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Australian Energy Market Commission
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Submission on the AEMC's Five Minute Settlement Draft Rule Determination

Introduction

1. This is Vector Limited's (Vector) submission on the Australian Energy Market Commission's Draft Rule Determination on the *National Electricity Amendment (Five Minute Settlement) Rule 2017* (the Draft Determination), dated 5 September 2017.
2. Our metering business, Vector Advanced Metering Services (VAMS), is an accredited Metering Data Provider (MDP) and Metering Provider (MP) in the National Electricity Market (NEM). We have started deploying advanced meters in New South Wales (NSW) and Queensland, and are currently extending our service offerings to all other NEM jurisdictions.
3. As such, our submission is focused on clarifying aspects around the proposed metering requirements for five minute settlement, and ensuring the benefits from the introduction of competition in metering under the *Power of Choice* reforms that will commence on 1 December 2017 will not be undermined.
4. No part of this submission is confidential. Vector's contact person for this submission is:

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Clarification around new and replacement type 4 meters after 1 December 2018

5. In the course of the consultation on the Draft Determination, we understand from the AEMC that there was a drafting error in relation to the Draft Rule (clause 11.100.4) and its description in the Draft Determination that requires all new and replacement type 4 metering installations to record and store five minute data from 1 December 2018. The AEMC clarified that this does not reflect the policy intent.
6. We have serious concerns regarding the above requirement as worded in the Draft Determination. This requirement means that five settlement will effectively commence on

1 December 2018 for providers of new and replacement type 4 metering services - a long way ahead of all other relevant market participants who will not be required to comply with five minute settlement requirements until 1 July 2021. An asymmetrical and onerous requirement will be imposed particularly on: 1) MPs configuring and testing meters and AMI platforms, and commissioning meters; and 2) MDPs, who will be collecting and storing five minute data that will not be used by the market until the 2021 commencement date. We consider this arrangement to be highly inefficient and unfair to these parties.

7. We therefore welcome the AEMC's clarification that its statement on the above requirement does not reflect the policy intent. Given its material impact on MDPs and MPs, we highly recommend that the AEMC expressly clarify in its Final Rule and Final Determination that:
 - From 1 December 2018, all new and replacement type 4 metering installations will need to be capable of recording five minute data. [emphasis added]
 - The above meters will only be required to record and submit five minute data after the rule change has commenced on 1 July 2021.

Grandfathering of existing type 4 and type 5 meters

8. We support the 'grandfathering' of existing type 4 and type 5 meters that cannot be reconfigured and meet the storage requirements for providing five minute data after the rule is made.
9. In our view, the commencement of competitive metering arrangements from 1 December 2017 would make this issue less relevant over time as most advanced meters that will be installed from this date should be capable of recording and storing five minute data.
10. We can confirm that the meters we are deploying in NSW and Queensland are already capable of recording and storing five minute data.

Site visits

11. It appears that the AEMC assumes that all sites are visited as part of a metering inspection and testing regime. While this is the case for types 1-3 meters, the inspection and testing regime for type 4 meters (i.e. for small consumers) is based on samples rather than visiting each site, which is inefficient and unnecessary.
12. We suggest that the AEMC take into consideration the above site visit frequency in its further assessment of the proposed rule's costs and benefits. Vector's advanced metering business offers to provide cost and benefit data points to further inform the AEMC's decision on this matter.

Alternative uses of advanced metering capabilities

13. As stated in paragraph 10, the advanced meters we are deploying are already capable of recording and storing five minute data. Under five minute settlement, the latent capabilities

of the metering hardware and metering service platforms (or some of their capabilities) will now be used for the new service, at least in the short to medium term. This means that some existing capabilities may not be able to be used to deliver other market services that directly benefit the industry and consumers, such as:

- data for distribution network management, e.g. service degradation monitoring, meter-to-transformer mapping, and tracking of electrical losses such as electrical theft; and
 - ensuring safety, e.g. fault location and neutral integrity monitoring and notification.
14. We suggest that the AEMC recognise the likely trade-offs as illustrated above in its assessment of the costs and benefits of the proposed rule change.

Staged implementation of the proposed rule change

15. We recognise the AEMC's reasons in its Draft Determination to make five minute settlement mandatory on all relevant market participants from the proposed rule's commencement date. We suggest, however, that the AEMC re-consider a staged implementation starting from generators and the large customer category where the vast majority of industry and consumer benefits are expected to be achieved, as acknowledged in the Draft Determination. Five minute settlement can then be implemented in the small customer category at a later stage, potentially in conjunction with a percentage of the energy in this segment being on advanced meters (hence not on a net system load profile).
16. We are making the above suggestion in light of the ongoing deployment of advanced meters in the NEM that can only be expected to accelerate with the impending introduction of competitive metering arrangements, and the widely recognised direct benefits these meters enable at the retail end of the market (i.e. more efficient and innovative services) and other benefits mentioned in paragraph 13. We note that the grandfathering of existing type 4 and type 5 meters that cannot be reconfigured or do not meet storage requirements means that the proposed rule's implementation with respect to these meters will, to some extent, be 'staged' anyway.
17. On metering requirements, our experience in the competitive New Zealand metering market shows that advanced meters are driven by wholesale displacement by way of episodic contestable processes. This indicates the importance of achieving scale from a metering platform perspective.
18. In conjunction with our suggestion for a staged implementation, we suggest that the AEMC specifically consider a staged approach in relation to new metering requirements for the following reasons:
- A staged approach allows scale to grow pragmatically from a technical perspective.

- Staged investments in metering platforms allow metering service providers to incrementally recover the costs of their investments from retailers and other (potential) customers. This is in line with the transition of consumers to advanced metering (that are capable of five minute settlement), rather than making a large upfront investment with a very long timeframe for cost recovery. There does not appear to be a willingness by parties to make a huge upfront contribution to the change programme associated with the shift to five minute settlement.
19. We further suggest that the review of the Australian Energy Market Operator's (AEMO) procedures relating to metering for the purposes of the proposed rule change include, among others, an assessment of memory and local download performance requirements. It should also include identifying exemptions that may be required as a result of reallocating some of the market's existing metering capabilities for five minute settlement, as mentioned in paragraph 13.
20. In line with a staged approach, we support the proposal for AEMO to provide a "test environment" for market participants to trial five minute settlement before its proposed commencement date of 1 July 2021.

Concluding comments

21. We urge the AEMC to be mindful that the shift to five minute settlement would not undermine the benefits that the *Power of Choice* reforms are expected to deliver. This includes refraining from imposing new metering requirements that could be unduly onerous (i.e. costly to implement at this stage of market development without overriding net consumer benefits) and result in unintended consequences.
22. We are happy to discuss this submission with the AEMC, and any other issues around advanced metering that are relevant to its five minute settlement proposal.

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 and Pricing