

October 28, 2021

**SUBMISSION TO THE AUSTRALIAN ENERGY MARKET COMMISSION
(AEMC) REVIEW OF THE REGULATORY FRAMEWORK FOR
METERING SERVICES - DIRECTION PAPER**



Introduction to Wattwatchers' submission

Wattwatchers thanks the Australian Energy Market Commission (AEMC) for this opportunity to respond to the Direction Paper from the *Review of the regulatory framework for metering services*.

The review is timely, because energy data and how it is captured, analysed, shared and accessed are vital issues for achieving a 'Grid 2.0' future with high levels of consumer (demand-side) participation and high penetration of distributed energy resources (DER).

However, our submission argues that the direction being flagged by the AEMC is too narrow and incremental given the importance of low-voltage network visibility and transactive energy to the evolving energy transition.

Also, we suggest the AEMC approach has an over-reliance on already outdated technology that lacks the speed, granularity and data shareability capabilities required for the Internet of Things (IoT) era for energy, especially for consumer-facing use cases and services, including apps, but also for cost-effectively supporting grid and network stability in real-time.

Step change in technology thinking

In our submission, a tech-driven, data-rich electricity future with high penetration of DER is inevitable, and is already clearly taking shape. Information and communications technologies, cloud analytics, and IoT with machine learning and artificial intelligence (AI) will be vital to this 'New Energy' or 'Grid 2.0' future.

This future will require a decisive shift away from the 20th-century vintage, centralised 'command and control' approach that is reflected in the reliance on/prevalence of so-called 'smart meters'. It will grow to include an abundance of energy data, from many sources, in parallel with an abundance of electrons.

Grids with lots of DER - including more electrification in homes and now vehicles too - need distributed visibility and control and coordination, with real-time and easy micro-transactions. This future will rely heavily on technology innovation, integration and interoperability. It requires a step change in technology thinking towards highly-flexible and adaptable solutions that engage and empower consumers, while recognising that

electricity consumers are not all the same and have different needs, preferences and priorities.

Multi-layered energy transactions

In particular, we urge the AEMC, whether in regard to this review or elsewhere, to further consider the need for a range of technologies, data systems and business models to support a multi-layered approach to transacting around kilowatt hours (\$/kWh). Issues include:

- Real-time transactions e.g. incentivise programs such as demand response participation by ensuring that consumer actions can be recognised and rewarded in real-time
- Frictionless, ultra low-cost micro-transactions
- Improved differentiation between on-market meters (for billing and market reconciliation), off-market metering (e.g. for solar PPAs) and 'pay-as-you-act' (e.g. for demand response)
- Facilitating multiple electricity suppliers for a range of site services, rather than a single head meter that serves a single retailer
- Value-stacking opportunities where billing data can be provided as a byproduct of other, more contemporary energy monitoring and management technologies (i.e. a 'billing feed' from accredited consumer-owned equipment rather than only from utility meters)
- Easy portability of consumers' energy data, regardless of supplier

About Wattwatchers

As a leading digital energy technology platform company, based in Australia and operating internationally, Wattwatchers provides hardware and cloud services for a range of monitoring, metering and control applications on low-voltage electricity networks.

While we don't currently provide on-market metering for customer billing and market reconciliation, due mainly to regulatory constraints rather than technical factors (such as accuracy). In fact, our core Energy IoT technologies match the accuracy of utility metering and in notable cases exceed the capabilities of typical so-called 'smart meters'; and we provide hardware bundle solutions and data feeds for off-market billing e.g. landlord billing for tenants, solar power purchase agreements (PPAs) and embedded networks.

The Wattwatchers technology roadmap, for deployment over the next two years, will add a range of next-generation capabilities that will support some of the functionality and use case scenarios outlined above.

We also note that real-time, secure, always-on communications are a critical component for the shift to 'Grid 2.0', with increasing use of IoT, machine learning and AI, and integration with smart home/home automation services and solutions.

We submit that a utility 'smart meter' - already outdated in technology evolution terms, and that is managed via an energy retailer - is not suited to being the core communications uplink for a wider range of 'smart' services for 21st-century households.

Alternative technologies

We are concerned that the Direction Paper largely dismisses the potential for alternative technologies to provide some or all of the functionality currently expected from utility smart meters; while also being able to support new and enhanced services that are not supported by the typical 'smart meters' being deployed currently under the AEMC's *Competition in metering rule* (from the *Power of Choice* reform period, over the six years 2011-2017) and the associated AEMC minimum services specification for 'smart meters'.

The value of data from our enterprise-grade, consumer-side devices - which operate completely independently of utility metering and the regulated system - has already been demonstrated in terms of enhancing grid stability in the era of Distributed Energy Resources (DER).

The Australian Energy Market Operator (AEMO) has relied heavily on data from Wattwatchers-made devices, delivered by one of our main customers, Solar Analytics, to better understand and respond to the impacts of DER on grid operations and stability. AEMO partnered with Solar Analytics (project leader) and Wattwatchers in a recent project called *Enhanced Reliability through Short Term Resolution Data around Voltage Disturbances*, supported by grant funding from the Australian Renewable Energy Agency (ARENA).

The outcomes of this project, which was completed in April 2021, are contained in a [Lessons Learnt Report hosted on the ARENA website](#) - which says in part: 'Several outcomes of significant system relevance have been made as a result of analysis of AEMO's analysis of data collected by Solar Analytics using Wattwatchers monitoring devices.' Data from Wattwatchers devices, via Solar Analytics, is also supporting the successor DER integration research project, called Project MATCH, which is led by UNSW and AEMO with Solar Analytics (Wattwatchers is part of the Stakeholder Reference Group for Project MATCH).

Power of Change

In contending that the scope of the Direction Paper is too narrow, we point to sweeping changes in the electricity system since the *Power of Choice* review era that gave rise to the current competitive metering rule (released in 2015).

This evolving landscape, which the AEMC Directions paper recognises itself, includes the proliferation of small-scale, rooftop solar PV to circa 25 percent of Australian households (over 2.7 million sites); the emergence of home and community battery solutions; and the growing focus on 'electrification of everything', including the early signs of a tipping point in the deployment of electric vehicles (EVs) - with the latter set to be a major transformation factor by the second half of this decade.

We see a growing need for a next generation of 'New Energy Services' that will include utility metering, plus a range of other smart devices, analytics and datasets, and should focus on data outputs and services enabled, rather than meters or devices per se.

This will, and should, lead to major changes in the business models of legacy energy industry players such as retailers, networks and meter manufacturers and related service providers; while also enabling a range of new, often more nimble, technology and data-driven players and business models (including, but definitely not limited to, Wattwatchers) to enter a more genuinely competitive and innovative marketplace.

This may in fact be the pathway to the kind of competitive marketplace that the AEMC hoped to achieve with the 2015 metering rule change, but which has not eventuated, at least thus far.

Areas for action

This expanded focus should include:

- Greater attention to what a true 'customer-centric' energy system and market will look like, the technologies that will enable it, and the services and business models that will be required - with particular attention to data as a core part of the 'soft infrastructure'. For the AEMC, gaining this understanding will require greater engagement with 'New Energy' technology providers - many of which, including Wattwatchers, are small entities that lack the 'regulatory affairs' resources of traditional industry players such as big metering companies, retailers and network businesses.
- Increased and more overt consideration of the trajectory of data in the energy system, which is moving from a long era of consumer-level data either not existing at all, or not being generally available including through the internet, to a near future

where there will be vast amounts of energy data that will be at least potentially available. While a significant fraction of this will come from regulated metering, including 'smart meters', there will be masses of additional data from smart devices like those provided by Wattwatchers and rival solutions, smart inverters for solar and batteries, smart chargers for electric vehicles, and a wide range of other monitors and sensors.

- Recognition that an electricity system perpetuation of the outdated model where a single retailer controls supply for a customer site via its 'gate meter' will stifle innovation and development of alternative, arguably superior technologies and solution offerings. While the AEMC now contemplates a 'two-sided market', with supply and demand drivers, the logical future based on other comparable industry sectors such as information and communications technologies suggests a 'multi-sided market' (i.e. not just 'two-sided') with value-adding opportunities spread across multiple parties and activities.
- Increased integration of energy data with other datasets (e.g. weather, solar irradiance, other sites/systems, location proximity) to provide new and improved energy services that are fit for purpose in the 'New Energy' operating environment.
- Additionally, there is strong potential for non-energy services that will utilise energy data (e.g. predictive analytics, social and community and housing management, fintech, edtech, and health and well-being services). The current Direction Paper further reflects an inward-looking, traditional paradigm for the electricity sector, which is starkly at odds with more successful consumer models for the internet era such as telecommunications.
- Greater attention on the 'meter box' or 'distribution board' in households and small businesses as being critical to the future of electricity from a consumer point of view, which arguably is more important in infrastructure terms than the 'meter' itself. For example, with the average household in Australia owning nearly two cars each (1.9), the transition to electric vehicles will require a lot more electricity to be distributed and managed at residential and business levels via the consumer's 'meter box'.

Further engagement opportunities

Wattwatchers would welcome an opportunity to provide the AEMC and other energy system regulators and market operators with a presentation on our current product roadmap, which will help to update policy makers on the direction of relevant alternative technologies.

We also would welcome an opportunity to update on our My Energy Marketplace (MEM) project¹, which is supported by grant funding from the Australian Renewable Energy Agency (ARENA), to develop and demonstrate - at commercial scale - the 'soft infrastructure' required to deliver a genuinely 'customer-centric' electricity system, and the data capture, sharing and portability to support consumer choice of and access to a new era of technology-enabled, data-driven services.

The MEM project - running over 3.5 years from 2019 to 2023 - is already anchoring a new data services business model with early sales of aggregated datasets for university research. There is potential to extend a range of new services based on the growing MEM fleet (>1300 sites, on the way to 5000+) for use cases including networks, retailers, regulatory and market oversight, commercial solutions and consumer interfaces.

Responses to consultation questions

Please see below for Wattwatchers' responses to the Direction Paper's formal questions for stakeholder feedback.

QUESTION 1: BENEFITS WHICH CAN BE ENABLED BY SMART METERS

(a) Are there other benefits which can be enabled by smart meters that are important to include in developing policy under the Review?

A: Not in our view. Looking to 'smart meters' - that are systemically-tied to retailers - to be the 'gateway' devices for an expanded range of services in a more customer-centric and data-driven energy future represents both a technological and commercial mismatch. Energy retailers often struggle to gain consumer trust and loyalty based on their traditional roles, and it needs to be asked if it is too much of a stretch for them to anchor future smart home services in a 'trusted adviser and service provider' role? 'Smart meters' in their current specification have key performance gaps, not least that they only 'see' solar as exports to the grid and miss on-site consumption, and also they only 'see' the home as an aggregated load rather than circuit-level monitoring.

(b) What are stakeholders' views on alternative devices enabling benefits? What are the pros and cons of these alternative devices?

A: Wattwatchers sees a 5-10 year future scenario where vast amounts of energy-related data will be available through the cloud, and data from utility meters will only be a fraction of the

¹ The My Energy Marketplace project is receiving funding from ARENA as part of ARENA's Advancing Renewables Program. The views expressed herein are not necessarily the views of the Australian Government, and the Australian Government does not accept responsibility for any information or advice contained herein.

total. There should be less focus on devices or meters per se, and a lot more attention on the cloud platforms and tools that will allow integration of diverse datasets and control options. Accuracy, reliability and security considerations for specific use cases, such as billing, can then be addressed on their individual merits with appropriate standards, service level requirements, commercial incentives, and verification and auditability.

Energy data will be used in an ever expanding range of both energy-related and non-energy use cases, and its accessibility and portability will be critical to delivering the innovation and interoperability across technologies that is required for Grid 2.0, Industry 4.0 and beyond. Thus alternative technologies will play crucial roles and should be seen as being at least highly-complementary to utility 'smart meters', if not as full replacements.

QUESTION 2: PENETRATION OF SMART METERS REQUIRED TO REALISE BENEFITS

(a) Do stakeholders agree that a higher penetration of smart meters is likely required to more fully realise the benefits of smart meters? If so, why? If no, why not?

A: Yes, in principle. But we question the extent of any such benefits; and we don't agree that having a higher penetration of 'smart meters' is the best pathway for gaining greater benefits from electricity sector digitalisation, especially in regard to enabling consumer (demand-side) participation in 'New Energy' services.

(b) Do stakeholders have any feedback on the level of smart meter penetration required for specific benefits? Or to optimise all benefits?

A: No. Other than to say that Victoria in recent years has made some worthwhile gains in increasing the value of data from its near-100% deployment of 'smart meters', arguably more on the system management (supply) side than on the consumer side (demand).

Partial rollout of 'smart meters' seriously compromises their overall value proposition, to the extent that this exists, although the best response to this in our view may well be to pivot to alternative technology options rather than persisting with the quest for high penetration of already-outdated 'smart meters' with limited functionality.

It is worth considering shifting to a model where smart meters are deployed as the minimum requirement for electricity customers, as a kind of 'safety net' for participation in the 'New Energy' system. Consumers will then have the choice of paying for more-sophisticated and customisable solutions, better matched to their individual needs, which can provide data for billing and market reconciliation as a byproduct of higher-value services.

QUESTION 3: TO REACH A CRITICAL MASS IN A TIMELY MANNER, OPTIONS TO ACCELERATE THE ROLL OUT SHOULD BE CONSIDERED

(a) Do you consider that the roll out of smart meters should be accelerated? Please provide details of why or why not.

A: Yes, in principle. Currently customers are waiting too long for solar meter changes and are regularly left waiting between solar installation and new meter installation, and thus are losing benefits of their investment.

(b) What are the merits, costs and benefits of each option? Is there a particular option which would be most appropriate in providing a timely, cost effective, safe and equitable roll out of smart meters?

A: If the objectives are to both achieve timely high penetration of 'smart meters' and increase consumer-side participation in the energy system, then different measures could be considered. For example, taking responsibility for 'smart meter' deployment away from retailers and placing it in the hands of a new breed of more entrepreneurial metering and data providers* (with changes to how these are defined). They would operate as aggregators of data and functionality, and 'smart meters' would be a minimum requirement in the absence of other suitable technologies, but not the exclusive technology base. There could be a national deadline date for retirement of old mechanical meters and the implementation of appropriate digital alternatives (i.e. including but not limited to current 'smart meters').

*This was a potential benefit of Power of Choice that was not realised. For small market customers, a retailer elects a Metering Coordinator (MCs) who in turn elects a Metering Provider (MPs). It was thought that more dynamic MPs would be able to sell more valuable services, but it doesn't appear these were adopted in any volumes by the retailer. The retail owned or controlled MCs and MPs then pull the power back to the retailer with an aim for lowest cost metering to maximise their value and competitiveness (on a cost but not necessarily technology level). Thus we recognise this may have been the intent of Power of Choice and similar regulatory measures, but these benefits have not been realised. The approach could be reconsidered, with an emphasis on data services and consumer value delivered, rather than industry-only/retailer-billing specific considerations. Rather than trying to restructure the market on the basis of providing metering mainly for industry benefit, new energy data services for consumer benefit would be prioritised, and industry side-effects would be dealt with as required.

(c) How would each of these options for rolling out smart meters impact the cost profiles of smart meters?

A: It is recognised there may be increased hardware costs for increased functionality, but these should be offset by new revenue streams from metering providers. Because

consumers are not all the same, and some have more value at stake than others, it is logical that some will pay more than others for the equipment they want and need. This is consistent with minimum-specification 'smart meters' being the base-level requirement for consumers to participate in the 'New Energy' system, but not the only option.

(d) Are there other options that you consider would better provide a timely, cost effective, safe and equitable roll out of smart meters?

A: Incentivising national meter box and switchboard upgrades as part of a major 'New Energy' infrastructure renewal program, to enable Australian homes and enterprises for the 'electrification of everything', and support disadvantaged customers to meet requirements. Either 'smart meters', or superior alternative digital solutions, would be specified to be included in upgrades.

QUESTION 4: OPTIONS TO ASSIST IN ALIGNING INCENTIVES

(a) What are the costs and benefits of each option? Is there a particular option which would best align incentives for stakeholders?

A: The increased features may come with increased cost, but the additional revenue streams should offset these costs arising from forward- looking investment from future-proof service providers.

(b) Are there other options that you consider would better align incentives?

A: Incentives also could be provided to install behind-the-meter monitoring solutions for DER services (as opposed to incentives only for gate/head metering).

QUESTION 5: THE CURRENT MINIMUM SERVICE SPECIFICATIONS ENABLE THE REQUIRED SERVICES TO BE PROVIDED

(a) Do you agree with the Commission's preliminary position that the minimum service specification and physical requirements of the meter are sufficient? If not, what are the specific changes required?

A: Yes, in principle, if the expectation is that 'smart meters' will only provide their current services and possibly some modest additional data for DNSPs i.e 'smart meters' being a base-level service, but not one-size-fits-all.

As it stands, the Directions Paper appears to be somewhat internally conflicted. On one hand, the AEMC position seeks to promote a new direction for the smart metering roll-out by holding out the potential for smart metering to provide various advanced services for consumers. Yet, on the other hand, it proposes to leave the current minimum service

specifications as they are, which means a baseline level of functionality that in many if not most cases will not support such advanced services.

For example, on page 14 (23/111) the paper contemplates meters being installed ‘.., potentially with an additional connection point to achieve the benefits of engaging multiple service providers’. If further policymaking to accelerate and broaden the deployment of ‘smart meters’ is being justified by the promise of new and better services for consumers, such as having multiple service providers, then a mechanism for either ‘smart meters’ and/or alternative technologies to provide such enhanced services should be articulated.

(b) Are there changes to the minimum service specifications, or elsewhere in Chapter 7 of the NER, required to enable new services and innovation?

A: In Wattwatchers’ view a range of new services and innovation can be better enabled via alternative technologies and new business models.

(c) What is the most cost-effective way to support electrical safety outcomes, like neutral integrity? Would enabling data access for DNSPs or requiring smart meters to physically provide the service, such as via an alarm within the meter, achieve this?

A: More flexible alternative technologies should be considered, including capability to provide remote alerting via cloud services based on consumer preferences.

(d) Do you agree smart meters provide the most efficient means for DNSPs to improve the visibility of their low voltage networks? Why, or why not? What would alternatives for network monitoring be, and would any of these alternatives be more efficient?

A: Not in our view. Access to enterprise-grade, highly granular data, communicated in near real-time through the cloud, can be provided from consumer-owned assets, especially where these are supported by reliable cellular communications and are ‘always on’.

(e) Can smart meters be used to provide an effective solution to emerging system issues?

A: Possibly, but they are not necessarily the best solution. For example, standard ‘smart meter’ installation patterns generally only ‘see’ solar generation as ‘exports’ to the grid, and don’t report generation ex the inverter and on-site consumption. Alternative technologies, including Wattwatchers monitoring solutions, can provide a much richer view of that is happening behind the utility meter, including individual circuit-based loads (e.g. air-con, electric hot water, EV charging, pool pumps) as well as solar generation and grid import/export - simultaneously, and in real-time.

QUESTION 6: ENABLING APPROPRIATE ACCESS TO DATA FROM METERS IS KEY TO UNLOCKING BENEFITS FOR CONSUMERS AND END USERS

(a) Do you agree there is a need to develop a framework for power quality data access and exchange? Why or why not?

A: Yes, in principle, although Wattwatchers submits there should be consideration of a broader framework for data access with the flexibility to accommodate both already known use cases - including billing and market reconciliation, and power quality - and also emerging and as yet unknown use cases for the Energy IoT era. This should not be restricted to utility-style 'smart meters' as exclusive devices for data capture.

(b) Besides DNSPs, which other market participants or third parties may reasonably require access to power quality data under an exchange framework? What are the use cases and benefits that access to this data can offer?

A: Fundamentally, for Grid 2.0 Wattwatchers sees the need for a marketplace for a wide variety of energy data, not just power quality, operating in parallel to the marketplace for electrons. For example, data that provides greater visibility on key loads, generation and storage capability, and other 'energy context' information relating to BTM activities. This is reflected in our My Energy Marketplace (MEM), which is supported by grant funding from ARENA. Real-time, granular, readily-accessible energy data will be an increasingly valuable resource for the electricity system as a whole. It also has strong potential to be valuable in a range of non-energy use cases as well - for example, Industry 4.0 applications such as asset protection and predictive maintenance, health and well-being and fintech applications. Even staying in the energy lane, data will be valuable to a range of researchers, innovators, portfolio managers and product and service suppliers. The MEM project also proposes a consumer-centric view of energy data ownership and participation, rather than the industry-centric view that is prevalent today. This provides consumers with the capability to opt in to usage of detailed energy data for the benefit of the energy system, research purposes, and more, and participate in the value generated from this sharing (for example, financial returns for participation in demand response events, grid stability actions utilising their batteries, etc.). The MEM project is heavily-focused on the 'soft infrastructure' that is needed to facilitate this kind of value exchange made possible by consumer-owned devices and other assets (e.g. EVs), in ways that protect consumer data rights including privacy and security, promote portability and shareability, and enable widespread third-party use for legitimate purposes. Obvious use cases include sizing and optimising the design of energy solutions such as solar, batteries, EV charging and the like; which act as a gateway to create the pre-conditions for new innovation through increased data access.

(c) Do you have any views on whether the provision of power quality data should be standardised? If so, what should the Commission take into consideration?

Wattwatchers would be concerned if power quality data, and other relevant data, was standardised in ways that suppressed opportunities for innovation. Thus, for example, there may be a minimum standard for presenting power quality data included in the minimum specification for 'smart meters'. But there should also be provision for higher levels of performance to be provided across factors such as timeliness, accuracy, shareability, and suitability for sophisticated analytics. In this regard, Wattwatchers also submits that power quality data should be accessible to consumers, given the impact poor power quality can have on their assets including high-voltage fluctuations knocking inverters offline and low-voltage fluctuations harming electronics and expensive household appliances. Energy industry players arguably are being protected from legitimate consumer scrutiny, and potentially adverse reactions, by not being required to make power quality transparent for consumers in useful and accessible ways. It's worth noting that many consumers have no idea of the energy industry distinctions between what retailers do and what DNSPs do, and may not even be aware that power quality is a variable that can impact them.

(d) Do you consider the current framework is meeting consumers' demand for energy data (billing and non-billing data), and if not, what changes would be required? Is there data that consumers would benefit from accessing that CDR will not enable?

A: As above, we do not consider that the current framework is in any way fit for purpose for the IoT era for energy, nor for the aspiration of a customer-centric electricity system. A flexible and accessible 'marketplace' for energy data is required, and it should be multi-source by design. It should be remembered that data from utility meters is created from the homes and businesses of consumers, and relates to services they pay for - not just electricity supply, or export back to the grid in the case of energy 'prosumers', but also ultimately the means of metering it. So consumers should have access to any data that affects their financial and other interests, and this includes power quality. Consumers also should have opportunities to share in any value that is created from the use of their data, including its aggregation and use in commercial services. The CDR for Energy is currently restricted to utility meters and the regulated data system, at least as Wattwatchers understands it, and will be of limited value to consumers if it is not presented in useful ways that fit the IoT era. For example, the 'Green Button' model for sharing 'smart meter' data with consumers in the US also comes with an 'Orange Button' - effectively providing API access to third-party solution developers, with appropriate protections and oversight, targeting the solar and storage sector in particular. (See <https://orangebutton.io/>). In addition, utility meter data made available via improved access under CDR is likely to be much more valuable to consumers if it can be blended with other datasets from outside of the regulated system.

QUESTION 7: FEEDBACK ON THE INITIAL OPTIONS FOR DATA ACCESS THAT THE COMMISSION HAS PRESENTED

(a) What are the costs and benefits of a centralised organisation providing all metering data? Is there value in exploring this option further? (e.g. high prescription of data management).

A: In our appraisal it is not appropriate in technological and consumer rights/benefits terms to manage this data in a centralised manner. The AEMC and the electricity sector should look beyond traditional centralised, command-and-control approaches and move to a flexible and adaptable 'marketplace' model, based on interoperable API, security and (consumer-centric) permissioning models, that promotes the usefulness of energy data, whether sourced from utility meters or elsewhere. For example, the adaptation of successful digital-industry models such as OAuth point to a more consumer-centric model of data sharing and availability. Portability, shareability, accessibility, and choice of services are all of critical importance for a customer-centric Grid 2.0. Metering data should not be seen in isolation, but rather as a potentially valuable ingredient for a larger, more diverse data resource.

(b) What are the costs and benefits of minimum content requirements for contracts and agreements for data access to provide standardisation? Would such an approach address issues of negotiation, consistency, and price of data?

A: Wattwatchers submits that the AEMC should see data as the key focus for fostering competition and choice for the benefit of consumers, rather than the competitive metering model that it embraced in 2015 out of the *Power of Choice* process. As argued previously in this submission, the focus should shift from the devices/meters to the data, its known and potential use cases, and its largely untapped potential to enable new business models and value propositions.

(c) What are the costs and benefits of developing an exchange architecture to minimise one-to-many interfaces and negotiations? Could B2B be utilised to serve this function? Is there value in exploring a new architecture such as an API-based hub and spoke model?

A: For an energy IoT world, Wattwatchers submits it should be new architecture (or 'soft infrastructure') using an API-based 'hub and spoke' model (see our notes above on OAuth, for example). A federated model, with multiple providers working to interoperable API standards, is a much stronger methodology for supporting this requirement, in our view. Whatever the enabling architecture in the background, its front-facing components need to be designed from consumer needs and uses back, not industry preferences and requirements forward.

(d) What are the costs and benefits of a negotiate-arbitrate structure to enable data access for metering? Is there value in exploring this option further? (e.g. coverage tests or non-prescriptive pricing principles).

A: Metering, and the data it provides, should not be seen in isolation. The real challenge is to facilitate innovation, integration and interoperability for the benefit of consumers, which includes a more stable, reliable and affordable electricity system; but also needs to extend to a new era of consumer-facing solutions that utilise energy data.

(e) Are there any other specific options or components the Commission should consider?

A: Wattwatchers submits that electricity consumers are not equal, and are becoming less so (e.g. the rise of 'prosumers'). A robust future data framework needs to recognise this and provide flexibility to shape a range of services for different user profiles, including services that don't currently exist (i.e. built-in 'future-proofing'). For example, consideration of the services that a prosumer can provide to the network and community needs to be factored into the equation—FCAS, solar export balancing, etc. In this sense, 'smart meters' may be the minimum requirement to participate in the electricity market, which may over time include a range of new services, apps and business models based on data from both 'smart meters' and other/or other sources. But many consumers will not want to access such services through an energy retailer, especially if they will lose access to them when they change their retail provider. Also, for many options, 'smart meters' will not provide adequate functionality and flexibility.

QUESTION 8: A HIGHER PENETRATION OF SMART METERS WILL ENABLE MORE SERVICES TO BE PROVIDED MORE EFFICIENTLY

(a) Are there other potential use cases that third parties can offer at different penetrations of smart meters? What else is required to enable these use cases?

A: A minimum penetration of 'digital' metering solutions, which may include the minimum service provided by a 'smart meter', is needed. At the very least alternative solutions can contribute to the mix, with a smart meter considered a 'minimum' option.

(b) Noting recommendations in incentives and the roll out, are there other considerations for economies of scale in current and emerging service models?

A: Incentives need to be considered for other aspects of DER such as upgrades to customer meter boxes and switchboards.

QUESTION 9: IMPROVING CUSTOMERS' EXPERIENCE

(a) Do you have any feedback on the proposal to require retailers to provide information to their customers when a smart meter is being installed? Is the proposed information adequate, or should any changes be made?

A: Providing as much opportunity to consumers to receive updates and information on smart metering installation will boost consumer confidence in the process.

(b) Should an independent party provide information on smart meters for customers? If so, how should this be implemented?

A: Simple information on smart meter minimum capabilities must be accessible from a trusted source such as Energy Consumers Australia (ECA).

(c) Should retailers be required to install a smart meter when requested by a customer, for any reason? Are there any unintended consequences which may arise from such an approach?

A: Yes.

QUESTION 10: REDUCING DELAYS IN METER REPLACEMENT

(a) Do you have any feedback on the proposed changes to the meter malfunction process?

A: The proposal for this item seems adequate.

(b) Are there any practicable mechanisms to address remediation issues that can prevent a smart meter from being installed?

A: Service providers could provide customers with quotes on this work to simplify the process for a customer to have this unexpected work completed. Incentives may also form part of this to support the customer to complete these upgrades as quickly as possible. A customer would always be able to get additional quotes and make their own final decision.

QUESTION 11: MEASURES THAT COULD SUPPORT MORE EFFICIENT DEPLOYMENT OF SMART METERS

(a) Do you have any feedback on the proposal to reduce the number of notices for retailer-led roll outs to one?

A: Customers often feel pressured into installation if they receive one notice just 2 weeks before installation. While a minimum of one notice may be appropriate from a legal perspective, consideration should be given to a public awareness campaign to support the rollout.

(b) What are your views on the opt-out provision for retailer-led roll outs? Should the opt-out provision be removed or retained, and why?

A: While an upgradable non-communicating smart meter should still be installed, the opt-out provisions should be maintained to ensure customers have a choice in outcomes.

(c) Are there solutions which you consider will help to simplify and improve meter replacement in multi-occupancy premises? Should a one-in-all-in approach be considered further?

A: Engagement with the body corporate entities may help to facilitate customer awareness and group meter replacement.

QUESTION 12: FEEDBACK ON OTHER INSTALLATION ISSUES

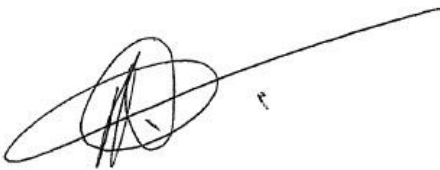
(a) Do you have feedback on any of the other installation issues raised by stakeholders? Are there any other installation issues the Commission should also consider?

A: The AEMC should expand its focus from the 'smart meter' to the 'smart meter box' or 'smart switchboard' that provides greater utility than just 'billing metering', with an emphasis on end customer value.

SUBMISSION DETAILS

This submission has been submitted on behalf of Wattwatchers Digital Energy by Wattwatchers' Director of Communications and Community Networks, Murray Hogarth (M 0417 267235 & E murray@wattwatchers.com.au)

SIGNED:



DATE: October 28, 2021