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Submission on Digital Metering – Improving Service Delivery in NSW

Introduction

1. This is Vector Limited's (Vector) submission on the New South Wales (NSW) Government's public consultation paper, *Digital Metering: Improving Service Delivery in NSW*, dated August 2019.
2. Vector is one of New Zealand's largest listed companies and provides energy and technology services across the country. It is the largest provider of electricity and gas distribution network services in New Zealand, and the country's leading provider of advanced (smart) metering solutions. It also provides fibre optic broadband communications network services, solar PV, energy storage, home energy management solutions, and electric vehicle recharging services.
3. Our metering business (Advanced Metering Services – VAMS) provides a cost-effective end-to-end suite of energy metering and control services to energy retailers, distributors and consumers. VAMS is an accredited Metering Provider and Metering Data Provider, and a registered Metering Coordinator, in Australia's National Electricity Market (NEM). We are deploying advanced meters in the NEM, including in NSW. We are also working with other industry participants on new technology demand side initiatives.
4. We set out below our responses to the consultation questions.
5. We are happy for this submission to be published, but the confidential attachment to this submission may not be published.
6. Vector's contact person for this submission is:

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7. We support the submission of the Competitive Metering Industry Group (CMIG) on this consultation.

Responses to consultation questions

Do you think any additional measures may be needed to protect vulnerable customers with digital meters if retailers are able to remotely de-energise electricity supply? Are you able to provide any examples or evidence in support of your view?

8. The *National Energy Retail Law* (NERL) and the *National Energy Retail Rules* (NERR) set out the actions that retailers must undertake prior to de-energising a customer's electricity supply. In our view, the current NERL and NERR provide effective measures to ensure customer safety and the protection of vulnerable customers, including ensuring that de-energisation only occurs as a last resort.
9. We do not currently see the method or technology used to perform remote de-energisation as a factor for considering any additional changes to existing NERL and NERR requirements relating to the protection of vulnerable customers.

What are your thoughts on whether we should permanently extend the requirement for metering providers to submit safety management plans to NSW Fair Trading?

10. Vector takes the issue of safety very seriously. We agree that the requirement for Metering Providers to submit their safety management plans to NSW Fair Trading for approval should be extended permanently. This would ensure that these plans are maintained and kept up-to-date.
11. It should be recognised that Metering Providers are not the only parties responsible for mitigating the risks related to remote de-energisation and re-energisation. Consumers are protected by all relevant parties in the electricity supply chain. We note that retailers that utilise remote services in Victoria (and New Zealand) have processes in place to mitigate risks associated with remote services and ensure their safe delivery. Mitigation measures include, for example, a script that requires customers to confirm:
 - that they will be at the site when it is being re-energised, that they have access to the meter (should this be necessary), and whether there is any life support or other sensitive equipment on site; and
 - that the customer understands the risks related to remote services, and/or has switched off the main switch.
12. We consider it appropriate for retailers to maintain their own safety management plans (or equivalent) - separate from Metering Providers' safety management plans - that describe their own safety controls related to remote services. Such plans (or equivalent) should outline when retailers will make remote services available to their customers and the circumstances where these services will not be offered.

Let us know about safety measures that could be adopted by metering providers and retailers to support the safe operation of remote re-energisation. Are you able to provide any examples or evidence in support of your view?

13. Real world experiences across different jurisdictions have shown that risks related to remote re-energisation services can be successfully managed in various ways.
14. Vector's advanced metering business has been offering remote re-energisation/de-energisation ("Re-ens/De-ens") in New Zealand since around 2010. The advanced meters we are currently deploying in NSW use the same technology that is used for New Zealand meters. In the last calendar year (2018), over 425,000 remote Re-Ens and De-ens had been actioned by Vector for New Zealand customers.

15. In Victoria, distribution network service providers (DNSPs) have been providing remote services to their customers since around 2011. To our knowledge, the approach adopted in Victoria has not triggered any incidents of damage to property or person in the state.
16. The approach in Victoria requires an additional function to “auto-disconnect” where load is detected¹ during the remote reconnection process – a function not required in New Zealand. We note that this function is not part of the minimum services specification for advanced meters in the *Competition in metering rule* for the NEM. We have attached a confidential, detailed document showing the approach used in New Zealand. There is no practical reason why the New Zealand approach cannot be adopted to enable the safe delivery of remote de-energisation/re-energisation services in NSW.
17. One of the key objectives in making remote re-energisation safe is to ensure that issues do not arise during re-energisation, such as the ignition of flammable material prior to the commencement of the electrical work. This can be achieved by requesting customers that someone be present at the time of re-energisation or advising them of their responsibility to ensure all potential hazards are removed prior to re-energisation (switching all power outlets off or turning off the main switch). Further checks can be made at the time of re-energisation to ensure these steps have been taken. These include:
 - ringing the customer to confirm that the customer is present and/or has taken the appropriate precautions; and
 - using technology to allow the customer to perform the energisation on site, such as turning on the “arm meter functionality”, or via a device app that confirms the customer’s location.
18. The above checks are intended to ensure that the risks associated with remote re-energisation can be adequately managed, and re-energisation can be undertaken in a safe manner.
19. Vector understands that mandating the use of the Victorian approach for NSW is being considered, i.e. “auto-disconnect” function is triggered where load is detected. This functionality does not necessarily provide good customer experience, e.g. when the functionality trips on energisation (perhaps because the electric hot water is activated) and power is immediately turned off again. This results in the need for further intervention by the customer, retailer and Metering provider. Given the experience in New Zealand, where hundreds of thousands (100,000s) of re-energisations had been performed over the last few years, with no reports of damage to property, it appears that the case for this functionality has not been made.
20. Vector encourages the NSW Government to exercise restraint in mandating one specific method over another when a significant net benefit to consumers cannot be demonstrated. Metering Providers and retailers should have the flexibility to adopt the process that is proven to be safe, cost-effective, and best meets the needs of their customers.
21. Regardless of the process that will be adopted in NSW, Metering Providers and retailers should be required to:
 - document their safety procedures in their own safety management plan (or equivalent). Retailers’ plans should be separate from Metering Providers’ safety management plans; and

¹ The Victorian Functionality Specification requires each meter to support the auto-disconnect on load detection functionality when re-energising a site. This is seen as a safety feature that may prevent a fire event should the environment inside the premise become conducive to such an event occurring, e.g. flammable material is exposed to a stove element which has inadvertently been left on, which could ignite when re-energisation occurs. It must be noted that this functionality will not protect customers from electric shock should they inadvertently come into contact with electricity during the re-energisation process.

- submit the above document to the appropriate regulator for approval prior to the commencement of the relevant services.

Tell us if you think metering providers should be able to operate any type of isolation devices, including the implications that these practices may have on safety and the extent to which they will improve the customer experience. Are you able to provide any examples or evidence in support of your view?

22. One of the key isolation issues impacting customers in NSW is the inability of Metering Providers to operate isolation devices, specifically barge board fuses. Over 3% of attempted advanced meter installations in NSW are unsuccessful because the technician is not able to operate a barge board service fuse.
23. This issue is unique to NSW as meter technicians in other jurisdictions are authorised to operate almost all fusing in the course of performing metering works. Being unable to operate these fuses is likely to have a negative impact on the customer who had been informed that the meter would be installed on a certain day. The customer may have stayed home (rather than go to work) to allow access to the meter, only to be informed that the meter installation needs to be deferred to a later date/visit.
24. There is some confusion in the industry on whether Metering Providers installing advanced (type 4) meters are subject to the Accredited Service Provider (ASP) Scheme, and whether the operation of barge board service fuses requires an ASP qualified technician or not.
25. The ASP Scheme is designed for the provision of contestable network services and the Scheme defines these as connection services under the *National Electricity Rules*. This relates to the establishment and dis-establishment of the physical link between the distribution network and the premise, i.e. new connections, supply alterations and supply abolishment. Performing contestable metering installations (meters types 1-4) has never been part of the ASP Scheme and the installation of network meters (types 5 & 6) was removed from the Scheme as part of the *Power of Choice* reforms in 2017. While the installation and maintenance of a service fuse (barge board or any other form) clearly requires an ASP accredited technician, the operation of such devices falls outside the definition of a connection service and therefore the jurisdiction of the ASP Scheme.
26. As a Metering Provider to the mass market (installing type 4 meters for small customers), we recommend that this consultation provide greater clarity around the responsibilities for the operation of isolation devices. This is particularly the case for barge board fuses and curb side cabinets which make up the bulk of the isolation issues. We believe Metering Providers' technicians who are appropriately trained to operate these fuses should be allowed to perform this task where it is safe to do so.

Code amendments and technician training

27. We suggest that sections 16 and 18 of the *Code for safe installation of direct-connected whole current electricity metering in NSW (NSW Code for safe installation)* be updated to remove the ambiguity around the operation of fuses, particularly for barge board fuses and, to a lesser extent, curb side cabinets. This would better align the *NSW Code for safe installation* with arrangements in other NEM jurisdictions and will help achieve the NSW Government's priority of "ensur[ing] consistency with approaches in other jurisdictions where appropriate".² DNSPs in other jurisdictions administer a simpler and less onerous process of authorising licenced electrical workers (and therefore Metering Providers) to operate service protection equipment.

² Page 2 of the consultation paper

28. Metering Providers already have obligations under their safety management plans to demonstrate compliance with the *NSW Code for safe installation*. This includes the requirement to ensure their technicians have the necessary training and qualification(s) for the purposes of the 'disconnection of supply and establishing a safe work area'. This includes the operation of service protection devices. We ensure that our technicians undertake comprehensive training in Vector's Operational and Installation Procedures in the installation of advanced meters, including health and safety. We require our technicians to achieve a level of proficiency to ensure that quality and safety are maintained before they are authorised to install advanced meters under Vector's Metering Provider accreditation.
29. The training developed by Vector is based on the *National Quality Framework, UEENEEG171A install, setup and commission interval metering* which is prescribed in the *NSW Code for safe installation*.
30. Vector's approach is similar (but not the same) to the training that a DNSP requires ASPs to undertake when ASPs request access to work on the DNSP's network.

IPART's recommendations

31. We support the recommendation of the NSW Independent Pricing and Regulatory Tribunal (IPART) that, "subject to necessary training and safety regulations, Metering Providers should be able to deploy resources to...operate any service fuse carriers required to de-energise a site for a meter installation within the customer's electrical installation".³
32. Allowing Metering Providers to perform the above task, subject to the existing safety requirements and consumer protections, will facilitate the deployment of advanced meters in NSW. This will enable the timely introduction of new and innovative services that benefit consumers without compromising safety and the protection of vulnerable consumers.
33. We further support IPART's recommendation that the NERR be amended to "allow retailers to undertake retailer planned interruptions of other retailers' customers for the purpose of metering installations at multi-occupancy and shared fuse dwellings."⁴ We note that the Australian Energy Market Commission has commenced a consultation on a proposed rule change on this matter. We look forward to a positive outcome from this process, which is intended to remove some of the regulatory constraints adversely impacting the deployment of advanced meters in NSW.

Concluding comment

34. We are happy to discuss any aspects of this submission with the relevant NSW Government officials.

Yours sincerely



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Vector Advanced Metering Services

³ <https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/investigation-compliance-monitoring-energy-publications-retailers-meter-installation-practices-in-nsw/final-report-retailers-metering-practices-in-nsw-17-december-2018.pdf>, page 21

⁴ Ibid.