

**Attn: Ms Alisa Toomey**

**Re: Response to Directions paper for the Review of the regulatory frameworks for metering services.**

**28 October 2021**

Dear Ms Toomey,

Green Metering welcomes the opportunity to provide feedback to the Australian Energy Market Commission on the Directions paper for the Review of the regulatory frameworks for metering services.

Green Metering is a new startup business focusing on the rollout of smart meter infrastructure within the National Electricity Market. Green Metering are currently finalising an application for submission to register as a Metering Coordinator with AEMO and plan to begin operations in the market in early 2022.

Green Metering sees a great opportunity for all stakeholders with improved infrastructure at the edge of the electricity network with the upgrade of metering installations with smart meter technology.

Please find below our feedback on the Directions Paper recently released.

Should you wish to discuss aspects or have any further enquiries regarding this submission, please call David Lannan, Managing Director on 0421 629 514.



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## **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?*

**1 a)** Beyond the benefits already listed in Table 2.1 of the Directions paper, the policy should consider that not all benefits are known at this stage. As technology advances and the value chain with the electricity market shifts over time, the policy should be flexible enough to enable innovative and creative solutions to meet the goals of the National Electricity Market, especially where costs can be reduced for consumers and capital and operational expenditure reduced through improved data for the market as a whole.

Green Metering believes the main benefit of smart meters are for FRMPs and DNSPs more so than Consumers at this stage of the rollout. Only once there is a larger deployment of infrastructure within the NEM will consumer value be realised. Significant scale is required to develop solutions that benefit implementation by FRMPs and DNSPs. Whilst there is a lower volume of smart meter deployments, there is a limited motivator for innovation or creative solutions as they require bespoke managed solutions that cost more to operate.

With a background in telecommunications infrastructure, the team at Green Metering see parallels with the recent rollout of the National Broadband Network across Australia. Many benefits were not realised until a certain level of scale was reached as multiple methods of access and confusion with mixed messaging from service providers made it not worthwhile to drive the outcomes required.

**1 b)** Green Metering agrees with the position of the Commission that smart meters are the appropriate device to enable the benefits, not only to consumers but to the market as a whole. Smart meters are highly regulated and tested for accuracy on a regular basis. The capabilities of these devices can evolve over time as they can be upgraded with functionality remotely. They are also produced by large multinational companies with significant resources to ensure ongoing compliance.



The use of consumer level devices are not appropriate for the management of such important infrastructure. It is very difficult to regulate and manage. These devices are great for early adopters and pro-consumers but this is still just a niche market. We support these devices to be permitted but should not be relied upon for the operation of the market.

Similarly we do not see there is a need to duplicate equipment within the distribution network by DNSPs where a large volume of data can be provided through smart meter infrastructure. It may be best to regulate the provision of this data between MCs and DNSPs with a standard format and regulated maximum price (which can be commercially negotiated separately). For the benefit of operational implementation, as multiple MCs operate within a DNSPs environment, a centralised data exchange would be recommended, possibly operated by AEMO.

## **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?*

**2 a)** Green Metering agrees that to provide benefit to consumers and the NEM participants a high penetration of smart meters is required. As mentioned previously the benefits that will eventuate may not yet be known. It needs to be operationally feasible for FRMPs and DNSPs to develop and operate solutions that take advantage of smart meters, requiring a significant volume of meters to be deployed.

**b)** As described in Table 2.2, Green Metering agrees that these types of benefits can potentially commence at these levels of penetration with the motivation to do so by the relevant parties involved. Green Metering expects that below 50% penetration not all benefits will be operationally or financially feasible to the relevant parties for wide-scale benefits.

Green Metering, referring back to their knowledge of the National Broadband Network rollout, suggests that significant benefits across the NEM will not be realised until at least



50% penetration has occurred, and even greater is needed to shift the market engagement in the solutions offered for consumer engagement. nbn's public reporting shows that at approximately 55% of the premises connected, only then was there a shift in the take-up of higher speed plans through incentives provided by nbn. Previously most services remained on the same speed plan as prior to nbn. It then took much longer for those to become an accepted norm and paid for accordingly.

<https://www.nbnco.com.au/content/dam/nbnco2/2018/images/how-we-are-tracking/documents/nbn-december-2018-monthly-progress-report.pdf>

Green Metering suggests that the realistic level of benefits realisation will be at least 20-25% higher than listed in Table 2.2, but the benefits will begin to be introduced to the market at the levels listed.

### **QUESTION 3: TO REACH A CRITICAL MASS IN A TIMELY MANNER, OPTIONS TO ACCELERATE THE ROLL OUT SHOULD BE CONSIDERED**

- (a) Do you consider that the roll out of smart meters should be accelerated? Please provide details of why or why not.*
- (b) What are the merits, costs and benefits of each option? Is there a particular option which would be most appropriate in providing a timely, cost effective, safe and equitable roll out of smart meters?*
- (c) How would each of these options for rolling out smart meters impact the cost profiles of smart meters?*
- (d) Are there other options that you consider would better provide a timely, cost effective, safe and equitable roll out of smart meters?*

**3 a)** Green Metering believes that the roll out of smart meters needs to be set deadlines to achieve the benefits to the market. If the benefits are there for the parties involved, the rollout will accelerate. Natural drivers for change can be implemented to drive growth and competition in the market.

Without setting specific goals, with appropriate incentives and regulatory requirements to meet these goals, no change will occur. Those incentives and regulatory requirements need to be set for the rollout to get to a certain point where the incentive to have a smart meter far outweighs the incentive to not. Once that point is achieved, the incentives and regulatory requirements can be rolled back as they are no longer necessary to achieve the outcome.

**b)** Green Metering does not see the suggested options as only choosing one but can see all options being used for a holistic approach to deliver the required outcome.

As a new operation without any meters we will not be able to provide further information on the breakdown of the options

**d)** In regards to the holistic approach, Green Metering has reflected on their experience in telecommunications infrastructure and suggest that a similar approach to the rollout of nbn could be considered.

Green Metering suggests that areas could be defined as rollout areas to convert all premises in those areas to smart meters within X amount of time (18 months was used by nbn, shorter time could be considered as there is less capital work required for smart meters). By nominating a time period for an area of X premises (nbn was approx 3,500 premises) the workforce could be situated in that area for that period of time and a known schedule could be determined for activity. This enables forecasting and reduction in operational cost to achieve an outcome.

The additional benefit to the market is that this also encourages competition in the market, where retailers can focus their efforts locally to connect customers to their new smart meter. This may not be welcomed by incumbent retailers with a large share of the customer base, but focusing on the end user benefit can drive down costs and improve the overall customer experience.

Green Metering also recommends that similar to nbn, when an end user changes provider that it is mandatory to install a smart meter if the end user does not have a smart meter.

Additionally to support this program it may be necessary to have a moratorium on the replacement of existing smart meters between meter coordinators for a period of time (eg. 5 years). This may require centralisation of payment from retailers for metering services where commercial arrangements have not been made with metering coordinators.

The experience with nbn was that approx 60% of premises converted within 6 months and 80-90% within 18 months.

The impact of not converting the customer during that period of time was that their service was disconnected. This could be the same for the smart meter rollout and



exceptions provided where extreme circumstances exist.

#### **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?*

4 a) Green Metering cannot comment on the costs and benefits of the options, but supports the existing structure in place in regards to responsibilities, especially with the retailer maintaining the engagement for metering services.

b) In practical terms, with multiple Metering Coordinators managing meters in a DNSPs area, the incentive to engage with all MCs is not commercially beneficial for the DNSP. From a statistical perspective, the DNSP would only need to engage with the MC with the most smart meters installed in the area and receive data to support their operations. This would then reduce competition and value for other MCs in the area and reduce competition which is not healthy for the market.

Alternatively, a centralised database of smart meter data could be managed by a third party (possibly AEMO) which manages the data and the access to that data for the DNSP. A regulated price could be paid by the DNSP for use of that data and the revenue distributed to MCs based on the volume of services in the DNSPs area. Based on this additional revenue, commercial arrangements can be made with the DNSPs and FRMPs to reduce costs where possible.

#### **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?*

**5 a)** Green Metering agrees that the current requirements are sufficient. If changes are made to supply additional power data to DNSPs, these should also be included.

**b)** The minimum services specification is, as they say, a minimum requirement. This does not restrict innovation but creates a floor. Competition will drive innovation so Green Metering believes the focus should be on enabling competition.

**c)** As mentioned in Q4, delivering information to DNSPs and requiring DNSPs to act on that information on a per premises basis will benefit all parties.

**d)** Green Metering agrees that a scaled deployment of smart meters with regulated access and pricing to support this data will be the best approach. The capital investment has occurred through MCs and supported by retailers and consumers. Any additional capital investment by DNSPs will only drive the costs to retailers and consumers higher in an environment where costs are trying to be driven down.

**e)** The use of AI in datasets is becoming more commonplace. Utilising these commonly available systems to analyse, predict and alert all parties of systems issues is necessary in the modern environment.

## **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?

**6 a)** Green Metering agree, as mentioned previously, that a centralised exchange of data will be the most efficient and cost effective way of sharing power quality data

**b)** No comment

**c)** Green Metering agrees that a standardised structure for the sharing of data is necessary to reduce operational cost. As mentioned previously, a centralised exchange managed by a third party makes most sense for the interaction between multiple MCs and a single DNSP

**d)** At this stage Green Metering believes that the current framework is appropriate

#### **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).

(e) Are there any other specific options or components the Commission should consider?

**7 a)** As previously mentioned, the main benefit of a centralised data exchange is reduced operational costs and operation. Where multiple MC's exist within a DNSPs area,





interfacing with all MC's will be difficult and cost prohibitive. This will lead to only interfacing with the MC with the largest deployment of smart meters for a statistical representation of the environment, reducing revenue for other MCs and reducing overall competition.

**b)** Green Metering do not have a view on this approach

**c)** Green Metering supports an API based approach as the standard. This should be investigated further as it has been implemented in many different environments and this market is not unique.

**d)** As mentioned previously, Green Metering recommends a regulated price environment with the sharing of revenue based on the volume of meters on a per MC basis. This will distribute evenly based on penetration and enable additional cost reductions to retailers.

#### **QUESTION 8: A HIGHER PENETRATION OF SMART METERS WILL ENABLE MORE SERVICES TO BE PROVIDED MORE EFFICIENTLY**

- (a) Are there other potential use cases that third parties can offer at different penetrations of smart meters? What else is required to enable these use cases?
- (b) Noting recommendations in incentives and the roll out, are there other considerations for economies of scale in current and emerging service models?

**8 a)** Green Metering believes many of these benefits are not yet known. With the increase in awareness and penetration of electric vehicles and home batteries plus home automation becoming commonplace, interaction with smart meter data and control mechanisms will be necessary.

It is expected that these activities will only occur where a high penetration is commercially viable to implement the solutions.

**b)** Green Metering agrees that the roll out of smart meters will provide economical and environmental benefits to Australia. Many Australian households may be left behind creating a two-speed economy if they do not have a smart meter. With the majority of households with a smart meter being middle-high income households, mainly due to their own investment in rooftop solar, batteries and electric vehicles, many lower income households who will see the most value from the future benefits are being left behind.



## 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?

**9 a)** Green Metering agrees that information should be provided to a customer, but does not believe that multiple regulatory requirements should be created. Green Metering suggest that the appropriate minimum information should be incorporated into a single obligation (eg. NERR). Minimum obligations are just a minimum and does not preclude retailers from providing a better customer experience than others by understanding their customers needs and improving their service.

**b)** The provision of information in relation to a customer's service should remain with their point of contact for the service, that being the retailer. Green Metering does not believe that multiple parties should be involved in the delivery of information.

**c)** Green Metering supports customer driven smart meter upgrades for any reason, but the timeframes for installation should be relevant to the installation. That being if a solar installation or similar has occurred where a smart meter is necessary for the operation of the system existing service levels for installation should remain. If the smart meter installation is not in relation to the operation of the system, service levels should not be at the same level as this can place increased cost on the Metering Coordinator.

## 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?



**10 a)** Green Metering does not have any practicable experience currently with faulty meters but in theory the proposals are supported by Green Metering

**b)** Green Metering understands that in some areas remediation is a significant issue and the cost can be significant to end users, and often the issue to be resolved is historical. Where there is no significant benefit to the end user for the installation than paying for an upgrade is difficult to justify.

This is somewhere that government funding could be provided for the improvement of electrical infrastructure at the end user premises. Often the revenue delivered by an end user to the retailer, or retailer to the metering coordinator will never justify the upgrade so they are not willing to take on the cost for remediation. It would be recommended that specific guidelines are set up to support this in state jurisdictions and are managed directly with Meter Coordinators to claim the cost back.

#### **QUESTION 11: MEASURES THAT COULD SUPPORT MORE EFFICIENT DEPLOYMENT OF SMART METERS**

(a) Do you have any feedback on the proposal to reduce the number of notices for retailer-led roll outs to one?

(b) What are your views on the opt-out provision for retailer-led roll outs? Should the opt-out provision be removed or retained, and why?

(c) Are there solutions which you consider will help to simplify and improve meter replacement in multi-occupancy premises? Should a one-in-all-in approach be considered further?

**11 a)** Green Metering supports the reduction of notices

**b)** Green Metering supports the removal of opt-out provisions for retailer-led rollouts

**c)** Green Metering believes more detail is required to understand a one-in-all-in approach as it has the possibility of reducing competition for metering. Replacement of a meter for an end user may have further implications, especially if the meter coordinator doesn't have a commercial arrangement with the retailer for the other end user.

Alternative solutions for the deployment of smart meters can be coordinated directly with strata management for multi-occupancy premises.



Green Metering are not supportive of a one-in-all-in approach

### **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?

**12 a)** Green Metering doesn't have any additional feedback on the other installation issues raised.

### **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?

**13 a)** Green Metering does not believe there are significant issues with the current roles and responsibilities, but due to the blurring of some responsibilities, especially between the MC and MP further clarification of those roles could be defined.

Green Metering supports more responsibility being placed onto the MC role, and enables an MC to engage with not just an MP for the installation and maintenance activities but also accredited electricians who are not associated with a specific MP. A relaxation of the MP role may be required to drive an acceleration of the installation of smart meters across a wide range of areas, especially in regional and remote parts of Australia. Accountability for the installation and maintenance of smart meters would be with the MC and testing and inspection requirements would ensure the quality of installation of services. As the smart meters provide a significantly larger amount of data on a near real-time basis, awareness of whether the meter is installed and operating correctly is much easier to manage.

It may also be necessary to allow for different testing and inspection requirements for smart meters which have a high level of information available. This reduces the need for testing and inspection requirements which are more suited to non-smart meters.

Green Metering also considers that direct engagement by MCs with end users, solar installers and similar would increase the rollout of smart meters. This would improve the



customer experience for the end user and reduce the need for multiple parties being involved in the process. Some minor operational changes to the process in MSATS would enable an MC to place the order on behalf of the customer and inform the retailer of the impending change. With other changes mentioned, this could enable a solar installer to also have the smart meter installed and operating on the same day the solar is finalised utilising the same accredited electrician.