

REVIEW OF THE REGULATORY FRAMEWORK FOR METERING SERVICES

STAKEHOLDER FEEDBACK TEMPLATE

The template below has been developed to enable stakeholders to provide their feedback on the questions posed in the consultation paper and any other issues that they would like to provide feedback on. The AEMC encourages stakeholders to use this template to assist it to consider the views expressed by stakeholders on each issue. Stakeholders should not feel obliged to answer each question, but rather address those issues of particular interest or concern. Further context for the questions can be found in the consultation paper.

SUBMITTER DETAILS

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PROJECT DETAILS

NAME OF RULE CHANGE: Review of the regulatory framework for metering services

PROJECT CODE: EMO0040

PROPONENT: AEMC

SUBMISSION DUE DATE: 11 February 2021

CHAPTER 1 – INTRODUCTION

1. Consideration of other market reforms and related work	
1.1 Are there other significant market reforms that are likely to impact the metering framework that the	No Comment

Commission has not identified?	
21.2. Is there additional related work that the Commission should consider in this metering review?	<p>Consideration could be given to:</p> <ol style="list-style-type: none"> 1. The inclusion of a review of Cyber Security Standards and their applicability for Smart Meters with a particular focus on adoption of standards being developed and deployed to support the Fintech and payments industry. It is also recommended that development of these standards be delegated to a specialist standards development agency such as Standards Australia. 2. Opening up the scope for competition in the supply of metering to reduce the barriers to competition without impacting safety and other essential considerations including providing the potential for consumers to source and own the meter and for retailers to charge for meters that provide capability beyond that mandated by PoC minimum requirements.
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

CHAPTER 3 – THE CURRENT STATE OF METERING

3. Expectations of meter rollout	No Comment
3.1 How does the roll out of smart meters to date compare with your expectations?	
3.2 Is the current pace of smart meter deployment appropriate? What should be the appropriate pace of rollout?	

<p>3.3 What benefits are smart meters providing consumers? Have the benefits changes or improved over time?</p>	
<p>3.4 have the prices for smart meters plus the costs of associated products and services changed from the introduction of <i>Competition in metering</i>? If so, how?</p>	
<p>4. Are incentives in the right place?</p>	
<p>4.1 Are the incentives in relation to smart meter rollout correct? Please provide details on why/why not.</p>	<p>Current structure discourages innovation in the supply of smart meters.</p> <p>The current Power of Choice (PoC) requirements for metering sets a minimum standard for the meters which is extremely limited in scope. Whilst this is acceptable in that it provides a minimum standard, the current regulatory environment actively prevents innovation because:</p> <ol style="list-style-type: none"> 1) The retailer is not able to charge the consumers for extra capability. 2) The MP is not prepared to supply meters that have additional functionality because they bear the risk of a stranded asset. Whilst the Meter Providers (MP) may be able to sell to the current retailer on the value of the extra functionality they have to assume that this customer will churn to another retailer who will not be prepared to pay the incremental cost of the extra features.
<p>4.2 Is the current market structure financially viable? If not, for whom is it not financially viable?</p>	<p>No Comment</p>
<p>5. Drivers of smart meter roll out</p>	
<p>5.1 What were your expectations regarding the drivers of smart meter rollouts?</p>	<ol style="list-style-type: none"> 1) Provide infrastructure to enable collection of consumption information and performance metric of the LV network, remote control of the meter and a platform to enable the control of behind the meter devices. Provide capability for the provision of innovative services for: <ol style="list-style-type: none"> a. Tariffing

	<p>b. Demand Management</p> <p>c. Outage Management</p>
5.2 Has there been any changes in the overall reasons for installing smart meters since the <i>Competition in metering</i> rule commenced?	No.
5.3 Which parties should be responsible for driving the roll out of smart meters?	<p>Currently retailers are responsible for deployment.</p> <p>Consideration should be given to enabling consumers to drive demand by giving them the authority to own, select the meter and pay for the devices in a manner that is similar to what occurs in the telecommunications industry with the mobile and fixed line devices.</p>
5.4 Do consumers have clear information on the benefits of smart meters and their rights relating to requesting a smart meter?	No Comment
6. Customer experience – what are your views on the customer experience in relation to smart meter rollout and installation?	No Comment
7. Industry Cooperation	
7.1 Do you have any suggestions on how industry cooperation can be improved?	No Comment
7.2 Are changes to the market structure or roles and responsibilities needed to improve the consumer experience?	No Comment
8. Expectations of metering services	No Comment
8.1 What expectations did you have around the services that smart meters would provide?	
8.2 What services are being provided by smart meters currently? Are these services widely available?	
8.3 What services did you expect from smart meters which have not eventuated?	
8.4 Are there any services being provided by smart meters which were not	

anticipated at the time of the
Competition in metering rule
change?

CHAPTER 4 – THE FUTURE STATE OF METERING

9. Collection and use of metering data

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

A) Energy Consumption

In addition to the capture of export and import energy data between the consumer and the grid which is currently the only information captured, consideration should be given to capture of gross on site energy generation and storage on energy consumer's sites. This additional data will enable more comprehensive reporting of total energy production and storage across the grid and provide a more comprehensive picture of the impact that PV, batteries and electric vehicles are having on the effectiveness of new technologies in reducing the carbon footprint.

B) Other Data

Historically, load on the domestic LV network has been fairly easy to estimate based on the number consumers on each LV segment.

Since the mass deployment of roof top solar, these metrics are becoming less applicable and the growing presence of batteries and electric vehicles is only going to accelerate this trend.

To enable ongoing management of the LV network, additional data is going to be required to measure the performance of each LV segment. The meters should also capture Network Quality Power Quality metrics.

The metrics to be captured should be as agreed by the Distribution Network Service Providers (DNSP) to give them a comprehensive view on the performance of each LV including voltage, current, power factor and harmonic distortion and others as appropriate.

	<p>Once agreed, a specialist standards development agency such as Standards Australia should then be assigned the task of developing the appropriate standards.</p>
<p>9.2 In relation to metering data, who should be able to access metering data, and how? What protections should be in place?</p>	<p>Individual site consumption information should be owned by the site owner. However, aggregate consumption is a community asset.</p> <p>The starting point should be that all meter data should be available to the market in a form that protects the privacy of individual consumers but enables all interested parties access to enable a more efficient operation of the network.</p> <p>Rather than developing its own standards it is suggested that the consumer information protection standard as developed to support the financial services industry should be adopted wherever practical.</p> <p>Subject to the constraint of the Privacy Legislation information should whenever possible be made available.</p> <p>If the consumer wants access to their own data or wants to approve another third party to have access to their data, this should be made possible at the marginal cost for supply.</p>
<p>9.3 What impact do you think the Consumer Data Rights may have on the access to, and use of, metering data?</p>	<p>See above</p>
<p>10. Future metering services</p>	
<p>10.1 What is your understanding of the other services that smart meters can provide?</p>	<p>The list included at 4.2.1 is very comprehensive and a good summary of what a suitable smart meter could provide if a suitable environment was created to facilitate innovation.</p> <p>As pointed out elsewhere in this response the current regulatory environment does not provide incentives to the MP's or retailers to innovate and with limited exceptions meters offered in Australian market are based on designs up to 20 years old.</p> <p>The key issue that is limiting innovation is that the retailer/MP is unable to be certain that they will,</p>

	<p>over time, be able to recover the cost of supplying a meter with any additional functionality.</p> <p>If this constraint on recovering the increased cost of the meter was removed in a manner that is currently available in the mobile phone industry, it can be expected that competitive pressure would foster meter-based innovation.</p> <p>Whilst it is difficult to forecast what other meter-based services that a retailer could develop over time as a basis for differentiation, it is safe to assume that if consumer can see that they will get value from additional services being delivered then they will embrace this innovation.</p>
<p>10.2 What future services do you expect or want metering to facilitate?</p>	<p>Having integrated cyber security features into the meter that will provide secure access and protection for an internet connected and enabled device, the meter could then be used by a variety of parties, including the retailer, DNSP, Demand Management Service Provider and the consumer to manage in an agreed manner both connecting and disconnecting loads from the NEM.</p> <p>Devices that could be managed could include.</p> <ul style="list-style-type: none">a. Roof top solarb. Batteriesc. Storage hot water heatersd. Electric vehiclese. Large discretionary loads, including pool pumps and A/C <p>Many of the above devices have remote control capability via the internet built into them.</p> <p>A meter that supports a secure internet interface and has the capability to have an application installed on it to control that device could also manage that device in a manner similar to that available using smart phone.</p> <p>The benefit to the retailers, DNSP and the MP is that they would have secure, deterministic access to the meter via the PoC compliant remote access as a platform for the delivery of these services.</p> <p>This management could include with consent of consumer, load shaping to minimise cost or modify</p>

	demand during periods of peak demand or supply constraint.
10.3 If additional services are to be provided by smart meters, how should the costs of providing these services be allocated?	The party that gains the net benefit from the provision of this capability should pay the incremental cost of the provision of service. As a generalisation this will be either the DNSP, Retailer or the consumer.
11. Penetration of smart meters required	
11.1 Are particular metering services only cost effective when a particular penetration is achieved? If so, what services and what penetration is required?	<p>It can be reasonably hypothesised that a high level of penetration of suitable smart meters will be required to successfully deploy demand management and FCAS services into the LV grid used primarily to service domestic and other low volume users.</p> <p>However, the level of penetration required is open to some speculation. Data on what penetration is required to be able to influence the performance of the LV grid.</p> <p>A recent initiative by Australian Renewable Energy Agency to fund a study on the impact of EV on the grid is an example of the type of investigations that need to be undertaken so that the viability of using domestic load for demand and stability management can be evaluated.</p> <p>This type of study should be undertaken as a matter of priority and the results widely published to enable the industry to develop the business cases that would underwrite the deployment of more feature rich smart meters.</p> <p>Whilst it can be speculated that a number of factors could impact on the viability of a particular service which could include density of adoption of roof top solar, EV's and other large controllable loads etc, before significant investment can justified consideration could be given to the AEMC funding field trials and other research to provide data on what are the key variables impact on the potential success of LV based services management and how advanced smart meters could better manage these devices.</p> <p>Whilst studies undertaken overseas can provide a useful guidance on required penetration metrics to achieve the required scale to support advanced services, differences in the Australian operational environment, in particular the intensity of solar radiation and the relative lack of meshing in the</p>

	<p>high voltage (HV) grid may lead to significantly different conclusions, hence the suggestion that studies are conducted locally rather than using imported data.</p> <p>These studies should be undertaken at several locations within the NEM so that factors that impact of on the success of the advanced metering services can be better evaluated.</p>
11.2 What other factors are important in determining whether the provision of particular services are efficient or effective (e.g. geographic spread).	See above

CHAPTER 5 – ARE CHANGES REQUIRED TO THE REGULATORY FRAMEWORK?

12. Encouraging the adoption of smart meters and future services	
12.1 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?	<p>The current regulatory framework has under the PoC initiative mandated a minimum specification. At the operational level it has been found that this minimum standard has become the effective maximum.</p> <p>This is because if a meter with more features and cost is deployed, the extra cost of this meter has to be borne by the retailer on the basis of the benefit that they derive and are prepared to pay extra to the MP.</p> <p>The options available to the retailer for recovering this extra cost from the consumer are limited. If the consumer churns away or moves and a new retailer is contracted for this site this new retailer is under no obligation to pay the MP anymore that the regulated minimum fee for the provision of the MP services.</p> <p>Hence, the MP bears the extra costs from the investment with no secure path to a return on this investment. The net impact is that no additional meter-based capability is being deployed.</p>
12.2 To encourage the higher adoption of smart meters:	To encourage deployment of meters that could support services more advanced than currently

<p>(a) What changes, if any, need to be made to the current regulatory framework for metering services?</p> <p>(b) What changes, if any, need to be made to other instruments? (e.g. regulatory instruments, guidelines, codes)</p>	<p>supported by the existing generation of meters, a mechanism needs to be developed to provide the MP with a return on the investment required to provide this meter. Alternatively, the retailer or the consumer could be empowered to purchase the meter.</p> <p>In the first scenario, one potential mechanism is for the retailer to contract with the consumer for the supply of the meter and the incremental cost of the meter would be recovered from the consumer in a manner similar to that which currently exists for the supply of mobile phone by telecommunications retailers.</p> <p>In the second, the retailer or consumer purchases a meter of their choice and then contracts a third party, to collect the interval data that is sent to the MP. The provision of other advanced services, such as demand management, could be contracted in a similar manner. The option to provide the unbundled meter supply or meter data collection services or other value-added services could be undertaken by the MP or other commercial entities.</p>
<p>12.3 Are there any other avenues of encouragement that are available that the Commission has not considered in this paper?</p>	<p>See above</p>
<p>13. Barriers to realising the benefits of smart meters</p>	
<p>13.1 Are there other barriers that were not identified by the Commission that you have found to prevent the realisation of benefits of smart meters and/or slowed the rollout of smart meters in the NEM?</p>	<p>Whilst in theory the current regulatory environment does not preclude the supply of meters with a capability that exceeds the current minimum specification, the capability of MP's to recover the cost of a meter is limited.</p> <p>For a new building the consumer effectively purchases the meter so they could request a device with additional features, however to date this does not occur in practice.</p> <p>For replacement meters the current regulation which requires the meter to be replaced a nil incremental cost to the consumer effectively</p>

	means that only features that a Retailer is prepared to fund over and above the base functionality will be considered. As neither the retailer nor the MP is able to contract for the supply of a meter in a manner similar to that which occurs for a mobile phone, all the financial risk for the meter with additional functionality sits with the MP in the event of a churn of the customer from one retailer to another. The implicit impact of this financial risk is to ensure that meters that only meet the minimum spec are currently available from MP's.
13.2 What changes, if any, need to be made to the current regulatory framework for current arrangements to improve deployment?	Changes that could be considered to remove this impediment would be to provide the option of unbundling the meter supply service into hardware supply, meter reading and service and to provide the option of MP's supplying the meter under a separate contract.
13.3 Are there other tools outside of the regulatory framework that may address some of the current barriers to realising the benefits of smart meters and/or the slower rollout of smart meters in the NEM?	The current PoC minimum specification does not adequately address a number of areas of concern that other government entities may have about the security of information on the meters. In particular cyber security and the capability to communicate with behind the meter devices which are not independently wired to the switch board are not covered.

OTHER COMMENTS

14. Information on additional issues	
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REGISTRATION OF INTEREST FOR REFERENCE GROUP

If you are interested in nominating for the Review of the regulatory framework for metering services Reference Group you can email registrations@aemc.gov.au or provide details of the person you would like to nominate below:

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