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Energy Policy and Programs Branch
Department of Environment, Land, Water and Planning
Victoria State Government

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Submission on the Transition to Metering Competition in Victoria - Options Paper

Introduction

1. This is Vector Limited's (Vector)¹ submission on the Victorian Department of Environment, Land, Water and Planning's (DELWP) *Transition to Metering Competition in Victoria – Options Paper*, dated October 2016.
2. Vector supports **Option 1**, which involves the full adoption of the new regulatory framework for the competitive provision of metering services in the National Electricity Market using minimum services specification effective 1 December 2017.
3. In our view, Option 1 would deliver the best outcomes for small business and residential consumers in Victoria. It provides the strongest incentives for innovation, and the right forward-looking incentives for market participants to make the timely transition to competitive metering arrangements in the state.
4. Vector's contact person for this submission and our representative to the working group the DELWP intends to establish following this consultation is:

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5. No part of this submission is confidential.

¹ Vector is one of New Zealand's largest listed companies and provides energy and technology services across the country. It is the largest distributor of electricity and a gas distributor in New Zealand, and the country's leading provider of advanced metering solutions. It also provides fibre optic broadband communications network services, solar PV and energy storage solutions, and electric vehicle recharging services.

Our advanced metering services business (VAMS) is an accredited Metering Provider and Metering Data Provider in the National Electricity Market (NEM). We have started installing advanced meters in New South Wales and are exploring commercial opportunities in other NEM jurisdictions and Western Australia.

Responses to consultation questions

Question 1

Do you support implementing metering competition in Victoria so that the current Victorian meter specification and/or the minimum service levels are retained?

Question 2

Should other considerations about the respective capabilities of the meters and service levels be taken into account?

6. We do not support Option 2. Of the four options presented, we believe **Option 1** would deliver the best outcomes for Victorian consumers, for the reasons stated in our response to Question 3.
7. The rapid evolution of energy technologies and markets is challenging the way the industry works. Option 2, which introduces competitive metering but retains the Victorian metering specification under the AMI program (Victorian metering specification) is not the most appropriate option in this context. We set out below the shortcomings of Option 2 and the likely unintended consequences from its implementation.

Retaining the Victorian metering specification creates a barrier to market entry

8. Any option which retains the Victorian metering specification (Option 2 or 3) will discourage parties from participating in the Victorian market as a result of having to develop/carry jurisdictional specific (Victorian and non-Victorian) products and services. Parties will be further discouraged due to the limited market size in Victoria as a result of the AER-approved exit fees currently afforded to DNSPs for the displacement of their meters under the AMI program. These factors limit market competition and innovation, defeating the purpose of introducing competition and delaying the delivery of any additional benefits (marginal or otherwise) to Victorian consumers.
9. Delaying the full adoption of the *Power of Choice* reforms (under Options 2 and 3) effectively means that the transition to competitive metering in Victoria would not occur in the short to medium term. It would be highly inefficient and costly for parties to build processes to support jurisdictional differences only to be required to harmonise with the NEM framework a relatively short time later.
10. The Australian Energy Market Commission (AEMC) noted that competition could provide incremental benefits beyond what the Victorian AMI program is expected to deliver.² Such benefits could result from lower investment and operating costs, and increased provision of innovative products and services that are enabled by advanced metering.³

² AEMC 2013, *Victorian Jurisdictional Derogation – Advanced Metering Infrastructure*, Rule Determination, 28 November 2013, Sydney, page 40

³ *Ibid.*

11. Retaining the Victorian metering specification also acts as an impediment to competition in other segments of the market. The AEMC noted that:

An extension to the exclusivity arrangements beyond the commencement of the new Chapter 7 of the NER is also likely to act as an impediment to competition in other segments of the market where effective competition could reasonably be expected to evolve, such as at greenfield sites or at existing sites for maintenance replacements or faults.⁴

12. Option 2 also creates different market segments, where new customers would enjoy the benefits of a competitive market, while existing customers would not. This creates additional costs for service providers and regulators, who have to navigate and monitor different regimes, respectively.

Picking 'technological winners' is best left to those who take investment risks

13. The benefits of advanced metering are best delivered through a policy of technology neutrality going forward. Picking technology winners or prescribing functionalities is best left to those who take investment risks. This protects consumers from bearing the cost of poor technology choice by their service provider or the regulator.

Prescribing technical functionalities limits service providers' flexibility in making the optimal technological choice

14. Continuing to prescribe the Victorian metering specification would preclude from the market alternative technologies that could better meet consumers' needs, for example, by providing similar services at a lower cost.

15. The NEM minimum services specification more effectively ensures that consumers benefit from the most optimal metering and alternative technologies. The AEMC noted that:

...technology is constantly evolving and developing, and therefore alternative ways to provide services may emerge. These technologies could potentially provide the same service as an advanced meter at a lower cost. Over-specifying the minimum services that new and replacement metering installations must be capable of providing could risk stifling innovation and development in these services. **Providing a relatively low minimum services specification therefore avoids the risks of locking in outdated, and potentially more expensive, technology.**⁵ [emphasis added]

16. Alternative technologies include Wi-Fi enabled sensors that allow for real-time monitoring of energy use, mobile phone applications and web portals, and "smart appliances that are able to be remotely controlled via the internet without the need for load control equipment to be included in the metering installation".⁶

⁴ AEMC 2015, *Expanding competition in metering and related services*, Rule Determination, 26 November 2015, Sydney, pages 523-524

⁵ *Ibid.*, page 313

⁶ *Ibid.*, pages 312-313

Mandating technical specifications for new installations could result in the provision of services that do not keep pace with technological developments

17. Regulatory settings for emerging technologies should be sufficiently flexible to evolve at the same rate as new technologies.
18. A stark example of technological obsolescence is the ZigBee's inclusion in the Victorian metering specification. The Victorian AMI meters only support the ZigBee 1.1 protocol, but there is now a ZigBee 2.0 protocol. This means that any new products (e.g. in-home displays) cannot communicate with the AMI meters, and it is unlikely that there is a manufacturer that still uses the old protocol.

Mandating technical functionalities is costly for consumers who do not need or want them

19. The ZigBee feature mentioned above is not widely used by consumers in Victoria. As reported by the Victorian Auditor General, only 17,253 households had an in-home display deployed as at June 2014.⁷ We reasonably estimate that by now, this functionality would have been enabled for fewer than 25,000 Victorian consumers. Retail products that promoted the use of ZigBee have now been withdrawn from the market, and it is unlikely that the number of consumers using this feature will increase beyond current levels. This is an inefficient outcome and unfair for consumers who did not benefit from this feature but ended up paying for it.
20. Should the Victorian Government decide to mandate the continued use of the Victorian metering specification, we recommend that a review be undertaken to establish where outmoded features such as ZigBee can be removed, thus reducing the cost to the Victorian consumer.
21. We agree with the AEMC that the NEM minimum services specification:
 - . . .will allow the market to determine the services that consumers want at a price they are willing to pay. Therefore the Commission has only included services in the minimum services specification where it considers that, if provided, these services are likely to deliver benefits to the majority of consumers receiving those services at a relatively low cost.⁸
 - . . .there is a risk that regulation may over-specify the minimum services required of advanced meters. This could result in consumers having to pay for meters that are capable of providing services that ultimately are not taken up, are of no benefit to them or could be provided in a more cost effective way through alternative technologies.⁹
22. In addition, continuing to mandate technical specifications increases compliance costs for market participants and monitoring/audit costs for regulators.

⁷ Victorian Auditor General 2015, *Realising the Benefits of Smart Meters*, September 2015, Melbourne, page 22

⁸ AEMC 2015, *op.cit.*, page 311

⁹ *Ibid.*

Experience has shown that mandated features in the Victorian AMI meter are not where the biggest benefits are realised

23. The main benefits from advanced metering do not arise from the differences between a meter deployed under the AMI program (using the Victorian metering specification) and a meter deployed under the NEM framework (using minimum services specification). Benefits are realised as a result of access to the data provided by the advanced meter, regardless of the type of advanced meter that was deployed. Removing the requirement to meet the Victorian metering specification does not limit the potential for Victoria to continue to realise the benefits of advanced metering under the NEM framework (Option 1).

Meters installed under the NEM framework are likely to exceed the minimum services specification

24. We do not share the concern of a few stakeholders that new and replacement meters using the NEM minimum services specification would have inferior functionalities compared to the AMI meters. We agree with the AEMC's expectations that:

In practice...most new and replacement metering installations will exceed the minimum services specification. Many of the advanced meters currently available are capable of providing a number of services...Most meters that are available on the market today have at least the same functionality as the Victorian specification.¹⁰

Metering Coordinators are expected to have an incentive to install metering installations that are capable of providing services additional to those in the minimum services specification to reduce the risk of meter churn...we would expect that Metering Coordinators would seek to have the flexibility to offer many different services, such as load control, over the life of their meters.¹¹

Mandated features in the meter do not necessarily mean benefits can readily be realised without further investment

25. The NEM minimum services specification only mandates that daily interval reads and remote de-energisation and re-energisation services are offered, rather than requiring certain technical specifications to be met. There is no requirement placed on DNSPs to build systems or processes to provide specific metering functions.
26. Under the Victorian metering specification, features such as retailer initiated Supply Capacity Limiting or Utility Control of Other Load that are mandated cannot be unlocked unless supported by a business process. DNSPs will require further investment before these services can be offered to retailers and consumers. Specifying features in the meter without mandating associated services therefore does not allow benefits to be realised.

¹⁰ AEMC 2015, *op.cit.*, page 312

¹¹ *Ibid.*

Question 3

Do you have any comments or views on Options 1, 3 or 4?

27. In our view, **Option 1** would deliver the best outcomes for consumers in Victoria.
28. Option 3 protects the existing meter fleet through regulation, effectively limiting metering business growth. This option also raises questions around the timing of the transition to competition, prolonging uncertainty.
29. Option 4 entrenches the status quo, is administrative complexity (e.g. it requires audits), and does not provide a way forward. Consumer benefits from increased technological innovation, in addition to the benefits from the AMI program, cannot be realised under this option.
30. Option 1 is the path that would 'break the circuit' for Victoria and allow it to move towards a more efficient, innovative and dynamic energy future.

Option 1 enables greater innovation that benefits consumers

31. Option 1 provides the strongest incentives for technology and service innovation.
32. Option 1 minimises barriers to market entry, particularly for entrants intending to provide services using different metering specifications. This incentivises service providers to focus on choosing or designing the most appropriate technology for their customers, rather than focusing on regulatory compliance.
33. The competitive entry of more metering service providers incentivises those providers to deliver differentiated or a wider range of services to attract and retain customers. This expands the market, and potentially create new ones (e.g. markets for services that may not use the meter), providing greater choice for Victorian consumers.
34. In New Zealand, metering services are predominantly provided through contractual arrangements between metering service providers and retailers. New Zealand consumers can choose or negotiate for services that suit their unique requirements, incentivising contracting innovation. The presence of multiple providers allows consumers to switch to another provider ('vote with their feet') if they are not satisfied with their current provider.
35. Innovation cannot be purposefully designed. It is therefore important to provide incentives for innovation that would ensure the continued delivery of consumer benefits over time (i.e. promote dynamic efficiency).
36. In addition, any gains from the AMI program are preserved under Option 1. Existing AMI meters are unlikely to be replaced before 2021 due to the high exit fees attached to these meters. The AEMC noted that:

...the Victorian DNSPs are likely to remain responsible for the advanced meters they have deployed for some time, irrespective of whether or not the exclusivity period is extended.¹²

Option 1 facilitates greater alignment with the NEM metering framework

37. In addition to the benefits from increased innovation, there are incremental benefits arising from lower investment and operating costs in a competitive metering market.¹³ While arguably small, these benefits are expected from new meters and beyond what the AMI program is currently delivering.¹⁴
38. Many market participants operating in Victoria also operate in other NEM jurisdictions. Greater alignment with the NEM metering framework would reduce their transaction and operating costs, and reduce confusion for consumers. Facilitating greater alignment with other NEM jurisdictions is consistent with good regulatory practice.
39. The Victorian Auditor General pointed out that:

There is a risk that the AMI program's most recent 2011 estimate of \$319 million net cost to consumers may worsen. The 2011 CBA forecasts that costs would reduce from 2013 to 2023 but increase again sharply from 2024, if the meters are replaced from that time, as anticipated. At the same time, benefits remain uncertain.¹⁵

40. Given the above anticipated cost increase from 2024 — around the time the AMI meters would reach the end of their economic lives — it is essential that a well-functioning competitive market is established well before that time so these costs are minimised to the extent possible.

Option 1 protects consumers from investment risks and poor technological choice

41. As indicated above, where technological choices are not prescribed by regulation, it is metering service providers rather than consumers who face investment risks and bear the cost of poor technological choice.

Option 1 provides the right forward-looking incentives for market participants to make the timely transition to competitive arrangements

42. Importantly, Option 1 provides the impetus for market participants and potential entrants to start engaging with each other to work towards a smooth and timely transition to a competitive metering market in Victoria. The AEMC observed that:

...Although there had been concerns raised about the willingness of Metering Coordinators to engage with DNSPs, there is no evidence that Metering Coordinators

¹² AEMC 2015, *op.cit.*, page 523

¹³ AEMC 2013, *op.cit.*

¹⁴ *Ibid.*

¹⁵ Victorian Auditor General 2015, *op.cit.*, page 28

will not negotiate with DNSPs to understand the services that DNSPs are interested in purchasing. In contrast, potential metering providers made it clear at several of the workshops held by the AEMC that they are hoping to negotiate with DNSPs to ensure their meters have the functionality desired by DNSPs, including load control.¹⁶

43. Since our entry into the NEM in January 2016, we have been negotiating with various market participants, and would be happy to engage with Victorian DNSPs.
44. It would be a most undesirable outcome if Victorian market participants, regulators and consumers would still be discussing and re-litigating in 2020 the same issues raised in this consultation.

Question 4

Under Option 2, what additional measures should be considered in relation to meter installation and wiring safety, the safety associated with the use of the remote reconnection service enabled by smart meters, and community safety?

45. We support **Option 1**, not Option 2.
46. We agree with the AEMC that “disconnections and reconnections arranged by the Metering Coordinator should only be undertaken in accordance with jurisdictional electricity legislation”,¹⁷ at least at this stage.
47. We support Standards Australia’s development of safety standards to support the deployment of advanced meters in Australia. Vector is involved with funding Standard Australia’s development of a road map for the development of such standards.
48. Metering service providers face strong incentives to ensure they meet safety requirements. It is in their commercial interest to preserve their reputation as a provider that prioritises consumer and public safety. Their accreditation by the Australian Energy Market Operator also provides assurance that they have the capability to comply with safety standards.
49. In the New Zealand metering market, where technical functionalities are not prescribed, we have installed 1.2 million advanced meters as at October 2016 with 0.001% customer complaints and no serious injuries.

Question 5

Under Option 2, which party or parties should be responsible for communicating the changes to metering arrangements to consumers, and should there be any communication role for the Victorian Government?

50. As stated above, we do not believe Option 2 is the best option for Victorian consumers, and support the implementation of Option 1.

¹⁶ AEMC 2015, *op.cit.*, page 312

¹⁷ *Ibid.*, page 313

51. We have no objection to the Victorian Government communicating any significant changes to metering regulations to the market and the public.

Question 6

Under Option 2, would the introduction of access regulation for metering services in Victoria provide greater benefits than costs to Victorian households and small business?

Question 7

Under Option 2, will the introduction of access regulation for metering services in Victoria assist in preserving unrealised projected benefits attributed to the Victorian smart meter rollout (please quantify any benefits)?

Question 8

Under Option 2, are there services that Metering Coordinators will not be able to provide that are currently being provided by electricity distributors? If so, what information and/or services will the electricity distributors need to obtain from Metering Coordinators in order to continue to realise these benefits

Question 9

If an access regime is introduced, who would be the responsible regulator and how should it be funded?

Question 10

What is the role for the Victorian Government in ensuring that the potential and benefits of energy data are unlocked through this process, including ensuring electricity distributors [*sic*] have appropriate access? Are there other mechanisms, other than the 'traditional' access regime model, that could be utilised?

52. We do not support the introduction of an access regime in Victoria. In our view, the NEM regulatory framework (**Option 1**) provides the most appropriate framework for access to metering data in Victoria's emerging competitive metering market.

53. In New Zealand, network service providers access advanced metering data through commercial arrangements.¹⁸ We believe this is the better approach to facilitate the transition to a competitive metering market in Victoria for the following reasons:

- The process of distinguishing what information is subject to the access regime and what is subject to commercial negotiations increases complexity and compliance costs.
- In a competitive market, it is in Metering Data Providers' commercial interest to provide data at a price that is broadly in line with the full incremental cost of extracting that data – the main cost incurred in its provision.

¹⁸ Negotiated use of systems agreements or other arrangements.

- Commercial terms also incentivise businesses to perform appropriate cost-benefit assessment when requesting advanced metering data, for example, to help drive efficiencies in network operations and management. Having regulated access to data removes this incentive and encourages data requests for purposes that would otherwise fail prudent commercial standards. It would also remove the incentive for the service provider to do so in the most efficient manner.
54. Currently the Victorian metering service level specification requires DNSPs to only provide daily interval reads and remote re-energisation/de-energisation services. These services can definitely be provided by competitive Metering Data Providers. For other services currently provided by DNSPs, more information on these is required so that an accurate assessment can be undertaken. However, based on currently available information, we are confident that all services currently provided by DNSPs can be supported under the NEM framework because:
- Competitive Metering Providers are currently deploying meters that are at least as advanced as those deployed under the Victorian AMI program.
 - The key benefits/services make use of the power quality data from the meter. This data is available regardless of who deploys/manages the meter.
 - Network benefits from advanced metering will not be impacted if the data comes from a third party meter rather than from a network meter.
 - Outage management functions can be supported by competitive Metering Data Providers and made available to DNSPs as a service.

Question 11

Should Victoria vary its current policy position that smart meters are mandatory and allow households and small business to opt-out of having a communicating smart meter?

55. Adopting Option 1, which we support, would enable small business and residential consumers to opt out of having a smart meter or retain their existing functional meters. We believe the opt out arrangements set out in the NEM metering framework protect consumer choice without compromising the delivery of the benefits of advanced metering to the wider consumer base.
56. Given that advanced meters have already been deployed in Victoria, we expect the number of consumers opting out of having an advanced meter to be small. We expect this number to diminish further as the benefits of advanced metering are experienced by more and more consumers.
57. In our experience deploying 1.2 million advanced meters in the New Zealand market, consumers opting out has not been a significant issue.

Question 12

Do you support setting the small customer threshold at 160 MWh per annum rather than 40 MWh per annum as suggested by the AEMC? If not, please provide a reason.

58. We support greater alignment of jurisdictional arrangements with the NEM metering framework, including the setting of customer thresholds. Greater regulatory consistency reduces costs and avoids confusion for market participants (particularly those operating across the NEM) and consumers.

Question 13

What regulatory changes would be needed to implement Option 2, and what considerations attach to these changes?

59. As indicated above, we do not support Option 2, which would limit innovation, entrench complexity, and increase the regulatory burden.

Question 14

With metering competition commencing on 1 December 2017, what timing issues does the Victorian Government need to be aware of, and how might these be managed?

60. We suggest that timing issues outside of what are already set out in the NEM metering framework be considered by the working group the DELWP intends to establish following this consultation.

Question 15

Are there any other factors or conditions that should be considered to successfully implement metering competition in Victoria?

61. We urge the Victorian Government to exercise restraint in entrenching prescriptive arrangements that could frustrate innovation and the timely delivery of benefits to consumers. As competitive metering arrangements are introduced in Victoria, the need for more prescription or regulations should fall away.

Yours sincerely

For and on behalf of Vector Limited

A handwritten signature in blue ink, appearing to read "Richard Sharp".

Richard Sharp

Head of Regulatory & Pricing