Submission on AEMC's Draft Report: Framework for Open Access and Common Communication Standards Review

30 January 2014

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Introduction

1. Vector Limited ("Vector") welcomes the opportunity to make this submission on the Australian Energy Market Commission's ("AEMC") *Draft Report: Framework for Open Access and Communication Standards* ("the *Draft Report*"), dated 19 December 2013.

2. Vector is one of New Zealand's largest listed companies and the country's largest electricity distribution network, supplying the Auckland region. Vector also provides gas distribution network services in more than 20 towns and cities in New Zealand's North Island. It further provides gas supply and treatment, electricity and gas metering services, and fibre optic broadband communication networks in Auckland and Wellington.

3. Our metering business, Advanced Metering Services ("AMS"), is New Zealand's leading smart meter provider, with approximately 42% market share. AMS is almost three-quarters of the way through the rollout of approximately 840,000 smart meters that we have been contracted to supply to retailers in the New Zealand electricity market. We aim to install a million smart meters nationwide by 2015.

4. Vector is in a unique position as the only electricity distribution company in New Zealand that has also successfully contracted with retailers to roll out smart meters on a national basis. The main metering provider on Vector's network, however, is Metrix, another New Zealand provider. This reflects the competitive nature of the New Zealand metering market, and gives us the ability to see metering issues from more than a single market dimension.

5. While Vector's current market is limited to New Zealand, we are seriously considering commercial opportunities in the Australian smart metering market.

6. No part of this submission is confidential and Vector is happy for it to be made publicly available.

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Executive summary

8. Vector believes that mandating specific technical standards for metering is not necessary to progress the Australian government's policy objectives for the electricity sector.

9. Mandating technical standards is not to the long-term benefit of consumers. This is because it is likely to:

    - Limit market competition. It locks out parties not using the proposed technical standards, effectively creating a barrier to market entry.

    - Dampen investment incentives. It could result in stranded investment for those who have invested in other technical standards, making the Australian market less attractive for existing and potential investors.

    - Stifle technological and service innovation. Mandated technical standards do not provide incentives for market participants to rapidly introduce new and innovative technologies and services into the market. It makes them regulator-focused instead of becoming effective competitors and innovators, striving to meet consumer requirements and expectations.

    - Compromise technology neutrality. The meter is not the only device that can facilitate demand side participation. Mandating the addition of new functions to the meter could be costly for consumers who may not need or want them.

    - Shift upfront risks from investors to consumers. The technical standards of choice today may not be the most suitable or least costly in the future. The cost of making the wrong choice would fall on consumers. Picking 'technology winners' is best left to those who take the investment risks.

    - Increase implementation and compliance costs. The transition to the adoption of mandated technical standards is likely to have costs without overriding benefits. These include the costs of establishing additional roles to impose those standards and monitor compliance.

10. It is for these reasons that Vector recommends the development of principles or guidelines for open access, instead of mandating technical standards for the metering market.

Market competition

11. In principle, Vector agrees with the Australian government's market-led approach to fulfil its policy objectives for the electricity sector. This approach, which generally aims to promote a competitive market for consumers' benefit, is embodied in policy settings, which include:

    - the National Electricity Objective, which aims "to promote efficient investment in, and efficient operation of, electricity services for the long term interests of consumers of electricity";

    - the AEMC's Power of Choice ("PoC") review, which sets out "recommendations for supporting market conditions that facilitate efficient demand side participation (DSP)" in the electricity market.[1] The PoC review also states that "new regulatory arrangements to support the provision of broader market information are not required" [2];

    - the Standing Council on Energy and Resources' ("SCER") rule change request, which is intended to provide competition in metering and data services.[3] This implies that metering will eventually be provided not only by distributors but also by retailers, independent meter owners or even end users; and

    - the AEMC *Draft Report* recommendation to establish "a framework…for open access and communication standards to support competition in DSP end user services enabled by smart meters".[4]

12. Vector, however, is concerned that the AEMC *Draft Report*'s proposal to mandate a common market protocol (DLMS/COSEM), a common meter protocol, and a smart meter communication architecture (collectively referred to in this submission as "technical standards") does not support the above objectives.

13. The proposal is likely to create additional barriers to market entry and competition. It also has consequential implications such as dampening incentives to invest, stifling technological and service innovation, and imposing unnecessary costs on consumers.

14. Mandating technical standards may be appropriate for natural monopoly services, but not for competitive services such as metering. It limits competition by locking

[1] AEMC 2012, Power of choice review – giving consumers options in the way they use electricity, Final Report, 30 November 2012, Sydney, Executive Summary, page i
[2] *Ibid.*, page 65
[3] AEMC 2013, Framework for Open Access and Common Communication Standards Review, Draft Report, 19 December 2013, Sydney, page 13, footnote 15
[4] *Ibid.*, page 4.

out existing and potential market participants who are not currently using the proposed standards or who believe that better standards/approaches are available. This effectively becomes a barrier to market entry.

15. Vector does not have any issues with the setting of minimum levels of service standards, which protect and benefit consumers. Mandating the use of specific technical standards, however, could result in inefficient outcomes that do not benefit anyone. For example, this could result in the provision of services that do not keep pace with technology changes or that consumers do not need or value.

16. Vector considers that as a competitive metering market is developed in Australia, enabled by the above policy settings, the need for greater regulation should fall away. Instead of mandating technical standards, the AEMC should focus on identifying, removing and avoiding unnecessary barriers to market entry and competition.

Identifying market failure

17. The AEMC *Draft Report* does not clearly define or identify what the market failure is that led the AEMC to propose more prescriptive arrangements. It does not provide any explanation why the AEMC believes the market is not capable of producing competitive outcomes without mandating technical standards.

18. The mere identification of a market failure, however, is not sufficient to justify regulatory intervention. The benefits of any regulatory intervention must be shown to outweigh the costs associated with market failure, i.e. it must deliver significant net benefits to consumers.

19. Vector suggests that the AEMC undertake a competition analysis to determine whether there is market failure and that it warrants regulatory intervention.

The New Zealand metering market

20. Metering in New Zealand, including the provision of smart metering data, is predominantly provided through commercial arrangements. This market-led model has seen the rapid rollout of approximately 1.1 million smart meters over the past few years. New Zealand's experience highlights that a competitive metering market is possible and can be successful.

21. The New Zealand Electricity Authority has not found it necessary to regulate access to metering data because market arrangements are working effectively. Following a review of the metering market, the Authority concluded, in 2012, that "the diversity of participants in the metering services market, and the level of

investment in AMI by different parties, indicate the market is workably competitive".[5]

22. Metering providers in New Zealand negotiate with their consumers (mostly electricity retailers), who are significant market players themselves with countervailing market power. Retailers have the wherewithal to negotiate reasonable terms for access to metering data.

23. The New Zealand metering market has not suffered problems similar to those experienced in the state of Victoria, where the mandated smart meter rollout generated cost blow-outs and consumer consternation. Where there are consumer concerns, New Zealand retailers are able to address them directly as they have a direct relationship with the consumer. Meter functionality is driven by retailer innovation, which increases competition for consumers. This, in turn, delivers benefits to consumers through lower prices, greater choice and better services.

24. In New Zealand, natural monopoly businesses such as electricity distributors are subject to price-quality regulation under Part 4 of the *Commerce Act 1986*. These businesses are required to meet minimum service standards, among other requirements, and are subject to stiff penalties if they breach those standards. These businesses, however, are not required to adhere to specific technical standards (other than safety standards), akin to those proposed by the AEMC for metering data access.

25. Given that non-safety technical standards are not even imposed on heavily regulated natural monopoly businesses (at least in the New Zealand context), Vector does not see any compelling reason why they should be applied to competitive services such as metering.

26. Vector notes that other sectors in New Zealand generate data that have characteristics similar to metering data. These include electronic payments, stock market and real estate data,[6] the provision of which is not regulated. Vector cannot see any fundamental difference between these data and metering data that could frustrate market participants from reaching commercial access agreements.

Pricing

27. The AEMC *Draft Report* expresses the AEMC's intention to "undertake further analysis and assessment of whether there is a need to regulate…the prices that may be paid for…[metering data] access". [7]

[5] Electricity Authority 2012, EA Part 10 review: nomination of metering equipment provider and access to metering data, Decisions and reasons, 13 April 2012, Wellington, paragraph 13

[6] Covec 2011, Advanced Metering : Competition and Data Access, 21 June 2011, Wellington, pages 18-20 in Vector 2011, Submission to Electricity Authority on Nomination of the MEP and access to data, 21 June 2011, Wellington

[7] AEMC 2013, *op.cit.*, page vi

28. Vector believes that incentives already exist for parties who control metering data to provide the data at a reasonable cost. In fact, it is in metering providers' commercial interests to provide data at an efficient level, i.e. at a price that is 'broadly in line' with the full incremental cost of extracting the data.[8] This offers them the chance to generate some revenue.

29. Data is a 'non-rival' good; one does not lose data and the benefits of possessing it by providing the same data to others. The opportunity cost of providing data is equal to its marginal cost. And the only costs incurred in its provision are 'extraction costs'.[9] This should allay the concern that data seekers will be charged excessively.

Investment

30. The PoC review recognises that "over time the market will provide the most efficient metering hardware and software investments if an appropriate and robust framework is in place".[10] The PoC review focuses on "establishing the right market arrangements to support investment in and application of DSP, consistent with consumer preferences and the demand circumstances".[11]

31. It is not clear why the AEMC is deviating from the PoC review's market-led approach.

32. Mandating technical standards could put at risk investment already made in advanced metering technology based on other standards. It could also raise a concern for current and potential investors about the basis of future regulatory decisions.

33. Unanticipated changes to the 'rules of the game' undermine investor confidence, making investing in the Australian electricity market less attractive. Prudent company boards do not allocate capital or increase their level of investment in an uncertain environment, where the prospect of reasonable returns is seriously compromised.

34. The uncertainty of regulatory decisions also generates perverse incentives. Where there is uncertainty, businesses are more likely to make investments in lower-risk, conventional or less advanced technologies instead of exploring new or innovative ones. Or they may refuse to invest at all.

[8] Vector 2011, *op.cit.*, page 13
[9] *Ibid.*, page 31
[10] AEMC 2012, *op.cit.*, page 85
[11] *Ibid.*, page 76

Innovation

35. The proposal to mandate technical standards is inconsistent with the PoC review's statement that the AEMC is:

> …**not recommending any particular communication platform.** This is because the choice of the most efficient platform may vary over time and is likely to require different approaches in geographical areas. We consider that **the market should be incentivised to deliver the most efficient platform** for the particular circumstances of the metering services provider. However, we do consider that the remote acquisition function in the meter be designed on open access principles to allow entitled parties to gain access to the energy data" [emphasis added].[12]

36. Mandating technical standards does not provide incentives for market participants to innovate and take a leadership role in smart meter development. They are 'locked' into using the mandated standards until the obsolescence of those standards. It makes market participants more regulator-focused rather than becoming effective market competitors and innovators, striving to meet consumer requirements and expectations.

37. Vector notes that other technology markets, such as the cellular mobile market, have demonstrated that different protocols/technical standards could converge or co-exist, if need be, without government intervention.

Meter churn

38. The AEMC *Draft Report* states that "[a]llowing protocol translators…increases the risk of meter churn if a metering provider exits the market or no longer supports a proprietary protocol".[13]

39. Vector believes that meter churn (or even metering provider churn) is not necessarily a harmful outcome, depending on who bears the cost. It could be a reflection that inefficient meters or metering providers are being displaced from the market. And the sooner inefficiencies are recognised by market participants, the less it would cost them to rectify those inefficiencies or exit the market.

40. In the competitive New Zealand metering market, meter churn is effectively dealt with by market participants through their wholesale agreements. We note that in Australia (the NEM), there is a framework that defines a set of services and service levels which minimise unnecessary meter churn. This enables the delivery of prescribed minimum meter data services.

[12] AEMC 2012., *op.cit.*, page 108
[13] AEMC 2013, *op.cit.*, page vi

41. Vector believes it would not benefit consumers if market participants do not have the flexibility to upgrade meters for the purpose of delivering new and innovative services over and above the mandatory/minimum service standards. This could lead to outcomes where:

- new functionalities in future years may not be able to be delivered using today's technology;
- the timely introduction of new capabilities will be compromised due to a market participant being required to have technical specifications altered for the purpose of introducing a new service;
- innovation and investment will not be incentivised because a market participant is required to disclose its intent in respect of its new service. That market participant could risk losing its competitive advantage, making investment less attractive; and
- consumers will not benefit from lower cost service provision or the choice of better services that meet their specific needs.

Technology neutrality

42. Vector is not making any judgement as to the suitability of particular protocols or technical standards. The standards of choice at present may not be the most suitable or least costly in the future. As has been said, the "risk is in the future, not in the past".

43. It is not necessarily the case that the smart meter provides all of the 'smart' services, or the optimal means of delivering the DSP outcomes desired by the PoC review. Consumers can obtain information about their electricity consumption and manage it in a number of ways. For example, they can download information through apps or cloud services via smartphones, tablets or PCs. Load control can also be undertaken using other devices, bypassing the meter altogether.

44. The array of metering devices being produced by the market that are capable of facilitating DSP shows that innovation is continuing. Vector considers it is less costly to assess what enhancements are required, i.e. to cater for smart meters, rather than enshrine particular technical standards into the regulatory framework.

45. Mandating the addition of new functions before they are used creates the risk of 'gold-plating' the service. This generates unnecessary costs for consumers who do not want or need those functions.

46. As the market has not settled on technology outcomes, we urge the AEMC to exercise caution before mandating technical standards. This is particularly relevant where services can also be delivered using devices other than the meter.

Risk allocation

47. The provision of smart metering in New Zealand through commercial arrangements, rather than through mandated technical standards, means it is metering providers who face the risk of picking the wrong standards, not consumers.

48. Metering providers who pick the wrong technical standards may attempt to recoup their costs through higher metering charges or may make losses on their investments. This will make them less competitive and lead them to lose market share or exit the market.

49. Where there is no market failure, the market can very well allocate and manage risks. In competitive markets, metering providers have very strong commercial incentives to manage risks, including in choosing the most suitable technical standards or technology paths. The risk of not making an economic return on what could be a substantial initial sunk cost is managed through contractual means.

Regulatory and implementation costs

50. Vector believes mandating technical standards entrenches unnecessary costs into the regulatory system. This has negative flow-on impact on consumers without overriding benefits.

51. There are transition costs for industry participants in adopting any mandated technical standards. There are also costs in establishing the new Smart Meter Provider and Metering Coordinator roles, which we believe are already performed by market participants under current arrangements.

52. Given the proposed new layers and functions, it is not unreasonable to expect that the role of regulators in adjudicating industry disputes, some of which would have previously been resolved through contractual means, will increase.

Recommendations

53. We believe a framework for metering that provides the right incentives for parties to enter the market, invest and innovate is in the long-term interest of consumers. We **recommend** that the AEMC develop principles or guidelines for open access to support this framework, instead of mandating technical standards. This is consistent with the market-led approach envisaged by the NEO, the PoC review and the SCER rule change request.

54. If there is reason to believe there is market failure, we **recommend** that the AEMC undertake a competition analysis to show evidence of its existence or likely

existence. We further **recommend** that the AEMC assess whether any proposed regulation to address that market failure would deliver significant net benefits to consumers.

55. As the market evolves, consumers may expect or demand more sophisticated forms of metering data. We **recommend** that the AEMC give further thought to the likely evolution of metering data before even considering pricing issues.

56. Furthermore, we **recommend** that the AEMC cast a wider lens in assessing potential sources of barriers to electricity market competition and DSP. Some of them may be addressed more effectively through market mechanisms and would not necessarily require 'fixing' the metering market.