

Enabling mass participation

Response and next steps

Decision

4 October 2017



Executive summary

We consulted on *Enabling mass participation in the electricity industry* between May and July 2017. The focus of this consultation was to identify any ‘gaps’ in our current work programme to enable more participation. We wanted views on changes to our work programme that may be needed for consumers to benefit from the changes in technology and innovation happening now in the electricity industry.

This paper presents our response to submissions and explains our next steps in relation to the additional work we have decided to do.

Our work programme is focused on enabling more participation

The industry is changing. There is agreement amongst respondents to our consultation paper that more participation, or more buyers and more sellers of electricity and related services, will deliver long-term benefits for consumers. There is a common view our work programme has a clear focus on promoting more participation and innovation in the electricity industry. We will continue to focus on the following projects in this regard:

- *Distribution pricing* project to ensure consumers can make informed choices about when to consume and when and where to invest, for example in local generation (eg, solar panels and batteries) and demand-response capability. In addition, more efficient distribution pricing will make investment in the distribution network more efficient and result in lower network costs for everyone.
- *Multiple trading relationships* project to identify and address barriers inefficiently limiting consumers’ ability to use electricity or electricity services provided by more than one party at the same time, at the same location. Addressing this area will promote more competition and consumer choice.
- *Data and data exchange* project to make sure our market systems and processes are prepared for how the electricity industry might change to support more participation and choice for consumers.
- *Default distribution agreement* project to make sure the relationship between a distributor and retailers using its network promotes competition, efficiency and innovation in retail and related markets.
- *Participant definition* project to ensure existing participation types contained in the rulebook, the Electricity Industry Participation Code 2010 (the Code), are fit-for-purpose in the context of changes to the electricity sector, including consumers becoming active buyers and sellers of electricity and other electricity related services.
- *Consumer engagement and education* project. We will include feedback from submissions to develop our future engagement and education plans.

IPAG will consider whether parties wanting to use electricity networks are treated equally and can compete on a level playing field

Effective open or equal access arrangements to transmission and distribution networks provide confidence to all parties using the network that they will be treated equally and can compete on a level-playing field. There is broad agreement from stakeholders that in a changing electricity industry, an effective open or equal access framework is necessary to promote competition, efficiency and reliability.

We have detected a lack of confidence in existing open or equal access arrangements. We will initiate a new project to further investigate the reasons for the lack of confidence. After considering feedback from submissions, we have decided to refer to this new project as the *Equal access* project. The project's objective will be to identify whether the existing arrangements ensure that all parties wanting to use networks, included to provide network support services, are treated equally and can compete on a level-playing field.

We will request the recently established Innovation and Participation Advisory Group (IPAG) to undertake this project. We will ask IPAG to consider:

- a) whether the operation of the existing arrangements to use transmission and distribution networks to provide electricity and electricity related services, including network support services, is promoting competition, efficiency and reliability for the long term benefit of consumers
- b) options to strengthen confidence in the existing arrangements to use transmission and distribution networks to provide electricity and electricity related services, including network support services, for the long term benefit of consumers
- c) the costs and benefits of each option.

We acknowledge the diversity of network businesses might mean levels of confidence in the existing open or equal access arrangements are not uniform across all networks. However, given the importance of open or equal access for promoting competition, efficiency and reliability, we have decided to undertake a broad-ranging review of arrangements in place for transmission and distribution networks.

We will address a range of other matters raised in submissions

Parties raised a broad range of matters in their submissions. We have detailed below the key other matters raised and indicated how we intend to address them:

- Concerns relating to access to consumption data to facilitate the development of new products and services across the industry are being explored through the Default distribution agreement and the *Multiple trading relationships* project.
- We will consider options to facilitate peer-to-peer trading through existing projects in our work programme, for example, the *Multiple trading relationships* project.
- We are working closely with the Commerce Commission. In April 2017 we established a working group to identify and make recommendations on ways to manage the interface between the role of the Authority and the role of the Commission. Officials from the Ministry of Business, Innovation and Employment (MBIE) sit on the group as observers. An initial focus area is the regulation and facilitation of existing and potential contestable electricity sector markets (eg, markets for network support services or distributed energy resources).
- We will communicate the concerns raised about the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 (LFC Regulations) to MBIE.

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1 This paper explains our response to submissions and our planned next steps

- 1.1 The Authority released the *Enabling mass participation in the electricity market* consultation paper on 30 May 2017. The consultation paper sought views on potential changes to regulation and market facilitation measures that may be required for consumers to benefit from the changes in technology and innovation happening in the electricity industry.
- 1.2 The paper outlined five possible ‘gaps’, and asked whether changes to the existing electricity market arrangements are required to:
 - (a) reduce inefficient barriers to third parties competing to provide the network services, for example by contracting with a distributor to help maintain network reliability using a battery
 - (b) provide parties using the transmission network and distribution networks with a level-playing field. We referred to this as providing ‘open access’
 - (c) enable peer-to-peer electricity transactions between consumers
 - (d) make sure parties that currently, or are intending to, directly participate in electricity markets are correctly recognised as ‘participants’ and face all relevant regulatory obligations
 - (e) reduce inefficient barriers to parties providing generation or demand response, particularly small and medium-scale suppliers, including greater price transparency and greater standardisation of terms and conditions of long term contracts such as power purchase agreements or long term hedges.
- 1.3 The consultation paper also requested comments on ‘gaps’ not identified by the Authority.
- 1.4 There were 39 submissions from a variety of parties. This paper covers the following matters:
 - (a) the Authority should continue with its existing work programme focused on reducing inefficient barriers to the development and use of evolving technologies and new business models
 - (b) network users are not confident all distributors provide open or equal access and a level-playing field
 - (c) open or equal access and distribution pricing are the main barriers to promoting more competition in the supply of network support services
 - (d) there may be blurring of participant types, but the impact is not yet well understood
 - (e) there are concerns about existing arrangements for obtaining, sharing and using consumer data
 - (f) the Authority should continue with consumer engagement and education
 - (g) the Authority should work closely with the Commerce Commission on matters of common interest
 - (h) the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 are a barrier to participation and innovation

- (i) peer-to-peer trading can occur now within existing arrangements but could be further facilitated.
- 1.5 Appendix A of this document notes and responds to several other matters that are less material or are already covered in the existing work programme.
- 1.6 The response to each matter and next steps was developed taking into account:
- (a) the nature of the 'gap' in the regulatory arrangements and the associated assessment of the materiality of the problem or opportunity
 - (b) the arguments and evidence provided of the costs and benefits of the problem/opportunity
 - (c) the scope and priority of active and pending projects on our current work programme.

2 The Authority should continue with its existing work programme

- 2.1 Our existing work programme is focused on reducing inefficient barriers to the development and use of evolving technologies and business models, including the *Multiple trading relationships*, *Data and data exchange*, *Default distribution agreement*, and *Distribution pricing* projects.
- 2.2 Most parties agree enabling greater participation in electricity markets can deliver significant benefits to consumers.
- 2.3 Most parties also support our existing work programme and the focus on reducing inefficient barriers to the development and use of evolving technologies and new business models across the supply chain.
- 2.4 No party identified a 'gap' in our programme beyond those discussed in the consultation paper. Many parties encourage us to progress the *Multiple trading relationships*, *Data and data exchange for market transactions*, *Default distribution agreement*, and *Distribution pricing* projects. For example:
- (a) *Multiple trading relationships*: Some parties note the ability for consumers to choose multiple trading relationships represents an opportunity to promote competition and facilitate development of new products and services. For example, the Electricity Networks Association (ENA) notes it would allow consumers to choose who to trade with, and Unison notes it could facilitate the development of peer-to-peer electricity trading platforms.
 - (b) *Data and data exchange for market transactions*: Some parties note greater participation in the electricity sector will require updates to the market systems and processes, particularly those used for the invoicing of participants. For example, Flick note the electricity information exchange protocols (EIEPs) might not be suitable for mass participation. Similarly, emhTrade note greater participation in electricity markets is likely to require automated data-driven processes.
 - (c) *Default distribution agreement*. The Electricity Retailers Association of New Zealand (ERANZ) and Flick support developing a default distribution agreement to support greater standardisation in the distributor/retailer relationship across distribution networks and to reduce transaction costs. Meridian also notes

introducing a default distribution agreement would provide a level playing field for competition.

- (d) *Distribution pricing.* Many parties consider more efficient distribution pricing is key to enabling the competition, efficiency and reliability benefits of mass participation, for example the ENA, emhTrade, Flick, Powerco, Unison, and Wellington Electricity.

- 2.5 Some parties suggest the Authority should complete its existing programme of work before embarking on new projects, such as to address concerns relating to open or equal access. Other parties identified issues or concerns already covered in our existing working programme (refer to the other matters section).

3 IPAG will consider whether parties wanting to use electricity networks are treated equally and can compete on a level playing field

- 3.1 An effective open or equal access regime to transmission and distribution networks is critical to promote competition and efficient investment in the electricity industry. We have detected a lack of confidence in existing open or equal access arrangements. We will initiate a new project to further investigate the reasons for this lack of confidence. After considering feedback from submissions we have decided to refer to this new project as the *Equal access* project.
- 3.2 The project's objective is to identify whether the existing arrangements ensure all parties wanting to use transmission and distribution networks are treated equally and can compete on a level-playing field. Use in this context not only includes access to distribution and transmission networks but also relates to the provision of network support services. We want to ensure arrangements to use electricity networks are promoting competition, reliability and efficiency for the long-term benefit of consumers. This work will also consider new emerging markets where parties might want to use the network to supply network support services.
- 3.3 Specifically, we will request the recently established Innovation and Participation Advisory Group (IPAG) to undertake the *Equal access* project and to consider and report on the:
 - (a) operation of the existing framework for using transmission and distribution networks, and the extent to which these arrangements are promoting competition, reliability and efficiency for the long-term benefit of consumers
 - (b) potential to strengthen the framework for using transmission and distribution networks to further promote competition, reliability and efficiency for the long-term benefit of consumers
 - (c) design, costs and benefits of any changes (regulations and/or market facilitation measures) identified to strengthen the framework for using transmission and distribution networks (including arrangements for exchange of network support services).
- 3.4 A network offering open or equal access to its users (potential and actual) is a network allowing network users to efficiently exchange electricity and electricity related services. This means arrangements to use the network should provide confidence to users that, at a minimum:

- (a) distributors offer equivalent terms for access and use of the network, including price. For example, new retailers would know they can use the network on terms equivalent to established retailers
 - (b) the terms for access and use of the network demonstrably reflect an efficient allocation of risks and costs between the distributor and its customers such as a retailer, a large commercial business, a property developer, or a generator connected to the distribution network. The terms of access would not be offered on a take-it-or-leave it basis or adversely influence customers' business operations
 - (c) parties being able to objectively verify a distributor's own related businesses do not receive favourable treatment for connection to, and use of, the network, and that the distributor is not using information gathered from retailers or other network users for purposes not expressly permitted, for example to provide an advantage to a distributor's own related businesses.
- 3.5 Not only does an open or equal access regime have to be effective, but actual and potential users of the network must have confidence the regime is effective. Otherwise, they will not invest or join in activities to provide services and products that will provide long-term benefits to consumers.
- 3.6 As mentioned, we have detected a lack of confidence in the existing open or equal access arrangements (note that in our consultation paper we previously referred to open access arrangements). This can be problematic because it could erode the confidence of parties using the network about the prospects of investment in innovation. This can deter investment and entry from competitors in electricity and electricity related markets almost as severely as if there were an actual problem with the open or equal access arrangements. It is also a strong indication distribution network businesses could be investing inefficiently (specifically in new technologies) and crowding-out more efficient investments from other parties using the network.
- 3.7 We note a growing number of parties—retailers, distributors and others—are exploring how to use evolving technologies such as batteries to provide services across the supply chain. Using these technologies often requires access to the distribution network. The central role of the distributor in evolving technologies and new business models is reflected in submissions as many parties noted the importance of distributors providing open access including a level-playing field.
- 3.8 Most parties agree access to the distribution network on equal and non-discriminatory terms is important to support a level playing field for competition and to deliver long term benefits to consumers.
- 3.9 Distributors argue they already provide comprehensive open access arrangements for all their customers. Distributors also consider they should not be prevented from investing in new technologies and supplying electricity services that are contestable (eg, network support).
- 3.10 Parties that use or potentially want to use networks, on the other hand, express a lack of confidence that existing arrangements provide a level playing field for competition. A particular concern is that the existing open or equal access arrangements provide a material advantage to distributors that use batteries and similar technologies to participate in contestable markets for electricity and electricity related services. Network users are concerned about distributors' ability to fund investments in new technologies in these contestable markets through their regulatory asset base (RAB). They also

expressed concerns about distributors' ability to favour their own affiliates that participate in contestable markets.

- 3.11 A majority of retailers argue strengthening existing ring-fencing arrangements between a distributor's regulated and unregulated business activities is required to even the level playing field with distributors. However, retailers and other network users did not appear to argue for distributors' exclusion from growing or latent contestable markets for services such as network support. Arguably, parties wanting to compete in these markets want distributors to be subject to the same competitive market risks and opportunities when investing and operating in contestable markets, including new emerging markets around network support.
- 3.12 An effective open or equal access framework is critical to reducing barriers to the uptake of technology and innovation in new ways of doing business. Consequently, the concerns that existing arrangements may not provide open or equal access warrant further assessment of the reasons for this lack of confidence. Concerns raised by parties using networks include:
- (a) distributors inefficiently investing in new technologies such as batteries as if they are providing a monopoly service even though these assets provide contestable services
 - (b) market participants are not confident they can obtain access to opportunities to support the delivery of the network service on fair and equal terms
 - (c) the sharing of consumer data with distributors for network planning purposes because there is a possibility distributors could use this data to provide themselves an advantage in contestable markets
 - (d) distributors requiring unreasonable specific technical standards for equipment, such as batteries, to constrain competition in markets where a distributor is active
 - (e) distributors setting pricing arrangements to favour the uptake of particular technologies in which they have a commercial interest.
- 3.13 Some parties also expressed concerns about the potential for distributors to cross-subsidise their competitive activities using money raised from consumers from the regulated part of their business. This concern in part relates to the operation and effectiveness of the Commerce Commission's Cost Allocation Input Methodology.
- 3.14 We have decided to further explore how confidence in the existing open or equal access arrangements can be strengthened to promote competition and efficient investment in new technologies. Transpower's recent publication notes investments in new technologies such as batteries are likely to provide the most value when 'located close to the consumer end'.¹ It is important to do this now as consumers, retailers, distributors and other parties compete to be first movers to adopt new technologies that connect to distributors' networks.
- 3.15 We acknowledge the diversity of network businesses might mean a lack of confidence in the existing open or equal access arrangements is not uniform across all networks. However, given the potential negative impact on competition and efficiency we have decided to undertake a broad-ranging review of the existing open or equal access arrangements.

¹ Transpower, Battery storage in New Zealand, Discussion document September 2017, page 2.

4 Concerns about open or equal access and efficient distribution pricing are the main barriers to promoting more competition in the supply of network support services

- 4.1 We will consider options to reduce inefficient barriers to the contestable supply of network support services by:
- (a) continuing to promote more efficient distribution pricing through the *Distribution pricing* project
 - (b) considering options to promote efficient exchange of network support services as part of the *Equal access* project we are requesting the IPAG to undertake.
- 4.2 Most parties agree distributors can use third parties to help support reliability of the network (ie, supply a network support service). However, retailers and other parties have concerns that access to these opportunities is difficult. For example, some retailers argue it is difficult to know when and where opportunities are available. Others indicate they cannot compete on a level playing field with distributors because distributors can fund the assets used to deliver these services through their RAB.
- 4.3 Retailers, distributors and others agree more efficient distribution pricing will deliver more opportunities for external parties to support the network and provide network benefits. More efficient distribution pricing will provide better information to suppliers (eg, energy services companies or consumers) on when and where their investments in new technology deliver network benefits. Parties strongly encouraged us to continue to support an effective transition to more efficient distribution pricing.
- 4.4 We agree more efficient distribution pricing is important for supporting competition in the supply of network support. We will continue to support the industry-led adoption of more efficient distribution pricing.
- 4.5 Some parties note the contestable supply of network support services can be achieved using a mechanism for exchange of the service between the buyer and sellers (ie, a market). For example, Contact suggested distributors implement widespread demand response programmes using bilateral contractual arrangements. Some distributors raised concerns about whether it would be possible to contract network support services from third parties or whether they would have the technical capability. That said, Transpower's demand response programme and the ancillary services markets are examples of how network businesses can exchange services with third parties.
- 4.6 Many parties consider a market mechanism for the network support service is an important element of an effective open access framework. We agree. Consequently, we will explore how to promote the efficient exchange of network support in considering how confidence in the existing open or equal access arrangements can be strengthened to promote competition for, and efficient investment in, network support services.
- 4.7 The potential for the contestable supply of network support has implications for efficient network investment and regulation. As such, we will involve the Commerce Commission in this work.

5 There may be blurring of participant types, but the impact is not yet well understood

- 5.1 We are working to make sure there is fit-for-purpose regulation of parties providing electricity services. In mid-2017 we started a *Participant definitions* project. This is an internal scoping project to examine who is a participant and what this means for the operation of the electricity market, particularly in light of innovation in technology and new business models.
- 5.2 Most parties consider blurring of participant types is likely. However, there was no common view that the definition of participant is a material problem to be addressed now.
- 5.3 The concerns and ideas raised in submissions fall within the scope of the *Participant definitions* project. For example, we are considering whether existing participation types are fit-for-purpose in the context of more consumers becoming active buyers and sellers of electricity services.
- 5.4 We expect to publish a consultation paper for the *Participant definitions* project in early 2018 discussing participant definitions for a legal framework perspective, including exploring the history of definitions in the Act and the Code (to the extent that is useful), problems with the definitions, and how things might work in the real world. One focus will be whether there are activities or types of participant which are not appropriate for the Authority to regulate.

6 There are concerns about existing arrangements for obtaining, sharing and using consumer data

- 6.1 We are already considering existing arrangements relating to obtaining, sharing and using consumer data through several projects to promote competition, reliability and efficiency for the long-term benefit of consumers.
- 6.2 Many parties noted access to data will be crucial to facilitate the development of new products and services across the industry.
- 6.3 Many parties raised concerns about existing arrangements. Some parties described difficulties obtaining consumption data from a consumer's retailer, even with the express authorisation of the consumer. Some retailers expressed concerns distributors might use consumer data for purposes other than what it is provided for, for example by sharing it with an affiliated business competing with the retailer. Some distributors noted how retailers are not facilitating access to consumer data required to develop more efficient distribution pricing structures.
- 6.4 We have several projects that are already exploring matters relating to obtaining, sharing and using consumer data. Two in particular are relevant to the concerns raised:
 - (a) The *Multiple trading relationships* project is considering how to reduce any inefficient barriers to a consumer buying services from, or selling services to, more than one party at the same time. This is what we mean by multiple trading relationships. One focus of the project is how to make it easier for any party with consumer approval to obtain the data that is, or can be, recorded by the meter. The Code currently requires that only one 'trader' can be responsible for an installation control point (ICP) and the data recorded by the meter.

- (b) The *Default distribution agreement* project is considering arrangements for exchange of consumption data by retailers to distributors. Most use-of-system agreements between a distributor and retailers trading on its network include provisions relating to information for network management. This can involve the retailer providing to the distributor metering data for some or all of the consumers it is responsible for on that network.
- 6.5 We are also interested in the extent to which parties using consumer data manage cyber-security and privacy. This is one focus of our *Data and data exchange for market transactions* project.
- 6.6 The *Equal access* project is also likely to explore ways to provide confidence to network users that data provided to distributors is not shared with affiliates in ways that can harm competition.

7 The Authority should work to engage consumers

- 7.1 We will have a range of consumer engagement and education activities. We will also consider feedback in submissions when developing future engagement and education plans.
- 7.2 Many parties commented on the importance of the Authority educating consumers on how to make informed choices, particularly to promote more effective retail competition and assist consumers with the complexity that may emerge with more efficient distribution pricing.
- 7.3 The Authority's What's My Number campaign promotes retail competition by reminding consumers of the benefits of checking they are on the best deal. However, our view is that encouraging consumers to actively engage in the electricity market is first and foremost the responsibility of the parties that offer services to consumers.
- 7.4 Related to this, we consider the parties offering products and services to consumers are responsible for managing the so-called complexity of the electricity market. We know some consumers are keen to have the best possible information about the cost of the electricity services they are using. Other consumers are not. One of the main benefits of innovation in technology and new business models will be from parties offering new products and services to consumers, for example online tools and devices to manage and control their electricity use. The process of competitive rivalry between firms is the best mechanism to ensure a consumer is offered (or allowed to choose from) the information and control they desire.

8 The Authority should work closely with the Commerce Commission

- 8.1 We have a memorandum of understanding (MoU) with the Commerce Commission and engage closely with them on a number of levels across our organisations. We will continue to work closely with the Commission.
- 8.2 Some distributors expressed concern the Authority's interest in open access and promoting the contestable supply of network support services infringes on matters that are the responsibility of the Commission.
- 8.3 The Authority and Commission recognise the innovation in technology and new business models that is occurring is facilitating greater participation and competition in the way

services across the electricity supply chain are provided. This includes the traditional natural monopoly services of electricity transmission and distribution.

- 8.4 Consequently, the Authority and Commission recognise the need to interact even more closely to manage the interface between the role and responsibility of the Electricity Authority under the Electricity Industry Act 2010, and the role and responsibility of the Commerce Commission under the Commerce Act 1986.
- 8.5 In response, the Authority and the Commission, established a working group in April 2017 (termed the Interface Working Group) to identify and make recommendations on ways to manage the interface between the role of the Authority and the role of the Commission, within the existing legal framework. MBIE officials sit on the group as observers. An initial focus area is the regulation and facilitation of existing and potential contestable electricity sector markets (eg, markets for network support services or distributed energy resources).

9 The Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 were raised as a barrier to participation and innovation

- 9.1 We will communicate with MBIE regarding the concerns raised about the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 (LFC Regulations).
- 9.2 Some parties raised concerns about how the LFC Regulations are a barrier to participation and innovation, particularly by making it difficult to introduce more efficient distribution pricing.
- 9.3 The electricity market effects of the LFC Regulations have been a long-standing topic of discussion for the electricity industry. The Authority's Retail Advisory Group (RAG) considered the market effects of the LFC Regulations in 2015 and 2016.
- 9.4 The Authority considers that—contrary to the commonly held view—the competition, reliability and efficiency effects of the LFC Regulations are not as material as has been assumed. In particular, the Authority considers:
- (a) there is little empirical evidence the LFC Regulations reduce competitive pressure
 - (b) distributors' and retailers' preference for consumption-based charges is as much a barrier to efficient pricing as the LFC Regulations, and distributors could improve pricing efficiency by introducing variable capacity-based or peak-based charging or time-of-use charges.
- 9.5 The Authority has worked to eliminate uncertainty about how the LFC Regulations are interpreted and enforced. It is not our role to assess whether the LFC Regulations are achieving the original policy intent. The RAG work focused on the market effects, not the operation of, and policy intent, of the LFC Regulations. That is the purview of the Minister of Energy and Resources (the Minister) and MBIE.
- 9.6 Besides the fact it is not within the Authority's remit to make changes to the LFC Regulations, we must remain neutral regarding any possible review of the LFC Regulations. This is because section 113(2)(4)(b) of the Electricity Industry Act 2010 requires the Minister to obtain and consider advice from the Authority on the effect of the

changes to the LFC Regulations on promoting competition, reliability and efficiency for the long-term benefit of consumers.

10 We will consider options to further facilitate peer-to-peer trading

- 10.1 We will not at this stage undertake any specific work to facilitate peer-to-peer (P2P) electricity trading platforms. However, we will consider options that may further facilitate P2P platforms as part of our *Multiple trading relationships* project.
- 10.2 Several parties noted P2P electricity trading platforms can operate alongside the existing electricity market arrangements. No party suggested changes to the market systems and processes are required at this stage to facilitate P2P platforms. We agree.
- 10.3 However, several parties noted that making it easier for the P2P provider to obtain the consumption data of consumers choosing to use a P2P platform is key to supporting development of P2P electricity trading. Other parties also mentioned that enabling a consumer to choose multiple trading relationships could facilitate P2P electricity trading.
- 10.4 Both of these issues are a focus of our *Multiple trading relationships* project. Facilitating P2P would be a potential benefit to consider as part of the work we will undertake in this project.

Appendix A Our response to other matters raised in submissions

A.1 Several parties raised other matters that are less material or are already covered in the existing work programme. The submitter, the concern and the Authority response to those matters are outlined here.

Submitter and concern	Response
<p>emhTrade noted there is a lack of a liquid market for hedge market cap products. This results in a lack of a price signal for those considering investing in demand response. ETNZ raise similar arguments.</p>	<p>We are facilitating work by the Australian Securities Exchange (ASX) to list an exchange traded cap electricity derivative. Our aim is to introduce an energy cap listed product (lower strike price) and a capacity listed product (higher strike price).</p> <p>Cap products serve to protect the cap purchaser from wholesale spot prices above the strike price. It also provides the seller with a stream of revenue while prices are below the strike price. This will facilitate investment in demand response as well as peaking generation.</p>
<p>emhTrade considers mass participation will require processes running at a scale that can only be facilitated by a data-driven, automated approach. Enforcing existing rules around data quality, particularly in the registry, and 'finishing the job' in regards to the Retail Data Project would be the most cost effective means for the Authority to facilitate mass participation at this point.</p>	<p>We will be seeking comments on the nature of concerns with inaccurate data as part of our <i>Data and data exchange</i> project. We are also considering access to consumer data as part of the <i>Multiple trading relationships</i> project.</p>
<p>emhTrade note that they have previously raised concerns with the Authority that the Reconciliation Participant audit process does not cover financial risk management at all. Participants, or at least those that purchase from the Clearing Manager, are required to undertake a quarterly stress test. There are a growing number of parties who are not participants but are taking price risk with potentially low understanding of the implications of that risk.</p>	<p>The focus of the Authority's audit and compliance processes is to improve participant understanding of Code requirements, and to identify instances where obligations are not being complied with.</p>
<p>Vector and Pioneer are concerned about the lack of liquidity in the hedge market.</p>	<p>We consider that the hedge market has appropriate liquidity at this stage. Further evolution is possible and the Authority is actively pursuing areas for improvement in the hedge market. This is a priority in our work programme and we are committed to the multiple projects in this area of the wholesale market. For example:</p> <ul style="list-style-type: none"> working with ASX to design and introduce cap products for both energy and capacity shortage, with the goal of achieving robust and frequent pricing over

Submitter and concern	Response
	<p>time</p> <ul style="list-style-type: none"> considering whether participants can use ASX positions to offset their prudential security requirements for the spot market and FTRs.
<p>Vector considers that there is a significant concern with the operation of the wholesale energy market as a few parties can unilaterally exercise power through their ability to withdraw or provide capacity on uncommercial terms.</p>	<p>The Authority considers that the wholesale electricity market is workably competitive. This has most recently been demonstrated by the wholesale market response to the dry hydro conditions during winter 2017. Wholesale prices rose to levels that incentivised efficient responses, such as the conservation of hydro storage and the use of demand-side response. The situation was not (or could not be) exploited by generators that were pivotal during that period.²</p> <p>The spot market trading conduct provisions contribute to competitive market outcomes by providing:</p> <ul style="list-style-type: none"> a benchmark for wholesale energy market traders to adhere to a framework for specific events to be analysed, building up a body of knowledge on acceptable market behaviour over time. <p>Based on this experience and our continued focus to promote competition, the Authority has added a project on its 2017/18 work programme to consider whether the spot market trading conduct provisions could be further clarified to improve its effectiveness.</p>
<p>Vector considers that there is high market share concentration by incumbent retailers. This creates the ability for such businesses to retain cost savings, and not pass these through to customers whether they relate to network charges or lower energy prices. Pioneer raises similar concerns.</p>	<p>We note that market concentration in the retail market has significantly reduced over the last 10 years indicating that competition in the retail market is working effectively. The HHI index is a commonly accepted measure of market concentration. We have used the latest EMI data available on our website to calculate HHI indices. We note that the HHI index for all regions in NZ has approximately halved since 2007 down from the 6,000-5,000 point mark. In August 2017, all regions except the upper North Island show a HHI index close to 2,500 points. The upper North Island has an HHI index of approximately 3,170 points.</p> <p>Other market statistics also indicate that there is unlikely to be a major competition problem in the retail market. For example, our latest EMI data available also shows that in the last 12 months more than 43,000 customers have switched retailers.</p>

² See Appendix A of our recently released annual report for 2016/17 which provides detailed information on an updated suite of statistics used to assess the competition, reliability and efficiency in electricity markets. (<http://www.ea.govt.nz/about-us/strategic-planning-and-reporting/annual-report/>)

Submitter and concern	Response
	<p>This is one of the highest ever recorded switching rate since competition was introduced.³</p> <p>Our work programme also includes a number of projects that will continue to promote more competition in the retail market for example:</p> <ul style="list-style-type: none"> • Facilitating more <i>efficient distribution pricing</i> should create opportunities to offer new products and services promoting more competition in the retail and other electricity related markets. • The <i>Default distribution agreement</i> project should facilitate more entry and competition in the retail market. • The <i>What's my number</i> campaign continues to promote retail competition by raising consumer awareness. • Our work to promote open or equal access is also likely to strengthen competition across retail, wholesale and network support markets and other markets for related electricity services.
<p>Pioneer considers that the Save Protection Scheme has failed to protect new entrant retailers (or opt-in retailers) from predatory market behaviours.</p>	<p>The Authority implemented the switch-saving protection scheme in 2015. The objective was to limit retailers from using the information provided during the switching process to initiate a customer 'saving' process. The scheme was not specifically implemented to protect new entrants but to promote competition in the retail market in general.</p> <p>The Authority also notes that it does not directly determine what type of commercial strategies (including pricing strategies) retailers use. Retailers are free to determine their own commercial strategies. The Authority does not see a problem in retailers competing to win-back customers through offering better deals when competition happens on a level playing field.</p> <p>We also note that engaging in predatory behaviour, such as pricing below cost, is a very high risk strategy for a retailer. The rationale for pricing below cost is to incur losses 'now' to drive out competition to set more profitable higher prices in the 'future'. However, a retailer operating in a market as competitive as NZ's retail</p>

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Submitter and concern	Response
	<p>market is unlikely to be able to raise prices too much in the future. This is because customers are likely to switch to less expensive retail deals or new competitors would enter the market attracted to the higher prices. Pricing below costs is unlikely to be a sustainable profitable strategy for retailers.</p> <p>In addition, the Authority is considering whether changes to the Code are required in response to the post-implementation review of the 'saves' Code provisions. We would be concerned if any element of the current switch-saving protection scheme allowed retailer behaviours that were not consistent with promoting workable competition. We will consider this possibility in the review process. We also note that retailers (and consumers) in general also enjoy protection under competition law (the Commerce Act) from pricing that could be regarded as predatory.</p>
<p>Mercury notes that the Code needs to be technology agnostic today. Issues around the definitions of ancillary services/reserves are stifling investment in new technologies.</p>	<p>The Authority's regular Code review programme serves to address general issues, including making the Code technology agnostic. The Authority is considering issues regarding the definitions of ancillary services and participation of battery storage in the instantaneous reserve market in response to a Mercury Code amendment request. As part of this work we will also consider participation of aggregators of battery storage.</p>
<p>Energylink notes that prudential requirements impose additional risk and cost on spot purchasers, primarily due to the length of time that the net exposure is assessed over ie, up to around 50 days. To facilitate much wider participation, the special class of participant could include a requirement for daily settlement.</p>	<p>The Authority notes the concerns about prudential requirements. We have undertaken several initiatives to reduce prudential requirements, including updating Part 14 of the Code. The Authority's previous Wholesale Advisory Group considered a range of options to improve clearing and settlement. One of those options was a shift to weekly settlement. However, upon further evaluation by the Authority including considering feedback provided by submitters on a consultation paper, the Authority decided to maintain monthly settlement. The main problem with weekly settlement is the significant increase in transaction costs that would not outweigh the benefits.</p> <p>We remain open to ideas to further reduce prudential requirements where this is efficient. For example, the <i>Data and data exchange</i> project is asking parties to provide their views on the opportunity to speed up the reconciliation process. This could provide opportunities to reduce prudential limits.</p>
<p>Contact considers the following elements of the wholesale market design could support greater mass participation: real-time pricing, dispatchable demand, accurate forecasting, five</p>	<ol style="list-style-type: none"> 1. <u>Real-time pricing, dispatchable demand and accurate forecasting</u>: All these are issues that are being considered under our existing work programme. 2. <u>Five minute settlement</u>: We agree that five minute settlement might be a

Submitter and concern	Response
<p>minute intervals, implementation of an area under the curve approach in relation to instantaneous reserve, a revision of the reserve management tool, consider mass participation in the design of the frequency keeping markets, review of governor response and retention of the multiple frequency keeping regime.</p>	<p>suitable arrangement for the wholesale market to encourage mass participation. We will follow closely developments in the Australian market to understand the costs and benefits involved from pursuing such a change, and whether it is worthwhile for our wholesale electricity market. Our most immediate priority is real time pricing (RTP).</p> <ol style="list-style-type: none"> 3. <u>Area under the curve and revision of the reserve management tool</u>: This option has been previously investigated but is not being progressed due to the high implementation costs. 4. <u>Mass participation in the frequency keeping markets and governor response</u>: This is being considered in our current work programme. 5. <u>Retention of the multiple frequency keeping regime</u>: There are no plans to remove multiple frequency keeping. However, if a market develops for control response, there may be adjustments made to the quantity of frequency keeping to achieve the most efficient mix of control response and frequency keeping.
<p>The Independent Electricity Generators Association (IEGA) notes that the Authority's position on the benefits of mass participation is inconsistent with the decision it made in relation to the Distributed generation pricing principles (DGPP). For example, paragraph 2.12(b) of the consultation paper states that surplus generation will provide distributors with cheaper alternatives for maintaining network reliability and help to reduce or postpone network upgrades. However, in the DGPP decision, the Authority assumed that some existing distributed generation (DG) is inefficient.</p>	<p>We note that there is no inconsistency between our decision to amend the Distributed generation pricing principles (DGPP), and any analysis contained there, with the network benefits identified in the <i>Enabling mass participation</i> consultation paper.</p> <p>That we discussed how network alternatives (such as distributed generation) could provide transmission and/or distribution network benefits does not mean that all distributed generation will actually deliver these benefits. In fact, in some cases distributed generation might even increase network costs. For distributed generation to provide economic benefits it needs to be built in the right locations and be more competitive than other alternatives to network investment, for example demand response from a nearby factory. As identified by the Authority in its DGPP project the previous arrangements result in a significant proportion of distributed generation being paid to avoid network charges when no or little costs are actually avoided.</p> <p>The Authority notes that our <i>Equal access</i> project will consider options to support development of a network support services market to facilitate the exchange of network support services. This should facilitate participation of distributed generation in locations where it is competitive at delivering network benefits.</p>

