical costs of integrating real-time data with resources (CER), HEMS, and service providers. Further significant investment may be required to design and validate the combination of meters, consumer devices, cyber security frameworks, consumer education initiatives for safe adoption of this change, thereby limiting the full realisation of benefits modelled in the CBA.

We therefore recommend that AEMC should expand the cost assessment boundary beyond utility meter to include implementation projects across industries, upgrading IT system and compliance requirements, complete eco system testing of deployments and service providers application and coordinated home energy management system, and retailers/aggregators enablement.

Question 4: Our draft approach is to progressively enable consumers with new meters installed from 2028 to access real-time data at no charge. What is the benefit of enabling more consumers to access real-time data from smart meters, at no charge, sooner?

In a general sense, an earlier introduction of this change would mean earlier access for the consumers, but this needs to be considered with the practical requirements of any likely product impacts, rule changes, system changes and customer education that needs to be in place before this change is introduced. Such impacts should be considered while balancing the likely date of rule enablement for the market.

For further details, we request AEMC to consider suggestions from other market stakeholders as well as any change of timeline which impact all involved stakeholders.

Question 5: What information would be useful for consumers to help them determine if accessing real-time data is beneficial and if any charge to them, to upgrade the meter, is reasonable?

At present, consumers may lack clarity of what "real-time data" means, how it directly relates to energy-cost reduction, and what practical options exist to access it now or in the future. Furthermore, many customers, even today, may not know how to access and use the profile data (5-min) which is already available for them. For real-time data access to deliver its intended value, consumers must clearly understand

(a) what is real-time-data as defined in the rules to ensure there is no misinterpretations of expectations

(b) the practical benefits of using real-time information and

(c) the financial and technical implications of upgrading or retrofitting their meter, including any applicable service charges.

(d) the process involved in accessing the data – what additional solutions and/or devices may be required

(e) the process and steps to ensure security of the data and the consumer authorisation required by the third-party service providers to access this data

AEMC should therefore ensure that information and guidance are standardised, transparent, and easily comparable across retailers, jurisdictions, and service platforms.

Question 6: Would any other regulatory mechanisms better enable all consumers to access real-time data from smart meters, at low cost to the market?

Beyond changing the minimum meter specification, a suite of complementary regulatory mechanisms can ensure that metering data and predictive cost-based information access becomes practical, easy to understand, and valuable for all consumers while keeping costs low.

For example, before making the proposed rule changes, encourage pilot projects with consumer groups, with regulatory support, to demonstrate end-to-end real-time workflows using standard meter data streams. Insights from these trials could inform national deployment guidelines and help shape future consumer-data frameworks. Initiatives like the Consumer Data Right (CDR) should also be considered for enabling consumers to securely share their data and leading to the development of data-driven products and services with consumer data safety in mind.

Assess options to bring in support for ecosystem wide co-ordination and continuous review. To achieve sustained and equitable benefits from data access, the AEMC could promote a formal collaboration framework that aligns with the end objectives and outcomes to deliver outcomes for each of the stakeholder groups.

Question 7: We proposed a definition of real-time data and a requirement on AEMO's real-time data procedures. Would these provide industry with sufficient clarity on what real-time data is, and how real-time data would be made accessible from smart meters?

The draft rule provides an appropriate conceptual definition of real-time data but lacks the technical precision needed for consistent implementation across industry, and how will this be achieved by multiple service providers accessing the data simultaneously. Furthermore, consumers typically know-of energy consumption data. The draft rule proposes to make available voltage, current, Phase angle parameters in real-time, this will likely need conversion to consumption figures for consumers to make use of this data, thereby needing further processing.

In practice, several environmental and performance factors can affect real-time "data delivery". In multi-dwelling apartments and commercial buildings, meters are often located in basements or distant enclosures where real time data delivery will need specific technology or solution implementation.

The Real-Time Data Procedures should therefore not mandate or have defined criteria for specific deployments to allow solution(s) to recognise different technical constraints and deployment contexts in the field.

For consistencies between NER and NERR, the intent for the use of small customer and customer needs to be correctly used to avoid any confusion. Under clause 59(D)(3)(C), the term customer needs to be changed to small customer to ensure choice to give consent is exclusive to small customers.

Question 8: Our draft rule would introduce a range of requirements on different parties to enable customers to access real-time data. Do you consider that our draft rule would support a good customer experience for customers requesting access?

The draft rule assigns key responsibilities to retailers and metering coordinators but would benefit from clearer operational delineation to ensure seamless delivery of real-time data services.

The deployed real-time solution(s) will likely require multi-party access to the real-time data. This may lead to multi-polling of the meter, or having parties aggregate the consumer's data before being provided upstream.

It is critical to ensure that the consumer is not adversely affected, has a clear understanding of the solution being offered, and the request for access is seamless while it meets the CDR requirements. Any redressal mechanisms should also be clearly outlined to ensure that undue requests do not end up with the retailer who may or may-not be equipped to resolve consumers issues related to real-time data where third-party solutions are involved. The redressal process should and must go via the consumer appointed representative for resolution related to the services delivered in relation to real-time data. The rule changes should consider simplicity of process for the consumer.

Question 9: Would our draft rule introduce appropriate security measures to protect customer information from being accessed by unauthorised parties?

The security measures stated in AEMC proposed rule change are appropriate but may not be adequate. For example, if the inclusion of a wired access to data is included, there should be further safety and security requirements considered as the access to the meter will now be needed by new/additional third-parties. In addition, the rules prohibit any third-parties to access metering installation except accredited MPBs. Hence, the rules and responsibilities of the MPB also need to be reviewed by AEMC.