



Lead.**Connect.**

# Review of the Regulatory Framework for Metering Services.

S Russell / October 2021



## Introduction

Master Electricians Australia (MEA) is the trade association representing electrical contractors recognised by industry, government and the community as the electrical industry's leading business partner, knowledge source and advocate. Our website is [www.masterelectricians.com.au](http://www.masterelectricians.com.au)

Master Electricians Australia welcomes the opportunity to provide a submission to the above Directions Paper relating to the regulatory framework for metering services. Effective and efficient delivery of metering services is critical to the long-term interests of electricity customers.

In this submission we offer some general observations on the review and summarise our key positions on the issues being canvassed. Additional details relating to the specific questions posed in the Directions Paper are included below.

The national rollout of smart meters has been significantly slower than originally publicised. Our position regarding the options that the AEMC has put forward to accelerate the rollout would be:

- MEA does not support an arbitrary subsidy to retailers or Metering co-ordinators from Distributed Network Service Providers (DNSP's) to contribute to the cost of rolling out meters. As metering is no longer a DNSP service and it is provided now by the retailers it is our opinion that the DNSP's should now have no say, nor financial implicant/ gain. If DNSPs are provided access to voltage data from Meter Provider's, it should be at a regulated cost enforced by AER.
- The AER ring-fencing guidelines, which prohibit DNSPs from recovering any costs associated with smart metering need to be increased to remove any ability for DNSP's to provide/ own or have invested interest in MP's or Field Service Provider service roles.

### An example

Master Electricians is in favour of an accelerated age-based replacement and in our opinion, delays would be significantly reduced with increased enforcement of MP's and FSP's to work with in each state's legislation and subsequent mandatory adoption of

- the wiring rules (AS/NZS 3000) and
- each states Work Health and Safety Act 'and regulation.

MEA Technical Advice line receives at least 3 calls a day regarding metering issues. It is our experience metering providers are defecting the installation of smart meters on asbestos panels as they are considering this as unsafe, however this is not the case. In MEA experience rarely are the panels in a dangerous state. If the asbestos panel has deteriorated, then they would be correct. The instances where our members customers are defected it is apparent to our members that the approved safety methods outlined in Safe Work Australia's asbestos

guidance information provide safe ways of managing the risk. This requires additional personal protection equipment (PPE) and the safe recorded disposal of any incurred waste which adds to the cost of doing this type of work. Electrical contractors and all building trades do this work daily under specific Safe Work Methods (SWMS). We believe the meter providers are defecting the work due to cost.

We support DNSP's under emergency situations having ability to bypass or make safe switch boards but they should not during normal operations conduct metering tasks for customer supply.

We agree with the views put forward in the discussion paper that any acceleration scheme or target must be designed to maintain a level playing field between retailers and MCs and must deliver the timely rollout of meters to customers on a fair and non-discriminatory basis.

We do not want to create a situation of 'cherry picking' where there is an accelerated rollout to the most favourable customers (cost effective), followed by a long tail of high-cost-to-serve, difficult or low-value customers stuck on manually read accumulation meters for years to come, especially noting the high cost of manual meter reading once economies of scale are gone and customers are sparsely distributed.

Master Electricians wants to explicitly highlight our grave concern relating to current DNSP's who are also MP's. These providers attend sites as Meter Providers and then under the DNSP responsibility leave defect reports claiming non-compliant installations due to the MP or FSP identifying issues. The most common issues are

- asbestos meter boards,
- space issues with the meter panel,
- switchboards in driveways,
- no meter isolation link or neutral links switchboards

When the DNSP/MP identifies these this results in customers being forced to outlay significant financial amounts to ensure the meter exchange can proceed.

None of the above defects are for electrical safety or are likely to cause risk to the installer or others persons, livestock, or property from

- electric shock,
- fire or
- physical injury hazards that may arise from an electrical installation

which is used with reasonable care and with due regard to the intended purpose of the electrical installation.

It is our view that the defects are simply to reduce the current costs to the DNSP's or MP's.

## 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?

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

MEA propose that the following metering data should be made available in developing the new policy:

(a)

- Near-real-time outage notification ('last gasp')
- Loss of PEN integrity, early "tap tingle" warning of the risk of electric shock
- Loss of supply active or
- low voltage/high voltage outside of the DNSP supply conditions
- Under fault conditions, remote disconnection of supply

(b)

- Tariff rate indication
- To date energy consumption

This data will enable consumers, retailers and DNSP to use the network data to better utilise and reduce costs.

## 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?

While end users/ customers can already benefit from the current roll out penetration Master Electricians would agree that 100% percent penetrations will ultimately provide significantly increased network safety, reduced DNSP costs and better overall end user/ customer satisfaction with greater choice, benefits, and reduced costs.

Encouraging a more proactive rollout through installation targets would have some benefits for DNSP's when forecasting their network improvements, improving detection of degraded neutrals and subsequent maintenance, providing increased proactive end user/ customer safety. However, the rollout must be at no cost to the consumer and that the aforementioned issues about defecting new metering installs needs to be policed and stamped out particularly in Qld SA and NSW where DNSP's have control of retailer and MP's entities.

### 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) Do you consider that the roll out of smart meters should be accelerated? Please provide details of why or why not.
- (d) How would each of these options for rolling out smart meters impact the cost profiles of smart meters?
- (e) Are there other options that you consider would better provide a timely, cost effective, safe and equitable roll out of smart meters?

(a) – (d)

Yes, Master Electricians is in favour of an accelerated age-based replacement and in our opinion, delays would be significantly reduced with increased enforcement of MP's and FSP's to work with in the wiring rules and the NER requirements specific to security of energy consumption.

(e)

MEA believe that electrical contractors with suitably trained electrical workers could perform metering installation on behalf of the metering provider. This would provide an improvement to the efficiency of the roll out drastically improving the time it takes to install a meter.

MEA would suggest that Retailers and Metering providers use what is called an Accredited Service Provider (ASP) scheme. Power of Choice changes did not affect Level 2 Classes 2A, 2B or 2C metering installation in NSW.

ASP continue Level 2 accreditation, including Class 2D. Dedicated load control equipment remains the responsibility of the distribution network service provider and the requirement for Class 2D accreditation remains in place.

In NSW installation of basic-type metering is no longer allowed, the qualifications and skills remain valid however, and help subcontractor contract to metering providers and distribution networks. MEA believes that this program should be reinstated and expanded across the NEM as it would increase the efficiency of rollouts and repairs of metering. Electrical Contractors could repair, makes safe and install meters in the one visit reducing overheads for Metering Providers and Retailers.

Additionally, when multiple occupancy premises are involved, it would be of great benefit and minimum inconvenience to the end-user/ customer to have a single outage and change all the meters at the same time. To facilitate this the MP should work alongside the DNSP and the

electrical contractor performing the installation of metering to ensure the outage is correctly facilitated and in a timely way.

A suggestion for multi occupancy is that the predominate retailer be given the responsibility to change all meters at one time and work with the DNSP for a single outage after notification to the whole premises. This would increase efficiency reduce travel and coordination of multiple truck visits and teams. If there is no single predominate retailer then the largest retailer would become responsible, or retailers may “trade” costs to facilitate. If one retailer has significantly more meter replacements to do in either a postcode or geographical, are they may then impose a charge on other retailers who have not incurred a cost to share the cost. The AEMC may introduce a process to settle disputes or to in fact allocate contested premises before work is undertaken with the costs of disputes and allocations shared by the retailers if they can’t reach agreement.

#### 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?

MEA supports DNSPs having to make a request for each metering installation to get a voltage reading. Given that metering is no longer a DNSP service and reduced costs for the DNSP’s it is our view that the DNSP’s should be required to pay to access voltage data from MP’s. This cost being regulated and enforced by AER.

Ultimately end users/ customers will pay for the costs involved in smart meters and associated installation costs (recovered over the life of the meter not at point of installation). If the DNSP’s are achieving a better management and increased functionality of the network due to the paid for voltage data and the MP is being paid for this data, this should in turn reduce the overall cost of the installation. With this reduced cost it will likely incentive more end users/ customers to participate in the roll out.

#### 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?
- (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?

Smart meters can be used to provide an effective solution to emerging system issues, to date these benefits and abilities of smart meters are not being delivered.

The provision of a 'degraded neutral detection' service by the MC or built into the meter provides a secondary level of customer safety in situations where DNSP's pay for the access to the voltage data. Our view is that this would benefit the DNSP's provide greater forecasting and network improvement which may include less outages or network failure and earlier detection of degraded neutral detection providing increased end user/ customer safety. The prime example here for safety is when a neutral becomes worn or over time suffers damage the meters can detect this fault.

The industry Governments and DNSP's have witnessed firsthand in accidents such as 11-year-old Denishar Woods and 20-year-old Peter Woods who both received shocks off a house tap that had become live through a network neutral fault. These two instances demonstrate how such an inexpensive change can prevent catastrophic injury and financial loss for all concerned.

Noting also that the costs inflicted on DNSPs to access this data would likely be returned via reduced costs as a direct result of their ability provide greater forecasting and network improvement. reduced maintenance costs due to reduced emergency network failure ultimately reducing costs to end users/ customers.

#### 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?
- (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?
- (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?
- (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?

MEA would be in favour of the framework being developed. If the below data was made available, it would unlock significant benefits as we have previously discussed.

we proposed that the below metering data should be made available:

- Voltage, current, real, and reactive power including directionality (i.e., export or import)
- 5-minute interval preferred, or aligned with the interval of billing data
- Provided at least every 24 hours along with billing data
- Near-real-time outage notification ('last gasp')

## 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 non-prescriptive pricing principles).
- (a) Are there any other specific options or components the Commission should consider?

Master Electricians does not support the central data broker model, our concerns relate to unnecessary costs such as another business entity with required infrastructure and a premise to ensure they run at a surplus/profit and likely delays in providing the data. Questions include that DNSP's would then have to pay for this service and associated infrastructure inflating the cost even further. This data should be provided by all retailers in a consistent manner and form for a set price.

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

MEA supports removing the retailer opt-out provision for customer-initiated meter roll outs. Customers should not be prevented from having a smart meter installed if they have requested one.

## 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?

(a) & (b)

When an existing metering enclosure requires repair due to other factors; the customer must assume some responsibility.



Examples could be the enclosure is physically damaged, rust or corrosion impairs ingress protection rating, overheating of cable terminations or vermin damage should be the responsibility of the owner. The owner of the installation is required to ensure the electrical installation is kept in a safe condition under the legal rules at the time of its initial installation.

The meter provider would discuss this with the customer to have this rectified before a meter is changed for either meter churn or metering failure. The electrical contractor could assist with this process of a third party confirming the unsafe nature of the metering enclosure and could also rectify the repairs required and at the same time install the meter.

It is our experience in talking to contractors and their customers that costs incurred can reach regularly up to \$3000 to replace and move a switch board if the MP/DNSP operate under their own rules as opposed to the AS/NZS 3000 "Wiring rules".

#### Examples

- asbestos meter boards, managing asbestos is subject in every state to a Code of practice / Safe Work Method Statement in very rare situation if the switchboard mounting panel is fibrous or damaged then it needs to be in place however in the normal state of a well-maintained board the Code of Practice allows for it to be worked on and not replaced.
- Space issues with the meter panel, Digital meters are generally smaller than analog accumulations meters. This also highlights that the DNSP's have implanted clearances around their meters that significantly exceed the meter manufacturing requirements. Example being in QLD the DNSP stipulates 25mm clearance, but the manufacture only requires 10mm. If we refer to our request for MPs to follow Australian & State legislation only. More smart meters would be installed due to legislation calling upon AS/NZS3000 and under clause 1.7.1 (c) it stipulates we follow manufactures instructions.
- Switchboards in driveways, these switchboards were installed according to the relevant rules at the time and there is no change to the situation and as such they are defined as compliant positions. In the event that an employee feels that the switchboard is in a traffic area the code of practice for traffic management can apply. The Queensland code of practice for traffic management states the following

#### *2.4 PCBUs for maintenance work*

*The PCBU is not required to complete safe work method statements for work other than construction work on roads or road-related areas, but is still required to manage the health and safety of their workers.*

*A PCBU has a duty to ensure the health and safety of workers, so far as is reasonably practicable. PCBUs also have the same duty of care to any other people who may be at risk from work carried out by the business.*

[https://www.worksafe.qld.gov.au/data/assets/pdf\\_file/0018/22158/traffic-management-construction-cop-2008.pdf](https://www.worksafe.qld.gov.au/data/assets/pdf_file/0018/22158/traffic-management-construction-cop-2008.pdf)

The status of a switchboard in a residential driveway is seen as a maintenance job as such it is well within the skill of workers to assess risk and implement effective traffic management including a sign and witches' hats to barrier of an area in driveways where speeds would not exceed perhaps 5 km an hour.

- no meter isolation link or neutral links switchboards. Until the introduction of Power of Choice all DNSP's/ MP's/ Electricians etc. had safely and without incident isolated the power to a dwelling from the network isolation device (either on the pole or in a pillar) and wired the neutral in such a way that it either had multiple tails soldered of main neutral or the looped between meters/ network devices. Completely electrical safe.

Now that Power of Choice has come in the DNSP's have decided this takes too long and as a result the customer is now forced to install Metering Isolation Links and Metering Neutral links on the switchboard, this in no way benefits the customer nor is it for safety. In fact, it leaves the risk of electrical shock in play when working on the switchboard as voltage remains present to the lineside of the Meter isolation link which is isolated from the pole or pillar would be removed.

We also attach for your reference copies of 4 defect notices we have been sent that demonstrate our position. These plus telephone calls that we receive 2 to 3 a day from NSW and Qld in particular concerning defect notices and seeking advice from members on behalf of customers.

Defect Notices explanation

- Upgrade 1 - Switchboard was replaced to fit RCD's and left in original position (of nearly 30 years). This defect was then left my meter reseal was booked.
- Repair 1 - Backing panel was replaced under the repair clause due to deterioration. This defect was then left
- Meter Churn 1 - Customer arrived home to find this stuck in front door. No works had been requested on this site
- SWB in Driveway – existing switchboard of 10 years, solar installed and now customer being forced to move

## 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 multioccupancy premises? Should a one-in-all-in approach be considered further?

When multiple occupancy premises are involved, it would be of greater benefit and minimum inconvenience to the end-user/ customer to have a single outage and change all the meters at the same time. To facilitate this the MP should work alongside the DNSP to ensure the outage is correctly facilitated with all Retailers, MPs, and end-user/ customers.

**Refer to our response for Question 3 item (e)**

#### 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?

We understand that some stakeholders, including members of SA Power Networks' independent Connections Working Group, have suggested that the DNSP could take on a more formal role under the rules for coordination of activities and the sharing of information between the multiple parties involved in a meter exchange (retailer, electrician, MP).

We think this further adds to the possible ring fencing and DNSP's forcing their draconian requirements on to MP's and End-users (customers) our response to question 3 (e) would also be valid for this question.

#### 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?

DNSP's should not be allowed to provide/ own or have invested interest in MP's or FSP service roles. Although DNSP's have the capability to perform this role and do so for legacy meters, the AER's Distribution Ring-Fencing Guidelines currently prohibit DNSPs from providing this role (e.g., meter provision, installation, and repair) for smart meters. Under emergency situations the DNSP's should be permitted to bypass or make safe but go not further into the metering space.

#### Summary

MEA wishes to advance the proposition that State electrical legislation be the determining law regarding the installation of metering equipment.

The role of the NER is to ensure the additional requirements for metering to meet the essential ability to perform accurate recording of, and ongoing security of energy usage.

Urgent consideration of the mandatory use of smart meters to real time monitor the safety of the point of supply connections

Create the ability of the Electrical Contractor to be nominated by the retail customer to install metering under a subcontract arrangement with the meter provider. This results in a onetime visit for the customer and better ability to negotiate with the contractor to have repairs or switchboard replacements done on the one visit if they were required.

Increase AER ring-fencing guidelines, which prohibit DNSPs from recovering any costs associated with smart metering by removing any ability for DNSP's to provide/ own or have invested interest in MP's or Field Service Provider service roles

