

11 February 2020

Australian Energy Markets Commission
GPO Box 2603,
Sydney, NSW, 2001

Submitted electronically

Dear Sir or Madam,

Review of the regulatory framework for metering services.

The Australian Energy Council (AEC) welcomes the consultation opportunity in the Australian Energy Market Commission (AEMC) review on the regulatory framework for metering services.

The AEC is the industry body representing 22 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

The AEC is also represented on a number of forums that either have or are developing protocols to support the implementation of metering competition in the various state jurisdictions.

QUESTION 1: CONSIDERATION OF OTHER MARKET REFORMS AND RELATED WORK

1. Are there other significant market reforms that are likely to impact the metering framework that the Commission has not identified?
2. Is there additional related work that the Commission should consider in this metering review?

The Commission has correctly identified cost reflective pricing as a driver for metering reform that despite its value is yet to be realised. Even though most networks now offer small customers cost-reflective network tariffs, customers behavioural preferences severely limit customer take-up. In 2014, the AEMC made a rule requiring regulated network companies to structure their prices to better reflect the consumption choices of individual consumers. In 2017 the AER approach to Tariff Structure Statements identified that change would not be achieved by offering these network tariffs alone and that a proactive strategy to migrate small customers to these tariffs is required.

Whilst well intended, this approach of changing the rules up the supply chain and having the desired effect and price signals trickle down to end users through retailers has now become the default for network tariff reform. It has failed conspicuously, and perhaps the Commission could consider a review in detail as to how in practice this reform can ever be implemented.

One place to start, for example, could be consideration as to whether network tariffs should have an extended update period, say from annual changes to three years. To be clear, the TSS is supposed to provide the 5 year pathway with certainty and we think what is needed in addition to this is the certainty that individual tariffs within a TSS will be priced for longer periods. This is because cost reflective tariffs are currently provided by networks on an annual basis, and this limited lifetime/timeframe may result in retailers being reluctant to develop concomitant retail tariffs. Following from this, if networks were to offer tariffs for a period greater than one year, retailers

would face reduced financial risk from changing annual network tariffs, enabling greater consideration for retailer investment following cost reflective drivers. For example, if a retailer funds (either partly or fully) a BTM battery to address peak capacity issues signaled by a network tariff, and the network tariff changes at the annual update, the retailer (and customer) may lose the benefit of the BTM investment. Twelve months is not a practical return period.

Another place to start may be with customers themselves. The historical approach to testing customer appetite for time of use or demand type tariffs has been “if you were able to save money by changing the time of day you used your appliances, would you?” This is almost push polling; hard for a customer to say no to that without looking a bit odd. A better approach might be to ask something like “all things being equal, would you prefer a complicated time of use or demand type tariff, or just a simple flat rate?” All things being equal could reflect the current policy view that no customer can be worse off, or can refuge to a regulated flat tariff at any time.

The Network Tariff Round Table of 2018 considered a range of more radical reform to distribution network pricing that may be worth revisiting.

QUESTION 2: ASSESSMENT FRAMEWORK Do you agree with the Commission’s proposed Assessment Framework for this Review? Are there any additional criteria we should consider as a part of this framework?

No comment.

QUESTION 3: EXPECTATIONS OF METER ROLL OUT Although the numbers are steadily increasing, whether the rate of the roll out meets expectations and current requirements is a key question for this review.

1. How does the roll out of smart meters to date compare with your expectations?

The retailer expectation was that digital metering would provide operational and cost to serve benefits by replacing manual field metering services with cheaper and more timely remote metering services. Delays in the use of remote services functionality created by the prohibition of remote services in NSW and Queensland, has meant a delay in the realisation of those benefits. It is therefore in our opinion premature to attempt a comparison in this case.

Our expectations of innovation centred around consumer and retailer installed or operated behind the meter products and services, including solar, battery, EVs, home management systems, and demand reduction programs. In our observations this behind the meter activity has yet to obtain a critical mass. Our ongoing expectation is that smart meters will form part of the enabling suite of technologies that will provide such innovation in the next decade, but again it is premature to attempt a comparison.

2. Is the current pace of smart meter deployment appropriate? What should be the appropriate pace of rollout?

The current requirement for a customer led rollout is appropriate, and the policy approach allows for the rollout to proceed at a rate that is a function of the customer benefit.

At present, this means that demand for products and services such as solar, or batteries, or EVs, or works such as supply upgrades is what will drive demand. In addition, small tail sites for large customers seeking digital meters for individual stores/sites to take advantage of scale drives demand.

Along with these two drivers, addressing old and replacement network meters also sets the requirements for the pace of rollout. Each of these is consistent with the AEMC’s original objective that the pace of the rollout be driven by its consumer benefit.

3. What benefits are smart meters providing consumers? Have the benefits changed or improved over time?

The greater part of the benefits smart meters provide consumers is currently those concerning distribution network control and management services such as supporting supply reliability and outage recovery, as well as with load management to defer network augmentation. There is also some safety benefits such as ability to detect issues on the customer side. The greater the rollout then the greater the benefit that accrues in these instances, and along with the cost savings from remote disconnection and reconnection. We recall that these network benefits have underpinned the justification(s) of the mandated Victorian rollout.

The benefits of customer products and services such as control of a customer's load, real time information on customer energy use, and the potential for new services such as remote control of appliances in smart applications has also accrued in the greater part to networks. The customer benefit here is that these products and services, theoretically at least, dampens network cost increases to all customers.

Smart meters along with associated devices or services could benefit individual retail customers, for example through real time information and more rewarding tariff structures (including peak demand tariffs) that match their needs. To date such tariffs only appear to best match network needs, and this has not improved markedly over time though recent VPP trials show promise in this space.

Being able to control their energy use to get better deals and to participate in new markets, such as exporting energy from solar and batteries onto the grid, has been supported or enabled by smart meters but the direct benefits to consumers, such as Feed in Tariffs or Time of Use Tariffs, have decreased in value to many individual customers over time as those tariffs are amended to reflect changes in the energy supply mix.

4. Have the prices of smart meters plus the costs of associated products and services changed from the introduction of Competition in metering? If so, how?

The AEC is unable to comment specifically on the price of metering hardware.

The retail sector expected that generally there would have been a reduction in the costs of services associated with smart metering through the introduction of competition. However, we have observed that the national metering rules and jurisdictional requirements may have limited and sometimes even reversed the achievement of any expected cost reductions. In addition, the unanticipated historical lack of active management of metering installations, and poor accuracy in the records maintained by many if not all distribution businesses, has been aggravated by:

- Meter installation and exchange for complex sites (ie locked gates, shared fusing, electrician required) which has delayed meter exchanges;
- NSW (the largest State with metering competition) disallowing remote re-energisation and de-energisation services;
- Limitations on Metering Coordinators meaning defective sites cannot be managed without forthcoming (and earlier on not provided) network co-operation;
- Networks providing aged asset lists and replacement schedules in an untimely and ad hoc manner; and,
- Poor historical information on site exceptions, such as plug in meters, the nature of multi sites, locked gates, keyed access etc.

These have all made the efficient replacement of meters more difficult in the review period. We acknowledge that many of these have been corrected within the review period and we anticipate that the future efficiency of meter replacements will improve with commensurate cost benefits.

QUESTION 4: ARE INCENTIVES IN THE RIGHT PLACE? As well as understanding more about stakeholder expectations around the roll out of smart meters, and whether those expectations have been met, the Commission is additionally interested in stakeholder views on whether incentives are in the right place.

1. Are the incentives in relation to smart meter roll out correct? Please provide details on why/why not.

The AEMC competitive metering determination adopted a market-led rollout where new and replacement meters are required or where energy businesses and consumers want access to advanced metering. This approach was vindicated by the Victorian Auditor General's report 'Realising the Benefits of Smart Meters' (September 2015). In this report, the Victorian Auditor General found that the consumer benefit relies heavily on the consumers changing their behaviour, including by finding a better electricity deal and by changing their consumption patterns. A market led rollout, by contrast, only imposes the costs of smart metering when a consumer makes a choice to align these incentives to their own behaviour. The incentives are therefore in the right place.

2. Is the current market structure financially viable? If not, for whom is it not financially viable?

No response.

QUESTION 5: DRIVERS OF SMART METER ROLL OUTS

1. What were your expectations regarding the drivers of smart meter roll outs?

The drivers of smart meter rollouts are varied, comprising climate change, energy efficiency, demand response, energy storage, DER, and the evolution of consumers to prosumers. The fast growth in household renewable energy and the requirement to manage (and more recently control) those distributed resources has been a primary driver. New and replacement meters are also a primary driver.

One of the primary consumers of smart meter data is distribution networks. We have been surprised that against our expectations that the distribution networks have not forged stronger commercial relationships with metering providers and data managers to benefit from information on voltage and faults management that might be available, and instead are pushing for capex to establish a duplicate capability themselves.

As the AEC understands it, Energy Queensland are, for example, trial monitoring typical electrical quantities like voltage, current, Power Factor, and potentially neutral integrity. All of this is monitoring that can be done with smart meters. Details of the trial is at

<https://www.energex.com.au/about-us/company-information/our-network/smart-lv-monitoring-trial>

The AER is considering this Energy Queensland option. This seems a misalignment of policy objectives.

2. Has there been any changes in the overall reasons for installing smart meters since the competition in metering rule commenced?

Our expectations for the purposes of customer initiated smart meter installations at existing premises or sites have largely been met, revolving around:

- Supply upgrades
- Home renovations (extensions, pools)
- BTM products and services (eg Solar, batteries, EVs),
- Small tail sites for large customers needing better data.

There is not to the AEC's understanding any identified customer initiated trend that has surprised expectations.

3. Which parties should be responsible for driving the roll out of smart meters?

In NSW we understand that around 60% of meter installations are customer initiated, 25% retailer led and 15% a function of meter replacement for malfunction. Other states appear to have a smaller proportion of retailer led roll out.

Broadly speaking, retailers drive the rollout and have specific accountabilities for both timely installation and meter reliability. The distribution network now has some back to back obligations to help meet these accountabilities as well following earlier review into initial problems with installation times.

The AEC sees no compelling case to change existing responsibilities.

4. Do consumers have clear information on the benefits of smart meters and their rights relating requesting a smart meter?

The nature of smart meter installation can be difficult for consumer comprehension in some cases, for example where shared fusing or unsuitable metering boards are present. All retailers have clear information about their metering installation processes and accompanying FAQ's available, as do various state authorities and regulators.

General rights and responsibilities pertaining to smart meters, such as installation timeframes and obligations to provide safe access, are also published.

The benefit of a smart meter can only become a compelling sales proposition if it is linked to the customers individual benefit. This benefit will be linked to the primary reasons for customer initiated installation, such as a better energy plan, home renovations or BTM products like solar. Benefits such as an end to estimated reads, better outage management or access to demand management products are often not rated highly by end users even though they are promoted by distribution networks (Vic), retailers and policy makers.

At this stage the AEC is of the view that evidence exists that the information is both available and clear; but that does not mean the customer benefits are compelling.

QUESTION 6: CONSUMER EXPERIENCE

1. What are your views on the customer experience in relation to smart meter roll out and installation?

Customer experience in relation to smart meter rollout and installation is not limited to the installation appointment. A range of products and services are enabled and available from many retailers including detailed comparative reporting on energy usage, keeping track of rooftop solar performance, participation incentives for demand reduction, opportunities in VPP programs and orchestration, electric vehicles, real time applications for account holders, and more frequent billing and more accurate billing. The customer experience in these latter regards is in our experience positive.

QUESTION 7: INDUSTRY COOPERATION

1. Do you have any suggestions on how industry cooperation can be improved?

The decision to introduce competitive metering was always going to highlight the problems that occur whenever:

- Regulated activities are intermingled with non-regulated ones, or;
- Regulated businesses compete either with each other or with unregulated industries, or;
- Technological innovation and new markets create new kinds of activities for the regulated businesses.

The cause of these inevitable problems is simple – regulated businesses are not a commercial counterparty, do not behave like one and have no incentives or requirements to behave like one. Unfortunately those relying on the services of a regulated distribution network business, like the retailer, cannot take their business elsewhere without forgoing their customer; they remain a hostage.

This was the experience from early problems with meter exchange; that they were unable to be reasonably resolved between the unregulated and regulated entities. This ultimately required the AEMC's intervention. This problem is apparent in many other interfaces, such as access arrangements, TSS consultations, connection "agreements", ring fencing arrangements and etc. This problem is old but could potentially improve with a paradigm shift from regulators who would expect that the incentives regime for regulated monopoly providers produces the same behaviours as a market for services would.

2. Are changes to the market structure or roles and responsibilities needed to improve the consumer experience?

Meter exchange and installation difficulties arising from market structure seem to have settled down.

QUESTION 9: COLLECTION AND USE OF METERING DATA

1. In relation to metering data, what data should be captured by smart meters and why?

Victoria may be useful as a case study here for requirements for additional data with near 100% rollout and many years of experience now. We understand that Victoria collects time synched instantaneous voltage, current, and power factor from every meter, and then uses analytics to identify potential issues.

We are aware that the analysis of instantaneous voltage readings over time, in conjunction with weather data, can identify parts of the LV network that maybe constrained (from high voltage) due to solar generation. Voltage and current analysis can also be used to identify potential safety issues like degraded neutrals by using the changes in voltage/current and power factor to calculate source impedance at the meter.

We believe the meters being deployed under metering competition nationally can collect these various electrical parameters as exists in Victoria. Over time, as the penetration of meters increases, visibility of what is happening on the network improves. As per our response to question 5(1) above, we would be concerned to see a duplication in capability in this regard.

QUESTION 10: FUTURE METERING SERVICES

1. What is your understanding of other services that smart meters can provide?

The AEC views smart meters firstly as an enabling technology via remote reading and energisation or operation of contacts, and secondly as a measuring tool. The former is dependent upon the other appliances or services that the customer adds; not just on the meter. The latter has scope beyond the minimum specification, as per the discussion on distribution networks data requirements above.

2. What future services do you expect or want metering to facilitate?

The review may be premature as the market has been focused on implementation of metering competition in its first 3 years and most retailers are only now starting to receive proposals from Metering Coordinators new services.

Given that the ESB energy data strategy is currently reviewing data sharing arrangements, we consider that this review should therefore focus on the competitive metering services framework, and ensuring that it is fit for purpose rather than exploring discrete future services in detail.

3. If additional services are to be provided by smart meters, how should the costs of providing these services be allocated?

Costs of new or additional smart meter services should be borne by the party receiving the benefits. Broadly speaking this is either or more of the end user, the retailer, the distribution network and other potential third parties. However, there is little doubt that all costs ultimately find their way through to the end customer.

QUESTION 11: PENETRATION OF SMART METERS REQUIRED

1. Are particular metering services only cost effective when a particular penetration is achieved? If so, what services and what penetration is required?

Monitoring typical electrical quantities like voltage, current, and power factor may require significant penetration. Economies from remote reading may also require accompanying penetration. The important principle to bear in mind here is that the customer initiated roll out is designed to shield customers from the burden of paying for services that they do not require. Theoretical benefits that arise from a dampening in network costs through better network management have been used historically to justify distributor led rollouts at a cost of billions, however those metering services that are only cost effective at higher levels of penetration are clearly not valued by customers who are not requesting a smart meter. The Victorian mandated roll out, and the subsequent reviews into its extravagant costs and failings, highlights the danger of the “build it and they will come” approach.

2. What other factors are important in determining whether the provision of particular services are efficient or effective (e.g. geographic spread)?

No comment.

QUESTION 12: ENCOURAGING THE ADOPTION OF SMART METERS AND FUTURE SERVICES

1. Is the current regulatory framework appropriate for the current needs of metering and the market? Is it flexible enough to provide encouragement for the development of future services in metering ?

See below.

2. To encourage higher adoption of smart meters:

- a. What changes, if any, need to be made to the current regulatory framework for future services?
- b. What changes, if any, need to be made to other instruments? (e.g. regulatory instruments, guidelines, codes)

Encouraging a higher adoption of smart meters should not be a policy or regulatory objective, The framework for metering competition was deliberately adopted to avoid this very problem of a technology fascination driven rollout. Higher adoption rates for smart meters will come when the

people who are paying for them see the value in them through the choices that they make that trigger a requirement for the meter change.

3. Are there other avenues of encouragement that are available that the Commission has not considered in this paper?

No response.

Any questions about this submission should be addressed to David Markham by email to david.markham@energycouncil.com.au or by telephone on (03) 9205 3107.

Yours sincerely,

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