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Directions Paper - Review of the Regulatory Framework for Metering Services – EMO0040

Essential Energy welcomes the opportunity to provide a submission to the Australian Energy Market Commission (AEMC) on its *Directions Paper: Review of the Regulatory Framework for Metering Services* (the Directions Paper), and we appreciate the collaborative approach and industry consultation that has been undertaken by the AEMC to date. Energy Networks Australia has also produced a submission which Essential Energy supports.

Essential Energy supports the AEMC's conclusion that the *2015 Expanding competition in metering and related services (Competition in metering reforms)* are failing to support the timely and coordinated roll out of smart meters. As a result, improved outcomes for customers such as innovative products and services, improved retail offerings, granular information, better price signals as well as improved network services have not been delivered.

We welcome the recognition that the most important objectives for this review should be to increase the speed of the smart meter roll out as well as making power quality data more widely available to distribution businesses. As such, the contemplation of alternative reform pathways within the Directions Paper is an important step in unlocking benefits for consumers as part of the energy sector transition.

To that end, in close collaboration with industry, Essential Energy supports the following reform pathways being further considered:

- The contemplation of measures to expedite the pace of smart meter roll out. Essential Energy's preferred approach is a three-pronged model of enforceable retail led targets, the introduction of a backstop date whereby all non-smart meters must be replaced, as well as a mandatory obligation of smart meters for life support customers. In addition, the existing identified issues which relate to the current installation processes need to be addressed at a minimum to improve the efficiency and speed of the roll out.
- The introduction of a data access framework to make smart meter data more accessible for distribution businesses and customers. Access to standardised, timely and cost-effective data will allow distribution businesses to deliver numerous benefits for customers, including lower network costs, improved reliability and additional safety protections. As such we support newly defined minimum contents requirements (option 2) and the establishment of a common data architecture exchange framework (option 3) being taken forward for further development.

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- We support a 'one in all in' approach to replacing meters in multi-occupancy premises whereby if one meter sharing a fuse or metering panel needs to be replaced by a smart meter, all other meters on the premise would be replaced with smart meters as well. This approach will assist overall meter roll out timeframes.
- The introduction of improved customer metering experience reforms such as timely and detailed information being provided to consumers prior to a smart meter being installed. We also support enabling customers to request a smart meter from retailers, whilst simultaneously removing any retailer-opt out provision. In our view, customers should not be prevented from having a smart meter installed if they have requested one.

These points and others are outlined in further detail below. If you have any questions in relation to this submission, please contact me on 0406 534 682 or Anders Sangkuhl, Regulatory Strategy Manager via anders.sangkuhl@essentialenergy.com.au or via phone on 0409 968 326.

Yours sincerely



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Essential Energy Submission to *Directions Paper: Review of the Regulatory Framework for Metering Services*

Smart meters are fundamental enablers of consumer benefits

The AEMC's comprehensive analysis and conclusions within the Directions Paper underlines the well-recognised view that smart meters are fundamental enablers of consumer benefits in the NEM. From Essential Energy's perspective, managing the high penetration of distributed energy resources (DER) across distribution networks depends in large part on the network visibility functionality that smart meter installations can provide. The falling costs of DER installation and the greater uptake of new technologies such as batteries or even electric vehicles is accentuating the requirement for greater understanding of the operating environment of the low voltage network.

The stakeholder feedback and detailed analysis put forth in the Directions Paper reinforces the significant consumer benefit that would be unlocked through greater smart meter penetration across the NEM including:

- Greater retail product offerings, such as time of use pricing and demand management services, quicker customer transfers and the facilitation of different billing cycles;
- Lower costs to consumers through improved network operation efficiency;
- The ability to accurately and remotely determine the location of an unplanned outage;
- The ability to prioritise life support customers in the event of an outage;
- Faster response times during general unplanned outages leading to improved public safety;
- Empowering customers with a mobile application for communications and usage data;
- Reduced cost to serve and confusion for customers by eliminating 'buffer letter communications' for planned outages;
- Reduced energy theft;
- Eliminating the need for meter reading visits to medically vulnerable customers during Covid-19 outbreaks or lockdowns; and
- Improved understanding of voltage across the Essential Energy network.

Despite the identified benefits, the existing regulatory arrangements are not fit for purpose

As outlined within the Directions Paper, the existing roll out of smart meters across the network has been patchwork, slow, and often not in areas in which improved visibility would benefit network management tasks such as voltage issues. It is worth acknowledging that in many respects, the current roll out of smart meters across the NEM are being driven by solar PV system installations or new housing connections, which mandatorily require smart meter installations. Retailer or customer led roll outs are in many respects non-existent.

At present, Essential Energy has a smart meter penetration of only 25% across our regional network, and at the current rate of installation, the number of customers with smart meters is not expected to reach over 50% until FY2025-2026.

Table 1: Essential Energy estimated smart meter installation rate

Period	Smart Meters Installed	Total Number Smart Meters EOFY	Percent of total NMI's with Smart Meters
FY 2018/19	50,629	104,363	12.15%
FY 2019/20	70,619	174,978	20.17%
FY 2020/21	50,000	224,978	25.71%
FY 2021/22	55,000	279,978	31.64%
FY 2022/23	55,000	334,978	37.43%
FY 2023/24	55,000	389,978	43.33%
FY 2024/25	55,000	444,978	48.63%
FY 2025/26	55,000	499,978	54.64%

The current low penetration of smart meters and their dispersed nature is insufficient for Essential Energy to draw tangible value from which improved services could be delivered to customers. Even those customers who do have smart meters receive limited product innovation, due to the lack of scale to incentivise retailers to offer smart products. As highlighted within the Directions paper, the slower than hoped uptake of smart meters across the network exists for a variety of reasons including:

- Inefficient and complex installation practises - which can vary significantly between retailers and metering coordinators;
- Lack of incentives - a major contributing factor is that the benefits from smart meters are split between multiple parties, in particular between distribution businesses and retailers, which is impacting the roll out of smart meters and benefits for all end users being realised; and
- Consumers are not incentivised to seek smart meters - with limited access to services and concerns over tariff reassignment.

Given the weight of stakeholder feedback and the AEMC's comprehensive analysis into the existing constraints on smart meter penetration and development, Essential Energy strongly supports the contemplation of reform options within the Directions Paper as an important first step in unlocking benefits for consumers as part of the energy sector transition.

Reform Options to accelerate the smart meter roll out

The Directions Paper contemplates four options to improve both the efficiency and speed of the smart meter roll out:

1. improving incentives to rolling out smart meters by removing inefficiencies in the installation processes and improving cost sharing;
2. requiring meters to be replaced once they have reached a certain age, under an aged-replacement roll out;
3. setting targets for the roll out under which a retailer will be required to replace a certain percentage of their customers' meters with smart meters each year;
4. introducing a 'backstop' date or dates by which all accumulation meters or manually read interval meters must be replaced, for example, "90% of meters required to be smart meters by 2030".

Essential Energy’s preferred approach is a three-pronged model of enforceable retail led targets (options 3), the introduction a backstop date whereby all non-smart meters must be replaced (option 4) as well as a mandatory obligation of smart meters for life support customers.

In Essential Energy’s view, this approach is efficient and provides certainty that enforceable yearly targets will be met; allowing metering coordinators, installers, retailers and distribution businesses to cost effectively plan and provides confidence that a firm end date for work completion is set within the rules. This also has the added benefit of allowing retailers the autonomy to identify the most efficient pathway to meet their relevant installation targets. It is worth noting that during the *2015 Competition in Metering Reforms*, retail businesses advocated strongly for the sole role of leading the smart meter roll out across the NEM.

We also suggest that retailer-led targets must also be predicated upon a targeted geographic component to ensure that meters are dispersed across the distribution network in a way that will not lead to inefficient outcomes whereby the cost of reading remaining meters remains disproportionately high. One potential methodology for geographic targeting could be via local government areas. This is important to ensure that regional and remote customers and their distribution networks are not unfairly disadvantaged from accessing the benefits and innovation smart meters can provide and also ensures that retailers do not ‘cherry pick’ customers by meeting their allocated targets purely through metropolitan customers.

In addition, as raised in previous submissions, Essential Energy believes a strong case exists to mandate an expedited smart meter roll out across all registered life support customers who rely on continuous power supply for medical equipment. Such an obligation could contribute towards a retailer’s enforceable replacement targets.

In our view, there is a strong public good and utility which would be derived from prioritising these customers as part of retailer’s enforceable targets. Smart meters allow for more accurate detection of localised outages impacting life support customers. Having visibility of the real-time situation would allow distribution businesses to better estimate restoration timelines. In the case of any delays to restoration, distribution business would be able to prioritise restoring power to the property of life support customers and, as needed, encourage them to follow their emergency back-up plan. Without this real time monitoring, distribution businesses rely on site visits and customer phone calls to identify where outages exist on the network at considerable administration cost.

Essential Energy believes that implementing this joint model of options 3 and 4 as well as the mandatory obligation of smart meters for life support customers satisfies the national electricity objective and is in the long-term interests of consumers.

Realigning participant incentives and potential cost sharing arrangements (option 1)

In relation to the improved incentives and contemplation of cost sharing arrangements (option 1), whilst Essential Energy does see in principle merit in aligning incentives and developing additional revenue streams from metering services, the Directions paper does not provide sufficient detail as to how such an arrangement would work in practise.

It is unclear how the structure of cost sharing arrangements and incentives would be aligned between the parties responsible for the roll out. The mere allocation of roles and responsibilities is likely to be a highly complex and fraught reform which would take considerable time in resolving, likely further delaying the roll out. Further, improving incentives gives no set assurances to the market that rollout targets will in fact be met in a timely fashion, unless combined with meaningful and enforceable targets. Given the lack of detail it is also unclear as to how costs and benefits could be fulsomely assessed from which stakeholders could draw meaningful conclusions at this concept stage.

Putting aside these concerns, Essential Energy does see merit in contemplating an immediate expanded role for DNSPs to improve the penetration of smart meters for life support customers including:

1. Allow DNSPs to install smart meters at all life support customer premises across its network.
2. Allow DNSPs to appoint metering coordinator(s) to install smart meters to life support customers' premises.
3. Allow DNSPs to enter into agreements with retailers to deploy smart meters to life support customers' premises.

As part of the mandatory obligation of smart meters for life support customers an active role for DNSPs should be considered to enhance the speed of the roll out. We would encourage the AEMC further expand upon option 1 at the next stage of consultation if it is to be taken forward as a viable option.

Aged based replacement (option 2)

In Essential Energy's view, requiring meters to be replaced when they reach a certain age (e.g. 30 years), risks imposing logistical costs on the roll out and is not necessarily based on the technical capacity or function of the individual meter.

For instance, obliging metering installers to visit a premise to replace a functioning meter when it reaches 30 years, and then potentially having to return to the neighbouring property (which in parts of Essential Energy's network could involve significant travel) the following year to replace their meter when it turns 30, is an inefficient outcome relative to the preferred approach of options 3 and 4 whereby retailers are incentivised identify the efficient replacement pathway to meet their enforceable installation targets how they best see fit.

It is also worth noting that many of the meters which are 30 years old will likely be relatively more expensive to replace given their higher proportion of asbestos related issues and / or small fuse boxes. We would encourage the AEMC to consider the funding implications of any age-based target.

Proposed introduction of a data access framework

Essential Energy requires improved visibility through the timely provision of smart meter data to provide near real time readings of voltage, current and real and reactive power to continue to safely and reliably operate the network. In addition, access to smart metering data allows Essential Energy to support customers to maximise the utility of their installed DER, ensuring unnecessary constraints from exports are avoided.

Nonetheless, under the current regulatory framework, metering data can only be made available to Essential Energy under the minimum NER service specification requirements. Outside of these specific circumstances, metering data must be provided through bilateral commercial arrangements between Essential Energy and metering coordinators. As noted, these existing arrangements do not work effectively due to a lack of data standardisation of key terms, different system formats/terminologies, different contractual arrangements and in some circumstances cost prohibitive pricing arrangements.

For this reason, Essential Energy supports the Direction paper's contemplation of options to develop a data access and exchange framework.

Centralised organisation

The centralised organisation model as Essential Energy understands it is that a regulated entity would be responsible for NEM metering data collection and delivery, removing competition in data provision. The costs of data capture would be socialised among all energy customers and free access to data would be provided.

In our view, this option has several benefits, namely it would guarantee the widespread provision of data to all industry participants, ensuring better visibility of the low voltage network, allowing Essential Energy the ability to operate the network more dynamically, improving the quality of service and potentially enabling a greater level of customer DER connections. This model has the added efficiency of completely removing the need to negotiate data access between commercial parties.

Further, we agree that publicly available data could spur additional innovative uses of smart meter data by non-energy participants creating innovative and complementary benefits for consumers. There are also substantial economies of scale that could be derived from a centralised data collection agency, which if efficiently implemented, could ultimately lower customer prices.

However, as part of these further considerations, it is also worth noting the identified areas of the model which require further development:

- The establishment of the centralised model implies a material design, establishment and implementation period which would need to be built upon a robust regulatory framework with substantial consideration given to a corresponding consumer protection framework. In practice, the time frame required to deliver such a project would span a number of years, delaying the identified benefits.
- The costs associated with both establishing, funding and implementing the centralised model will in the short term have evident impacts for energy consumers. In the longer term however, this may abate and deliver cost savings.
- The governance arrangements of the centralised model requires careful consideration and may have impacts on the future market structure of the NEM. For instance, AEMO will almost certainly be canvassed as the potential candidate for the role of centralised data provider. Such a role would have to be rigorously assessed against AEMO's existing core functions and operations to ascertain whether conflicts of interests (real or perceived) may arise from such a potential new role for the market operator.

Given these implementation challenges this option could be considered as a target end-state with other options considered in the paper progressed as a transition to this model which ultimately may not be required.

Minimum contents requirement

Essential Energy supports the proposal to further define and specify the minimum contents of what constitutes 'essential data' that would be provided to distribution businesses at reasonable cost. In our view, such an approach would guarantee the timely provision of data, removing the need for lengthy negotiations with multiple providers as to what constitutes minimum contents.

Such an approach would likely be low cost to implement and could be implemented relatively quickly following a process whereby the AEMC would define what constitutes essential data. Such an option could also be tailored to operate in tandem with a common exchange architecture (explored below), further delivering efficiency benefits. In terms of pricing, we would support the introduction of regulated pricing for the access to basic data, providing a known cost input into distribution businesses regulatory resets and business resource planning.

Nonetheless, access to more bespoke data would still need to be negotiated individually with metering coordinators, meaning Essential Energy would potentially still have to navigate multiple participants with potentially different system and format requirements. This would add additional complexity, and for this reason should be considered in tandem with the common exchange architecture option.

Exchange architecture

As outlined above, Essential Energy supports the development of a common exchange framework whereby data and system architecture are standardised across a common industry specification. Similar to the reasons outlined under the centralised organisation model, we believe a common exchange architecture would deliver significant industry wide cost benefits through reduced transaction costs.

Nonetheless, on its own, the development of a common exchange framework would not necessarily guarantee the delivery of data on commercial terms. For this reason, we support the development of a common exchange architecture being paired alongside the minimum content's requirement. Absent such a pairing, this option would require substantial industry investment without the corresponding guaranteed data changing hands.

Negotiate arbitrate framework

The presence of a negotiate-arbitrate framework has been successful in achieving benefits across several regulated monopoly industries such as rail, gas transmission and telco services. It therefore in metering data deservedly has some appeal in providing a meaningful incentive to reach commercial terms.

Nonetheless, relative to the other options under consideration the negotiate arbitrate framework does not guarantee access or standardisation of metering data across the industry. This option also implies a significant administrative and legal burden in order to reach successful commercial close which may outweigh the benefits of participation itself. For this reason, Essential Energy does not support the AEMC taking the negotiate arbitrate framework forward.

Improved customer metering experience

As noted in the Directions Paper, the current smart meter installation process currently has multiple well-identified inefficiencies and barriers impacting the successful completion of meter installation attempts. As such, Essential Energy supports the AEMC's proposed amendments to make the metering installation process more efficient and thus improving the overall consumer experience including the following recommendations:

- **Retailers to be required to provide information to consumers prior to a smart meter being installed** – Essential Energy supports the proposal to introduce a requirement for retailers to provide a timely and detailed set of information to their customers when a smart meter is being installed. Such information would include contact information, dispute resolution process, the installation process and the customers' overall rights and responsibilities. We also suggest customers be explicitly notified if installing a smart meter may be detrimental to a customer's existing service, for example, causing a loss of an existing controlled load service.
- **Enabling customers to request a smart meter from retailers for any reason** – Essential Energy supports the proposal to enable customers to request a smart meter from their retailer for any reason and require retailers to install a smart meter upon such a request. Importantly, retailers will not be able to opt out of a customer-initiated request, which would prevent retailers from cherry picking and disproportionately disadvantaging rural and regional customers.
- **Introduction of a "one in all in" approach to metering installation** – The issue of meter replacement in multi-occupancy situations such as apartment blocks is highly complex with multiple consumers, retailers and metering coordinators involved. When performing metering installation or repairs where customers share a fuse, Essential Energy must undertake a temporary isolation for the entire group supply. This multiple stakeholder coordination entails significant resourcing and cost. As such, Essential Energy supports the proposed introduction

of a “one in all in approach” whereby if one meter sharing a fuse or metering panel needs to be replaced by a smart meter, all other meters attached to that shared fuse or on that meter panel would be replaced with smart meters. Nonetheless, we also support further consideration as to the consumer protection choices under this option. For instance, if a customer is unwilling to transition to a smart meter, retaining the ability to still select a smart meter with the communication functionality switched off may be the path of least resistance, without compromising their inherent right to opt out.