



28 October 2021

Alisa Toomey
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Australian Energy Market Commission
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Dear Ms Toomey

RE: SUBMISSION TO AEMC - REVIEW OF THE REGULATORY FRAMEWORK FOR METERING SERVICES – DIRECTIONS PAPER

Origin Energy (Origin) appreciates the opportunity to provide a submission to the Australian Energy Market Commission's (AEMC) directions paper concerning its review of the regulatory framework for metering services.

Origin agrees that smart meters are a key to enable a more connected and efficient energy system. However, a more accelerated roll out of smart meters won't of itself achieve these outcomes. An efficient energy system will be achieved when we have a system that integrates metering with supporting technologies and price signals. The challenge for the AEMC is to identify the most efficient approach to accelerating the roll out of smart meters that balances this integration.

The AEMC proposes several roll out options including age replacement and backstop or target approaches where a set number or proportion of meters are required to be replaced by a certain date or over an agreed period.

We strongly support a target approach where a target penetration rate is set and for defined time intervals. Under this approach, how this target is achieved should be a matter for retailers. This will ensure retailers are best able to manage their work flows and achieve a cost-efficient roll out because they can target optimal installation strategies such as targeting geographical locations.

A successful replacement program is also contingent on the removal of current opt-out provisions. The option to opt-out of a meter replacement significantly impacts the effectiveness of a roll out program, with additional costs associated with wasted or multiple visits to a site unnecessary impacting the cost efficiency of the program. Accordingly, we consider that any replacement program proposed by the AEMC must be accompanied by the removal of opt-out provisions.

We also believe that there needs to be a defined framework for how access to the value streams arising from smart meters, such as meter data provision are shared and how these are paid for. This should be reflected through a user pays approach based on cost reflective charging allowing the retailer to recover a portion of both the operating and installation costs associated with the meter. We propose that the AEMC develop a framework for determining the type of data to be provided, an agreed data standard/quality, a pricing policy and an assessment of how associated revenues are shared between parties, including networks, Metering Providers and retailers.

Origin's response to select issues raised in the AEMC directions paper is provided below.

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

We agree with the smart meter benefits identified by the AEMC and consider that the majority of these benefits, particularly network management and integration, are only realised at higher penetration levels. However, as identified in our previous submission the realisation of benefits depends on more than simply the roll out of smart meters. For example, to realise the full benefit of demand side participation there needs to be advances in other key supporting technologies such as smart home energy management products and distributed energy. These technologies need to be coupled with pricing signals in the form of cost reflective network prices, network support services and other energy related 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.*
- 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?*
- c) *How would each of these options for rolling out smart meters impact the cost profiles of smart meters?*
- d) *Are there other options that you consider would better provide a timely, cost effective, safe and equitable roll out of smart meters?*

Origin agrees that the roll out of smart meters should be accelerated to maximise the benefits associated with a higher penetration. However, we consider that any roll out program needs to take into account the following issues:

- operational efficiency – a targeted, measured bulk replacement plan would allow Metering Providers to adequately plan and resource replacements resulting in a more cost-efficient process. In particular, a retailer led program would facilitate a targeted approach to specific customer groups or regions enhancing cost efficiency;
- the process for recovering above-average installation costs – the ability to recover non-standard installation costs where a customer has not requested the replacement represents a significant impediment to an accelerated roll out. These additional costs can be significant in some instances and up-front recovery is not feasible, especially where the customer is unable/unwilling to pay. Enabling a process for cost recovery is critical. For example, there is a case for sharing costs over the customer base rather than individual customers. This could be achieved to some extent via recovery through the Default Market Offer (DMO). We consider that the AEMC needs to enable a process to ensure that such costs are able to be recovered;
- a process for recovery of shared information/data needs to be developed to ensure that stakeholders that receive benefit pay a fair share of metering costs;
- control of load switching – in the majority of networks, distribution network service providers (DNSPs) have chosen to maintain controlled load time switches rather than allow Metering Providers to include the time switches on the newly installed meter. This significantly limits the efficiency of the roll out program and the benefits case of a smart meter deployment; and
- opt-out options – we consider that removing opt-out options (for individual customers and in relation to multi-occupancy dwellings) is necessary for promoting the efficiency of the roll out

program. Wasted visits or multiple visits to a site significantly increase the per meter cost of installation.

In terms of potential replacement programs, we consider that aged replacement is a viable process but likely to be expensive. Aged replacement is similar to the existing Family Failure replacements process and as such is subject to similar issues, largely associated with inherited (often cost prohibitive) network and site issues such as legacy switchboards that have not been adequately maintained and therefore require upgrade or replacement. The process is likely to be ad hoc and therefore does not facilitate an efficient replacement program adding significant costs to the program.

Origin supports a backstop approach with a set target by set intervals. This provides volume certainty for Metering Providers and may enable renegotiation of some of the Metering Provider pricing if the volumes increase and Providers are able to install in a more efficient manner. Adopting a backstop date would allow retailers to optimise the roll out process. Retailers would have the flexibility to target specific volumes and locations in order to optimise the replacement program and achieve cost efficiencies both for customers and retailers. We consider that this would provide for an accelerated roll out that optimises smart meter benefits at a minimum cost.

However, we recognise that adopting a backstop date may discourage some retailers from acting in the short-term. Rather, retailers may delay the roll out to the end of the backstop period in the hope that this provides a competitive cost advantage over retailers that have implemented a replacement program. To avoid this, the AEMC could distil the roll out into shorter terms intervals. For example, an increased penetration of X% in the next five years and a further penetration of X% in the following five years.

Allowing an interval target over say three to five years is an operationally superior approach to setting an annual replacement target because the longer duration gives certainty to the Metering Providers regarding resourcing and supply chain and helps them build and maintain their workforce. It also enables retailers to plan and target specific customer groups (e.g. all PV customers) which further supports cost efficiency. It also allows the retailer to plan location driven efficient programs such as all customers in a regional town being completed as a program, which again provides significant efficiency gains.

Depending on the targets set and the approach adopted (e.g. nominated percentage of replacements per year/per network area etc) target setting could potentially limit retailers' flexibility to roll out meters and result in an inefficient replacement program. In order to maximise efficiencies, retailers need the flexibility to be able to control the pace and location of replacements. To facilitate efficiencies, we propose that the AEMC adopt a target approach for the roll out with medium-term targets (for example, three to five years) rather than annual targets. This would allow retailer's the flexibility to ramp-up the roll out in an efficient way.

Target setting should also allow some flexibility around the interim targets where modest shortfalls/over-runs associated with the targets are carried forward to the next target period rather than applying penalties for failure to deliver.

Given the proposed programs are not customer initiated, an improved customer communication process will be critical. Further, retailers will need to be able to manage the customer product/network tariff impacts when identifying target sites for roll out.

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

We believe that in the current environment, a retailer led mass roll out is the most efficient and cost effective.

Where costs remain prohibitive is in instances where costs are beyond customer/retailer control e.g. inherited network and site issues required to meet compliance obligations to install a meter. These costs are typically required to be recouped upfront. We do not consider it is reasonable for customers or retailers to absorb these costs and note that in some instances the customer is likely to be unable or unwilling to pay these additional costs. We consider that the process for recovery of costs or a way to dissipate above-average costs needs to be addressed.

Under the previous network delivery model, metering costs were recovered as part of the regulated network tariff. Cost recovery and a positive return were guaranteed and continue to be guaranteed under the AER's meter cost recovery model. At present, because most retailers absorb these costs rather than pass these onto customers, the costs associated with a meter installation outweigh the financial benefits to a retailer. Furthermore, we do not have the financial guarantees previously enjoyed by the networks.

Where additional work is required to remedy issues in relation to meter installation (upgrade switchboards etc) the AEMC could facilitate a process where Metering Providers are able to recover these costs over a longer period. Requiring these costs upfront is an impediment to installation especially where there is a risk of customer churn. If the Metering Provider spread those costs over a number of years, it would improve the installation process as retailers would be less hesitant to do the additional work. This is especially relevant in the case of some long-term fault sites where customers cannot afford to pay for a new panel/wiring rectification etc – and would be similar to the Victorian meter roll out which incorporated a long recovery period. This is an ongoing (and increasing) problem with limited options other than paying for site rectification and seeking cost recovery.

Moreover, in our previous submission we noted that the DMO does not fully compensate retailers for the installation of smart meters for standing offer customers. We consider that cost sharing through the DMO provides an equitable means of cost recovery. To the extent the AEMC agrees a roll out program will consider this will support an argument for recovery of costs through the DMO.

We also propose that the AEMC consider cost recovery options in the case of hardship customers, that is, those customers who are unable to pay for meter replacements particularly where these are not standard replacements. To the extent the opt-out provision is removed, these customers may be faced with excessive charges that they are unable to pay. While we appreciate these situations, we consider it inequitable to expect retailers to pay in these instances.

Cost considerations withstanding, to the extent the AEMC nominates a roll out program (e.g. target approach) we consider that this should be underpinned by provisions allowing retailers to dictate the pace and location of the program rather than these being specified at the outset. This would allow retailers to effectively target network areas in order to optimise the effectiveness and efficiency of the replacement program.

We also believe that allowing retailers to utilise the full functionality of smart meters (especially remote services such as re-energisation and de-energisation) will further assist in reducing costs that have a flow on effect to lower energy charges for customers.

As suggested by the AEMC, to make the current market structure financially viable, retailers need to access the value streams that are underpinned by having a smart meter. However, many of these value streams can only be unlocked with improvements in smart home and distributed energy resources technology. It is vital that policy makers and regulators remain committed to delivering a market landscape that removes impediments for retailers achieving the full benefits of smart meters.

We support the provision of additional revenue streams to offset the cost of meter installation. One possible option could be that data sharing only apply to those networks that allow retailers to have switching control over controlled load (currently the majority of DNSPs have chosen to maintain

controlled load time switches rather than allow Metering Providers to include the time switches on the newly installed meter). This would allow retailers to provide an enhanced service offering and greatly increase metering benefits for both the customer and retailer. As highlighted, the process for sharing profits derived from data sharing between the Meter Provider (the supplier of the data) and retailers (the supplier of the meter) also needs to be considered. This is expected to require the development of a framework for determining the type of data to be provided, an agreed data standard/quality, a pricing policy and an assessment of how associated revenues are shared between parties, including networks, Metering Providers and retailers. The basic principle is that roll out costs and data provision costs should be shared between parties who derive benefits. We discuss this issue further below.

Question 5: Options to assist in aligning incentives

- 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?*
- b) *Are there changes to the minimum service specifications, or elsewhere in Chapter 7 of the NER, required to enable new services and innovation?*
- 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?*
- 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?*
- e) *Can smart meters be used to provide an effective solution to emerging system issues?*

Origin considers that current service specifications are adequate.

Allowing networks to access data or alarms from smart meters is an efficient means to support electrical safety outcomes and visibility of low voltage networks. The alternatives, such as separate network metering devices would involve duplication of hardware and installation.

The ability of smart meters to address emerging system issues depends on the timeframe for detection of and response to emerging issues. Smart meters are better suited to issues that emerge over hours rather than seconds or which can be detected and managed adequately with near real time data of lower quality. This is because there is a trade off in practice between timeliness of data and data quality due to the limits of the communications networks that support smart meters.

Question 6: Enabling appropriate access to data from meters is key to unlocking benefits for consumers and end users

- f) *Do you agree there is a need to develop a framework for power quality data access and exchange? Why or why not?*
- g) *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?*
- h) *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?*
- i) *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?*

We agree that there is a need to develop a framework for power quality access and data exchange. This would encompass the type of data, the quality of that data, the most effective and efficient means of sharing that data and the cost sharing arrangements associated with data provision. An approved

framework would provide certainty and clarity of data provision and costings and minimise inefficiencies associated with ad hoc arrangements that currently exist.

Currently the data collection requirements for solar make the collection of gross generation data optional. This is not a smart meter specification issue – smart meters are perfectly capable of collecting this data – but there is no requirement to wire them to do so. This data can (optionally) also be collected via alternative means, including devices attached to the inverter or directly from an internet connected invert itself. There is currently no NER requirement to make this data available at a solar site. This constrains the customer experiences and products that retailers can offer, especially where solar customers switch retailers, move into a property with pre-existing solar or have solar installed by an installer other than their retailer. While it is possible to revisit a site to retrofit gross solar data collection, this option is significantly more expensive than enabling the data stream at the time of installation. The AEMC should consider requiring gross generation data for all new solar installs.

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).*
- 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?*
- 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?*
- 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 nonprescriptive pricing principles).*
- e) *Are there any other specific options or components the Commission should consider?*

We consider that the development of a centralised data provider is unnecessary and likely to be costly. This would simply add another participant to the process. We would prefer the development of a structured framework for providing metering data between existing participants, with Metering Providers providing the data.

We agree that the data should be standardised with an agreed service level. In the first instance, the data and service level should be set by the AEMC at a level that provides basic information requirements to the widest range of recipients. This should be provided at a set charge as determined by the AEMC, with higher levels of data, data quality, timeliness to be provided and charged as agreed by the participating parties. The development of charges for services should be based on the principle of cost reflectivity. Charging will also vary depending on whether there is an existing meter or a new meter is required. Specifically, a reading/operating charge should apply in both cases, but an additional capital charge should apply in the case of a new meter as a contribution to the meter installation cost.

We are not in favour of the adoption of a negotiate-arbitrate structure. We consider this is likely to be time consuming and add unnecessary cost.

Question 10: Reducing delays in meter replacement

- a) *Do you have any feedback on the proposed changes to the meter malfunction process?*
- b) *Are there any practicable mechanisms to address remediation issues that can prevent a smart meter from being installed?*

We do not support the proposed 60 business day Family Failure timeframe. The size of family failures can vary significantly. For example, it would not be possible for a Metering Provider to complete an extra 15,000 installations within 60 days of notification – resourcing and coordination issues are constraining

factors. We consider a better option may be a sliding scale based on retailer size and volume of failures. For example, less than 1,000 failures to be replaced/repared within 90 business days, up to 10,000 - 180 business days, and more than 10,000 - up to 365 business days. We consider it critical to avoid a boom/bust scenario. In order to achieve optimal outcomes, this requires long term guaranteed volumes so the Metering Providers can engage appropriate technicians. We note that most of the Family Failure volume will be spread across 20 plus retailers but will mostly be addressed by three or four Metering Providers. Having to ramp up resources rapidly would mean Metering Providers engage less well-trained technicians to meet volume requirements, impacting outcome quality.

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?*
- 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?*
- 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?*

We consider the processes around a retailer led deployment for standing offer customers is cumbersome. The process involves an extended lead time where retailers are required to provide the customer with multiple advance notices. We believe this process could be refined to find a balance between providing customers with suitable advance notifications while also allowing retailers to more efficiently manage the installation process.

We consider that the opt-out provision should be removed in the interest of facilitating cost efficiency. Wasted site visits and multiple visits contribute significantly to replacement costs. This is particularly evident with regard to multi occupancy sites. Removing the opt-out provision would allow replacement of all meters on a panel at the same time rather than only the meter that requires replacement or PV capability.

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 key impediment to an efficient and effective roll out for Origin has been the inability to control customers' load switching. In the majority of networks, DNSPs have chosen to maintain controlled load time switches rather than allow Metering Providers to include the time switches on the newly installed meter. This significantly limits the efficiency of the roll out program and the benefits case of a smart meter deployment.

Historically controlled load was scheduled on time clocks to run during periods of load network utilisation, which occurred predictably in the middle of the night. With the increasing penetration of rooftop PV, minimum demand is falling in the middle of the day and having implications at a wholesale system level as well as for the network. Allowing the DNSP to require an external network switching device adds additional cost to the smart meter deployment and introduces complexity to the use of the smart meters' capability for shifting load in a more responsive manner than is possible with external switching technology.

Further, a significant cost impost on any metering program involves the metering installer/technician visiting the site. Ideally a technician is only required to visit a site once – installing the meter and modern time switch concurrently. However, installing a meter and then using legacy technology (which can be 20 plus years old) to control a time switch means if the networks decide at some point in the future not to replace their time switch, the costs will fall onto the metering provider to rewire the site. To the extent a technician is required to visit a site more than once i.e. to rewire a site to accommodate a new time switch, cost efficiency is significantly impacted.

Question 13: Improvements to roles and responsibilities

- a) *Are there any changes to roles and responsibilities that the Commission should consider under this review? If so, what are those changes, and what would be the benefit of those changes?*

We support the development of a nationally consistent set of rules and regulations with respect to the delivery of metering services to facilitate the full functionality of smart meters.

At present there remain material differences in jurisdictional policies on new and replacement metering. A number of jurisdictions still have in place rules and regulations that limit the full functionality of remote services – namely for safety reason. However, we feel that jurisdictions are not being proactive in seeking to address their concerns. We also note that the technical requirements for installing a meter differ across jurisdictions meaning that the installation costs also differ.

We believe the removal of jurisdictional inconsistencies will not only reduce the costs of installing and providing metering services, we also expect that in many circumstances meter installation times would be improved.

Origin looks forward to further participating in the AEMC's review of the regulatory framework for metering services. If you have any questions regarding this submission, please contact Gary Davies in the first instance at gary.davies@originenergy.com.au.

Yours sincerely



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