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Australian Energy Market Commission
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Submission to the Australian Energy Market Commission (AEMC) on Real-Time Data Access for Consumers ERC0399 Directions Paper

Statement of No Conflict of Interest

ENERGY POLICY RESEARCH Pty Ltd & Energetic Effects are independent, impartial organisations —EPR is an emergent new entrant and a knowledge-collaborator, and EE is a consultancy. Neither organisation produces electrical hardware or software and has no commercial gain from this submission, which was produced pro-bono. We aim to support the *public good* for electricity as an *essential service* within the energy system transition and support the emerging CER sector.

Dear Andrew,

ENERGY POLICY RESEARCH Pty Ltd (EPR)[1], and Energetic Effects[2] are grateful for the opportunity to contribute to the AEMC's Directions Paper on real-time energy data access for consumers. Our organisations[3] bring together extensive expertise in energy policy, consumer advocacy, and technological innovation in distributed energy resources (DERs). We have reviewed the Directions Paper through an online forum, and this submission summarises our discussions. It outlines the benefits of real-time data access, identifies potential challenges, and offers actionable recommendations to improve consumer engagement and optimise energy system performance.

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[1] ENERGY POLICY RESEARCH Pty Ltd (EPR) is a new entity, an Australian, policy-led, DER/DER-focused, independent and impartial academic and policy organisation.

[2] Craig Froome, co-author of this AEMC submission, is Principal Consultant at Energetic Effects, National Director and Queensland Chair of The Australian Institute of Energy, and an Adjunct Associate Professor in the Centre for Future Material at the University of Southern Queensland. Craig is also on the Australian Committee of the World Energy Council. Previously, Craig was the Program Manager for Clean Energy within the University of Queensland's Global Change Institute and a member of the School of Economics, Energy Economics and Management Group which focused on recent and ongoing technological change and technological diffusion that is making key technologies, such as battery storage, solar PV and thermal more affordable.

[3] To contribute to the consultation, EPR Pty Ltd and Energetic Effects conducted an Expert Panel and public, transparent, recorded webinar dedicated to this topic ERC0399 on 4-Feb-2025, prior to the 2nd round consultation, see LinkedIn: https://www.linkedin.com/company/energy-policy-research/

Benefits of Real-Time Data Access:

- **Empowering Consumers**[4] – Access to real-time data equips the interested consumer with insight into energy behaviors, highlighting consumption patterns to enable consumers to make informed decisions around optimization of systems and energy use, in an effort to minimize associated costs. Energy Consumers Australia (ECA) supports this notion that access to real-time data provides consumers agency to make optimal energy decisions.
- **Consumer Education** – Opportunity for late adopters to join the energy education and insight challenge in understanding their use patterns and requirements to better manage their consumption and costs. Educating consumers has the potential to benefit both consumer and grid through Time of Use management and redistribution of demand.
- **Facilitating Demand Response** - Immediate access to data provides insight for both the educated consumer and Retailers to participate in demand response programs, ensuring contributions to grid stability and potential savings for consumers. The AEMC's Directions paper acknowledges that household and business consumers will benefit from cheaper energy bills when they use insights from real-time energy data to optimise their usage.
- **Enhancing DER Integration** – For businesses that focus on optimising the performance of energy storage systems and managing VPPs in the market, real-time data is crucial for integration of renewable energy sources. For rule makers (AEMC) and market operators (AEMO), enhanced integration backed by real-time data provides clarity leading to improved efficiency and reliability at the time of market demands.

Challenges and Considerations:

- **Consumer Access to Real-Time data outcomes** – Not every energy customer is interested or educated in household or business energy data management. Opportunities for ongoing education on data, energy consumption, energy management and the like would need to be offered to every customer to ensure consumers have the tools they need to access their information.

[4] Empowering consumers accelerates the energy system transition in an equitable manner: Agency, Control, Trust, Education and a choice of Participation are central aspects, see Patterson-Hann, V., & Watson, P. (2021). **The precursors of acceptance for a prosumer-led transition to a future smart grid.** *Technology Analysis & Strategic Management,* 34(3), 307–321. https://doi.org/10.1080/09537325.2021.1896698

- **Implementation Costs and Timeframe** – 15 years is too long, and the cost is small. Taking into account the smart meter rollout in Australia and the target of 100% penetration by 2030, and the current approximate penetration of 1/3rd it is suggested that *scale of economies will help incorporate RTDA-enabling technology into smart meters at negligible cost*. Overall, particular attention should be on avoiding any costs being passed onto more vulnerable groups.
- **Data Ownership and Privacy –** Definitive data ownership and accessibility protocols are required prior to implementation of any real-time data access. It is crucial to clearly understand who owns the data that is generated from this exercise in order to ensure that access to this data is limited to ownership and only shared upon consent. *Data ownership is big business and consumers must have agency over data they produce.*
- **Data Security – Along with the above ownership is the responsibility to protect** consumer information. Robust cybersecurity measures must be implemented to ensure data privacy is secure and consumer trust is maintained.
- **Accessibility and Equity –** As highlighted by the South Australian Council of Social Service (SACOSS), it is vital to ensure that all consumer segments, including households, can access and benefit from real-time data. This includes addressing potential barriers such as digital literacy and access to necessary technologies. *Agency, control and a choice of participation*[3] in the energy sector are critical to an equitable transition.

Recommendations:

- **Develop Clear Guidelines —** AEMC needs to investigate and establish comprehensive guidelines outlining data ownership, access protocols, use, privacy protections, and security standards to safeguard consumer information.
- **Implement Educational Programs —** Launch initiatives to educate consumers on interpreting and utilizing real-time data effectively, ensuring that all demographic groups can benefit.
- **Ensure Cost-Effective Implementation —** Explore strategies to minimise implementation costs, such as leveraging existing infrastructure and promoting competitive market solutions, promote equitable distribution of costs to deliver to prevent undue financial burden on consumers.
- **Foster Industry Collaboration —** Encourage collaboration among stakeholders, including energy providers, technology companies, and consumer advocacy groups, to develop interoperable systems and share best practices.

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Conclusion

Real-time energy data access presents a significant opportunity to empower consumers to better manage their consumption, enhance energy efficiency for households and businesses, and support the integration of renewable energy resources with existing infrastructure to participate and support optimization focused business and grid stabilisation. By addressing the associated challenges through clear guidelines, educational initiatives, cost-effective strategies and collaborative efforts, we can maximise the benefits for all energy consumers. 15 years is too long for implementation and the cost is negligible in the context of currently deploying smart meters in Australia.

We appreciate the AEMC's consideration of our perspectives[5] and look forward to continued engagement on this critical issue.

Kind regards,

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[5] This submission is informed by insights from the ECA and SACOSS submissions, as well as discussions from the recent webinar hosted by ENERGY POLICY RESEARCH Pty Ltd