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Australian Energy Market Commission
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Submission on the Review of the Regulatory Framework for Metering Services – Directions Paper

Introduction

1. This is Vector Limited's (Vector)[1] submission on the Australian Energy Market Commission's (AEMC) Directions Paper – *Review of the Regulatory Framework for Metering Services* (the Directions Paper), dated 16 September 2021.

2. Vector appreciates the AEMC's multiple engagements with industry participants during the Review primarily through the Review Reference Group which informed this Directions Paper. We note that most of the recommendations we made in our response to the AEMC's survey leading up to this Review, in our submission on the Review consultation paper, and through our participation in the Reference Group and Sub-Reference Groups are reflected in the Directions Paper. We are committed to working with the AEMC, any future Sub-Reference Groups, other industry participants, and our customers to help find workable and efficient solutions so that existing and new services enabled by smart meters can be delivered to consumers in a timely manner.

3. We set out below our responses to the questions in the Directions Paper and make several suggestions we believe would further promote the objectives of the Review, including another option to address the split incentives issue.

Responses to the consultation questions

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?

4. Vector agrees with the multiple benefits that smart meters can enable, as identified by the AEMC in Table 2.1 and related paragraphs of the Directions Paper. We believe that this list is not exhaustive, and that more benefits can be enabled especially in the management of low-voltage (LV) networks. We refer the AEMC to a report prepared in 2010 for the Victorian Department of Primary Industries which provides a list of potential benefits identified as part of the Victorian Advanced Metering Infrastructure (AMI) program. Most of these benefits are

[1] Vector's Australian and New Zealand advanced metering business – Vector Metering – is an accredited Metering Provider and Metering Data Provider, and a registered Metering Coordinator, in Australia's National Electricity Market and the equivalent in New Zealand. Vector Metering provides a cost-effective end-to-end suite of energy metering and control services to energy retailers, distributors and consumers.

still relevant to the ongoing smart metering deployment in the National Electricity Market (NEM).

5. In dynamic environments such as the electricity sector, the uptake of and transition to new technologies are driven by market and positive consumer outcomes, rather than by regulatory or technical prescription. It is important that new technologies can be tested or installed to meet the changing requirements of industry participants and consumers, rather than stifled through greater prescription. In principle, any regulatory framework should avoid placing constraints on how benefits are to be delivered and focus instead on ensuring the most efficient outcome is achieved.

6. We are not opposed to the realisation of benefits using alternative devices to smart meters as long as the costs of these devices are a true reflection of the actual costs incurred. For instance, we believe it is unlikely that installing additional devices at a customer's premise to capture data and/or provide functionality already available from a smart meter would be cost effective or more cost effective.

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?

7. Vector agrees that the level of smart meter penetration required to enable each benefit needs to be evaluated on its own merits, as demonstrated in table B.3 of the Directions Paper. However, the threshold can be subjective in many cases. Some benefits may require only a low penetration of smart meters, e.g. network outage detection and management which may require only a few strategically placed smart meters on the LV network. Other benefits may only be realised with a higher penetration, e.g. safety related benefits such as the ability to monitor neutral integrity at a customer's site.

8. Work already done by Victorian and Western Australian (WA) electricity network distribution businesses has proven that the enablement of many benefits requires the provision of a small but important set of data points from smart meters – namely current, voltage, power factor and temperature. To maximise benefit realisation, it is best that this dataset is provided from all smart meters. At this stage of market development, we urge the AEMC to prioritise the realisation of benefits that have already been identified and delivered in Victoria and WA, rather than focusing on accommodating what may be possible in the future.

QUESTION 3: TO REACH A CRITICAL MASS IN A TIMELY MANNER, OPTIONS TO ACCELERATE THE ROLLOUT SHOULD BE CONSIDERED

(a). Do you consider that the rollout 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 rollout 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 rollout of smart meters?

9. Vector agrees that an accelerated rollout is required to meet broader policy objectives. Deployment rates to date have shown that relying on the existing 'trigger mechanisms' for customer-initiated installations and meter malfunctions will not drive sufficient installation volumes that would enable the delivery of the identified key benefits in a timely manner.

10. Additional volumes under an accelerated rollout, regardless of how they are achieved, will allow Metering Providers (MPs) to achieve higher economies of scale and a more efficient deployment process. This will drive down costs, the benefits of which are realised by retailers via competition between MPs.

11. Currently the industry is successfully installing between 1,000 and 1,500 smart meters per day, or 250,000 to 350,000 per year. While problems associated with meter installation processes identified in the Directions Paper (e.g. shared fusing in multi-occupancy premises and 'customer side defects') need to be addressed, we agree with the AEMC that a major rethink of the competitive metering framework is not necessary. These problems will remain and need to be addressed regardless of which party is responsible for metering.

Aged-based replacement of meters

12. Vector supports an age-based approach to drive the replacement of legacy meters but believes the other options identified in the Directions Paper may have advantages. We consider age-based replacement to be a fairly 'blunt' instrument that could lead to an uneven distribution of exchanges across network areas and retailers.

13. This is because past meter replacement programs undertaken by distribution network service providers (DNSPs) have resulted in different age profiles in different network areas. Adopting a blanket aged-based threshold without consideration of the current age profile of the legacy metering fleet within a network area will likely result in an uneven geographical spread and potentially a bias against retailers with a larger customer base in that network. If an aged-based approach was deemed to be appropriate to accelerate the rollout, then an age threshold per network area should be determined. This will help ensure that all retailers are subject to similar replacement volumes and that each DNSP can expect a similar level of smart meter penetration over the course of the rollout that can deliver the required meter data services.

Installation quota and backstop date

14. In our view, a framework where retailers are required to replace a percentage of legacy meters over a period, leaving it up to the retailers to determine which meters are to be replaced, will deliver the most benefits in the earliest possible time. The Directions Paper raises concerns related to retailers 'cherry picking' meters for replacement and considers this to be a negative outcome. We do not agree with this view. We believe it is desirable that those meters that can enable the most benefits to retailers and customers are exchanged earlier than meters that can only enable fewer benefits. We expect retailers to make meter replacement decisions based on a variety of factors, e.g. geographical area or site access issues.

15. We consider the proposed "Installation Quota" and "Backstop Date" options, where retailers are given a timeframe within which to meet a target, to be essentially similar approaches. The key difference is that under the Installation Quota, retailers will be required to meet targets for a network area. This may have the advantage of giving networks more confidence that the penetration of smart meters will reach predictable levels within predictable timeframes, allowing them to plan and make investment decisions. Realistically, we believe mandating targets for network areas is unnecessary because the large Tier 1 retailers have a customer distribution that is biased to their 'local retailer' status for each network area. It can reasonably be expected that meters will be rolled out roughly evenly across network

areas regardless of any mandate to do so. Table A.1. of the Directions Paper demonstrates that current smart meter penetration levels are approximately the same across all networks.

16. While retailers should be given flexibility to decide the most efficient approach, it is important that any accelerated rollout delivers a consistent flow of meter exchanges and avoids 'boom and bust' cycles. Therefore, any timeframes and targets must be reasonable to avoid retailers delaying work until the very last minute. We recommend that timeframes for any targets be broken into (6-9 month) segments.

17. We also recommend that DNSPs be allowed to nominate a set of meters they can request retailers to exchange as part of the retailer's target, e.g. 5,000 meters per annum. This gives DNSPs some control over the timing of deploying smart meters into strategic locations within their networks so they can commence receiving power quality data and outage management services. This will enable the DNSP to realise network management benefits earlier.

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?

Development of additional revenue streams from smart meters

18. Currently there is only one party who implicitly pays for the costs of smart meters and smart meter services and that is the end consumer (the consumer is generally purchasing delivered electricity of which metering is an input cost). The principle that should be the focus of any cost allocation framework should be to ensure that the consumer does not pay for the meter or metering service more than once. The DNSP should not be passing on costs for services that have already been collected by the retailer from the consumer.

19. Vector fully supports retailers benefitting from additional revenue sources derived from the introduction of new services provided by Metering Coordinators (MCs). We believe that the mechanisms to deliver this are already in place through competition between MCs which has been fierce since the commencement of competitive metering in the NEM. This has placed downward pressure on prices charged to retailers for metering services, resulting in prices being renegotiated. Where new services are provided by MCs to third parties and new revenue streams are generated, we expect competitive market forces to ensure that some portion of these revenue streams (net of incremental costs, etc.) to reach the retailers through lower prices. Unlike services that are provided by monopolistic service providers, where regulation ensures that profits are passed on, it is not necessary to regulate where competition between service providers already exists.

20. It is reasonable for the MC to expect that the revenue from providing a new service covers a commercial rate of return on the investments the MC made and is reflective of the cost and risks involved in providing that service.

21. Vector has provided the AEMC with estimates of a price for providing this new service, which is on a cost-plus basis. If there is an expectation that retailers will receive lower pricing from MCs as a result of the introduction of this service, then DNSPs will need to pay more than the cost-plus price indicated.

22. We support retailers receiving benefits from new services delivered to other parties. However, when it comes to providing services to a regulated DNSP, any new charges for services will simply be passed back to the retailer. Nothing is gained unless the DNSP is required to smear these costs across all customers including those with legacy meters, in which case, an incentive is created for retailers to accelerate the rollout. We note that for this

very reason, the industry accepts that DNSPs and the Australian Energy Market Operator (AEMO) currently receive consumption data from meters to be used for network billing and market settlement but do not directly contribute to the costs of providing this service.

23. It is unclear what the 'tiered user-pays' approach mentioned in the Directions Paper refers to. We assume this is the South Australian Power Networks' (SAPN) proposal described in the report by National Economic Research Associates (NERA) Consulting, where power quality data is provided to the DNSP for no cost. We do not support this model and discuss our reasons further in our responses to Question 7 (below).

Spreading the costs of installation

24. As the AEMC correctly identified, retailers do not generally pay for the cost of metering installations upfront. This is bundled into the annual charge to retailers, which covers costs for the meter, associated installation costs, and costs for ongoing daily data provision recovered over a period of time. We assume this option is proposing that a portion of this annual charge will instead go to the DNSP. This could be viewed as the DNSP paying for interval data provision services they currently receive for free. Establishing this approach is entirely possible and will reduce the payments made by retailers to MCs, presumably by an amount similar to the charge the DNSP will pay to the MC. However, as costs incurred by the DNSP are simply passed back to the retailer in the form of network tariffs, any reduction in costs retailers pay to the MC will be offset by a corresponding increase in charges from the DNSP. As discussed above, little is gained unless the DNSP is required to smear these costs across all customers. An arrangement where DNSPs directly contribute to the cost of smart metering installations will result in regulated pricing for a portion of the metering costs.

25. The Directions Paper and further discussion with the AEMC have indicated that DNSPs sharing the cost of installation would allow them to influence where meters are deployed, allowing them to realise network benefits earlier. We believe this is better addressed by allotting an annual volume of meters that DNSPs can request retailers to replace. These volumes could go towards a retailer's target under an accelerated rollout, as discussed under the rollout options in our responses to Question 3 (above).

26. Splitting the charges that retailers currently receive with the DNSP introduces numerous commercial issues and complexities without tangible benefits. Therefore, we do not support this option.

Multiple parties responsible for metering

27. Making multiple parties (retailers and DNSPs) responsible for metering will add an unnecessary layer of complexities. DNSPs would need to establish deployment contracts with MCs. As monopolies with access to all meters within their network areas, DNSPs would hold the power in any negotiation on contractual terms and conditions. MCs could find themselves locked out of any DNSP deployments if they fail to accept the DNSP's terms and conditions. DNSPs that have related metering businesses could hand all DNSP deployments to those businesses. To avoid these issues, a regulated agreement and some method of allocating meters between MPs would be required.

28. Regulating DNSP-based deployments is likely to have an undesirable effect on the pricing competition that has emerged since competitive metering was introduced in December 2017. DNSP-regulated pricing could trigger unnecessary meter churn after DNSP-deployed meters are installed as retailers may decide to exchange the meter to gain better pricing from a competitive MP. We note that deployment prices under the competitive metering model have been delivering significant price reductions over the regulated DNSP-led rollout that occurred in Victoria.

29. We do not support this option for the above reasons.

Another suggested option - smart meter discount

30. As raised in Vector's submission on the Review consultation paper, we believe a key barrier to the rollout of smart meters is the disparity between the cost to retailers of legacy meters versus the costs of smart meters. Work done by the Australian Energy Regulator (AER) during its determination of the Default Market Offer (DMO) found that legacy meter costs to the retailer were about 1/3 that of a new smart meter. It is therefore unsurprising that retailers are hesitant to replace a legacy meter with a smart meter if they are immediately faced with increased costs that cannot be fully offset by the benefits of a smart meter.

31. Competition in metering services is fierce, and the proposal to accelerate the deployment of smart meters is expected to drive prices lower as MPs gain greater economies of scale. We believe retailers require additional support, especially in these early days of low smart meter penetration. In our view, this is best achieved by introducing a "network tariff discount". Network tariffs can be used as a mechanism to create a temporary bias in favour of smart meters such that retailers receive a discount on their network charges for their customers who have installed smart meters. This discount on smart meters would be recovered via a small increase in revenue collected from legacy meters. The discount would be reduced over time as the penetration of smart meters increases and eventually totally removed when the rollout is complete. This approach would be revenue neutral to the DNSP.

32. The key benefits of a network tariff discount include the following:

- Retailers who deploy smart meters will be rewarded compared to retailers who do not.
- It can be designed to be revenue neutral to DNSPs.
- Retailers who exceed the average penetration rate will benefit while those who lag will not.
- It is likely to stimulate retail competition as retailers compete to gain and retain smart meter customers.
- It will incentivise 'retailer-led' deployments (including as part of customer churn). When retailers win a customer with a legacy meter, they will exchange the meter as part of the transfer because they get a direct benefit.
- Competition between retailers is likely to accelerate smart meter rollout even faster.
- The discount provided would start off largest at lower penetration levels and is gradually reduced as deployment rates increase. The recovery from the legacy meters would start off low as recovery will be across a large legacy metering base, reaching its peak at 50% penetration rate and then receding.
- The discount is not designed to totally close the gap in costs to retailers but to provide a level of assistance, especially in the early days, which will gradually decline as smart meter penetration increases.
- Most of the benefits unlocked by DNSPs that are enabled by smart meters benefit all customers, regardless of their metering arrangements. The small increase in tariffs on legacy customers recognises that costs are incurred to enable these benefits and that these costs should be spread across all customers, not just smart meter customers.

33. This approach has many benefits and, if designed correctly, could render other potential options for aligning incentives unnecessary. The table below demonstrates how a smart meter incentive of $20 might be applied under this approach. The 'Net Discount' column shows the discount the retailer would receive on a smart meter. The 'Makeup per customer' column shows the increase that would be applied to all meters to recover the discount provided.

Incentive	$ 20.00	Annual Network Charge	$ 200.00		

$ discount for smart meter	% Smart Meter penetration	% Legacy base	Network charge Annual $ Smart	Network charge Annual $ legacy	$ Net Discount for retailer Smart meter customer	Makeup per customer (Applied to all customers)
20.00	0%	100%	-	200.00	-	-
18.00	10%	90%	183.80	201.80	16.20	1.80
16.00	20%	80%	187.20	203.20	12.80	3.20
14.00	30%	70%	190.20	204.20	9.80	4.20
12.00	40%	60%	192.80	204.80	7.20	4.80
10.00	50%	50%	195.00	205.00	5.00	5.00
8.00	60%	40%	196.80	204.80	3.20	4.80
6.00	70%	30%	198.20	204.20	1.80	4.20
4.00	80%	20%	199.20	203.20	0.80	3.20
0.00	100%	0%	200.00	-	-	-

Reduced tariff risk

34. Another barrier to retailers rolling out smart meters is the mandatory reassignment of customers onto Time of Use and demand-based network tariffs by the DNSP when the meter is exchanged.

35. Under retail contract terms and conditions, retailers generally have the right to change the customer's retail tariff following a network tariff change. However, as demonstrated in the Newgate research commissioned by the AEMC, customers are wary of any changes where the impact cannot be explained and are extremely negative towards any unexpected bill increases that result from any change. When retailers choose to make changes to the customer's tariff, the customer usually makes a direct association between the change in their bill and the smart meter exchange.

36. Given that customer usage patterns are not visible until after the smart meter has been installed for a period, it is simply impossible for a retailer and a customer to be informed of the impact of the change in tariffs.

37. Should the retailer choose to let customers remain on their existing tariff to avoid losing unhappy customers, the retailer wears the risk that new network charges erode or eliminate their margin. It is therefore unsurprising that retailers are hesitant to encourage more smart meter deployments that will trigger these issues.

38. We believe these problems can simply be avoided by disassociating the smart meter exchange from the network tariff change. We recommend that the practice of reassigning a network tariff to a cost-reflective tariff be delayed for a period after the smart meter has been installed so that there is a reasonable amount of historic data available to inform both the retailer and customer of the impact that a tariff change will bring.

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?*

39. Vector agrees with the AEMC's position that changes to the current minimum service specifications set out in the *National Electricity Rules* (NER or rules) are not necessary.

40. The minimum service specifications already define services that have yet to be taken up by the industry. The lack of meter services uptake is not a matter of the service being unavailable but is a consequence of the lack of incentives on parties to request these services. Making changes to mandate competitive MPs to make additional services available will have no impact if there is no demand for these services from the market.

41. Rather than changing the minimum service specifications, the barriers to the uptake of these services should be identified and addressed.

42. We also recommend that the AEMC encourage state governments to remove regulatory barriers that are limiting the uptake of remote services in their jurisdictions. e.g. remote Re-energisation/De-energisation in Queensland and Tasmania.

Safety outcomes – neutral integrity

43. We are strongly of the view that good regulation should focus on achieving outcomes and determining the parties responsible for those outcomes, rather than attempting to specify technical solutions on how a party might best meet its obligations.

44. While it may be possible for neutral integrity issues to be detected and alerted by a meter, there are disadvantages to doing this.

- Current wiring arrangements may need to change. Our understanding is that to allow the meter to be able to detect a neutral failure, the supply neutral will need to be wired into the meter first and then onto the customer's neutral link. This arrangement is not the existing practice. Should this be required, any change would be significant and wide reaching, potentially impacting DNSPs, RECs and MPs. This would also mean the meters deployed prior to this change would not be able to detect and send an alert for a neutral failure.

- In many cases, additional information from outside the meter is required for this to be accurate, e.g. information from neighbouring meters, information from devices on the LV network (transformers).

45. Given that detecting these sort of issues in the 'back office' will use the same power quality dataset that DNSPs are expected to receive to enable other network benefits, and will be more accurate, it is our view that this is a better option than alerts from the meter.

LV network visibility

46. Vector believes that utilising data available from smart meters will, over the long term, be the most efficient mechanism for DNSPs to obtain information about the performance of their LV networks. We expect the provision of power quality data from each smart meter to DNSPs to cost a few dollars per annum (assuming adequate scale is reached), so it is difficult to see

how deploying and operating alternative devices at similar penetration rates can be done for less than this cost. However, we support a regulatory framework that allows DNSPs to deploy network devices where services cannot be, or are unlikely to be, supported by a smart meter.

Emerging systems issues

47. An electricity meter's primary role is one of measurement. Sometimes it also serves as a device that controls the energisation state of specific electrical circuits within a premise. This switching capability has traditionally been used to control off-peak heating circuits (electric hot water, slab heating). More recently, with the introduction of smart meters with remote communication, this has also been used to control the energisation state of the entire premise so that unauthorised usage cannot occur.

48. Over the last few years, network issues caused by the increasing prevalence of local generation have emerged, which if unmanaged, can introduce network instability, especially during periods of low demand.

49. In South Australia (SA) a number of regulations were introduced in 2020 that required local generation systems, mainly solar PV, to be able to be curtailed on command. These regulations also require that smart meters installed in SA have the capability to curtail solar PV via the meter. However, and importantly, the regulations do not require that smart meters must be used to perform this function. The Relevant Agent (RA) obligations in South Australia allow the RA to use any mechanism to control the devices available to them. This may be by connecting directly to the generation system or via the meter switching circuits, on or off. Since the commencement of these regulations, we have observed that RAs prefer to use mechanisms that do not involve the meter.

50. The above regulations also require that from mid-2022, all devices that control the generation system, i.e. inverters, must be capable of direct communication. These are typically connected via the internet or a mobile network, so that generation output can be dynamically reduced and increased, on request.

51. While smart meters can be used to switch circuits on or off, effectively enabling or disabling any devices on that circuit, their current capabilities are not well suited to a more nuanced approach of increasing or reducing generation. Furthermore, using smart meters as the mechanism to perform this role requires the customer to have wiring arrangements at their premise that are suitable. If more than one device is required to be independently controlled, then each device needs to be on its own circuit. Putting these arrangements in place is possible for new builds, but it is probably uneconomic for customers in established housing to retrospectively make these wiring changes.

52. While smart meters can be used to help manage these emerging issues, their ongoing role in this area is uncertain.

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?

53. Vector believes that enabling the provision of power quality data from smart meters to DNSPs is crucial to unlocking yet-to-be-realised consumer benefits. As recognised by the AEMC and experienced by MPs, there has been a lack of demand from DNSPs for access to these smart metering services. While opinions on the cause for this differ, we support the introduction of a framework that:

- requires MPs to support the delivery of power quality data to the network at a specified frequency and in a standard format;
- recognises the potential value that DNSPs should be gaining from integrating smart meter data and new metering services into their network operations; and
- requires DNSPs to contribute an amount to meet the cost of these services. This scheme should apply equally to all deployed smart meters.

54. We support customers, customer representatives, and market participants having access to power quality data. However, it is unclear at this stage what other use cases outside of network operations could this data be used for. We also note that access to meter data is available to authorised parties under the current rules and, in over three years of operation in the NEM, Vector Metering has yet to receive a request to provide power quality data. We therefore question if there is real, urgent demand from parties other than DNSPs.

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?

55. Vector broadly disagrees with most of the findings in the NERA report.

56. Core to the NERA report is the assertion that a key barrier to data services being provided to the DNSPs is that MCs are creating a "hold out" situation. NERA describes this as a scenario where the owner of a valuable asset strategically chooses not to sell in the hope of pushing the price of the asset higher. We reject this in the strongest possible terms. Rather than an MC hold out scenario, we believe that DNSPs have 'held out' not requesting these services in order to pursue regulatory intervention that provides a favourable cost recovery mechanism, i.e. requiring contestable MCs to provide data at zero cost to the DNSP. This is a key feature of SAPN's submission to the AEMC which is reflected in the NERA report.

57. The argument that power quality data is being held to ransom by MCs is not worthy of serious consideration in the context of this discussion.

58. In our view, the underlying reasons that these services have not been enabled is because DNSPs have made no serious efforts to request them. Victorian and WA distribution networks that have taken steps to integrate power quality data into their businesses have demonstrated and continue to realise the tangible benefits available from similar services. Under the framework established by the *Competition in Metering Rule*, it was an expected outcome that MCs and DNSPs negotiate commercial terms for the provision of power quality data. DNSPs have, to date, not acted in good faith to undertake this negotiation.

59. NERA also argues that the cost to DNSPs of having to negotiate individual agreements for service provision with MCs could outweigh the benefits that networks receive from obtaining power quality data. This could only be argued if DNSPs faced having to deal with many providers (tens or hundreds), which is not the case. Currently there are five service providers who manage 'Small' customer meters. The cost of negotiation outweighing benefits is clearly not the barrier for why services have not been taken up.

60. When considering the best approach for a framework for a power quality data service, there are elements of some of the options proposed by NERA which we regard to be desirable. We provide a summary of our comments on these options below.

- Option 1 – The centralised model has no redeeming features. We do not support this because it represents a wholesale change to market roles and responsibilities. To make it efficient, the market would need to move all meter data (billing and power quality data) into this new central role, which would effectively remove the Metering Data Provider (MDP) role from the market. This will:
  - be disruptive;
  - be expensive;
  - result in stranded assets;
  - undermine metering competition;
  - stifle innovation; and
  - is likely to provide no benefit relative to the current arrangements.
- Options 2 and 3 have the elements of standardisation of service delivery which we support.
- Options 2 and 3 do not attempt to determine the price between service providers and parties requesting the service. We support negotiation on price. This was always envisaged by the *Competition in Metering Rule*.
- Option 2 limits the use of data for the purpose it was requested. This protection is in place in New Zealand to stop distribution networks launching services that compete with those offered by retailers. This limitation is not necessary for power quality data.
- Option 2 proposes SAPN's three-tiered approach. While we agree that clear service definition is necessary, we do not agree with the SAPN proposal as we foresee a duplication of processes when more frequent data is required. We believe further debate is required and, as such, this should not become the basis for any requirements within the proposed rules framework.
- Option 4 – The 'negotiate and arbitrate' model is not one we would support as this allows parties to force price negotiation into arbitration (by refusing to agree) and effectively receive a regulated price. We support price negotiation.

61. We suggest a framework that will address most of the issues without undermining the commercial principles of competitive metering, with the following features:

- A base service or services should be agreed, and standards established to support the flow of these services between DNSPs and MPs.
- The party who will benefit from the service (the DNSP) should cover the costs of providing it. For example, this could be achieved either by:
  - requiring the DNSP to have an 'agreement' with the MP (similar to the current obligation on the Financially Responsible Market Participant (FRMP) to have an agreement with the MC); or
  - regulating a network tariff discount which would support the FRMP to pay the MC for the provision of the service. This approach is discussed in our response to Question 4 on incentives (refer to paragraphs 30-33 above).
- MPs should be required to provide the standard power quality data service for all smart meters and DNSPs should be required to take this service for all meters. This will create sufficient scale for the MP to negotiate the most efficient pricing with third party telecommunications providers and will ensure the DNSP can unlock the maximum benefits to consumers.
- An appropriate governance structure for standards development should be established. While standards could be managed under AEMO or Information Exchange Committee (IEC) governance structures, we believe these mechanisms are not conducive to delivering changes in an expeditious manner and are too easily obstructed by vested interests. We support the rules identifying the power quality data service standards and the establishment of a group to manage these standards.

QUESTION 8: 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 rollout, are there other considerations for economies of scale in current and emerging service models?

62. As discussed in our responses to Question 3, we agree with the AEMC that achieving a critical mass of meters faster than the pace of the current rollout will enable benefits to flow earlier.

63. We agree with table B.3 of the Directions Paper which outlines potential use cases for smart meter data. We believe that this list is not exhaustive, and it is likely that more benefits can be enabled, especially in the area of network management. We refer the AEMC to a report prepared in 2010 for the Victorian Department of Primary Industries that provides a list of potential benefits identified as part of the Victorian AMI program, the majority of which are still relevant today.

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?

64. Vector supports customers being informed of the implications of having a smart meter installed. However, we are concerned that the proposed obligations on retailers to provide extensive information as part of the exchange process will have unintended consequences and could remove flexibility to schedule work and will impact on retailers' ability to meet current metering installation timeframes.

65. Current obligations on retailers (*National Energy Retail Rules*, clause 59C) require that the customer be given four business days' notice of the interruption and be provided with information that relates to the exchange interruption.

> (4) The notification must:
>
> (a) specify the expected date, time and duration of the *retailer planned interruption*, and whether the *interruption* is for the purposes of installing, maintaining, repairing or replacing an electricity *meter* for the notified customer or for another customer; and
>
> (b) include a 24 hour telephone number for enquiries (the charge for which is no more than the cost of a local call); and
>
> (c) include a statement that any enquiries regarding the *retailer planned interruption* are to be directed to the retailer.
>
> **Note**
>
> This subrule is classified as a tier 1 civil penalty provision under the National Energy Retail Regulations. (See clause 6 and Schedule 1 of the National Energy Retail Regulations.)

66. Retailers have the ability to determine the best method by which to provide this notice.

67. Because of the tightly mandated metering installation timeframes, the preferred method for delivering interruption notices is via SMS (text), which for scheduling purposes can be sent as close to the scheduled installation date as possible. SMS has a high success rate in reaching customers who appreciate the convenience. Where SMS cannot be used, notification is sent by e-mail or physical letter.

68. The AEMC proposes that the information provided to the customer as part of the exchange process be expanded to also include:

- the customer's rights and responsibilities involving the installation, including in relation to remediation of issues the customer is responsible for;
- the party the customer should contact for additional information and issue resolution, as well as dispute resolution options;
- any changes to the terms or conditions to the customer's retail contract, including any tariff change as a result of a smart meter being installed; and
- a summary of the services available to the customer as a result of obtaining a smart meter.

69. We are concerned that providing this level of detail is not suitable for SMS correspondence, which is limited to 160 characters, and could effectively remove it as a method of communicating information about the meter exchange.

70. As many retailers have delegated the provision of the exchange notice to MPs, who are best placed to provide the information currently required in the notification (date, time and duration of outage), requiring the notice to contain specific information about the customer's tariff is problematic. It may result in the performance of this function being returned to retailers.

71. We recommend that the provision of this information is separated from the meter exchange process. Relevant information can be provided to the customer by the retailer as part of their retail billing process and can occur ahead of time.

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?

Malfunctions and family failures

72. Vector supports the preliminary finding that *individually identified malfunctions* and *family failures* should be treated separately under the rules and procedures.

73. We are also of the view that the obligations placed on the MC to apply for an exemption from AEMO where the malfunction or family failure cannot be resolved within the regulated timeframes is unnecessary and burdensome on both parties.

74. MCs face sufficient commercial incentives to resolve malfunctions as soon as practical. They do not get paid for services until the meter is exchanged. An exemption process where MCs are required to provide a resolution plan for each NMI to AEMO for approval has little value.

75. We recommend that the current malfunction exemption process be replaced with a simple registration process where AEMO is informed of a malfunction so that this can be recorded in AEMO's Market Settlements and Transfer Solutions (MSATS) and be visible to all financially interested parties.

76. We understand there is a perception that family failure malfunctions are not being addressed by MPs in a timely fashion. We believe the two key issues responsible for this perception are:

- the lack of family failure predictability which makes it difficult for MPs to level resourcing requirements, and
- the high rate of 'customer side defect' and isolation issues which create barriers to the resolution of malfunctioning meters.

Lack of family failure predictability

77. A key function of the MP role is to ensure the availability of field resources to meet demand for all meter installations. To achieve this, the demand for metering work needs to be relatively consistent and predictable. Field resources need to be available in the right location at the right time; otherwise, customer expectations and regulatory obligations cannot be met. If an MP fails to manage this effectively and cannot provide a consistent flow of work, technicians will quickly leave that MP's programs.

78. Scheduling the resolution of family failure malfunctions is made in the context of an MP's entire work programme. This includes customer-initiated new connections and meter exchanges, individually identified malfunctions and family failures. Customer-initiated work

takes priority due to the mandated installation timeframes; individually identified malfunctions take next priority.

79. As demand for customer-initiated installations and individually identified malfunction replacements are by their very nature lumpy, MPs use family failures to level the work to keep field resources fully utilised. This would also help avoid 'boom and bust' cycles where resources are taken on as demand rises only to be let go when demand falls.

80. A mandated timeframe for family failure replacement would require the engagement of additional resources so that the current rate of exchanges can be accelerated. To avoid the boom and bust cycles of hiring resources and then letting them go again, family failure work will need to be released in a more consistent manner and at higher volumes than has been occurring to date.

81. Any mandated timeframe for failed family replacement would also need to consider the size of the family that needs to be replaced. Expecting 50,000 family failed meters to be replaced in 60 business days, in addition to all other metering work, is not reasonable.

82. The timeframe required to replace large volumes of meters is also dependent on the available meter stock. MPs usually carry approximately six months' worth of stock based on the best available demand forecast, with a 16-week supply chain (in a normal non-COVID-19 environment); we are currently experiencing 26 weeks or more. Ensuring enough stock is on hand where demand for meter work is inconsistent is already challenging. Meeting mandated installation timeframes, e.g. within 60 days, for large volumes of meters declared as 'failed' at random intervals will unexpectedly draw down on an MP's 'buffer stock' and may impact on that MP's ability to meet customer expectations and regulatory requirements for all metering works.

83. Given the complexities of supply chain management, matching resources with an inconsistent demand, and the natural commercial incentives on MCs to resolve malfunctions as soon as practical, we are of the strong view that family failures should not be subject to mandated installation timeframes. Imposing mandated timeframes in this case is likely to increase the number of issues and costs.

84. We are also of the view that a faster rollout of smart meters, delivered in a managed, predictable, and orderly fashion will largely render this issue irrelevant.

High rates of isolation issues (shared fuse) and customer side defects

85. The other key issue creating the perception that family failures are not being addressed by MPs is the prevalence of issues that must be resolved before the meter exchange can be performed. Currently, there is no visibility to the industry of how many 'family failed' sites have been visited and how many have issues that stop a meter from being installed. It may appear to market participants that family failures and malfunctions have been identified and raised but nothing is happening.

86. Malfunctions and family failures face a disproportionate prevalence of issues that are not faced by customer-initiated exchanges. This leads to longer lead times to getting meters exchanged. These issues include:

- higher rates of customer side defects, the resolution of which cannot be enforced by MCs; and
- higher rates of multi-occupancy situations (where shared fusing scenarios exist) which require a temporary isolation via the DNSP.

87. The table below shows a breakdown of unsuccessful meter installation attempts performed by Vector Metering in 2019. This shows the disproportionate rate of unsuccessful exchange

attempts for malfunctions (family failures and meter faults) compared to customer-initiated exchanges. It should also be noted that family failures make up only about 1/3 of total work.

%	2019		
Row Labels	NSW	QLD	SA
Exchange Meter			
Successful	83%	95%	86%
UnSuccessful	17%	5%	14%
Family failure			
Successful	57%	72%	64%
UnSuccessful	43%	28%	36%
Meter Fault			
Successful	71%	84%	71%
UnSuccessful	29%	16%	29%
New Connection			
Successful	100%	100%	100%
UnSuccessful	0%	0%	0%
Grand Total	100%	100%	100%

88. The poor success rates for 'first visit' family failure meter exchanges reflect the poor state of infrastructure found at the premise. Success rates are lower than 60%, on average, and as low as 30% in some areas.

89. Where isolation issues exist, the DNSP (or in some cases in NSW, an Accredited Service Provider - ASP) is required to assist. The DNSP's ability to meet the demand for coordinated visits (or the availability and cost of suitably qualified ASPs) impacts the pace of meter exchanges for family failures. Vector Metering currently has over 5,000 pending family failure meter exchanges in both Queensland and NSW. These can only be scheduled at a pace where the network can respond to the work. This is particularly an issue in Queensland.

90. Should the AEMC impose fixed timeframes to address family failures (which we do not support), these issues must be taken into account. Sites where customer side defects and isolation issues exist must be exempted from a mandated timeframe.

Remediation of issues - responsibility and management of customer side defects

91. A key issue facing retailers and competitive MPs is the issue of customer side defects. These are defects that are present in the infrastructure required to host the meter that is provided by the customer, e.g. metering enclosure, meter panel, or an isolation fuse. Under the jurisdictional regulations such as Service Installation Requirements (SIRs) and relevant metering codes (MIRs), the customer is required to ensure that the equipment continues to be in safe working order, and is required to address any defects or hazards related to its function, such as the repair of degraded metering panels and the removal of hazardous materials (i.e. friable asbestos).

92. Should the MP encounter a customer side defect when the MP attends the site, the meter cannot be exchanged. While responsibility to resolve customer side defects lies with the customer, most but not all retailers have provided us with the authorisation to undertake minor works to resolve these issues so that the meter installation can proceed. While it is up to the retailer to decide whether these costs are passed on to the customer, we believe these are usually borne by the retailer. The table below lists the types of works pre-approved by retailers to be undertaken in order for the meter installation to proceed, and to avoid the costs associated with a failed visit.

Pre-approved On-site Event
Fuse Relocation
Link Relocation

Link Installation, Replacement or Upgrade
Single Phase Meter Protection Device Installation
Multi-Phase Meter Protection Device Installation
Install Ripple Relay control
Fit Zelemite Panel
Asbestos
Asbestos meter removal
NSW ASP works (isolation of supply)
Main switch installation, single-phase
Main switch installation, multi-phase
Main switch installation, two-pole

93. Customer side defects that are not addressed at the time of the installation are passed back to the customer for resolution.

94. MPs leave a defect notice with the customer explaining the issue encountered and the retailer is also informed.

95. The management of customer side defects remains a material issue for the ongoing installation of smart meters regardless of the pace of the rollout. The table below provides statistics from work performed by Vector Metering over 2019 and gives some indication of the significance of the problem. Issues are particularly prevalent in family failures and fault work due to the age of these sites, and in NSW.

%	Column Labels		
Row Labels	**NSW**	**QLD**	**SA**
Successful	**76.2%**	**93.3%**	**82.3%**
Sucessful	76.2%	93.3%	82.3%
UnSuccessful	**23.8%**	**6.7%**	**17.7%**
Customer Side Defect	**16.2%**	**4.1%**	**8.5%**
Exchange Meter	4.7%	2.2%	4.1%
Family failure	9.9%	0.9%	3.0%
Meter Fault	1.5%	0.9%	1.5%
Isolation Issue (incl Shared)	**7.6%**	**2.6%**	**9.2%**
Exchange Meter	2.8%	1.1%	3.0%
Family failure	3.7%	0.7%	2.3%
Meter Fault	1.1%	0.8%	3.9%
Grand Total	**100.0%**	**100.0%**	**100.0%**

96. Malfunctions and family failure meter replacements face specific challenges when customer side defects are encountered, as the customer has no incentive to engage and pay for a qualified electrical contractor to resolve the issue.

97. Under the NER, MCs are solely responsible for restoring the metering installation towards compliance. However, MCs are unable to discharge this obligation while customer side defects remain unresolved. MCs also do not have direct relationships with end customers and do not have any authority over the customer to enforce compliance.

98. While MCs report these issues to the customer's retailer, the retailer is reticent to enforce compliance because the customer can easily switch retailers, and the new retailer can

appoint a different MC. The only party that remains constantly associated with the site is the DNSP.

99. As highlighted in the discussion above regarding malfunctions and family failures, parties apart from the MP do not have visibility of the issues at the site that are stopping a meter from being installed.

100. To address customer side defect issues, there needs to be one party to take responsibility for managing the defects with customers, reminding them of their responsibilities under the regulations, and encouraging them to resolve the issues so that the meter can then be replaced. We are of the view that this role should be given to the DNSP for the following reasons:

- The DNSP is the only role that is permanently associated with the site.
- The DNSP has a connection contract with the customer that can be used to enforce customer obligations.
- Under the NER, the DNSP is the Initial MC and remains the responsible party for the premise until such time that the legacy meter has been exchanged with a smart meter (NER Cl 87.11).
- Where resolution involves electrical work to be undertaken, e.g. installation of an isolation point by an ASP, the DNSP receives jurisdictional paperwork that can be used to clear the defect.

101. The presence of customer side defect issues should be registered in MSATs by the DNSP so that all participants with a financial interest in the site can see that a meter exchange cannot be undertaken while any defects remain unresolved. This would also allow for tracking of the size of the issue and the time taken to resolve it.

Customer side defects and vulnerable customers

102. Where customer side defects are registered against vulnerable customers, we suggest the establishment of a fund to assist these customers in resolving the defects. DNSPs could assess applications for assistance, arrange for the resolution of the defects, and recover the costs across their customer base.

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 rollouts to one?

(b) What are your views on the opt-out provision for retailer-led rollouts? 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?

103. Vector supports reducing the number of notices provided to the customer no later than 4 business days prior to the planned exchange date – to a single notice.

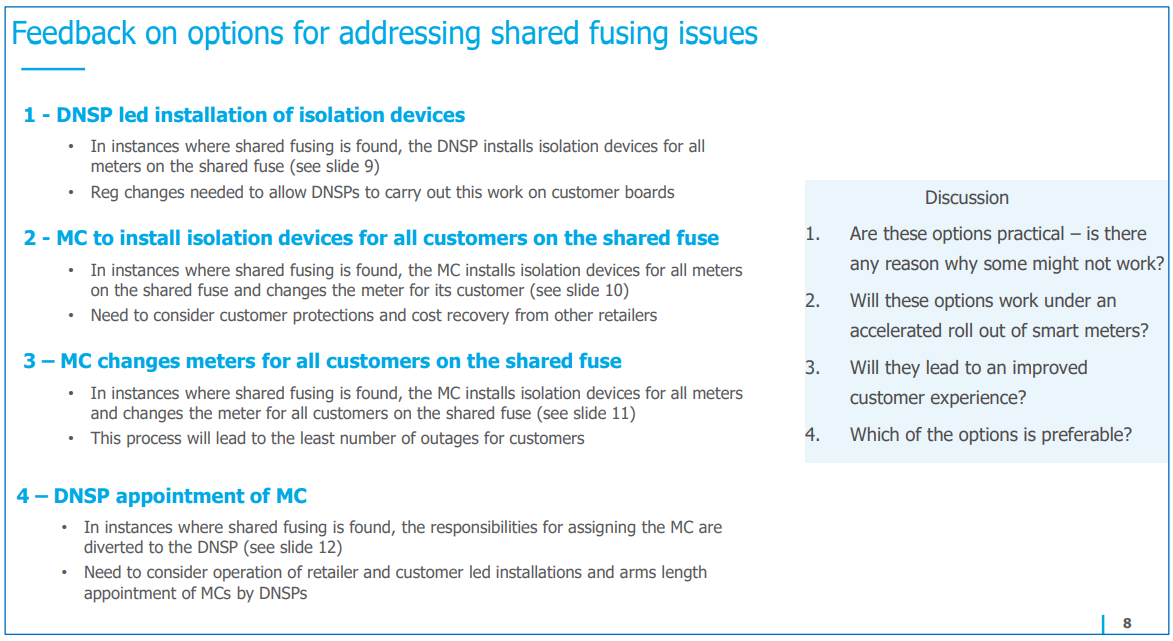
104. We support the removal of the opt-out provisions for customers for retailer-led deployments, however, it is difficult to see retailers imposing the use of a smart meter onto customers who do not want one. Vector Metering is currently experiencing a customer refusal rate of between 1% to 2% of meter exchange attempts, which is roughly aligned with the experience

during Victoria's mandated rollout. We expect this level of refusals to continue regardless of the opt-out provisions in the rules and regulations.

Dealing with multi-occupancy situations and shared fusing

105. Dealing with multi-occupancy situations is a complex process with many moving parts and is likely to remain so regardless of changes to the regulatory framework. These require the involvement of many customers, many retailers, and off market parties such as bodies corporate and RECs. Many multi-occupancy premises will also have customer side defects and compliance issues that will need to be resolved before the meters can be replaced. We believe there will not be a single solution that can address all the issues in all circumstances and that the AEMC should therefore look at changes that bring efficiencies and address most of the issues most of the time.

106. We provide commentary on the options proposed to address shared fusing issues during the recent Installations Sub-Reference Group discussion.



Options 1 and 2 - Installation of isolation device ahead of meter installation

107. Options 1 and 2 are essentially the same except for the party that will perform the installation of the isolation device. In option 1 it is the DNSP, and in option 2 the MC, who will install devices for all the relevant meters.

108. In both options, the party responsible for the work will need to engage appropriately qualified resources to perform the work. This will be the same for a DNSP or an MC. In NSW, an ASP would be engaged to perform the group isolation and install individual isolation devices. Outside NSW, the DNSP would perform the interruption and a qualified REC would install the meter isolation device.

109. Both solutions would require the DNSP to send out notifications under a DNSP Planned Interruption.

110. Both options will reduce the number of interruptions that a customer would experience to two – the first to install the isolation device and the second to exchange the meter.

111. It is possible that even after resolving the isolation issue, other remediation work may eventuate at the time of the meter exchange, e.g. there is not enough room for the final meter, but these occurrences should be in the minority. If required, an assessment of the site could be undertaken prior to the commencement of the isolation device installation work to determine the likelihood of these events. The customer could then be required to undertake remedial work which would solve the space issues, the isolation issues, and the meter exchanges at the same time.

112. The key difference between Options 1 and 2 is one of cost recovery and commercial agreement.

- Under option 1, the path to cost recovery is simple. The DNSP already has mechanisms to recover these sorts of costs. With respect to concerns around efficient pricing, the DNSP already has the obligation to meet prudency tests that should apply to any expenditure.
- Under Option 2, the MC's path to cost recovery is not so straightforward. MCs would need to have commercial agreements in place with each retailer to pass the costs through. Establishing this may be problematic and where the MC does not already have deployment agreements with retailers, one would need to be established. Retailers would need to be obliged to agree to the MC's charges.

113. On balance, we support Option 1 over Option 2.

Option 3

114. Option 3 is an extension of the processes that are followed today for other work such as panel replacements at multi-occupancy premises.

Existing panel replacement process

115. In these circumstances, all the meters are removed and replaced with smart meters. In these cases, the REC for the body corporate contacts an MC for assistance who in turn contacts each retailer related to the NMIs impacted to request permission to perform the work. Retailers are not obliged to use the MC and may choose another provider to exchange their meters, but in almost all cases, retailers are happy to have one party coordinate the work. Because of the many parties involved, this process requires careful management by the MC to ensure all retailers respond and formally assign the MC into the role and raise the necessary Service Requests in a timely manner. This allows for a coordinated schedule of the work and for Retailer Planned Interruption notifications to be issued to the customers, where required. The MC also ensures that the REC and body corporate take on the responsibility to notify residents of the interruption and, where necessary, arrange for a qualified person to perform the interruption (DNSP or ASP in NSW).

116. There are inefficiencies and issues associated with the above process.

- Not all retailers respond to requests from an MC. When this occurs, the MC does not have the rights under the rules to install the smart meter. Therefore, the legacy meter for these retailers will be reinstalled; the retailer is free to exchange the meter using a provider of their choice at a later date. Of greater concern is that customers for a retailer who do not respond may not be notified of the interruption via a formal retailer. Removing this risk requires the MC ensuring that the body corporate also advises the residents of the interruption.
- MCs are not allowed to use NMI Discovery to find out who the current retailers are for the NMIs in the multi-occupancy site. The MC is reliant on the body corporate or REC

to provide each retailer's details. In some instances, the information provided is inaccurate. This delays the scheduling of the work.

- Where a DNSP is required to perform a 'Group Isolation', only one of the retailers involved raises the request with DNSP Interruption. Costs related to the interruption are typically charged to the retailer who raised the request. Depending on the DNSP, this service can cost up to $1,000.

Shared fuse

117. The process described above can be adapted for sites with shared fusing with the following changes.

- Retailers should be required to respond to the MC when contacted and must take steps to arrange for an MC to attend to their NMIs. We do not think retailers should be forced to use the MC who initiated the contact and should be free to appoint a provider of their choice but they must be obligated to take steps to arrange for a coordinated visit to at least install isolation devices with the MC who made the contact. (Note: we are of the view that most retailers will not take this path because of the obvious issues of multiple MP involvement and the coordination needed for them be at the site at the same time.)
- Retailers also need to take the responsibility of notifying their customer of the interruption, where required.
- MCs must be able to use NMI Discovery against NMIs at a multi-occupancy site to efficiently determine who the retailer is at the start of the process.
- The MC can request and the DNSP will accept a 'Temporary Isolation – Group Supply' so that coordination with the DNSP can be efficiently managed and the costs can be shared across all relevant retailers.

Comparison between Option 3 and Option 1

118. Under Option 3, there is an obvious and significant overhead and cost in managing all parties, in order to have the shared fuse and meter exchanges resolved on the same day. The advantage of this process over option 1 or 2 is that customers will only experience a single outage rather than the two interruptions in option 1 or 2.

119. Option 1 removes the shared fuse arrangements and allows the retailer and MC to exchange meters at an individual NMI at a time of their choosing without impacting other customers. Given the costs involved in the coordination effort under option 3, we support option 1 over option 3 as the primary approach to dealing with shared fusing arrangements.

120. While we support Option 1 over Option 3, we also recommend that the efficiencies highlighted in Option 3 be adopted for circumstances where shared fusing does not exist but coordinated work is required, e.g. panel replacements.

Option 4

121. We do not support Option 4 as a mechanism to address shared fuse scenarios. This appears to be a reversion of the *Competition in Metering Rule*. If DNSPs are made responsible for choosing the MC at a multi-occupancy premise, then DNSPs could establish their own competitive MC capability and nominate that business into the role.

122. It is unclear who would pay for the metering services in this model – would it be the retailer or the DNSP? Would the retailer be prohibited from reassigning the MC role to a competitive MC in the future and would these meters be 'locked in' to the DNSP's preferred MC for all time?

QUESTION 12: FEEDBACK ON OTHER INSTALLATION ISSUES

(a) Do you have any feedback on any of the other installation issues raised by stakeholders? Are there any other installation issues the Commission should also consider?

Changes to testing and inspection processes

123. We agree with the issues raised by AEMO and Intellihub in their submissions on the Review consultation paper – that clarification is required in the rules regarding meter inspections for whole current metering.

124. We agree with Intellihub that AEMO's approach to inspections for whole current meters appears to be inconsistent. AEMO has indicated through its Meter Asset Management Strategy approval process that it expects MCs to meet inspection requirements for type 4 meters that are tighter than has been the accepted practice for whole current metering pre-*Power of Choice* (PoC) reforms. If, as Intellihub's submission indicated, manually read type 5 and type 6 meters are only being inspected at annual volumes that would not meet the 100% inspection every 10 years required by AEMO, and this has been accepted, we question why type 4 meters need to meet tighter requirements. If AEMO is indeed holding DNSPs to the same inspection requirements as contestable MCs, then it seems AEMO is now applying a different interpretation of the rules than it previously held. Due to the material impact of this new interpretation (estimated to be potentially $100 million), this change should be progressed through a formal rule change process so its benefits and costs can be considered against the National Electricity Objective.

125. We note that AEMO is suggesting the following changes (in red) to Schedule 7.6 Testing and Inspection requirements in the rules in an attempt to clarify its intent.

Table S7.6.1.3 Period Between Inspections

Unless the *Metering Coordinator* has developed an asset management strategy that meets the intent of this Schedule 7.6 and is approved by *AEMO*, the period between inspections must be in accordance with this Table S7.6.1.3.

Description	Metering Installation Type			
	Type 1	Type 2	Type 3	Type 4, 4A, 5 & 6
Metering installation equipment inspection (other than whole current)	2.5 years	12 months (2.5 years if *check metering installation* installed)	~~[~ 210 GWh:~~ 2.5 years ~~2< GWh < 10: 3 years~~ ~~<2 GWh: when meter is tested~~	~~When meter is tested~~ 5 years
Whole current *metering installation*	The inspection requirements must be in accordance with an asset management strategy. Guidelines for the development of the asset management strategy must be recorded in the *metrology procedure*.			

126. These proposed changes specify that inspections for whole current meters must be performed in accordance with the MC's Meter Asset Management Strategy, with guidance from the Metrology Procedure Part A. However, current clauses in Metrology part A state that inspections must meet the requirements of S7.6 in the rules. This is circular and provides no clarity on the intent of, or the requirements for, inspections for whole current meters.

> (d) Where the MC is not testing and inspecting *metering installations* in accordance with clauses 7.9 and S7.6 of the NER (i.e. not time-based), the MC must include in its Asset Management Strategy an alternative inspection practice that meets the requirements of clause S7.6 of the NER.

127. Key to this issue is that it is solely at AEMO's discretion to determine if an MC's Asset Management Strategy meets the 'intent' of Schedule 7.6 yet AEMO and the industry cannot agree on what the intent actually is. To address this, we support Intellihub's proposed

changes to the rules to clarify that type 4 meters are to be inspected when they are subject to a meter test, as is the pre-POC practice for all whole current metering.

The provision of industry keys to enable MPs to access meters

128. The AEMC's preliminary comments indicate that Energy Networks Australia (ENA) was working on a solution to the issue of access to keys. We are not aware of any work in this area and will follow it up with the ENA.

129. It has been suggested that the metering industry introduce its own secure key system (and provide access to DNSPs). However, this comes at a considerable cost to the customer (approximately $90 per key) and explaining to customers the need to replace one perfectly operating lock with another lock because the key cannot be shared is problematic. DNSPs should be required to supply keys to MPs. This issue needs to be addressed especially if an accelerated rollout is to be pursued.

Responsible parties for issuing planned interruption notices when multiple parties are involved

130. We support the AEMC's preliminary views on this issue.

MPs to be able to request information regarding a meter from MSATS before being nominated into the role

131. One area of operational improvement the AEMC could implement is related to accessing information about a site from MSATs. Current AEMO procedures dictate that the MP cannot request information until after it has been nominated into a metering role. This is slowing down the scheduling of work and compressing the amount of time available for MPs to meet the installation timeframes. Scheduling cannot commence until after a 'C7' report has been requested from MSATs because it is only then that the location (address) of a site is known. B2B Service Order requests for a meter installation from a retailer are delivered to the MP in real time, however, the market role nominations take time to be progressed through the market systems (can take up to 2 days). The Churn Procedures ensure that metering roles are correct before metering work can proceed. Metering service providers (MC/MP/MDP) do not have the ability to appoint themselves into a metering role so there appears little risk of changing market dynamics. This will bring efficiencies to meter deployment processes.

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?

132. Our comments on the issues raised in the Directions Paper for this question are as follows.

DNSPs being able to provide MP services in certain situations, for example, on request of the MC in remote or rural regions

133. The scenario that is being proposed is unclear.

134. The proposal refers to "MP services" which implies the DNSP would be nominated into the formal MP role for that site. The DNSP would need to have the appropriate AEMO accreditation and would then need to agree commercial terms with the MC. DNSP ring-fencing provisions in the rules would need to be met.

135. If it is proposed that the DNSP's resource can provide meter technician services to the MP nominated by the MC, then the network resource would need to 1) be appropriately trained

and qualified (licenced electrician), 2) have access to the MP's smart meters, and 3) follow the MP's processes and procedures. The DNSP would need to agree commercial terms with the MP for the provision of field services (which are competitively tendered) and meet the ring-fencing provisions for the DNSP (they may need to set up a separate entity).

136. We do not see any barriers in the rules that prevent either of these scenarios from occurring. In fact, we understand that some MCs use DNSP related businesses in Queensland to perform metering works today (Vector Metering does not use this arrangement).

Transferring metering responsibilities back to DNSPs

137. We do not support transferring metering responsibilities back to DNSPs. This is a reversion of the *Competition in Metering Rule* change.

Development of a national ASP scheme to allow electrical contractors to perform meter installation and maintenance

138. Under the NER, there is already a national accredited scheme for parties who wish to roll out meters. This is the MP accreditation (MPA, MPB) governed by AEMO. There are no barriers to electrical contractors who wish to become an accredited MP. They must simply have the systems and processes in place that meet the relevant AEMO procedures. (Note: there are costs in establishing and operating as an accredited MP.)

139. Alternatively, to avoid the costs incurred by an accredited MP, electrical contractors can become a service provider to an already accredited MP. Many electrical contractors have already done this, and in fact, it is these electrical contractors who are installing the bulk of the smart meters being deployed in the NEM today.

Allowing MPs to operate network isolation points upstream of the meter installation

140. We support changes that will allow the MP to perform all the necessary isolation work in order to install a meter. Pre-PoC, network metering resources were permitted to perform these tasks. It is unclear why metering technicians under PoC are not permitted to perform these essential functions. MPs are willing to train metering technicians to the standards required by DNSPs.

Concluding comments

141. We are happy to discuss any aspects of this submission with the AEMC. Please contact Paul Greenwood (Industry Development Australia, Vector Metering) at 0404 046 613 or Paul.Greenwood@vectormetering.com in the first instance.

142. No part of this submission is confidential, and we are happy for the AEMC to publish it in its entirety.

Yours sincerely

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