20 February 2025

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Reference: ERC0399

Submission on the Directions Paper - Real-time Data for Consumers

Introduction

1. Bluecurrent welcomes the Australian Energy Market Commission's (AEMC) *Directions Paper – Real-time Data for Consumers* (the Directions Paper), dated 30 January 2025, and **confirms our support** for the AEMC's objectives of empowering consumers, enabling better energy management, and fostering innovation in the energy sector. As Australia transitions to a net-zero energy system, access to real-time data will play an important role in enabling a consumer-centric energy system that enhances transparency and enables informed decision making.

2. We recognise that achieving these outcomes requires a balanced approach that considers both consumer benefits and the technical and economic realities of implementation. Our submission emphasises practical pathways that align with these objectives while addressing challenges related to technology, operations, and cost recovery.

3. Bluecurrent is **committed to working collaboratively with the AEMC** and wider industry stakeholders to ensure that the implementation of real-time data frameworks is technically feasible, cost-effective, and consumer focused.

4. The Directions Paper offers clear guidance, particularly in defining the primary use case for real-time data access as the delivery of technical meter data to the customer equipment via the local connection. This definition, along with the refined understanding of real-time data, helps to identify the costs that metering providers and retailers may incur when delivering this service.

5. We are currently working closely with our manufacturing partners to understand the technical feasibility of different solutions to enable the real-time data framework under the most cost-effective options. Due to the quick turnaround for this consultation, these costs are not included in this submission but will be provided shortly in discussion with the AEMC.

6. Our submission outlines the following critical considerations in the implementation of real-time data access:

    a. **Technical feasibility: A phased approach to real-time data delivery**

    Bluecurrent recognises the technical complexities of real-time data delivery and believes a staged approach is the most effective way to achieve the AEMC's vision.

    To ensure long-term scalability and innovation, Bluecurrent supports the development of interoperability standards. These standards will be essential for seamless communication between meters and multiple devices, fostering a competitive market for third-party services and promoting consumer choice. We believe this approach will encourage innovation and create a robust ecosystem for real-time data services.

b. Technical feasibility: Real-time data to be made available at the meter installation point

We propose a clear definition of real-time data delivery being real-time data made available at the metering installation point. This targeted approach allows us to leverage existing metering technology where possible, minimising immediate disruption and cost. We believe that focusing on local connectivity solutions, such as Wi-Fi or wired connections at the meter, offers a practical and secure path forward, avoiding the complexities of home network reliability and diverse device compatibility which are outside of the direct influence or control of the metering provider. This approach also reduces remote data transmission costs.

Similar models are used within telecommunications; for example, the National Broadband Network (NBN), where high speed broadband connectivity is made available to the point of the NBN modem within the household. NBN (in conjunction with the telecommunications provider) is responsible for ensuring connectivity to the house. The connectivity of devices (smartphones, televisions, home appliances, etc) within the house is the responsibility of the household and other appliance providers. This is a model that consumers are familiar with and adopting it will assist in the take-up of real-time data services.

c. Cost recovery: Balancing affordability with future investment

Bluecurrent understands the importance of managing consumer costs associated with upgrading metering infrastructure. We advocate for flexible cost recovery mechanisms that balance affordability for consumers with the need for sustainable investment in metering services. We believe that mechanisms such as reopener clauses or deferred decisions on long-term cost structures (e.g. the 15-year sunset clause) will provide the necessary flexibility to adapt to rapidly evolving technical requirements and market conditions.

A staged implementation, such as prioritising meter replacements at end-of-life with real-time data capable meters, represents a cost-effective strategy. This approach reduces upfront costs compared to wholesale retrofitting, ensuring a smooth and affordable transition for consumers.

d. Consumer consent and data management

Protecting consumer privacy and ensuring ethical data access are paramount. Bluecurrent supports leveraging established frameworks, such as the Consumer Data Right, to streamline consent management. We believe that retailers or device manufacturers are best positioned to manage consumer consent, as they directly interact with consumer data, ensuring transparency and consumer control. This approach also allows metering providers to focus on their core function of providing reliable and accurate data.

e. Supporting competitive outcomes: Fostering innovation and consumer choice

Bluecurrent agrees with the AEMC's assessment that **metering providers do not hold an inherent competitive advantage** in delivering real-time data services. As highlighted in our submission on the AEMC's consultation paper on *Real-time data for consumers*, alternative data access pathways exist and may prove more cost-effective for consumers.

We strongly support the development of a standardised framework for real-time data exchange under Australian Energy Market Operator (AEMO) procedures. This standardisation is critical for preventing vendor lock-in and ensuring interoperability between meters and customer devices. We anticipate AEMO's specifications will utilise widely recognised standards, further promoting a competitive market and maximising consumer choice.

f. Collaboration on technical requirements

Bluecurrent acknowledges that further engagement is essential to refine technical requirements and understand cost implications. We are committed to working closely with the AEMC, metering

suppliers, and the wider industry to develop practical solutions that meet consumer needs while achieving the AEMC's vision for access to real-time data.

7. Bluecurrent **welcomes the opportunity to collaborate with the AEMC** on implementing a workable framework for real-time data access. By addressing technical feasibility, cost recovery, and operational challenges in a balanced manner, we can deliver meaningful benefits to consumers while supporting Australia's transition to a smarter, more sustainable energy system. We look forward to continuing our engagement with the AEMC as we refine these approaches and contribute to a brighter energy future for all Australians.

Responses to the consultation questions

Question 1: Do you agree with a staged implementation approach for when consumers pay for access for 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?

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?

8. Bluecurrent supports the proposal allowing the metering provider to apply a one-off charge for enabling real-time data service, as outlined in the Directions Paper. This would cover upgrading or enhancing metering arrangements for local integration with CER devices.

9. While we recognise that metering providers' costs may decrease over time as meters' real-time data integration capabilities improve, we doubt these costs will become negligible. It would be highly speculative to assume that costs will drop to a point that would allow free service. Future metering technology might offer off-the-shelf integration capabilities, but evolving CER and consumer devices could change connection methods significantly over the next 15 years, potentially necessitating meter support for new technologies that are not currently available.

10. We **recommend** that the AEMC defer the decision allowing charges for real-time data until a closer review at an appropriate future date.

11. The proposal for the ongoing smearing of costs after the 15-year period, rather than charging the customer who has requested the service, has certain drawbacks. These include:

    - **Cross-subsidisation** - The service may primarily benefit a smaller subset of customers, such as those who own CER, but its cost could be borne by all customers. This means that customers without CER may end up subsidising those with CER.

    - **Obscured service costs** - Socialising costs can obscure the actual expense of providing the service, which could lead to overuse. Without visibility of the true costs, customers may request services that exceed their actual needs, resulting in customers unnecessarily paying for features they do not need or desire.

    - **Innovation limits** - When customers do not face the full cost of the service, they have less motivation to seek alternative, more efficient methods. This can stifle innovation and hinder the development of better, more cost-effective solutions.

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?

12. Bluecurrent supports informing customers about potential charges for real-time data enablement. We agree that metering providers will likely pass these costs on to retailers, who may then decide to pass them on to customers. The charges metering providers pass on to retailers are not directly relevant to customers. Some retailers might offer real-time data access for free as a competitive advantage, while others may charge a nominal fee that does not reflect the actual metering cost. Metering provider charges are negotiated individually with retailers in a highly competitive market, and are confidential. Disclosing these values to the market (i.e. to competing businesses) could negatively impact the competitive metering market. Therefore, we do not see the need or benefit from the Australian Energy Regulator (AER) revealing metering providers' charges to retailers.

13. Publishing charges for real-time data presents challenges. The Directions Paper suggests that retailers and metering providers apply a uniform charge for all customers. However, the current definition of real-time data makes it likely that charges will vary based on a customer's location. For example, different or varying costs will be incurred from delivering data to a single premise to delivering it to a unit complex or a multi-story building. This issue can be mitigated by modifying the definition of real-time data to limit metering provider obligations to the metering installation boundary. If the AEMC does not provide this clarity, then the AER's publication of metering provider charges should account for these differences should publication of these charges be pursued.

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 real-time definition should be described in AEMO procedures?

14. Bluecurrent **recommends** the revision of the current definition of real-time data. The current definition mandates that the Metering Provider (MP) deliver real-time data directly to the customer, implying that the customer's endpoint must be reached, which may be located anywhere within the customer's premises. Typically, this endpoint is a Consumer Energy Resource (CER) device, Home Energy Management System (HEMS), or In-Home Display (IHD). If the customer's CER device is distant from the metering point, establishing communication can be challenging and may necessitate additional costly infrastructure installed inside the customer's premises to bridge the distance. This situation raises concerns, which could involve safety issues, customer engagement, and the potential requirement for the metering provider's technicians to work further into the customer's premises.

15. The above concerns are avoided today as the scope of metering providers' work is limited to working at the *metering installation* – a clearly defined area where the customer's meter is installed. Adopting the current definition of real-time data would result in metering providers' technicians being required to install additional equipment, such as wireless range extenders or powered hubs, to allow for connections over longer distances. This imposes new responsibilities on metering providers, including potentially taking on the responsibility for the electrical safety of the customer's premises, as well as the ownership, maintenance, and repair of the additional equipment.

16. We believe boundaries that clearly define the metering provider and customer's responsibilities should be included in the framework. This would be akin to the telecommunications industry's approach where NBN is responsible for enabling a fibre-to-the-premise connection at a customer's premise. NBN's responsibility ends at the connection box – a device typically located at the closest available point to the street. It is then the customer's responsibility to arrange for any wiring to take this connection further into the customer's premises.

17. We **recommend** the revision of the definition of real-time data to reflect the shared responsibility between the customer and the metering provider in enabling real-time data. We therefore recommend the following revised definition:

    - "voltage, current and phase angle recorded every second and made available at the *metering installation* and accessible by the customer or 3rd party devices in the format meeting the specifications defined in the metrology procedures"

18. The current definition mandates delivering real-time data to customers within 1 second. Although local connections usually achieve this almost instantly, we are concerned that such a strict timeframe could hinder future methods and stifle innovation. Since real-time data is mainly needed for CER devices to follow curtailment and generation instructions within 15-30 seconds, a more relaxed metric would suffice. We **recommend** that the AEMC adopt an outcomes-based approach to determine the required service level.

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 consumers' 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?

19. While Bluecurrent supports the proposed timeframes, we expect that where a site visit is required to enable real-time data, the metering provider will need to use the same resources used to perform meter installation work. This work is subject to strict regulated timeframes when it is requested by the customer. Given that resources are likely to be shared and meter installation work is more important and should take primacy, we **recommend** that the timeframe for enabling real-time data where a site visit is required should be 30 business days, especially during the accelerated rollout period up to 2030.

20. If the AEMC modifies the definition to limit the retailer/metering provider's responsibility to providing real-time data at the metering installation, as suggested above, it will not be necessary for the framework to include provisions for exemptions. However, if the metering provider's responsibility for delivering real-time data extends into the customer's premises, a 'best endeavours' clause should be included. This is to recognise that technical issues may be encountered, especially those in proximity to the metering installation, which may create obstacles for real-time data to reach the customer's desired endpoint. Addressing these issues can be costly and may not be economically feasible for the customer.

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?

21. Supporting multi-party interoperability requires greater consideration and cannot be sufficiently understood until further work on communication protocols and other technical aspects is completed. We expect that the work AEMO is undertaking regarding the definition of standards for real-time data exchange will be a key input. At this stage, we believe the ability to multicast real-time data will be dependent on many factors, including the number and types of devices that require access and their capabilities.

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?

22. Currently, metering providers lack a direct relationship with end customers and do not keep end customer records; they cannot validate requests directly from end customers or their authorised third parties. Validation must go through retailers who generally prefer to own and manage this relationship. This practice already occurs when metering providers receive customer requests for meter data. In such rare instances, we (as a metering provider) redirect customers to the retailer for validation of the customer's details and approval of data provision.

23. We anticipate that once the retailer has confirmed a customer's details, the retailer will request the metering provider to enable real-time data access. This approach will also be required for real-time data requests from a customer's agents.

24. An important aspect that any proposed framework needs to consider when deciding the consent pathway is whether authorisation for real-time data access from the meter should be applied at a site level or at an individual device level. The solutions needed to support the consent mechanism will depend on the chosen approach.

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? Is so, what could this look like?

c) Should the process for the withdrawal of consent also be specified?

25. As discussed above, retailers are the only parties that can validate customer details or customer authorised agents.

26. The Consumer Data Right has established retailer processes that streamline third party authorisation that can be adapted to confirm that the customer has authorised a third-party request for access to real-time data. Once confirmed, the retailer can then issue a service request to the metering provider.

27. Should the framework determine that there is a need for the cancellation of a real-time data service (for example, on the request of a customer), then the retailer could follow existing B2B processes and issue a request to the metering provider to remotely switch off real-time data from the meter. Further investigation is needed to ensure technical feasibility to meet this requirement in a simple-to-manage method.

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?

28. In Bluecurrent's view, the requirements for third parties to gain access to a customer's real-time data should be aligned with the rules under the Consumer Data Right framework. We understand that this framework would require third parties to have some level of proven capability, which appears appropriate for the purpose of accessing real-time data.

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?

29. See our response to Question 8.

Concluding comments

30. We are happy to further engage with the AEMC regarding its proposals for real-time data access. Please contact Paul Greenwood (Industry Development) at Paul.Greenwood@bluecurrent.com.au.

31. No part of this submission is confidential, and we welcome the AEMC publishing it in its entirety.

Yours sincerely

Neil Williams
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