



11 February 2021

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Australian Energy Market Commission
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Dear Alisa

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

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

The potential benefits of smart meters for consumers, network businesses, retailers and policy makers are well established. However, the realisation of these benefits depends on more than simply the rollout of smart meters. 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.

Realising customer benefits is also dependent on the customer, or their agent, having sufficient data to make the right choices as well as being sufficiently informed about new options and how customers engage with service providers about the choices they can make.

For these reasons, we did not believe there would be a strong consumer demand for smart meters because the customer benefits were, and still are, dependent on other market conditions also evolving. As a result, our expectation was that the uptake of meters would be driven by replacement meters and solar installations and this has proven to be the case.

Notwithstanding the above, Origin has experienced a number of impediments to the efficient rollout of smart meters. These primarily relate to a lack of information concerning the associated network hardware and the networks compatibility to accommodate smart metering. For example, a lack of visibility associated with metering configuration (e.g. shared fuse sites) adds to both the time and cost associated with smart meter installation. In addition, inherited network issues such as poor quality or defective sites that require remediation work means that replacement smart metering is not possible without performing additional (unforeseen) work. These additional works can be cost prohibitive and therefore act as a significant disincentive both for the customer to rectify their installation or the retailer to cover these costs

We consider that questions around attributing responsibility and cost recovery associated with these issues need to be addressed to incentivise the uptake of smart meters.

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

Question 3: Expectations of meter rollout

Origin did not have an expectation regarding the number of smart meters that would be installed by 2021.

The pace of the rollout is largely dependent on the degree of customer benefit. The realisation of smart meter benefits depends on more than simply the rollout of smart meters. To realise the full benefit of demand side participation there needed (and needs) to be advances in other key supporting technologies such as smart home energy management products and distributed energy. These technologies needed to be coupled with pricing signals in the form of cost reflective network prices, network support services and other energy related services.

These supporting factors are yet to develop and as a result the uptake of meters to date is primarily driven by replacement meters and solar installations rather than (non-solar) customer driven.

In addition, the costs associated with the rollout have been prohibitive in a number of instances. The situation has been aggravated by incomplete site information and the incompatibility of the existing network to accommodate smart meters (see response to Question 13). These issues have resulted in unforeseen costs and reduced the financial benefit associated with meter upgrades.

Question 4: Are incentives in the right place?

We believe that in the current environment, the benefits of a retailer led mass rollout of advanced meters do not exceed the costs. The rollout is cost prohibitive in a number of instances largely for reasons beyond customer/retailer control e.g. inherited network and site issues. We do not consider it is reasonable for customers or retailers to absorb these costs and as a result the rollout outside of mandatory requirements is compromised. 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 model¹.

At present, 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.

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

To make the current market structure financially viable, retailers need to access the value streams that are underpinned by having a smart meter. However, these value streams can only be unlocked with improvements in smart home and distributed energy resources technology. We are starting to see the emergence of new products in this regard. For example, Origin has recently released a new product called the Spike program. Under this program customers receive rewards for meeting energy-saving goals during weekly savings events. While this product is underpinned by responses to the retail charge, we could envisage that such products could be extended to include a reward for responding to network based incentives,

We have confidence that this technology will evolve but it is a gradual process. It is vital that having gone down the path of a contestable market structure, that policy makers and regulators remain committed to delivering a market landscape that removes impediments for retailers achieving the full benefits of smart meters.

Notwithstanding, there are instances where we will undertake a rollout including:

- to support a new product, for example Spike;

¹ See for example, AER (2015), Final Decision - Ausgrid distribution determination 2015–16 to 2018–19, April,

- for compliance reasons, for example in the case of family failure; and
- where there is an orchestration benefit, for example battery, solar or virtual power plant purposes.

Question 5: Drivers of smart meter rollout

Our initial views were that achieving the benefits identified in the Power of Choice review were going to be gradual because the uptake of meters was going to be subdued for a number of key reasons.

In particular, the change in the service delivery model from networks to retailers meant that the charging (or cost recovery) arrangements were more transparent. As a result, the motivation for customers to install smart meters was going to depend on customers seeing a benefit. However, to realise the full benefit of demand side participation there needed to be advances in other key supporting technologies such as smart home energy management products and distributed energy. These technologies needed to be coupled with pricing signals in the form of cost reflective network prices, network support services and other energy related services.

Realising customer benefits was also dependent on the customer, or their agent, having sufficient data to make the right choices as well as being sufficiently informed about new options and how customers engage with service providers about the choices they can make.

For these reasons, we did not believe there would be a strong consumer demand for smart meters because the customer benefits were, and still are, dependent on other market conditions also evolving. As a result, our expectation was that the uptake of meters would be driven by replacement meters and solar installations.

Question 7. Industry Cooperation

There were a number of significant coordination issues following the introduction of the metering reforms. We note that these have largely been addressed through subsequent Rule changes that allow retailers greater flexibility to agree a date with the customer for the provision of metering services.

This has significantly helped customer driven work, but retailers are still limited in the volume of fault related work we can raise due to the networks' inability to meet resource requirements for the volume of metering fault jobs. Notably, if the site has a shared fuse or an individual isolation we need to arrange for the network to perform these services at a regulated cost which are often delayed. Increasing the amount of work that metering providers (MPs) are able to undertake may assist in this regard.

We believe controlled load remains an issue in several networks regarding required cooperation over the use of the service. Because certain networks control the switching times of the controlled load, the outcome is a smart meter installed with a 'dumb' time clock simply to switch controlled load on and off according to the network's time intervals. This means we are dependent on network hardware rather than a meter's functionality which prevents the use of controlled load for other purposes. For example, in South Australia the Government has mandated the application of a solar sponge tariff for standing offer residential tariffs (reflecting an underlying network tariff). Many retailers are also offering this as market tariff. Unless retailers can switch a customer's load to fully utilise the value of the solar sponge tariff, both retailers and customers cannot extract the full value of controlled through the smart meter.

We believe there needs to be a solution for how access to controlled load is distributed between retailers and networks so that its full value can be extracted and the retailer is not left with a legacy aged network process attached to a full functional smart meter.

Question 8. Expectations of metering services

Origins' expectations were that smart meters would provide:

- both retailers and customers greater access to, and understanding of, their usage. This in turn would allow the customer to better understand when and how they use their energy. For retailers, it would allow us to better manage risk which means lower costs to customers as well as providing us with the data to better tailor products and prices;
- less reliance on estimated meter readings;
- greater flexibility and choice with respect to the frequency customers receive their bills (eg. monthly options); and
- remote services to allow for more accurate and faster moves and switching which would also come at a lower cost to customers.

We expected that there would be a nationally consistent set of rules and regulations with respect to the delivery of metering services. We expected that rules that were established and in place prior to the introduction of the national metering reforms would be amended to remove the impediments to allow the full functionality of smart meters.

These expectations have yet to be fully met. 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. For example, the requirement to do extra wiring works, as well as additional costs imposed by different jurisdictions (such as a \$20 admin fee to the Department of Fair Trading in NSW, or a requirement to upgrade to 100amp fusing at ~\$50 (also NSW)).

Question 9. Collection and use of metering data

The CDR framework requires that accredited parties meet certain system security requirements to receive and access data – this will be imperative to ensuring that data that is transferred from one party to another is securely transferred and meets specifications. These security safeguards should equally apply to consumers, governments and regulators.

Businesses have invested a considerable amount of time, resources and finances to ensure that data is collated, maintained and analysed to provide ‘value added’ products and services to customers. Businesses may be reluctant to pursue innovation and product development if there is a concern that the work they undertake may end up being related to the release of commercial insights at the expense of the business.

Any data strategy needs to be developed in consultation with the CDR framework. Governments and regulators should be subject to the same rules and regulations to accessing customer data as Accredited Third Parties under the CDR regime i.e. governments and regulators should not have lesser obligations in relation to security and privacy safeguards.

Question 12: Encouraging the adoption of smart meters and future services

In terms of the regulatory environment, we consider that cost recovery is a limiting factor. In particular, we are concerned that the Default Market Offer (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.

As stated, 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.

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.

As stated, restrictions are in place in most jurisdiction that prevent retailers performing remote services, causing delays and unnecessary costs associated with reenergisation and de-energisation.

In terms of using smart meters for innovative uses, there is still a need for greater penetration of smart home energy management products and distributed energy.

We have confidence that full utilisation of smart meter can happen once the technology is in place and jurisdictional impediments are removed.

Question 13: Barriers to realising the benefits of smart meters

Origin consider there are a number of barriers inhibiting the rollout of smart meters. These are primarily associated with:

- incomplete site information; and
- defective sites requiring remediation to facilitate meter upgrades.

These issues are discussed below.

Incomplete site information

The prime examples of incomplete site information relate to shared fusing and meter locks.

Shared fuse

Shared fusing is when customers in separate premises share electricity connections, for example in some apartment blocks. This means the supply of all customers who share the connection may need to be interrupted for metering work.

When a metering coordinator (MC)/MP is required to replace a meter or perform on site works at a site with a shared fuse, the retailer may arrange a supply interruption to any of their own customers. However, a retailer cannot arrange an interruption for the customers of another retailer if it does not know they are connected to the shared fused. This will only be discovered when the MC/MP arrives on site to perform the meter replacement or site works.

The AEMC's *Metering coordinator planned interruptions* Rule Change (ERC0275) made in May 2020, identified this as an issue. In response, the AEMC made a Rule change that:

- where the installation of a meter requires an interruption to the supply of other customers, a retailer must agree a date with the customer, or if no date is agreed, the retailer must affect the meter service within 30 business days; and
- where a retailer has requested a distributor to carry out a distributor planned interruption to enable the installation of a meter, distribution network service providers (DNSPs) must carry out the interruption on the date agreed with the retailer and the customer, or if no date is agreed, within 25 business days.

While the Rule Change provides a process for enabling the metering work to be performed at a shared fuse site, it does not alleviate the additional time and cost associated with the issue. Specifically, where the MC/MP attends a site and discovers a shared fuse the intended meter upgrade is required to be rescheduled because a retailer cannot disconnect the customers of other retailers. Furthermore, the

retailer is liable for wasted site visit from the DNSP to perform the disconnection (approximately \$500), The retailer will then contact its direct customer while the DNSP contacts all other affected customers (in many cases including customers who are supplied by the initiating retailer because the retailer cannot access this detail) to advise of a future planned interruption to supply. This results in a poor customer experience and significant additional costs on the retailer.

While the AEMC's Rule change improved practices that were previously in place, it did not stipulate a mechanism or a process regarding information at a shared fuse. Specifically, the DNSPs do not identify in MSATS whether a site is a shared fuse, including how many connections run off the fuse. This is important because if a retailer is aware of multiple customers connected to a shared fuse it would have a better understanding of the time and cost associated with the meter replacement. Further, the retailer would likely replace the accumulation meters of all its customers at the site thereby reducing the number of overall site visits and costs.

A potential solution to this issue may involve a requirement that DNSPs populate MSATS with this information. While this would improve visibility of issues associated with meter replacement, it does not address the issue of the additional cost associated with the meter replacement or who bears this cost. Requiring the individual customer to bear the cost may provide a disincentive to upgrade the meter. Similarly, expecting the retailer to bear costs of what is essentially a legacy network issue also acts as a disincentive to meter replacement.

In addition, DNSPs may not have ready access to the required network information to populate MSATS. As such, DNSPs may incur significant costs in collating the information. The appropriate recovery of these costs again requires consideration.

Meter locks

A significant number of customers have a lock on their accumulation meter that has been provided by the DNSP (i.e. the lock can only be opened by the DNSP). When an MP goes to site to perform works or a meter replacement, they cannot access the site without the key. If this has not been advised of and a process agreed with the DNSP ahead of time, then this represents a wasted site visit. If the key is not provided in the future, then works cannot be undertaken.

A potential solution to this problem involves requiring DNSPs to include in MSATS that a site has a DNSP lock. It would also require a procedure/process for DNSPs to provide access to locked meters.

In reviewing the issue of incomplete site information, the AEMC should consider:

- the process for identifying network issues that may impede the rollout e.g. shared fuse sites;
- how to improve retailer visibility of these network issues;
- who bears the cost of improving visibility (particularly where the required network information is not readily available to DNSPs); and
- who bears the additional cost associated with meter replacement for affected sites.

Defective/incompatible sites

A retailer MC/MP may not know that a site is defective or require remediation works or upgrading until they arrive at the site to perform a meter replacement. As a result, if the site has defects or is incompatible to meter replacement the MP cannot perform the works until the DNSP or customer has corrected the site, typically at the customer's expense.

Examples of the most common defects are the switchboard requires replacing or there is unsafe wiring. An example of an incompatible switchboard is provided in Figure 1 below.

Figure 1: Switchboard/meter box configuration



Figure 1 shows a typical shared residential switchboard/meter box. The switchboard/meter box configuration is too small to replace one existing meter with a smart meter let alone all meters. As a result, the entire meter board needs to be replaced (at considerable cost to either the retailer or the customer) before a smart meter can be installed.

This problem also arises due to differing safety and installation standards across the jurisdictions. Despite the move to a national regime, each jurisdiction has retained their own installation standards which are not uniform across states. This means that connection standards and processes can differ across states. This impacts the way meters have been installed namely in NSW. There are different levels of quality delivered by different service providers and there is an absence of quality control. These sites transfer to the retailer upon a change of MC meaning the retailer inherits a poor site and a potential risk/financial obligation. As a result, either the retailer or the customer is responsible for the rectification cost.

The issue of defective or incompatible sites raises a number of issues for the AEMC, for example:

- the process for identifying site issues prior to the meter replacement visit;
- attributing responsibility for rectification of these issues. In particular, many of these issues reflect deficiencies in the legacy network. It could be argued that the network is required to be of a sufficient standard to accommodate upgraded meters and therefore DNSPs are responsible; and
- the cost sharing arrangements associated with rectification/upgrade. There is a case for sharing costs over the customer base rather than individual customers, potentially through DNSP tariffs or the DMO for example. This is particularly the case where subsequent customers receive the benefit of the rectified/upgraded hardware without incurring additional costs – costs are incurred by the initial customer. This is not only inequitable but also acts as a disincentive for the initial meter upgrade.

Other barriers

Customers are reluctant to pay for smart meters when they cannot see a benefit. Because all the anticipated value streams (see the AEMC's distribution market model for examples of these services) are not yet available, it is difficult for a retailer to package a case with a positive benefit.

While the increased data available to retailers is becoming increasingly valuable in terms of product innovation and risk management, the financial incentives still remain weak.

As suggested, the standards of existing meter panels and compliance with the current state Service Installation Rules mean that significant work is often required to bring the site up to the required standards. In many cases, these costs are unable to be recovered.

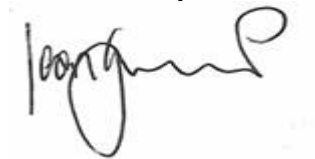
In NSW, IPART undertook a detailed review of smart meters and identified a number of key operational improvements – many of which have not subsequently been introduced. One of the key recommendations we consider would assist in reducing installation times is to allow MPs to perform an increased range of isolation work.

Several networks have established related competitive metering businesses. While we recognise that the AER has ring-fencing guidelines in place that restrict the flow of information and impose cost allocation obligations on networks, we have concerns that networks adopt process and practices that are more aligned to their related business rather than pursuing process improvement initiatives that benefit the broader market. For example, in NSW, PLUS ES metering staff (a network related business) are able to perform live work on all regulated technical and non-technical reconnections and disconnections on behalf of retailers. However, other MPs are not authorised meaning that retailers are limited to who (ie PLUS ES) they can engage to perform these works – which may be at a higher cost than what other MPs could otherwise provide these services, if authorised.

We believe that the historic installation of plug-in meters largely in unit developments creates a significant barrier to the replacement of these meters with smart meters. Plug-in meters cannot be easily replaced with smart meters using the same available floorspace, often requiring additional work to increase the size for a new metering install which results in increased cost for the customer.

Origin look 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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