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2 February, 2023

Benn Barr
Chief Executive Officer
Australian Energy Market Commission

Dear Benn

RE: Review of the Regulatory Framework for Metering Services

Wattwatchers Digital Energy (Wattwatchers) welcomes the Australian Energy Market Commission (AEMC) Draft Report of the Review of the Regulatory Framework for Metering Services. We appreciate this opportunity to provide additional feedback, at this important stage of the review process, having also participated in parts of the earlier consultation processes, for which we thank the AEMC and its hard-working review team. While much of the content of the draft report deals with matters outside of Wattwatchers' operating territory, we are pleased to provide inputs in regard to the digital meter rollout where it affects data access for electricity customers, current and future data and technology-based solutions, and emerging services and business models.

Wattwatchers has developed and operates a leading digital energy platform, in Australia and internationally, enabling fast, powerful and scalable solutions to monitor, analyse and control electrical circuits in real time – maximising the benefits from renewable energy, green building, and carbon and energy management. Our solutions suite spans devices, datasets, analytics, software and Internet of Things (IoT) connectivity, for energy and non-energy applications across home, community, commercial and industrial, and utility use cases. Our open business model promotes technology collaborations, with dozens of third-party partner integrations with our REST API - in Australia, and internationally. Product brands include Wattwatchers (hardware and data to the cloud), the MyEnergy/mydata.energy (mobile app) and ADEPT (an agile IoT platform for managing multi-technology fleets in real-time). Multi-year projects include My Energy Marketplace (2019-2023), backed by \$2.7 million in grant funding from the Australian Renewable Energy Agency (ARENA)*; and Heyfield MyTown Microgrid (2020-2023), supported by a \$1.75 million grant from the Australian Government through the Regional and Remote Communities Reliability Fund (RRCRF). Data from Wattwatchers-made behind-the-meter monitoring devices is used by the Australian Energy Market Operator (AEMO) in ARENA-funded projects to support the integration of higher levels of distributed rooftop solar generation into electricity grids.

We respectfully submit that in this current metering review, which follows the original Power of Choice reform for electricity metering nearly a decade ago, the AEMC has a genuine reform opportunity: to accelerate the rollout of digital metering for customer billing and market reconciliation purposes (i.e. settlement’); while also laying foundations for customers to gain greater benefit in a much more diverse, data-led, and genuinely competitive metering, monitoring and remote control/automation marketplace - one in which consumers have real choices to match their differentiated needs.

In this regard, Wattwatchers sees the commonly used term ‘smart meters’ as a misnomer, suggesting as it does that the digital meters (or ‘communicating interval meters’) being deployed in Australia under the AEMC’s ‘minimum specification’ are in some way cutting-edge technologies, when they actually are already outdated and quite limited in technology and functionality terms. These limitations may not impede the role of such meters if they are confined to their core role of being ‘settlement meters’, but are a major impediment to delivering current and future technology and data-driven services to electricity customers, including in tandem with smart home and smart building automation, and with strong competition among service providers and real choice for customers.

Wattwatchers does, nonetheless, support expediting the replacement of the millions of old-style analogue (electro-magnetic ‘spinning-disk’) utility meters that are still operating in many parts of Australia (with the exception of Victoria), and also of non-communicating interval meters, with more advanced versions for settlement purposes. In our submission, achieving this by 2030 will complete an inevitable technology upgrade for utility metering in Australia, with the potential for modest customer and system benefits. But it will not, of itself, provide the metering and data infrastructure foundation for a customer-centric, highly-electrified, renewable generation-dominated energy transition where Consumer Energy Resources (CERs) and extensive customer participation (e.g. via demand response, VPPs and data sharing) are core to successful markets, networks and retail services.

Wattwatchers broadly supports the AEMC’s long-term direction for a ‘two-sided electricity market’, with empowered consumers participating widely. In the medium to long-term electricity future that Wattwatchers anticipates, there will be numerous sources of both electrons and data, many on the customer side; and the path to a truly competitive and customer-engaged energy marketplace, as was at least partly envisaged through Power of Choice, will not be supported by utility metering and data systems alone. To maximise both customer benefits and system performance, we submit that the AEMC needs to progressively create the space for a diverse range of technologies, data services and business models.

Thank you for this consultation opportunity. This submission includes Wattwatchers' own further recommendations, and our responses to relevant consultation questions. We will welcome future opportunities to contribute to solving the shared challenges of the energy transition.

Yours truly,

Gavin Dietz, CEO, Wattwatchers

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WATTWATCHERS RECOMMENDATIONS

Ultimately, today's customers mainly want electricity that is affordable, always-on and of good quality to power and protect their appliances and electronics, keeping the lights on, but doing a lot more too. They expect to be billed fairly and accurately. Many also expect good environmental attributes. Others - the prosumers - want to maximise the value of their own energy investments, such as the one third-plus of Australian households with rooftop solar, and often are willing to invest in their own additional remote metering, monitoring and control solutions. This subset may also be willing to support the grid's operational stability and effectiveness, but for many only if they get the right services and information to empower them as small-scale market participants.

Choice is critical to meeting all of these needs, and universal metering for billing and market reconciliation (i.e. 'settlement meters') should provide a minimum, entry-level of support to customers to participate in the electricity market, while leaving clear space for innovation, premium services, and for new competition and market entrants, rather than being positioned as the platform for all energy transactions. A secondary market for customer-facing energy services, as is at least partly envisaged in the AEMC's current flexible trading consultation (*Unlocking CER benefits through flexible trading - ERC0346*), is an opportunity to allow greater diversity of solution providers, technologies and service/business models behind-the-utility-meter.

Data from utility digital metering should be readily available to support the customer's experience, including power quality data, just as it is or most likely will be available to more traditional industry players; and customers should have the choice and the capability - via supporting technologies such as APIs - to share their utility meter data with third-party service providers of their own choice, for their purposes (which could, for example, include getting independent expert advice on the power quality they are receiving, and whether poor quality supply is impacting on them e.g. affecting rooftop solar performance or damaging expensive home and business electronics).

Recommendation 1: Make energy data more 'open' than is currently envisaged by the draft report. The current metering review proposals favour traditional energy players, including billing meter manufacturers and management services, and the proposals don't do enough to genuinely empower customers, nor to support innovation by emerging technology providers. The recent Consumer Data Right/Open Energy reforms are a step in the right direction, but a lot more can and should be done, and utility metering is a key part of the equation. For example, customers should not only have local access to their utility meter

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data, but they also should have the clear right and effective capability - at no cost to them, considering they have already paid for the metering and the electricity - to share it with third-party service providers of their choice, for their purposes, through the cloud (e.g. API).

Recommendation 2: Recognise that as with electrons, energy data has value, and comes with costs to supply it, and that in the case of utility metering this value is based on data that customers have paid for to have collected and held by the industry, with no real choice in the matter; and that billing data primarily reflects their use of electricity from the grid that they are paying for; and in some cases it also reflects clean electricity that they are supplying to the grid from their own rooftop solar generation, or services they may provide such as demand response, or sharing data from their energy assets. If data from utility metering also delivers value for industry players, such as network businesses, then it would be fair that they pay something for the part of the data 'value stack' that they use (e.g. voltage, current, power factor) and that customers are credited with at least part of that additional value as cost relief. Certainly the full value of data services built on customers' data should not be pocketed by metering interests.

Recommendation 3: The AEMC should more overtly recognise the functional limitations of the utility metering currently being deployed under its 'minimum specifications', and that this necessarily limits the customer benefit which such metering is able to provide or support. That said, it is submitted that some aspects of the current minimum specifications, such as remote disconnection and reconnection capability, may be counterproductive to achieving lowest cost for customers for a baseline level of utility billing and market reconciliation. In a market with choice, it is reasonable that customers who need or want more functionality than the entry-level baseline provides should pay for this themselves, including via non-utility third-party solution providers. If utility meter providers want to offer energy customers premium services, including digital metering with higher levels of performance and granularity of data, then consumers also should have choices to get such enhanced services from alternative providers such as new technology companies.

Recommendation 4: The current approach to data from utility metering is highly constrained, with even intra-industry sharing being quite restricted, and a selective approach to what data (and at what cost) is shared with customers, researchers and third-party service providers. Taking into account legitimate privacy, security and cybersecurity concerns and concepts, multi-sourced data nonetheless needs to be more accessible, shareable and portable (a scenario which Wattwatchers is exploring through a number of grant projects). As with electrons in an electricity system with a lot of CERs, where electricity flows bi- or multi-directionally, in a two-sided marketplace data flows also should be multi-directional (e.g. data from the regulated market should be able to flow to non-regulated use cases, and vice versa where this benefits customers), and commercial

arrangements should align with this to allow value to be shared fairly across the expanding energy data ecosystem.

We submit there remains an opportunity to begin creating the space for a competitive marketplace for energy data in the Final Report of the AEMC's metering review.

WATTWATCHERS RESPONSES TO CONSULTATION QUESTIONS

Wattwatchers has confined its responses to consultation questions to those most relevant to our solutions and policy priorities. We believe that other stakeholders are better qualified to respond to many of the other consultation questions.

QUESTION 16: REGULATORY MEASURES TO ENABLE INNOVATION IN REMOTE ACCESS TO NEAR-REAL-TIME DATA SOONER

1. *Do stakeholders support the Commission pursuing enabling regulatory measures for remote access to real-time data? If so, would it be suitable to:*
 - a. *Option 1: Require retailers to provide near real-time data accessible by the consumer in specific use cases (while allowing them to opt-out)?*
 - b. *Option 2: Allow customers to opt-in to a near real-time service via their retailer for any reason.*
 - c. *Option 3: Promote cooperation and partnerships between retailers and new entrants for near real-time data services, e.g., in a regulatory sandbox.*

Wattwatchers is supportive of regulatory measures to enable customers to access real-time data from their utility meter, and we submit that this should extend beyond grid consumption and solar export data to include data relevant to power quality (e.g. voltage). This data should be available locally (see below), via an in-home display device or mobile app (or similar), but also should be available via the cloud - possibly only as a premium service by the customer's choice - to enable customers to use the data themselves, or share their data with third-party service providers at their discretion (i.e. this should not be controlled by retailers or Metering Coordinators as 'gatekeepers', even if it needs to be facilitated by them). Wattwatchers takes the view that utility meter data from a customer site is the customer's data - in 'social licence' terms, whatever strict legal interpretation may be taken - and that technologies and business models should facilitate their access to it, their ability to share it with third parties of their choice, and furthermore their ability to share in any value being created from analytics, and cross-linking and aggregation with other datasets.

2. *If so, could the Commission adapt the current metering data provision procedures?*

Where utility meters are technically capable of providing real-time data, there may still be additional costs to provide it as a service. But it should at least be a fairly-priced premium level service option that customers can choose to upgrade to, or not.

3. *Are there any standards the Commission would need to consider for remote access? e.g., IEEE 2030.5, CSIP-Aus, SunSpec Modbus, or other standards that enable 'bring your own device' access.*

Wattwatchers submits that utility digital meters should stay in their lane, acting as 'settlement meters' and not as a hub or enabler for current and future technology and data-driven solutions that require such standards. If the application of such standards is required to support participation in new market features such as Dynamic Operating Envelopes (DOEs), then that should be part of a premium service that customers can choose to pay for, or not, and should not be imposed universally because it will not be required by nor benefit all customers. Premium costs may also be borne by aggregators, retailers or otherwise, which want to recruit the most prospective and valuable customer sites into their aggregation fleets.

4. *What are the new and specific costs that would arise from these options and are they likely to be material?*

To the extent that there are legitimate additional costs in providing remote real-time data access to consumers (e.g. higher cellular communications costs), these can be offered as a premium service that customers can choose, if it represents value for them, or not. Unlocking the data from retailers and MCs is likely to be a greater challenge than costs per se. Customers also should have/continue to have the choice to obtain their own, and their third-party service providers' access to real-time data via other solutions operating independently of utility metering and the regulated market, and retailers and MCs should not be handed an embedded competitive advantage over alternative service providers.

QUESTION 17: REGULATORY MEASURES TO ENABLE INNOVATION IN LOCAL ACCESS TO NEAR-REAL-TIME DATA SOONER

1. *Do stakeholders support the Commission considering regulatory measures for local access to near real-time data? If so, would it be suitable to:*
 - a. *Define a customer's right to access the smart meter locally for specific purposes?*
 - b. *Outline a minimum local access specification, including read-only formatting and uni-directional communications? Are there existing standards that MCs can utilise, for example, IEEE 2030.5, CSIP-Aus or SunSpec Modbus?*

- c. Codify a process for activating, deactivating, and consenting to a local real-time stream? If so, could the Commission adapt the current metering data provision procedures?

Wattwatchers would welcome the AEMC engaging with stakeholders to define a customer's right to local access to real-time data from the meter, which to our understanding is not covered by the Consumer Data Right (CDR) for Energy. We see room for a basic level of customer access via an in-home display device (IHD) or similar, which should be free of charge, and also for a premium level service which may require a more advanced (premium service) utility meter to be installed (i.e. not the standard 'settlement meter'); or, alternatively, the data could come from a non-regulated service.