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Queensland Competition Authority
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QCA Staff's Questions on the Benefits of Advanced Digital Meters

Introduction

1. This is Vector Limited's (Vector) submission on the questions of the Queensland Competition Authority's (QCA) staff on the benefits of advanced digital meters, issued for consultation in May 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 (Vector 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 Data Provider and Metering Provider, and a registered Metering Coordinator in Australia's National Electricity Market (NEM). We are deploying advanced meters in Queensland, New South Wales, South Australia, and the Australian Capital Territory.
4. We set out below our responses to the QCA staff's questions.
5. No part of this submission is confidential. Vector's contact person for this submission is:

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Responses to selected consultation questions

1(a): *What issues should the QCA consider when requesting, and interpreting, retailer data on advanced digital metering deployment strategies?*

6. The QCA should consider existing regulatory barriers when requesting and interpreting retailer data on advanced metering deployment strategies. We identify some of these barriers in our response to Question 2(d) below.

1(b): *Are there any electricity supply participants in addition to electricity retailers, electricity distribution and transmission network entities, electricity generators, and market administrators that the QCA should consider?*

What benefits do stakeholders consider could potentially be available to each electricity supply participant, including residential and small business retail customers?

What do stakeholders consider to be the best methods to value these benefits?

How do stakeholders expect these benefits could be realised over time?

7. The QCA should also consider Metering Coordinators, Metering Providers, and Metering Data Providers in addition to the above parties.
8. The benefits of advanced metering to different industry participants and consumers are widely recognised. These have been discussed at length during the consultation processes leading to the *Competition in Metering Rule* that introduced competition in the NEM metering market (except in Victoria) from 1 December 2017. These documents, released by the Australian Energy Market Commission, identify those benefits:

<https://www.aemc.gov.au/sites/default/files/content/29328539-8eb5-4c34-952d-2a44ab5d12c5/Information-sheet-consumer-benefits.PDF>

<https://www.aemc.gov.au/sites/default/files/content/5ffb9157-d7fa-4311-93b5-ab04b59007ce/ERC0169-Consultation-paper-FINAL-for-publication.pdf>

<https://www.aemc.gov.au/sites/default/files/content/2b566f4a-3c27-4b9d-9ddb-1652a691d469/Final-report.pdf>

9. Energy Networks Australia (ENA) released a report this year on innovation projects undertaken by various energy networks across Australia, many of which are underpinned by data delivered by advanced meters. The report describes the preliminary outcomes of these projects, including quantifying the benefits for networks and consumers. The ENA report is available at:

https://www.energynetworks.com.au/sites/default/files/032619_great_expectations_innovation_case_report_final.pdf

10. Broadly, the benefits of advanced metering include:

- a. Energy efficiency gains

Advanced meters enable innovative tariffs that provide consumers with near real-time information about their electricity consumption. This allows consumers to alter their consumption patterns to reduce energy expenditure; for example, by consuming more electricity during off-peak times when it costs less.

- b. Greater consumer choice

Consumers have greater ability to control their consumption behaviour to suit their particular energy demands, or obtain better value for their money. This also facilitates 'demand side participation' in the electricity market.

- c. Reduced costs

Advanced meters enable metering service providers to read consumers' consumption remotely and in near real-time, reducing operational costs and billing inaccuracies which are common under periodic meter readings.

- d. Network and public benefits

Advanced meters enable intelligent/smart grids by enabling two-way communication between the meter and the network's central system. This provides distribution networks the capability to detect faults more accurately and in a timely manner. Quick

outage recovery increases networks' ability to reduce repair costs or defer costly new network investment.

The increased ability of networks to respond more quickly to outages or emergency callouts also has positive implications for public health and safety.

11. In our view, the above benefits are best realised over time through a competitive metering market which enables:
 - a. the entry of multiple services providers, which ensures competitive prices;
 - b. product and service innovation, as various technologies that suit consumers' varying requirements are introduced to the market;
 - c. better services, as competing service providers focus on differentiating themselves by delivering improved and innovative services, rather than focusing on regulatory compliance;
 - d. greater choice for consumers who can choose from a wider range of market offerings delivered by multiple providers;
 - e. increased incentives to invest, as interested parties who believe they can provide better offerings are attracted to enter the market; and
 - f. consumers/taxpayers to avoid bearing risks associated with investment and technology choice, which are instead borne by meter owners.

2(a): *What potential, and realised, direct benefits do stakeholders consider advanced digital meters have over accumulation meters?*

How should the value of these benefits be estimated?

12. See our response to Question 1(b).

2(b): *Which groups identified in 1(b) receive benefits from advanced digital meters?*

How should the QCA identify the proportion of the total benefit received by each participant group?

13. Various groups in the electricity market benefit from advanced digital meters, including electricity distribution networks, retailers, metering service providers, and importantly, consumers.

14. See our response to Question 1(b).

2(c): *How should the QCA estimate the potential for each direct benefit to be realised now and in the future?*

What factors do stakeholders consider would affect the realisation of direct benefits now and in the future?

15. See our response to Question 1(b).

16. Each direct benefit needs to be evaluated on its own merits. Factors that could contribute to the realisation of benefits now and in future will be many and varied. Examples of these

factors would be advanced meter penetration, customer uptake of retailer products, and network uptake of available advanced metering data.

2(d): *What barriers exist for realising potential benefits now and in the future?*

How should the impact of these barriers be estimated for each group identified in 1(b)?

How could these barriers be removed?

17. The issue of providing remote re-energisation services via advanced meters needs to be addressed. The current *Queensland Electrical Safety Regulation* requires a distributor to perform a safety inspection prior to re-energisation. In our view, this erodes the benefits of advanced metering from remote re-energisation.
18. In addition to the above, Queensland regulators can improve the effectiveness and efficiency of the deployment of advanced meters in the state by facilitating, or removing barriers to, the timely installation of new and replacement advanced meters. This can be through measures that:
 - a. ensure electricity distributors in Queensland support new connections, and alterations and additions, in a manner that treats all Metering Providers equally;
 - b. remove legislative barriers to retailers utilising safe remote disconnection and reconnection services via advanced meters as soon as possible;
 - c. allow Metering Providers to hang service lines (rather than wait for the designated person from the distribution network) so the installation of an advanced meter can be done by a single person in a single trip; and
 - d. provide certainty related to customer obligations to address non-compliances found in customer installations that hinder the installation of advanced meters.

2(e): *What factors should the QCA consider when estimating annual benefits to each group identified in 1(b)?*

19. See our response to Question 1(b).
20. While the deployment of advanced meters across the NEM (including Queensland) commenced only in December 2017, there is a growing body of knowledge and evidence on the benefits of advanced metering in a competitive market from recent and ongoing technology trials in Australia.
21. We encourage the QCA to consider and build on these studies, including similar studies from overseas, rather than 'start from scratch' which can only be undertaken at a significant cost.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Mitch Webster", written in a cursive style.

Mitch Webster
Group Manager – Sales and Marketing
Vector Advanced Metering Services