

# Retail data project: access to tariff and connection data

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## Consultation Paper

Submissions close: 5:00pm Tuesday, 4 August 2015

23 June 2015



## Executive summary

The Electricity Authority (Authority) proposes to establish a framework for giving consumers, their agents and other parties better access to:

- (a) information about electricity retailers' generally available retail tariff plans
- (b) technical information about points of connection to electricity distribution networks.

The Authority is seeking interested parties' feedback on this proposal.

The Authority considers that facilitating improved access to retail tariff and connection data will provide long-term benefits to consumers by promoting competition in New Zealand's retail electricity market and by promoting the more efficient operation of New Zealand's electricity industry. This is consistent with the Authority's statutory objective.

Competitive markets are enhanced when both consumers and suppliers effectively engage in the process for buying and selling goods and services. If consumers are less engaged in this process and are not actively participating in it, suppliers will find it harder to win market share by providing what consumers most want. This will reduce consumer benefit because suppliers will have less incentive to compete to provide the services consumers are seeking. Suppliers will be less likely to innovate in these circumstances.

Consumers are more likely to actively and effectively participate in New Zealand's retail electricity market, thereby improving retail competition, if they can easily access useful information.

The Authority proposes to improve consumers' ability to participate in the process for buying electricity by enabling consumers, or their agents, to more easily find the best electricity deal available to them. The Authority proposes to do this by making retail tariff plan data and connection data more easily available to consumers, their agents and other parties.

The proposal complements the recent amendment to Part 11 of the Electricity Industry Participation Code (Code), which facilitates access to consumption data and comes into effect on 1 February 2016. The benefits identified under each initiative will be more fully realised if both initiatives proceed.

The Authority estimates that, if it were to proceed with the proposal, there would be a static efficiency net benefit of between approximately -\$1 million and +\$4 million for the residential segment of New Zealand's retail electricity market alone. The proposal's expected dynamic efficiency benefits are estimated to be several times larger than the upper end of the static efficiency benefits. This is as a consequence

of more vigorous competition amongst retailers and energy-related services firms delivering innovation and efficiency gains over time.

The Authority is considering two proposed alternatives to improve access to retail tariff and connection data. Alternative 1 can be described as a more voluntary approach than alternative 2. Alternative 1 therefore would be likely to impose lower compliance costs for retailers than alternative 2. However, the voluntary nature of alternative 1 means that its expected gross benefits are less certain than the gross benefits expected from alternative 2. The Authority has not yet formed a view about which alternative has the higher net benefit.

The two proposed alternatives are not necessarily mutually exclusive. Alternative 1 could be implemented as a first step towards the implementation of alternative 2. It may be possible to implement alternative 1 at the same time as the 'Access to consumption data' Code amendment comes into effect on 1 February 2016.

The Authority expects that, following stakeholder consultation, it will be in a better position to make a decision on whether one or both of the alternatives should be implemented, or to determine that another option would deliver the largest net benefit to consumers.

The Authority has considered whether making the connection data contained in the proposal publicly available is consistent with the requirements of the Privacy Act 1993. The Authority has concluded that:

- (a) the connection data to be made publicly available is not personal information as defined in the Privacy Act, because it does not identify any property owner, occupier, electricity account holder or ratepayer
- (b) even if the connection data were to be personal information, making it available is permitted by one of the exceptions in privacy principle 11 of the Privacy Act, because making it available is directly related to one of the purposes for which it was obtained (to promote retail competition)
- (c) even if making the connection data available were to not be permitted under privacy principle 11, doing so would not constitute an interference with privacy because no harm would result
- (d) if a third party were to link the connection data with the name of the property owner or occupier, obtained from another source, the connection data could become personal information in the hands of the third party. However, the banal nature of the connection data means this would be unlikely to facilitate privacy intrusions by others.

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# **1. What you need to know to make a submission**

## **1.1 This consultation is part of the retail data project**

- 1.1.1 The Authority is examining arrangements for improving consumers' access to retail data (the retail data project). Retail data includes consumption data, retail tariff plan data and connection data.<sup>1</sup>
- 1.1.2 The Authority considers that facilitating improved access to retail data for consumers will provide long-term benefits to consumers by promoting competition in New Zealand's retail electricity market and by promoting the more efficient operation of New Zealand's electricity industry. This is consistent with the Authority's statutory objective.
- 1.1.3 Improved access to retail data should provide consumers with better information that will enable them to participate more effectively in the retail electricity market. Consumers that are participating in the market are expected to be engaged and to expect more from retailers and energy services companies. This puts pressure on suppliers to be more efficient and provide more innovative services than their rivals. Better information should also allow consumers to more easily make energy-related decisions.

## **1.2 This consultation paper is about access to retail tariff plan data and connection data**

- 1.2.1 This paper focuses on access to retail tariff plan data and connection data. The purpose of the paper is to seek feedback from interested parties on:
  - (a) the problem definition (section 4) – retail competition and the efficient operation of New Zealand's electricity industry are inhibited because consumers face difficulties obtaining retail tariff plan data and connection data
  - (b) the proposal (section 5) – facilitating consumer access to retail tariff plan data and connection data will promote retail competition and the efficient operation of the electricity industry, for the long-term benefit of consumers.<sup>2</sup>

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<sup>1</sup> These three types of data are described in section 3 of this paper.

<sup>2</sup> Section 39 of the Electricity Industry Act 2010 (Act) requires the Authority to consult on a regulatory statement that includes a statement of the objectives of any proposed amendment to the Code, an evaluation of the benefits and costs of the proposed amendment, and an evaluation of alternative means of achieving the objectives of the proposed amendment.

## 1.3 How to make a submission

- 1.3.1 The Authority prefers to receive submissions in electronic format (Microsoft Word) in the format shown in appendix A. Submissions in electronic form should be emailed to [submissions@ea.govt.nz](mailto:submissions@ea.govt.nz) with 'Consultation Paper—Retail data project: access to tariff and connection data' in the subject line.
- 1.3.2 If you cannot send your submission electronically, post one hard copy of the submission to either of the addresses provided below, or you can fax it to 04 460 8879. You can call 04 460 8860 if you have any questions.

### Postal address

Submissions  
Electricity Authority  
PO Box 10041  
Wellington 6143

### Physical address

Submissions  
Electricity Authority  
Level 7, ASB Bank Tower  
2 Hunter Street  
Wellington

- 1.3.3 Please note the Authority wants to publish all submissions it receives. If you consider that it should not publish any part of your submission, please indicate which part, set out the reasons why you consider the Authority should not publish it, and provide a version of your submission that the Authority can publish (if it agrees not to publish your full submission).
- 1.3.4 If you indicate there is part of your submission that should not be published, the Authority will discuss it with you before deciding whether to not publish that part of your submission.
- 1.3.5 However, please note that all submissions the Authority receives, including any parts that it may not publish, can be requested under the Official Information Act 1982. This means the Authority would be required to release them unless good reason existed under the Official Information Act to withhold them. The Authority would normally consult with you before releasing any material that you said should not be published.

## 1.4 When to make a submission

- 1.4.1 Submissions should be received by 5pm on Tuesday, 4 August 2015. Please note that late submissions may not be considered.
- 1.4.2 The Authority will acknowledge receipt of all submissions electronically. Please contact the Submissions Administrator at [submissions@ea.govt.nz](mailto:submissions@ea.govt.nz) or on 04 460 8860 if you do not receive electronic acknowledgement of your submission within two business days.

## **2. Informed consumers improve competition in the retail electricity market**

### **2.1 The Authority wants to promote retail competition**

- 2.1.1 The Authority's statutory objective is to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers.<sup>3</sup> This includes promoting competition in New Zealand's retail electricity market.<sup>4</sup>
- 2.1.2 Effective competition in the retail electricity market provides significant benefits to consumers through greater choice, lower prices and better quality services. It also helps raise productivity in New Zealand by providing strong incentives for suppliers of electricity and electricity-related services to:
- (a) be more efficient than their rivals
  - (b) reduce their costs
  - (c) develop and offer new and innovative products and services to try to give consumers what they want.

### **2.2 Informed consumers help drive retail competition**

- 2.2.1 Consumers are more likely to participate in the retail electricity market, make decisions about their electricity usage, or both, if they can easily gain access to information that is useful to them. Relevant and accurate information enables consumers to compare the prices and terms of products and services. It also allows consumers to shop around and seek the best deal. This enhances competition between suppliers of electricity and electricity-related services.
- 2.2.2 Competitive markets are enhanced when both consumers and suppliers effectively engage in the process for buying and selling goods and services. Consumers and suppliers are less able to participate in this process when either party does not have enough information.

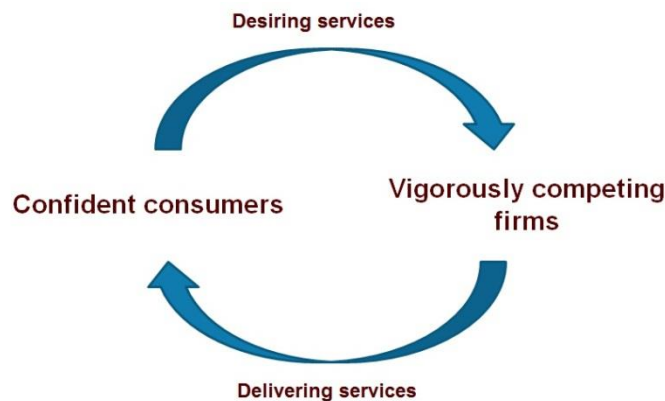
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<sup>3</sup> Section 15 of the Electricity Industry Act 2010.

<sup>4</sup> The Authority interprets "competition" to mean "workable or effective competition". Under workable competition, for example, suppliers compete on price, quality, location and/or service. They might also compete by differentiating their goods or services from their rivals, or through their sales and marketing effort. Alternatively, suppliers might compete via a combination of these activities. Refer to the Authority's interpretation of its statutory objective, available at [www.ea.govt.nz/dmsdocument/9494](http://www.ea.govt.nz/dmsdocument/9494).

- 2.2.3 In a competitive retail electricity market, suppliers participate in this buying and selling process by vigorously competing with rivals to gain market share. They can achieve this by delivering what consumers want as efficiently and innovatively as possible. Consumers participate in the process by making decisions that reward the suppliers that best satisfy the consumers' informed needs.
- 2.2.4 If consumers are less engaged in the process for buying and selling electricity and are not actively participating, suppliers will find it harder to win market share by providing what consumers most want. This will reduce consumer benefit because suppliers will have less incentive to compete to provide the services consumers are seeking. Suppliers will be less likely to innovate in these circumstances. They can gain from innovation only if they can get their products and services to market, and consumers are active and willing to adopt new, higher value products and services.
- 2.2.5 A virtuous cycle is created when both consumers and suppliers are engaged and are effectively participating in the buying and selling process for electricity (refer Figure 1). Active and confident consumers and vigorous competition among suppliers work together to promote competition and deliver long-term benefits to consumers.

**Figure 1: Virtuous cycle of a well-functioning market**



## 2.3 The Authority wants to facilitate consumer participation in electricity markets

- 2.3.1 The Authority wants to improve consumer participation in electricity markets, particularly the retail electricity market. This is one of the Authority's strategic directions for market development.<sup>5</sup>

<sup>5</sup> Refer to the Authority's publication 'Strategic directions for market development', 2013, available at [www.ea.govt.nz/dmsdocument/15503](http://www.ea.govt.nz/dmsdocument/15503).

- 2.3.2 The Authority wants consumers to be able to easily choose between electricity suppliers and their products and services. As described above, increasing consumer participation in the retail electricity market is expected to boost competitive pressure on electricity suppliers.
- 2.3.3 The Authority wants consumers to become more comfortable and confident that the retail electricity market is delivering them long-term benefits. The Authority believes this may happen if consumers can make electricity decisions that result in their price and service expectations being more readily met.
- 2.3.4 The Authority is facilitating consumer participation in the retail electricity market by making it easier for consumers to choose between electricity suppliers and their products and services. The Authority's work builds on existing arrangements for achieving this outcome, such as comparator websites like Powerswitch and Switchme. The ongoing 'What's My Number?' campaign is an example of an initiative that is intended to facilitate consumer participation. It does this by promoting consumer awareness of the benefits of comparing and switching retailers.

## **2.4 Better information can lift consumer participation in the retail electricity market**

- 2.4.1 Consumers with easy access to relevant information are more likely to actively and effectively participate in New Zealand's retail electricity market. Their decision making will be more informed (eg, with better information they will pay lower prices and/or receive better service). Making sure consumers can easily access useful information will lift consumer engagement and participation, thereby improving retail competition.
- 2.4.2 For consumers to participate in the process for buying electricity from retailers, they need to:
  - (a) access information about the various offers available in the retail electricity market
  - (b) assess those offers in an easy and well-reasoned way, which gives them confidence to make a decision
  - (c) act on this information and analysis by purchasing the offer that provides the best value to them.
- 2.4.3 Consumers' ability to participate in the electricity buying process can be harmed if they have difficulty undertaking any of the above three things.

### **3. The retail data project**

#### **3.1 Consumers need information to compare power companies' charges**

3.1.1 New Zealand electricity consumers need three key pieces of information in order to compare and make meaningful decisions in relation to electricity suppliers' charges:

- (a) their electricity consumption, ideally including the profile of their consumption over time
- (b) information about their connection to the local electricity network (such as the type of metering in place and the capacity of the connection)
- (c) retail electricity tariffs and associated terms and conditions applicable to them (dependent on the first two pieces of information).

3.1.2 Using these pieces of information, consumers can calculate the charges they would face under different retail tariff plans. They can then compare these against their current charges and associated terms and conditions.

3.1.3 Alternatively, a consumer can use a third party to do this analysis, such as a comparator website or a third party provider of energy services.<sup>6</sup> Typically these third parties should be able to assess the options open to the consumer and provide expert advice in a more cost-effective manner than the consumer. They would have cost advantages over the consumer, such as automated systems and processes and economies of scale.<sup>7</sup>

#### **3.2 The purpose of the retail data project is to make it easier for consumers to obtain useful information**

3.2.1 The retail data project's purpose is to consider how to make it easier for consumers to obtain the three key pieces of information described in paragraph 3.1.1.

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<sup>6</sup> The consumer may approach the third party, or vice versa.

<sup>7</sup> They can spread the cost of searching for retailer offers across many consumers.

### **3.3 The Authority is making it easier for consumers to obtain useful consumption information**

- 3.3.1 The Authority recently amended the Code to give consumers better access to their electricity consumption information.<sup>8</sup> The Code amendment is scheduled to take effect on 1 February 2016.

### **3.4 Access to retail tariff plan information and connection information can be easier and more cost-effective**

- 3.4.1 Even with easier access to useful consumption data, the process for consumers, or their agents, to compare electricity retailers can be made easier and more cost-effective.
- 3.4.2 As noted in paragraph 3.1.1, consumption data, retail tariff plan data and connection data are complementary pieces of information for a consumer's decision on their choice of retailer. Enabling better access to retail tariff plan data and connection data would further reduce the costs that consumers face when comparing electricity suppliers' charges and making energy-related decisions.<sup>9</sup>

### **3.5 Retail tariff plan data explained**

- 3.5.1 Retail tariff plan data is information about the retail price of electricity used by a consumer. A retail tariff plan comprises one or more tariffs and includes discounts available on a retail tariff. A common retail tariff plan comprises a fixed daily component and a variable component. The variable component is usually measured per kilowatt hour (kWh). Some retail tariff plans include a kilowatt (kW) charge, which is a measurement of consumption at an instant in time.<sup>10</sup>

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<sup>8</sup> Refer to the Authority's decision and reasons paper titled 'Retail data project: access to consumption data', dated 19 December 2014. This is available at [www.ea.govt.nz/dmsdocument/19025](http://www.ea.govt.nz/dmsdocument/19025).

<sup>9</sup> The costs that a consumer faces when comparing electricity suppliers' charges and making energy-related decisions include the consumer's time and effort, as well as any financial costs.

<sup>10</sup> Increasingly electricity consumption is being measured on a kW basis.

## 3.6 Connection data explained

- 3.6.1 Connection data is information about a consumer's point of connection to an electricity distribution network.<sup>11</sup> A consumer's point of connection is referred to as an installation control point (ICP).<sup>12</sup>
- 3.6.2 Consumers, or their agents, need certain connection data in order to work out the tariff(s) of competing retailers that are applicable to them. The connection data necessary for comparing retailers' electricity charges is typically:
- (a) the type and configuration of the metering used to measure the consumption and details about any unmetered load
  - (b) the capacity of the connection from the distribution network to the consumer's premise(s)
  - (c) the existence of any on-site generation
  - (d) the network supply point (NSP) to which consumption at the ICP is reconciled for settlement in the wholesale electricity market<sup>13</sup>
  - (e) the price category code and loss category code used to define the distribution line charges for the ICP
  - (f) the trader that purchases electricity for the ICP from the wholesale electricity market
  - (g) whether the distributor invoices the consumer for line charges.
- 3.6.3 The main source of the connection data necessary for determining what retail electricity tariffs are available at a consumer's ICP is the electricity industry's national 'database of record', known as the registry. This database contains Information about each ICP in New Zealand. It operates 24 hours a day, seven days a week.

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<sup>11</sup> Or more specifically a consumer's point of connection to either a local distribution network or an embedded distribution network.

A local distribution network is an electricity distribution network that conveys electricity between New Zealand's national transmission grid and one of:

- i) an ICP
- ii) an embedded generator
- iii) an embedded network.

An embedded network is an electricity distribution network that is embedded within another electricity distribution network, and where the electricity flowing into the embedded network is metered in accordance with the Code's requirements.

<sup>12</sup> Each ICP has a unique identifier, which is printed on electricity bills.

<sup>13</sup> An NSP is a point of connection between the local distribution network or embedded distribution network on which the ICP is located and the electricity network supplying the local network or embedded network.

- 3.6.4 The original registry was designed to be a low-cost system that enabled end-use customers to switch energy retailers. The registry now helps manage both the customer switching and reconciliation processes in the electricity industry.<sup>14</sup>

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<sup>14</sup> The reconciliation process ensures that generators and purchasers in the wholesale electricity market are allocated their correct share of electricity in each half-hour trading period. The reconciliation management system takes electricity consumption information supplied by various electricity industry participants, reconciles it against electricity volumes drawn from the national transmission grid, and processes it for use in invoicing purchasers and generators in the wholesale electricity market.

## **4. The problem – consumers’ ‘transaction costs’ when comparing retail electricity offers are higher than they need to be**

### **4.1 Competition and efficiency are inhibited**

- 4.1.1 The Authority considers that competition in the retail electricity market is inhibited because the current arrangements for accessing retail tariff plan data and connection data mean that consumers (particularly residential consumers), or their agents, face higher-than-necessary ‘search costs’ when identifying electricity-related offers available to them. Search costs are the time, effort and money spent by a consumer researching a product or service to buy. They are a form of ‘transaction cost’, which is the cost associated with buyers and sellers interacting to buy/sell a good or service – in this instance, electricity.
- 4.1.2 Rational consumers will search for a better electricity deal until the marginal cost of searching exceeds the (expected) marginal benefit. Higher search costs reduce the likelihood of consumers searching for a better deal than the one they are currently on. This in turn reduces the pressure on retailers to compete vigorously.
- 4.1.3 The efficient operation of the electricity industry is inhibited because the time and effort for consumers or their agents to identify and choose between retail electricity offers are greater than they could be. In other words, the transaction costs associated with participating in the retail electricity market are higher than necessary.

### **4.2 Fewer than half of consumers think it is easy to compare power companies’ charges**

- 4.2.1 Surveys of New Zealand consumers support making it easier for consumers to compare retail electricity offers.
- 4.2.2 The main reason New Zealand consumers search for, and switch to, another electricity retailer is because they expect to gain financially.<sup>15</sup>

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<sup>15</sup> UMR Research, February 2014, Shopping Around for Electricity Retailers: A Quantitative Study among the General Public, p. 23, available at [www.ea.govt.nz/dmsdocument/17877](http://www.ea.govt.nz/dmsdocument/17877). The survey showed that 80% of *residential* survey respondents who had switched in the previous two years cited financial reasons. UMR Research, August 2013, Exploring Usage of Website Tool among Small to Medium Enterprises: Report for the Electricity Authority What’s My Number Campaign: A Quantitative Study, p. 8, available at [www.ea.govt.nz/dmsdocument/15741](http://www.ea.govt.nz/dmsdocument/15741). The survey found that the most common reason for small and medium-sized enterprises (SMEs) switching suppliers, by an extremely large margin, was saving on costs – 89% of

However, only 45% of residential consumers believe it is easy to *compare* what power companies charge for the services they offer.<sup>16</sup> In comparison, three quarters (74%) of residential consumers believe it is easy to *switch* power companies.<sup>17</sup> This figure increases to more than 90% for residential consumers who have switched retailer.<sup>18</sup>

- 4.2.3 Consumers surveyed give the following key reasons as to why it is not easy to compare retailers' charges:
- (a) different plans and rates
  - (b) difficulty understanding what the customer is being charged
  - (c) a lack of transparent information
  - (d) it is hard to find the information
  - (e) comparisons are difficult because there is no standard rate across power companies.
- 4.2.4 The Authority's own research on the availability of retail tariffs supports these survey findings. A consumer comparing tariffs across multiple retailers may encounter difficulties finding tariff information on some retailers' websites. A residential consumer comparing tariffs across multiple retailers will find that retailers present tariff information in several formats. These range from a table of tariffs, to an interactive map of tariffs, to an individualised retail tariff plan accessed once certain consumer-specific information has been provided.

## 4.3 Consumers cannot readily access connection data from the registry

- 4.3.1 Currently, consumers or their agents cannot quickly and easily access connection data held in the registry.

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respondents gave this reason. The next most common reason was better service (11%). These survey results are consistent with international experience. See for example, Catherine Waddams Price, Catherine Webster and Minyan Zhu, 2013, Searching and switching: empirical estimates of consumer behaviour in regulated markets, CCP Working paper 13-11.

<sup>16</sup> UMR Research, February 2014, Report: Charge Transparency, p. 25, available at [www.ea.govt.nz/dmsdocument/17313](http://www.ea.govt.nz/dmsdocument/17313).

<sup>17</sup> UMR Research, February 2014, Shopping Around for Electricity Retailers: A Quantitative Study among the General Public, p. 59.

<sup>18</sup> *Ibid*, p. 24.

In comparison, 51% of SMEs believe it is easy to switch electricity retailers, with this figure increasing to 75% amongst SMEs that have switched. See UMR Research, August 2013, Exploring Usage of Website Tool among Small to Medium Enterprises, Report for the Electricity Authority What's My Number Campaign, A Quantitative Study, p. 10.

- 4.3.2 Consumers or their agents must instead contact their retailer or their electricity distributor to obtain the connection data necessary for assessing different electricity offers. This can be a time-consuming process for consumers or their agents.

#### **4.4 Accessing retail tariff plan data can be problematic for third parties, which increases consumers' search costs**

- 4.4.1 The Authority is aware that comparator websites and other third party energy services companies have encountered, and continue to encounter, difficulties convincing retailers to provide them with retail tariff plan data. The Authority has been approached by multiple parties wanting to offer switching services, but not being able to access retail tariff plan data.
- 4.4.2 An alternative to approaching retailers directly for residential retail tariff plan data would be for comparator websites and other third party energy services companies to approach ConsumerNZ for such data. ConsumerNZ receives retail tariff plan data for 20 of the 26 retail brands in the residential segment of New Zealand's retail electricity market. The data for 19 of these 26 brands is used on ConsumerNZ's Powerswitch website.<sup>19</sup> The Authority understands ConsumerNZ would need to get the permission of the retail brands it receives data from if it wanted to pass on this data to other comparator websites or third party energy services companies.
- 4.4.3 The inability of comparator websites and other third party energy services companies to obtain retail tariff plan data, in full or in part, can reduce the credibility and value of the party's service offering to consumers wanting to find the best power deal. This also increases the search costs for consumers using comparator websites and other third party energy services companies to find power deals.
- 4.4.4 If these providers have difficulty obtaining retail tariff plan data from retailers, it costs more for them to compare power deals on behalf of consumers. This is ultimately reflected in:
- (a) their charges to consumers being higher than they otherwise would be, and/or

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<sup>19</sup> The 19 retail brands on Powerswitch are: Contact Energy, Electric Kiwi, Energy Direct NZ, Energy Online, Flick Electric, Genesis Energy, Giving Energy, Glo-Bug, King Country Energy, megaENERGY, Mercury Energy, Meridian Energy, Nova Energy, Opunake Hydro, Payless Energy, Powershop, Pulse Energy, Tiny Mighty Power, Trustpower. The retail tariff plan data for Bosco Connect is not used on Powerswitch because Bosco Connect sells electricity to apartments only.

- (b) a smaller number of retail offerings being included in the comparative analysis than are available.

## **4.5 Third parties cannot access connection data, which adversely impacts consumers**

- 4.5.1 Comparator websites and other third party energy services companies cannot access connection data in the registry. The inability of these energy services companies to access this data limits the relevance of the tariff information they provide to consumers. That is, the tariff information is not as tailored to a consumer's requirements as it could be.
- 4.5.2 This lack of access to connection data also limits the potential for innovation in energy services (eg, a service offering to assist a consumer to get cheaper hot water by enabling the distributor to turn off the hot water cylinder during periods of peak network usage).

## **4.6 The lack of a common format for transferring retail tariff plan data adversely affects consumers by increasing transaction costs**

- 4.6.1 Significant transaction costs can arise when converting file formats and data structures between platforms/users. This is a barrier to economically efficient transactions between data holders and users. Standardised file formats reduce these transaction costs by using standard, interoperable, machine-readable data formats and structures. These can facilitate transfer of significant amounts of data between participants at a low cost. They also reduce the risk of inaccuracy (eg, transposing a digit when manually entering data into a database).
- 4.6.2 Non-standardised file formats increase the transaction costs of third party energy services companies that use retail tariff plan data in their service offerings. This has two adverse effects on consumers who use third party energy services companies:
  - (a) the costs of the third party provider are higher, which means the consumers pay higher fees, either directly or indirectly
  - (b) alternatively, or in addition, the consumers receive reduced services (eg, the energy services companies have less money to innovate in their service offerings if they do not pass on the higher transaction costs to consumers).

## **4.7 The proposal would lower consumers' search costs more quickly than would market forces**

- 4.7.1 The Authority considers that the proposal set out in section 5 would place competitive pressure on consumers' search costs more quickly than would market forces. This would deliver a net benefit to consumers.
- 4.7.2 Incumbent electricity retailers have an incentive to make it more difficult for the consumers they supply to assess the best power deal available to them.<sup>20</sup> Studies indicate that consumers have difficulty comparing complex offers, and firms may exploit this by increasing the complexity of their prices or increasing the number of offered rates.<sup>21</sup> They may also vary their pricing reasonably frequently, use price promotions, and use 'framing' to distract and distort consumer decision-making.<sup>22</sup>
- 4.7.3 In contrast, new entrant retailers face the opposite incentive. To attract customers, particularly high value customers, they want to reduce the cost for consumers to assess their service offerings. They also want to communicate well the value of their service offerings.<sup>23</sup> New entrant retailers want a consumer to be confident in his or her decision to accept the new entrant retailer's offer.
- 4.7.4 The Authority believes that new entrant retailers will, over time, increase competitive pressure on consumers' search costs, because of this incentive. However, the Authority considers the proposed initiative will bring forward this benefit to consumers by achieving the same outcome more quickly.
- 4.7.5 A Code amendment that places competitive pressure on consumers' search costs could be implemented in less than a year. In contrast, market forces may take several years to achieve this.

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<sup>20</sup> This incentive on the retailer would be expected to be stronger in regard to the retailer's higher value / more profitable consumers.

<sup>21</sup> Sapere Research Group, 2015, Tariff information in consumer search decisions. See for example, V.G. Morwitz, E.A. Greenleaf and E.J. Johnson, 1998, Divide and prosper: Consumers' reactions to partitioned prices, *J. Marketing Res.*, 35, 453-463; G. Wuebker and J. Baumgarten, Strategies against Price Wars in the Financial Service Industry, Simon-Kucher and Partners; and T. Hossain and J. Morgan, 2005, Plus Shipping and Handling: Revenue (Non) Equivalence in Field Experiment on eBay, *Advances in Econ. Analysis & Policy*.

<sup>22</sup> The 'framing' effect relates to people reacting differently to a choice depending on whether the choice is framed in the positive or the negative. See for example, M. Baye, J. Morgan and P. Scholten, 2004, Price Dispersion in the Small and in the Large: Evidence from an Internet Price Comparison Site, *J. Indus. Econ.*, 52(4), 463-496; and A. Tversky and D. Kahneman, 1981, The Framing of Decisions and the Psychology of Choice, *Sci.*, 211 (44810), 453- 458.

<sup>23</sup> Sapere Research Group, 2015, Tariff information in consumer search decisions, p. 21.

- Q1.** Do you agree that the current arrangements for accessing retail tariff plan data and connection data mean that consumers face higher-than-necessary transaction costs identifying electricity-related offers available to them? Please give reasons with your answer.
- Q2.** Do you agree that a Code amendment would lower consumers' transaction costs more quickly than would market forces? Please give reasons with your answer.

## **5. Regulatory statement – better access to tariff plan data and connection data will deliver benefits to consumers**

### **5.1 Retail competition and the efficient operation of the industry will be promoted**

- 5.1.1 The Authority considers that better access to retail tariff plan data and connection data will promote retail competition and the efficient operation of the electricity industry, for the long-term benefit of consumers.

### **5.2 The Authority is considering two proposed alternatives**

- 5.2.1 The Authority is considering two proposed alternatives to improve access to retail tariff plan data and connection data. The Authority has not yet formed a view about which alternative has the higher net benefit.
- 5.2.2 The Authority has also considered several other options but at this stage, and subject to consultation with interested parties, it considers the two proposed alternatives would better promote the Authority's statutory objective than any of these other options.

### **5.3 The two alternatives are not mutually exclusive**

- 5.3.1 The two proposed alternatives are not necessarily mutually exclusive. Alternative 1 could be implemented as a first step towards the implementation of alternative 2. It may be possible to implement alternative 1 at the same time as the 'Access to consumption data' Code amendment comes into effect (1 February 2016).<sup>24</sup>
- 5.3.2 The Authority expects that, following stakeholder consultation, it will be in a better position to make a decision on whether one or both of the alternatives should be implemented, or to determine that another option would deliver the largest net benefit to consumers.

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<sup>24</sup> Depending on the length of time required to enable access to connection data held in the registry.

## 5.4 The Authority is not proposing that all retail tariff plan data be made publicly available

5.4.1 The Authority is limiting how much retail tariff plan data is proposed to be made publicly available. This is because too much publicly available retail tariff plan data could end up being anti-competitive if:

- (a) it reduced retailers' willingness to innovate in their tariff offerings<sup>25</sup>
- (b) it enabled retailers to use the information to jointly determine commercial decisions.<sup>26</sup>

## 5.5 The Authority's proposal – alternative 1

### **Retailers would be required to provide generally available retail tariff plan data**

5.5.1 Under the first proposed alternative the Authority would amend the Code to require all retailers to:

- (a) provide information about their generally available retail tariff plans to ConsumerNZ
- (b) provide, to any person who requested it, the same current information about retail tariff plans that the retailer is providing to ConsumerNZ.

5.5.2 The Code amendment would not specify how retailers were to provide the information to ConsumerNZ and other parties, or the format of this information.<sup>27</sup>

5.5.3 The proposed Code amendment under alternative 1 is in appendix B.

### ***Retailers would be required to provide ConsumerNZ and others with their generally available retail tariff plans***

5.5.4 Alternative 1 would require each retailer to provide information about its generally available retail tariff plans to ConsumerNZ. This would be a minimum requirement – retailers could provide additional retail tariff plan

<sup>25</sup> Sapere Research Group, 2015, Tariff information in consumer search decisions, pp. 30-31. See also Mighty River Power's submission on the Authority's Retail Data Project Issues Paper, available at [www.ea.govt.nz/dmsdocument/17693](http://www.ea.govt.nz/dmsdocument/17693).

<sup>26</sup> For example the Commerce Commission cautions firms not to exchange price information with competitors – see 'Practical tips for businesses when engaging with competitors', available at [www.comcom.govt.nz/business-competition/fact-sheets-3/price-fixing-and-cartels](http://www.comcom.govt.nz/business-competition/fact-sheets-3/price-fixing-and-cartels).

<sup>27</sup> The Authority understands e-mail is used currently to deliver retail tariff plan data to ConsumerNZ, and this is in multiple formats (eg, Microsoft Excel, Microsoft Word, Adobe PDF).

information to ConsumerNZ if they wanted to (eg, a special deal in a particular region). If someone asked a retailer to provide information about one or more of the retail tariff plans it was providing to ConsumerNZ, the retailer would be required to provide the requested information to that person.

- 5.5.5 In broad terms a generally available retail tariff plan means a retail tariff plan that a retailer makes available to a consumer, which:
- (a) *is not* a retail tariff plan made available by the retailer only under an uninvited direct sale agreement (eg, door-to-door sales or telephone sales),<sup>28</sup> and
  - (b) if the consumer satisfies any requirements specified for the retail tariff plan relating to one or more of the following:
    - (i) physical location
    - (ii) metering configuration
    - (iii) price category code.

- 5.5.6 In other words, a generally available retail tariff plan is a publicly available 'headline' retail tariff plan or an 'above the line' retail tariff plan.<sup>29</sup> A generally available retail tariff plan is not a 'below the line' retail tariff plan, where the retailer offers the consumer a discounted or otherwise more attractive offer.<sup>30</sup>

***The Authority would prepare a standardised file format for making available retail tariff plan data, for voluntary adoption***

- 5.5.7 Under alternative 1, the Authority would develop and make publicly available one or more file formats and data structures (standardised file format) for the transfer/making available of retail tariff plan data. Parties would be able to choose whether they adopted the standardised file format.
- 5.5.8 The Authority would seek input from participants on the design of procedures specifying the standardised file format. The Authority anticipates it would adopt a process like the one it used to develop the file formats for the recent Code amendment facilitating access to consumption data. The file formats would be based on the relevant Electricity Information Exchange Protocols (EIEPs), or other appropriate file formats,

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<sup>28</sup> An uninvited direct sale agreement is as defined under Section 36K of the Fair Trading Act 1986, available at <http://www.legislation.govt.nz/act/public/1986/0121/latest/whole.html>.

<sup>29</sup> Refer to Mighty River Power's submission on the Authority's 2014 Retail Data Project Issues Paper, available at [www.ea.govt.nz/dmsdocument/17693](http://www.ea.govt.nz/dmsdocument/17693).

<sup>30</sup> *Ibid.*

developed with input from a technical working group. The technical working group would have broad representation, including energy services companies.

### **The Authority would make connection data publicly available**

- 5.5.9 Under alternative 1, the Authority would make publicly available that connection data held in the registry which is necessary for comparing retailers' electricity charges. The access would be read-only and would be via a portal comprising a web user interface and an application programming interface (API).<sup>31</sup> The Authority considers that this does not require a Code amendment.
- 5.5.10 The web user interface would be an easy-to-use interface for consumers (primarily) to look at the connection data for their ICPs. The Authority envisages consumers would need to enter their ICP identifier or the ICP's physical address in order to see any such information.
- 5.5.11 The API would be intended for comparator websites and other third party energy services companies. The Authority envisages these parties would also need to enter the consumer's ICP identifier or the ICP's physical address in order to see any such information.
- 5.5.12 The connection data to be made publicly available can be summarised as follows:
- (a) the physical location of the ICP
  - (b) the type and configuration of the metering used to measure the electricity consumption and details about any unmetered load
  - (c) the capacity of the connection from the electricity distribution network to the consumer's premise(s)
  - (d) the existence of any on-site electricity generation
  - (e) the NSP to which electricity consumption at the ICP is reconciled for settlement in the wholesale electricity market
  - (f) the price category code and loss category code used to define the electricity distribution line charges for the ICP
  - (g) the trader that purchases electricity for the ICP from the wholesale electricity market

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<sup>31</sup> An API is a set of commands, protocols, and tools for building software applications. In this instance it would enable the development of software programmes that could automatically communicate with the registry's database management system.

- (h) whether the distributor invoices the consumer for electricity line charges.

5.5.13 Appendix D shows the registry fields that the Authority proposes to make publicly available.

## 5.6 The Authority's proposal – alternative 2

### **Retailers would be required to publish generally available retail tariff plan data**

5.6.1 Under the second proposed alternative, the Authority would amend the Code to:

- (a) require retailers to publish information about their generally available retail tariff plans on their websites
- (b) require retailers to provide generally available retail tariff plan data to consumers and other parties using the standardised file format(s) and data structure(s) developed by the Authority.

5.6.2 The proposed Code amendment is in appendix B.

### ***Retailers would be required to publish their generally available retail tariff plans on their websites***

5.6.3 Alternative 2 would require each retailer to publish its generally available retail tariff plans on its website. This is to maximise the ease with which consumers or their agents could access publicly available retail tariff plan information.

5.6.4 The generally available retail tariff plans published would need to include any levies, taxes and discounts.

5.6.5 A retailer would need to clearly show a consumer's eligibility to take up a generally available retail tariff plan (eg, physical location (NSP supplying the premise), meter configuration, distributor price category code).

5.6.6 A retailer would need to update its website in a timely manner if any of its generally available retail tariff plans changed. A retailer would also need to publish on its website, alongside each generally available retail tariff plan, the start date and end date for the retail tariff plan, as applicable.

### ***Retailers would be required to transfer retail tariff plan data in a standardised file format***

5.6.7 Alternative 2 would require each retailer to transfer retail tariff plan data using a standardised file format. The Authority would be required to

publish procedures that specified the manner and format in which retailers gave retail tariff plan data to consumers and other parties. These procedures would apply to:

- (a) the generally available retail tariff plan information that was to be published on retailers' websites
- (b) any other retail tariff plan information a retailer was providing to a consumer which the consumer had requested be in the standardised format.

5.6.8 Retailers would be able to provide this data in other file formats, in addition to the approved standardised format.

5.6.9 As under alternative 1, the Authority would seek input from participants on the design of the procedures specifying the standardised file format, adopting a process like the one it used to develop file formats for the recent Code amendment facilitating access to consumption data.

### **The Authority would make connection data publicly available**

5.6.10 As with alternative 1, the Authority would make publicly available the connection data held in the registry that is necessary for comparing retailers' electricity charges. The access would be read-only and via a portal comprising a web user interface and an API. As noted above, the Authority considers this would not require a Code amendment.

## **5.7 Summary of key differences between the two alternatives**

5.7.1 Table 1 summarises the key differences between the Authority's alternative proposals, and compares them against the status quo.

**Table 1: Summary of key differences between the Authority's proposed alternatives**

| Status quo                                                                                                                                      | Alternative 1                                                                                                                                                                                               | Alternative 2                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| The majority of retailers <i>voluntarily</i> provide retail tariff plan information to ConsumerNZ for use on the Powerswitch comparator website | Retailers <i>must</i> provide their retail tariff plan information to ConsumerNZ, and they <i>must</i> provide the same retail tariff plan information provided to ConsumerNZ to any person who requests it | Retailers <i>must</i> publish their retail tariff plan information |

|                                                                                                             |                                                                                                                                                                                                                                                             |                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Retailers choose how much information about their retail tariff plans they provide to ConsumerNZ and others | Retailers <i>must</i> provide information about <i>all</i> of their <i>generally available</i> retail tariff plans to ConsumerNZ, and they <i>must</i> provide the same retail tariff plan information provided to ConsumerNZ to any person who requests it | Retailers <i>must</i> make available information about <i>all</i> of their <i>generally available</i> retail tariff plans               |
| Retailers choose how they provide their retail tariff plan information                                      | Retailers choose how they provide their retail tariff plan information                                                                                                                                                                                      | Retailers <i>must</i> publish their retail tariff plan information on their websites                                                    |
| Retailers choose in what format they make their retail tariff plan information available                    | Retailers choose in what format they make their retail tariff plan information available, guided by the voluntary standardised file format published by the Authority                                                                                       | Retailers <i>must</i> make available their retail tariff plan information using the standardised file format published by the Authority |

5.7.2 As can be seen, alternative 1 has more voluntary aspects than does alternative 2.

## 5.8 The Authority's rationale for consulting on two alternatives

### Both alternatives could have a similar net benefit

- 5.8.1 Quite simply, the Authority is consulting on two proposed alternatives because they could each have approximately the same net benefit.
- 5.8.2 Alternative 1 can be described as a more voluntary approach than alternative 2. Alternative 1 therefore would be likely to impose lower compliance costs for retailers than alternative 2.
- 5.8.3 However, the voluntary nature of alternative 1 means that its expected gross benefits are less certain than alternative 2's expected gross benefits.

- |            |                                                                                                                                                                                                                                                               |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Q3.</b> | <b>Under alternative 1 do you have any comments or suggestions about all retailers being required to provide retail tariff plan information to ConsumerNZ, and having to provide that same retail tariff plan information to any person who requested it?</b> |
| <b>Q4.</b> | <b>Under alternative 2 do you have any comments or suggestions about retailers being required to publish information about their generally available retail tariff plans on their websites?</b>                                                               |
| <b>Q5.</b> | <b>Under alternative 2 do you have any comments or suggestions about the requirement to supply retail tariff plan information using standardised file formats and structures?</b>                                                                             |
| <b>Q6.</b> | <b>Under both alternatives do you have any comments or suggestions about making publicly available the connection data held in the registry that is set out in appendix D?</b>                                                                                |

## **5.9 The proposed alternatives' objectives are to promote competition and efficient operation**

- 5.9.1 The objectives of the Authority's proposed alternatives are:
- (a) to promote competition in the retail electricity market
  - (b) to promote the efficient operation of the electricity industry.

### **The proposed alternatives promote competition**

- 5.9.2 The proposed alternatives promote competition in the retail electricity market because they improve the ability of consumers to make well-informed decisions about their retailer and retail tariff plan. Consumers would be more likely and better able to participate in the retail electricity market as a result of this improved decision-making ability.
- 5.9.3 This would place a stronger incentive on existing retailers to compete vigorously to provide consumers with the services they want in the most cost-effective manner. It would also encourage new retailers and energy services companies to participate in the retail market.
- 5.9.4 Increased competition would encourage retailers and energy services companies to develop more innovative products and services and to seek operational efficiency gains.<sup>32</sup>

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<sup>32</sup> The Authority is aware of innovative offerings that would-be energy services companies have identified, which they intend to provide if they can obtain the requisite consumption and tariff information to enter the market.

### **The proposed alternatives promote the efficient operation of the electricity industry**

- 5.9.5 The proposed alternatives promote the efficient operation of New Zealand's electricity industry by reducing the time and effort consumers require to identify and choose between retail electricity offers and to make other electricity-related decisions (eg, investments in energy devices, systems, or other equipment).
- 5.9.6 The proposed alternatives also promote the efficient operation of the electricity industry by reducing the transaction costs of retailers, comparator websites and other third party energy services companies.

### **The proposed alternatives are not expected to have a material impact on reliability of supply**

- 5.9.7 The proposed alternatives are not expected to materially affect the reliability of consumers' electricity supply. It is possible that some benefits to reliability will arise as a secondary effect of more efficient consumer decisions and the ability of consumers to respond to price signals. It is expected that these would be minor.

|                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Q7. Do you agree that the objectives of the proposed alternatives are appropriate and consistent with the Authority's statutory objective? Please give reasons if you disagree.</b></p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## **5.10 The privacy implications of making connection data publicly available are minimal**

- 5.10.1 The Authority considers that making the connection data set out in appendix D publicly available would have minimal privacy implications. This is because:
- (a) the connection data to be made publicly available is not personal information as defined in the Privacy Act, because it does not identify any property owner, occupier, electricity account holder or ratepayer
  - (b) even if the connection data were to be personal information, making it available is permitted by one of the exceptions in privacy principle 11 of the Privacy Act, because the purpose for making it available is directly related to one of the purposes for which it was obtained (to promote retail competition)
  - (c) even if making the connection data available were to not be permitted under privacy principle 11, doing so would not constitute an interference with privacy because no harm would result

- (d) if a third party were to link the connection data with the name of the property owner or occupier, obtained from another source, the connection data could become personal information in the hands of the third party. However, the banal nature of the connection data means this would be unlikely to facilitate privacy intrusions by others.

### **Registry information is not personal information**

- 5.10.2 In deciding how the Privacy Act applies to the connection data to be made available, the first question is whether the connection data is personal information, which is defined as “information about an identifiable individual”.
- 5.10.3 The Authority considers that the connection data to be made publicly available is not personal information because it is not capable of identifying any individual. This is because none of the connection data links to the electricity account holder, property owner, ratepayer or occupier for any given property. The connection data is about an ICP. If a person asked the Authority to provide the connection data held about them, the Authority could not tell what information that was.

### **The Privacy Act permits disclosure of the connection data**

- 5.10.4 The Privacy Act contains a set of information privacy principles. Privacy principle 11 sets out restrictions on the disclosure of personal information. Disclosing personal information does not breach privacy principle 11 if the disclosure is directly related to one of the purposes for which the information was obtained.<sup>33</sup>
- 5.10.5 The registry’s purpose is to enable consumers to switch energy retailers, and to help facilitate reconciliation in the wholesale electricity market. Both of these activities are intended to facilitate retail competition in the electricity industry.
- 5.10.6 The Authority is proposing to make the connection data available to consumers and their agents so they can find the best deals for the consumer. This would promote retail competition.
- 5.10.7 Therefore allowing access to connection data would not be a breach of the privacy principles, even if it was personal information.

### **Making the connection data publicly available would not be an interference with privacy because no harm would result**

- 5.10.8 Anyone may allege that an action is an interference with privacy.

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<sup>33</sup> Privacy principle 11, paragraph (a), section 6 of the Privacy Act.

- 5.10.9 Section 66 of the Privacy Act states that an action is an interference with the privacy of an individual only if it breaches a privacy principle, code of practice or information sharing agreement and:
- (a) causes some loss, detriment, damage, or injury; or
  - (b) adversely affects the rights, benefits, privileges, obligations, or interests of that individual; or
  - (c) results in significant humiliation, loss of dignity, or significant injury to the feelings of that individual.
- 5.10.10 Even if connection data was personal information and disclosing it would breach privacy principle 11, the disclosure would not constitute an interference with privacy because it would not result in the kind of harm described in the Privacy Act.

**Other privacy implications of making the connection data publicly available**

- 5.10.11 The Authority notes that in some cases information that is not personal information (such as connection data) can become personal information if added to information from another source.
- 5.10.12 If someone were to link the connection data with the name of the owner of the premises, for example, then in the hands of the person who linked the two sets of information the connection data could become personal information.
- 5.10.13 The Authority considers that the nature of the connection data is so banal that even if it were to be compiled with other information that identified an individual property owner or occupant, the risk of facilitating privacy intrusions by others would most likely be very low.
- 5.10.14 The Authority has carried out a formal privacy risk assessment to assess the implications of enabling third parties to combine the connection data with other information. The assessment concludes that the privacy risks associated with making the connection data publicly available are minimal.
- 5.10.15 Appendix C sets out the privacy risk assessment.

- |            |                                                                                                                                   |
|------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Q8.</b> | <b>Do you agree that the connection data which the Authority proposes to make publicly available is not personal information?</b> |
| <b>Q9.</b> | <b>If you disagree, please give reasons and suggest a way to address the privacy issue(s) you have identified.</b>                |

## 5.11 Evaluation of the proposed alternatives' benefits and costs

- 5.11.1 The Authority has assessed the expected benefits and costs of its proposed alternatives.
- 5.11.2 The Authority considers that each alternative's identified gross benefits and the gross benefits of the recent Code amendment facilitating access to consumption data are mutually dependent.<sup>34</sup> This means that:
- (a) the 'access to consumption data' initiative and the 'access to retail tariff plan data and connection data' initiative must both proceed for it to be possible for all of the identified gross benefits to be realised
  - (b) the identified gross benefits cannot be directly attributed to either initiative.
- 5.11.3 In contrast, the costs of the 'access to consumption data' initiative and the 'access to retail tariff plan data and connection data' initiative are specific to each initiative.
- 5.11.4 Hence, the cost-benefit analysis in this paper builds on the one for the Code amendment facilitating access to consumption data. The gross benefits set out in the earlier analysis have increased slightly because of the increase in the average saving available to residential consumers from moving to a lower electricity price (see paragraph 5.11.26).<sup>35</sup> The costs of the proposed alternatives for the 'access to retail tariff plan data and connection data' initiative have then been added.
- 5.11.5 When estimating the gross benefits and the costs of the proposed alternatives the Authority has:
- (a) calculated the gross benefits initially on the basis that these are approximately the same under each alternative, which could be the case if certain key assumptions were to hold under alternative 1
  - (b) calculated the cost of each alternative, which differs between the alternatives
  - (c) relaxed the underlying assumptions referred to in (a) above for the alternative 1 gross benefits and assessed the reduction in these gross benefits against the lower cost of alternative 1.
- 5.11.6 As with the 'access to consumption data' initiative, the Authority has chosen to be conservative when calculating the expected gross benefits of the 'access to retail tariff plan data and connection data' initiative. It has

<sup>34</sup> Refer to [www.ea.govt.nz/dmsdocument/19041](http://www.ea.govt.nz/dmsdocument/19041).

<sup>35</sup> In addition, the benefits and costs have been rounded to the nearest \$5,000.

done this by estimating only the gross benefits from more residential consumers comparing and switching retailers to obtain a better deal, as a result of the initiative (ie, it excludes the benefits expected from facilitating access to connection data for non-residential consumers).

**The expected net economic benefit from improving access to consumption data, retail tariff plan data and connection data is positive**

- 5.11.7 The Authority considers there will be a positive net economic benefit from improved access to consumption data, retail tariff plan data and connection data.
- 5.11.8 Table 2 summarises the different estimated benefits and costs.
- 5.11.9 The primary form of economic benefit is a large dynamic efficiency benefit. Dynamic efficiency is achieved by firms having appropriate (efficient) incentives to innovate and invest in new products and services over time. This increases their productivity, including through developing new processes and business models, and lowers the relative cost of products and services over time.
- 5.11.10 Allocative efficiency benefits and productive efficiency benefits are the other forms of economic benefit from improved access to consumption data, retail tariff plan data and connection data.
- 5.11.11 Allocative efficiency is achieved when the marginal value consumers place on a product or service equals the cost of producing that product/service, so that the total of individuals' welfare in the economy is maximised.
- 5.11.12 Productive efficiency is achieved when products and services that consumers desire are produced at minimum cost to the economy. That is, the costs of production equal the minimum amount necessary to produce the output. A productive efficiency loss results if the costs of production are higher than this, because the additional resources used could instead be deployed productively elsewhere in the economy.
- 5.11.13 Dynamic efficiency effects typically have a far greater impact on the long-term benefit of consumers than do allocative or productive efficiency effects. However, the Authority has not quantified the proposed alternatives' estimated dynamic efficiency benefit because it is hard to do so accurately.
- 5.11.14 The Authority has therefore only quantitatively assessed the allocative efficiency and productive efficiency benefits (ie, the static efficiency benefits) from improved access to consumption data, retail tariff plan data and connection data.

- 5.11.15 The Authority notes that although Table 2 shows alternative 1 to have a higher expected net benefit range than alternative 2, the voluntary nature of alternative 1 means its net benefit is less certain than alternative 2's. This is discussed at the end of section 5.11.

**Table 2: Summary of benefits and costs of improved access to consumption data, retail tariff plan data and connection data**

| Benefits and costs                                                                                                                                                                       | Present value (2015 dollars)   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Allocative efficiency benefits from increased engagement that makes consumers more likely to compare and switch retailers to obtain a better deal                                        | \$870,000 to \$2,700,000       |
| Productive efficiency benefits from retailers seeking efficiency gains to capture some of the wealth transfer to consumers arising from more consumers comparing and switching retailers | \$920,000 to \$2,300,000       |
| Dynamic efficiency benefits as more vigorous competition between retailers and energy-related services firms delivers innovation and efficiency gains                                    | Significant (many \$millions)  |
| Present value of costs of providing better access to consumption data                                                                                                                    | \$425,000-\$1,000,000          |
| Present value of costs of providing better access to tariff and connection data – alternative 1                                                                                          | \$425,000-\$750,000            |
| Present value of costs of providing better access to tariff and connection data – alternative 2                                                                                          | \$680,000-\$1,940,000          |
| <b>Present value of <i>static</i> efficiency net benefits – alternative 1<br/>(subject to certain key assumptions holding)</b>                                                           | <b>\$0.04m to &gt; \$4.15m</b> |
| <b>Present value of <i>static</i> efficiency net benefits – alternative 2</b>                                                                                                            | <b>-\$1.15m to &gt; \$3.9m</b> |

Note: The Authority has assessed the benefits and costs over a 10 year period. The full benefits and costs of the proposed alternatives and any related retail data project proposals are likely to take some years to be realised (eg, five years). However, the benefits and costs are unlikely to continue indefinitely, for example because technology change will result in changes in how retail data is captured and exchanged. This has led the Authority to determine that 10 years is a reasonable time period for assessing the proposal's benefits and costs.

## **Nature and size of expected gross benefits under the proposed alternatives**

***The expected gross benefits are the same across both alternatives if certain key assumptions hold under alternative 1***

- 5.11.16 The Authority considers that the gross benefits consulted on for the ‘access to consumption data’ initiative would apply under alternative 2. The Authority considers that approximately the same gross benefits would also apply under alternative 1 if the following key assumptions held:
- (a) consumers were able to easily find on all retailers’ websites the generally available retail tariff plans available to them
  - (b) at least one entity (eg, a third party like an energy services company) put all generally available retail tariff plan data in a standardised file format, and made it available to other parties.
- 5.11.17 The second of these assumptions warrants some discussion.
- 5.11.18 For the reasons set out in section 4 of this paper the Authority considers that retail tariff plan data must be made available in a standardised file format, to assist in realising fully the potential benefits of:
- (a) the recent Code amendment facilitating access to consumption data
  - (b) the ‘access to retail tariff plan data and connection data’ initiative.<sup>36</sup>
- 5.11.19 If alternative 1 were adopted, the Authority would prepare a standardised file format for retail tariff plan data, for voluntary adoption by parties.
- 5.11.20 The approach that delivers the highest net benefit for the retail electricity market might be for retailers to *not* adopt the standardised file format individually. Instead it could be more efficient overall for the market if retailers were to provide their retail tariff plan data to a third party, who put the data into a standardised file format and on-provided it to comparator websites and other third party energy services companies. The Authority has made this assumption when estimating the costs of alternative 1 (see paragraph 5.11.47).
- 5.11.21 Of course, this is a whole-of-market view. At the firm level there are winners and losers under this approach. With no obligation to provide retail tariff data in a standardised file format, retailers would save money compared to alternative 2 because they would not have to invest in systems and processes to put their retail tariff plan data in a standardised file format. In contrast, third party energy services companies would incur additional costs compared to alternative 2 since they would presumably have to pay for the services of the entity putting the data in the

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<sup>36</sup> Because the standardised file format would reduce transaction costs.

standardised file format. Furthermore, the level of standardisation, and the transaction cost reductions that come from standardisation may not be as great under a voluntary as opposed to mandatory approach.

***Allocative efficiency benefits are expected, from increased consumer engagement***

- 5.11.22 The proposed alternatives are expected to deliver allocative efficiency benefits by increasing consumer participation in the retail electricity market. Consumers will be more price-sensitive, or more likely to compare and switch retailers. This will promote retail competition.
- 5.11.23 The more vigorous the competition between electricity retailers, the more the expected competitive pressure on retail prices.<sup>37</sup> This results in a larger quantity of electricity being available to consumers at prices they are willing to pay. This represents an allocative efficiency gain and an increase in consumers' economic wellbeing. The Authority estimates the present value of the potential allocative efficiency gains of improved access to retail tariff plan data, connection data and consumption data range from approximately \$870,000 to approximately \$2.7 million.
- 5.11.24 The Authority believes the proposed alternatives will encourage more consumers to move to a lower (more economically efficient) retail price, either by negotiating a discount from their existing retailer or by switching to a new retailer. The Authority estimates the proposed alternatives will lead to at least an extra 5% of consumers comparing and switching retailers and moving to a lower (more economically efficient) price.
- 5.11.25 Table 3 shows estimates of the present value of the allocative efficiency gains under several possible scenarios.<sup>38</sup> The left hand column gives estimates of the percentage of consumers who would switch as a result of implementing the proposed alternatives, measured against New Zealand's current switching rate of 20%. The column headings are scenarios of annual savings per consumer.
- 5.11.26 The Authority considers the average saving available to consumers from moving to a lower electricity price is about \$160. This estimate is consistent with the 2015 'What's My Number' campaign, which shows an

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<sup>37</sup> That is, the more the expected pressure on retailers to set their retail prices equal to the marginal cost of supply.

<sup>38</sup> The table shows the present value of the reduction in deadweight loss under each scenario. That is, it shows the *net* economic benefit to society under each scenario. It excludes any economic benefit transferred between retailers and consumers, where the gain by one party is exactly offset by the other party's corresponding loss.

average saving of \$162 was available to consumers in 2014 if they moved to the lowest available electricity price available to them.<sup>39</sup>

**Table 3: Estimates of allocative efficiency gains (2015 dollars)**

| Additional consumers moving to a lower price (%) | Present value of savings available from moving to a lower price (\$/consumer) |                    |                    |
|--------------------------------------------------|-------------------------------------------------------------------------------|--------------------|--------------------|
|                                                  | \$100                                                                         | \$160              | \$200              |
| 1% more<br>(or 21% in total)                     | \$70,000                                                                      | \$175,000          | \$270,000          |
| 5% more<br>(or 25% in total)                     | \$340,000                                                                     | <b>\$870,000</b>   | <b>\$1,355,000</b> |
| 10% more<br>(or 30% in total)                    | \$680,000                                                                     | <b>\$1,735,000</b> | <b>\$2,710,000</b> |

Notes:

1. 20% base switching rate
2. 10 year discount period at 8% with no inflation
3. -0.26 elasticity of demand (sensitivity of demand to a change in price)

- 5.11.27 The potential allocative efficiency gain under the proposed alternatives is also influenced by the sensitivity of consumers' demand to changes in the price they pay for electricity. This is referred to as their price elasticity of demand. The expected allocative efficiency benefit under each of the proposed alternatives will be higher the more sensitive consumers' demand is to changes in the price of electricity.
- 5.11.28 The Authority has used a price sensitivity, or elasticity, of -0.26 for the scenarios outlined in Table 3. The Authority considers this to be a relatively conservative estimate of residential consumers' sensitivity to changes in the price of electricity (based on analysis of electricity data that the Authority has undertaken). This price elasticity has therefore been treated as a lower bound estimate in the analysis of benefits and costs. To be conservative, the Authority has used this lower bound estimate in its assessment of each proposed alternative's estimated net benefit.
- 5.11.29 Table 4 shows estimates of the present value of the allocative efficiency gains under the same possible scenarios as for Table 3, but with an upper bound price elasticity of -0.4. As can be seen, the estimated allocative efficiency benefits are materially higher. For example, based on an extra 5% of consumers moving to a price \$100 lower than their existing price,

<sup>39</sup> In comparison, the average savings estimated for 2013, 2012 and 2011 were \$150, \$155 and \$175 respectively.

the present value of allocative efficiency benefits would be \$520,000 instead of \$340,000.

**Table 4: Upper bound estimates of allocative efficiency gains (2015 dollars)**

| Additional consumers moving to a lower price (%) | Present value of savings available from moving to a lower price (\$/consumer) |                    |                    |
|--------------------------------------------------|-------------------------------------------------------------------------------|--------------------|--------------------|
|                                                  | \$100                                                                         | \$160              | \$200              |
| 1% more<br>(or 21% in total)                     | \$105,000                                                                     | \$265,000          | \$415,000          |
| 5% more<br>(or 25% in total)                     | \$520,000                                                                     | <b>\$1,335,000</b> | <b>\$2,085,000</b> |
| 10% more<br>(or 30% in total)                    | \$1,040,000                                                                   | <b>\$2,665,000</b> | <b>\$4,165,000</b> |

Notes:

1. 20% base switching rate
2. 10 year discount period at 8% with no inflation
3. -0.4 elasticity of demand (sensitivity of demand to a change in price)

***Productive efficiency benefits are expected from retailers operating more efficiently***

- 5.11.30 The proposed alternatives will deliver productive efficiency benefits by providing incentives for retailers to operate more efficiently. These efficiency gains are expected to be realised by reducing the level of 'x-inefficiency' that is present in the electricity market. This 'x-inefficiency' exists when the cost of supplying a product or service is higher than the efficient level. This efficient level should occur under vigorous competition.<sup>40</sup>
- 5.11.31 If an extra 5% of consumers moved to a tariff that saved each of them \$160 per year, the Authority estimates there would be a transfer of economic wealth from retailers to consumers of approximately \$13.7 million. A wealth transfer of more than \$34 million is possible if an extra 10% of consumers moved to a price that was \$200 lower than their existing price.

<sup>40</sup> In other words the term 'x-inefficiency' refers to the difference in productive efficiency between an efficient firm and observed behaviour in practice.

- 5.11.32 The Authority does not consider these potential wealth transfers mean retailers are earning excessive returns.<sup>41</sup> This suggests the potential wealth transfers represent a level of 'x-inefficiency' in New Zealand's electricity market.
- 5.11.33 The Authority believes some portion of this apparent 'x-inefficiency' could be removed if consumers participated more actively in the retail electricity market through improved access to retail tariff plan data and connection data. Retailers would seek cost savings to retain or capture some of the economic wealth that would otherwise go to consumers switching to lower retail tariff plans. This retailer behaviour would result in a productive efficiency gain. The Authority considers that possible wealth transfers of \$13.7-\$34 million would provide retailers with an incentive to seek these cost savings.
- 5.11.34 Retailers facing a \$13.7 million wealth transfer due to their 'x-inefficiency' would receive an annual financial benefit of \$137,000 if they reduced their 'x-inefficiency' (in aggregate) by just 1%. This equates to a benefit of approximately \$920,000 in present value terms. The Authority considers a productive efficiency gain of this magnitude is likely (eg, by retailers improving their operating efficiency).
- 5.11.35 The Authority has calculated the productive efficiency gains for different 'x-inefficiency' improvements resulting from retailers responding to potential wealth transfers.
- 5.11.36 Table 5 sets out the results of this calculation.

**Table 5: Estimates of present value productive efficiency gains**

|                                     | Estimated annual wealth transfer |                 |                 |
|-------------------------------------|----------------------------------|-----------------|-----------------|
| Rate of reduction in x-inefficiency | \$13.71 million                  | \$23.57 million | \$34.28 million |
| 1%                                  | \$920,000                        | \$1,580,000     | \$2,300,000     |
| 5%                                  | \$4,600,000                      | \$7,910,000     | \$11,500,000    |
| 10%                                 | \$9,200,000                      | \$15,815,000    | \$23,000,000    |

Notes: 10 year discounting period at 8% with no inflation

<sup>41</sup> See for example the analysis of generator/retailer returns over the period 2002-2011 in the appendix to Gerritsen, B., NZ Power: Mainstream or Mad, 2013, at [www.iscr.org.nz/f901,23536/NZPower\\_slides.pdf](http://www.iscr.org.nz/f901,23536/NZPower_slides.pdf).

***Dynamic efficiency benefits are expected from new products and services***

- 5.11.37 The Authority expects the proposed alternatives to increase competition in the retail electricity market, as retailers compete with each other and against energy services companies to provide products and services to consumers who are participating more in the retail market. The increased competition will lead to greater innovation in products and services, and business models over time. This will benefit consumers, and the economy more generally.
- 5.11.38 Measuring dynamic efficiency benefits is challenging. The Authority has not identified a robust approach for quantifying these potential benefits and therefore has not quantified the dynamic efficiency benefits that would come about under the proposed alternatives. Instead the Authority has considered empirical evidence from overseas studies that looked at:
- (a) the positive effect on dynamic efficiency from reforms that improved information, incentives and competitive pressures
  - (b) the adverse effect on dynamic efficiency from delayed innovations caused by poor regulatory decision-making.
- 5.11.39 The 2006 Electric Energy Market Competition Taskforce report to the United States Congress was a major study which included a review of 30 individual assessments of market reform benefits undertaken between 2000 and 2005.<sup>42</sup> These assessments estimated that reforms which improved the information, incentives and competitive pressures resulted in gains to consumers often in excess of 5% and in some cases as high as 20%. The Authority notes that these price reductions (relative to price levels that might otherwise have occurred) may reflect a combination of wealth transfers and efficiency gains.<sup>43</sup>
- 5.11.40 A good example of the second scenario is the 1997 economic study by Professor Jerry Hausman, from the Massachusetts Institute of Technology, on regulating the telecommunications sector in the United States of America. Hausman's analysis demonstrated dynamic effects that were many times larger than the combined allocative and productive efficiency effects. Hausman estimated that delays introducing cellular phones as a result of the regulator's indecision resulted in annual

<sup>42</sup> The Electric Energy Market Competition Task Force, 2006, Report to Congress on Competition in Wholesale and Retail Markets for Electric Energy.

<sup>43</sup> Efficiency gains from economic reforms of other sectors have also been measured at about 5% to 7%, see for example Winston, C 1993, "Economic deregulation: Days of reckoning for microeconomists", Journal of Economic Literature, Vol. 31, September, pp. 1263-89.

consumer welfare losses of between US\$16.7 billion and \$33.5 billion in 1994 dollars.<sup>44</sup>

### **Nature and size of expected implementation costs under the first proposed alternative**

5.11.41 The Authority estimates that implementing alternative 1 would cost approximately:

- (a) \$100,000-\$150,000 for the Authority to modify the registry to make connection data publicly available
- (b) \$75,000-\$100,000 for the Authority to develop a voluntary standardised file format and for stakeholders to participate in this process
- (c) \$250,000-\$500,000 for at least one entity to put retail tariff plan data in the standardised file format published by the Authority, and to make it available to other parties.

### ***Retailers are expected to face no material implementation costs under alternative 1***

5.11.42 The Authority understands that retailers currently provide ConsumerNZ with retail tariff plan data via e-mail. Retailers could therefore comply with the proposed Code amendment by simply adding the e-mail addresses of other parties to their current e-mails to ConsumerNZ. Hence, the Authority considers that these retailers should face no material implementation costs under alternative 1.

5.11.43 Retailers providing data about their generally available retail tariff plans to ConsumerNZ for the first time would face some initial set-up costs. However, the Authority does not believe these would be material because retailers:

- (a) would have in place their generally available retail tariff plans
- (b) could use the same low cost means of providing their retail tariff plan data to ConsumerNZ as do those retailers currently providing such data.

### ***The cost to modify the registry is estimated to be \$100,000-\$150,000***

5.11.44 Following discussions with the registry service provider, the Authority's high-level estimate of the cost to modify the registry to make connection data publicly accessible is \$100,000-\$150,000.

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<sup>44</sup> Hausman, J.A, "Valuing the Effect of Regulation on New Services in Telecommunications", Brookings Papers on Economic Activity: Microeconomics, 1997, p. 23.

5.11.45 This estimate is based on the following key assumptions:

- (a) parties accessing the connection data have view-only access, via a separate web portal application
- (b) searches may be undertaken on the basis of ICP identifier or physical street address
- (c) multiple ICPs may be retrieved in a single inquiry.

***The cost to develop a standardised file format is estimated to be \$75,000-\$100,000***

5.11.46 The Authority estimates the cost for it to develop a standardised file format and for stakeholders to participate in the development process would be approximately \$75,000-\$100,000. This estimate includes:

- (a) the Authority facilitating a one day workshop of 10-15 parties to develop a standardised file format for transferring retail tariff plan data (\$10,000)
- (b) the Authority consulting on a standardised file format for transferring retail tariff plan data (\$10,000-\$20,000)
- (c) 10-15 interested parties submitting on a standardised file format for transferring retail tariff plan data (\$55,000-\$70,000).

***The cost to develop a tool to put retail tariff plan data into a standardised file format is estimated to be \$250,000-\$500,000***

5.11.47 As noted earlier, a key assumption supporting alternative 1 having the same level of gross benefit as alternative 2 is the existence of at least one entity that puts all generally available retail tariff plan data into a standardised file format. The Authority has estimated that the cost for an entity to develop an information technology solution to put retail tariff plan data into a standardised file format on behalf of all retailers would be cheaper than retailers doing it individually. The Authority's estimate for the development and operation of this tool is approximately \$250,000-\$500,000.

5.11.48 The key assumption underpinning this cost estimate is that the entity is able to largely automate the standardisation process, with no significant ongoing costs (eg, from retailers creating new formats in the future). The estimate also includes the cost of the entity contracting with other parties to provide the standardisation service.

***There are no other material costs necessary for alternative 1's benefits to equal alternative 2's benefits***

5.11.49 Other than the cost of developing a standardisation tool, the Authority considers there would be no material implementation costs required in

order for alternative 1's benefits to approximately equal those of alternative 2. That is, any retailers who had to alter their websites to make it possible for consumers to easily find generally available retail tariff plans would not face material costs to do so.

### **Nature and size of expected costs under the second proposed alternative**

5.11.50 The Authority estimates that alternative 2 would cost approximately:

- (a) \$440,000-\$1,430,000 for retailers to modify systems and/or processes to put their generally available retail tariff plan data in a standardised file format
- (b) \$65,000-\$260,000 for retailers to modify their websites to make their generally available retail tariff plan data publicly available in a standardised file format
- (c) \$100,000-\$150,000 for the Authority to modify the registry to make connection data publicly available
- (d) \$75,000-\$100,000 for the Authority to develop a mandatory standardised file format and for stakeholders to participate in this process.

### ***Retailers' combined implementation costs are estimated to be between approximately \$500,000-\$1,700,000***

5.11.51 Table 6 sets out the Authority's estimate of retailers' implementation costs to implement alternative 2. The Authority estimates that retailers' combined implementation costs would be between approximately \$500,000-\$1,700,000.

5.11.52 The Authority's cost estimates reflect its expectation that the cost of modifying systems and/or processes would differ between retailers. Small retailers' systems would be simpler and therefore lower cost to alter than medium and large retailers' systems.

5.11.53 The key assumptions underpinning the Authority's cost estimate for alternative 2 are:

- (a) retailers want to put their retail tariff plan data in the new standardised file format individually rather than paying a third party to do this for them
- (b) the new standardised file format to facilitate the transfer of retail tariff plan data would be based on a format that is similar to existing EIEPs used by retailers and would be a .csv file

- (c) no retailers would need to change their .csv file transfer functionality since alternative 2 requires retailers only to make available their generally available retail tariff plans via their websites
- (d) retailers would need to make some system and/or process changes to put their generally available retail tariff plan data into the new standardised file format
- (e) some retailers would undertake a single system and/or process implementation that covered multiple retail brands
- (f) each retail brand in New Zealand would require its own website change, to enable the .csv files containing the generally available retail tariff plan data to be downloaded
- (g) the incremental ongoing operating cost for each retailer to update the generally available retail tariff plans on its website(s) would be minor.

**Table 6: Retailers' estimated implementation costs under alternative 2**

| Retailer size (customers)                                                                                                                    | Cost estimate      | Number of retail brands | Total cost estimate          |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------|------------------------------|
| <b><i>Cost to change website to enable .csv file to be downloaded</i></b>                                                                    |                    |                         |                              |
| <15,000 – >200,000                                                                                                                           | \$2,500-\$10,000   | 26 <sup>45</sup>        | \$65,000-\$260,000           |
| <b><i>Cost to change systems and/or processes to put generally available retail tariff plan data into a new standardised file format</i></b> |                    |                         |                              |
| 15,000 – >200,000                                                                                                                            | \$30,000-\$100,000 | 11 <sup>46</sup>        | \$330,000-\$1,100,000        |
| <15,000                                                                                                                                      | \$10,000-\$30,000  | 11 <sup>47</sup>        | \$110,000-\$330,000          |
| <b>Total for all retailers</b>                                                                                                               |                    |                         | <b>\$505,000-\$1,690,000</b> |

Notes: 10 year discounting period at 8% with no inflation

<sup>45</sup> Bosco Connect, Contact Energy, Ecotricity, Electra Energy, Electric Kiwi, EMH Trade, Energy Direct NZ, Energy Online, Flick Electric, Genesis Energy, Giving Energy, Glo-Bug, Grey Power Electricity, King Country Energy, megaENERGY, Mercury Energy, Meridian Energy, Nova Energy, Opunake Hydro, Payless Energy, Powershop, Prime Energy, Pulse Energy, Simply Energy, Tiny Mighty Power, Trustpower.

<sup>46</sup> Contact Energy, Bosco Connect (including Glo-Bug, Tiny Mighty Power), Energy Direct NZ, Genesis Energy (including Energy Online), King Country Energy, Mercury Energy, Meridian Energy, Nova Energy, Powershop, Pulse Energy (including Grey Power Electricity), Trustpower.

<sup>47</sup> Ecotricity, Electra Energy, Electric Kiwi, EMH Trade, Flick Electric, Giving Energy, megaENERGY, Opunake Hydro, Payless Energy, Prime Energy, Simply Energy.

***The cost to modify the registry is estimated to be \$100,000-\$150,000***

- 5.11.54 As with alternative 1 the estimated cost to modify the registry to make connection data publicly available is \$100,000-\$150,000.

***The cost to develop a standardised file format is estimated to be \$75,000-\$100,000***

- 5.11.55 As with alternative 1 the estimated cost for the Authority to develop a standardised file format and for stakeholders to participate in the development process is \$75,000-\$100,000. There would be no material additional costs from making it mandatory through a Code amendment.

**Relaxing some of the key assumptions underpinning the assessment of benefits and costs**

- 5.11.56 The first assumption in paragraph 5.11.16 underpinning the estimated gross benefits for alternative 1 does not hold fully.<sup>48</sup> In addition, the second assumption may not hold fully.
- 5.11.57 Therefore it is appropriate to relax these two key assumptions and acknowledge that the expected gross benefit under alternative 1 will be less than for alternative 2.
- 5.11.58 The Authority also queries whether it is appropriate to relax the assumption that retailers will not want to outsource putting their retail tariff plan data in a standardised file format under alternative 2. If this assumption was relaxed then the cost of putting retail tariff plan data in a standardised file format under alternative 2 might be lower than currently estimated.
- 5.11.59 The Authority has undertaken an initial assessment of whether the reduced gross benefit for alternative 1 is greater/less than alternative 1's lower cost compared to alternative 2. In other words, the Authority has assessed whether alternative 1's expected net benefit is less than alternative 2's expected net benefit once the assumptions in paragraph 5.11.16 are relaxed.
- 5.11.60 While noting that alternative 1 is a 'lower cost / lower gross benefit' option and alternative 2 is a 'higher cost / higher gross benefit' option, the

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<sup>48</sup> For ease of reference the key assumptions under which the Authority considers that approximately the same gross benefits would apply under alternative 1 as under alternative 2 are:

- 1) consumers are able to easily find on all retailers' websites the generally available retail tariff plans available to them
- 2) at least one entity (eg, a third party like an energy services company) puts all generally available retail tariff plan data in a standardised file format, and makes it available to other parties.

Authority has not yet formed a view on which alternative has the higher net benefit.

- 5.11.61 The Authority does however consider that alternative 1's expected gross benefits are more uncertain than alternative 2's. This is because of the uncertainty about the extent to which the key assumptions underpinning alternative 1's gross benefits will hold.
- 5.11.62 The Authority believes that, following consultation with interested parties, it will be more informed about:
- (a) which alternative has the higher expected net benefit, and
  - (b) the risk associated with realising this net benefit.
- 5.11.63 The Authority will therefore be in a better position to decide whether one or both alternatives should be implemented, or indeed whether another alternative should be adopted.

**Q10. Do you agree with the assessment of gross benefits, costs and net benefits? If not, please explain your reasoning.**

**Q11. Do you have any comments or suggestions about whether the additional gross benefits of alternative 2 outweigh its additional costs vis-à-vis alternative 1? Please give reasons with your answer.**

## **5.12 Other options to achieve the proposed alternatives' objectives have been considered, but were not preferred**

- 5.12.1 The Authority has considered the following other options to achieve the proposed alternatives' objectives:
- (a) Option 1: the status quo  
Some retailers voluntarily provide retail tariff plan information to comparator websites and other third party energy services companies. Most retailers voluntarily publish information on their websites about their retail tariff plans. Retailers do not use a standardised file format when transferring retail tariff plan data to other parties. Tariff comparator websites and other third party energy services companies have no access to connection data in the registry
  - (b) Option 2: broaden the types of parties with access to connection data  
This option is the status quo with the addition of the following:

- (i) the Authority asks retailers to provide other parties with the same information about retail tariff plans that retailers provide to ConsumerNZ (retailers are *not compelled* to do so), and
  - (ii) the Authority makes connection data publicly available.
- (c) Option 3: establish a database of all generally available retail tariff plan data

A database containing all generally available retail tariff plan data is established, which anyone may access.

**Option 1 would be unlikely to provide the same level of benefit as the proposed alternatives**

- 5.12.2 Option 1 would be unlikely to achieve the competition and efficiency benefits expected of the proposed alternatives.
- 5.12.3 Under the status quo, access to the connection data necessary for comparing retailers' electricity charges would continue to be more difficult and expensive than if it was publicly available.
- 5.12.4 Under the status quo, some retailers might continue to not provide retail tariff plan information to comparator websites and other third party energy services companies. Other retailers might not provide ready access to information about *all* of their generally available retail tariff plans, if this forced them to compete more vigorously to retain customers they already supplied. For instance, large incumbent retailers have an incentive to reveal customer-specific retail tariff plan data to individual consumers, rather than revealing all of their generally available retail tariff plans to third parties offering tariff comparison services for consumers.
- 5.12.5 Better information facilitates consumer participation in the retail electricity market, which encourages greater competition amongst retailers. Without improved access to retail tariff plan data and connection data, the competition benefits from more engaged consumers would be less than they could be (including because the benefits from improved access to consumption data would be less than they would otherwise be).
- 5.12.6 Similarly, the status quo would be unlikely to provide consumers with better information, at least over the next 5-10 years, that reduced the transaction costs associated with their electricity purchase decisions as much as under the proposed alternatives.

## **Option 2 would be unlikely to provide the same level of benefit as the proposed alternatives**

- 5.12.7 Option 2 would be unlikely to achieve the competition and efficiency benefits expected of the proposed alternatives.
- 5.12.8 Under this option:
- (a) the Authority would ask retailers to provide other parties with the same information about retail tariff plans that retailers provided to ConsumerNZ (but retailers would *not be compelled* to do so)
  - (b) the Authority would make available the connection data in the registry that was necessary for comparing retailers' electricity charges
  - (c) retailers would not be required to publish their generally available retail tariff plans or to provide retail tariff plan data in a standardised file format.
- 5.12.9 Under this option there would be a high risk that some retailers would not (at a minimum) provide to any person who requested it the same retail tariff plan data that they provided to ConsumerNZ, if this were to force them to compete more vigorously to retain customers they supplied. In fact, as seen under the status quo, some retailers may not provide any retail tariff plan data to ConsumerNZ.
- 5.12.10 Without improved access to retail tariff plan data, the competition and efficiency benefits from more engaged consumers would be less than they could be (including because the benefits from improved access to consumption data would be less than they would otherwise be).
- 5.12.11 There is also a risk that consumers' perceptions of the retail electricity market could be adversely affected. This might arise if consumers were frustrated by not being able to realise some of the benefits of improved access to consumption data and connection data because of higher-than-necessary retail tariff plan search costs.

## **Option 3 would be likely to have higher costs and delayed benefits when compared with the proposed alternatives**

- 5.12.12 Option 3 would be likely to have higher costs than the proposed alternatives and its benefits would be delayed compared with the proposed alternatives' benefits.
- 5.12.13 Under this option a database would be established, as another market operation service provider, which contained each retailer's generally available retail tariff plan data.

- 5.12.14 The database would not be designed to provide a direct interface with consumers. The database would be intended to help parties develop comparison and switching tools, which would assist consumers to compare and make decisions about available retail offerings.<sup>49</sup>
- 5.12.15 The key problem the Authority has identified with option 3 is that it would delay the benefits of improved access to retail tariff plan data by perhaps two years. This is the Authority's estimate of the time required to put in place the necessary service provider arrangements and then build and commission the database.<sup>50</sup>
- 5.12.16 Option 3 would likely to also cost more to establish than the proposed alternatives due to duplication of storage systems (from retailers wishing to maintain their own databases of generally available retail tariff plan data).

**Q12. Do you agree that both of the proposed alternatives are preferable to other options? If not, please explain your preferred option in terms consistent with the Authority's statutory objective.**

## 5.13 Assessment under s32(1)

- 5.13.1 Section 32(1) of the Electricity Industry Act 2010 (Act) provides that Code provisions must be consistent with the Authority's objective and be necessary or desirable to promote any or all of the following:
- (a) competition in the electricity industry
  - (b) the reliable supply of electricity to consumers
  - (c) the efficient operation of the electricity industry
  - (d) the performance by the Authority of its functions
  - (e) any other matters specifically referred to in this Act as a matter for inclusion in the Code.
- 5.13.2 The following table sets out an assessment of the proposed Code amendment under each of the alternatives against the requirements of section 32(1) of the Act.

<sup>49</sup> There would be nothing to stop these parties also providing consumers with an interface to the database as part of their service offering.

<sup>50</sup> The Authority notes this problem of delayed benefits is the same problem that it identified with a meter data store, when it consulted on improved access to consumption data.

| Section 32(1) requirements:                                                                                                                                                                                                                                     | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The proposed amendment is consistent with the Authority's objective under section 15 of the Act, which is to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers</p> | <p>Each of the proposed alternatives is expected to:</p> <ul style="list-style-type: none"> <li>• promote retail competition by improving consumers' participation in New Zealand's retail electricity market. Increased consumer participation in the retail market provides retailers with a stronger incentive to compete vigorously to supply them</li> <li>• promote the efficient operation of the electricity industry by lowering consumers' costs when making electricity-related decisions.</li> </ul> <p>The reliability limb of the statutory objective is not expected to be affected, other than possibly in a very minor way and then only positively.</p> <p>No trade-offs across the affected limbs of the Authority's statutory objective are expected. The expected improvements in competition and efficiency are both driven by a reduction in the transaction costs associated with participating in the retail electricity market.</p> |
| <p>The proposed amendment is necessary or desirable to promote any or all of the following:</p>                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>(a) competition in the electricity industry</p>                                                                                                                                                                                                              | <p>Each of the proposed alternatives is expected to promote retail competition by improving consumer participation in the retail electricity market. Each of the proposed alternatives facilitates consumers' ability to make well-informed electricity-related decisions. This will:</p> <ul style="list-style-type: none"> <li>• encourage consumers to participate in retail, energy efficiency, distributed generation and energy information markets</li> <li>• encourage competition within and between these markets</li> <li>• encourage new energy-related services companies to enter (or expand in) one or more of these markets.</li> </ul>                                                                                                                                                                                                                                                                                                       |

|                                                                                                  |                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (b) the reliable supply of electricity to consumers                                              | No adverse impact on reliability is expected. It is possible that some benefits to reliability will arise as a secondary effect of more efficient consumer decisions and the ability of consumers to respond to price signals. It is expected that these would be very minor. |
| (c) the efficient operation of the electricity industry                                          | Each of the proposed alternatives is expected to promote the efficient operation of the electricity industry by lowering consumers' costs when making electricity-related decisions.                                                                                          |
| (d) the performance by the Authority of its functions                                            | Each of the proposed alternatives will not materially affect the Authority's performance of its statutory functions.                                                                                                                                                          |
| (e) any other matter specifically referred to in this Act as a matter for inclusion in the Code. | Each of the proposed alternatives will not materially affect any other matter specifically referred to in the Act for inclusion in the Code.                                                                                                                                  |

## 5.14 Assessment against the Code amendment principles

- 5.14.1 When considering amendments to the Code, the Authority is required by its Consultation Charter to have regard to the following Code amendment principles; to the extent that the Authority considers that they are applicable.
- 5.14.2 *Principle 1 – Lawfulness:* The Authority and its advisory groups will only consider amendments to the Code that are lawful and that are consistent with the Act (and therefore consistent with the Authority's statutory objective and its obligations under the Act).
- 5.14.3 The Authority considers that the Code amendment proposal for each of the proposed alternatives is lawful and consistent with the Act.
- 5.14.4 *Principle 2 – Clearly Identified Efficiency Gain or Market or Regulatory Failure:* Within the legal framework specified in Principle 1, the Authority and its advisory groups will only consider using the Code to regulate market activity when:

- (a) it can be demonstrated that amendments to the Code will improve the efficiency of the electricity industry for the long-term benefit of consumers<sup>51</sup>
  - (b) market failure is clearly identified, such as may arise from market power, externalities, asymmetric information and prohibitive transaction costs, or
  - (c) a problem is created by the existing Code, which either requires an amendment to the Code, or an amendment to the way in which the Code is applied.
- 5.14.5 The Authority considers that each of the proposed alternatives will improve the efficiency of the electricity industry for the long-term benefit of consumers, for the reasons set out in this paper.
- 5.14.6 *Principle 3 – Quantitative Assessment:* When considering possible amendments to the Code, the Authority and its advisory groups will ensure disclosure of key assumptions and sensitivities, and use quantitative cost-benefit analysis to assess long-term net benefits for consumers, although the Authority recognises that quantitative analysis will not always be possible.
- 5.14.7 This approach means that competition and reliability are assessed solely in regard to their economic efficiency effects. Particular care will be taken to include dynamic efficiency effects in the assessment, and the assessment will include sensitivity analysis when there is uncertainty about key parameters.
- 5.14.8 The Authority considers that the estimated benefit for each of the proposed alternatives would be greater than its estimated cost. This is based on the results of the qualitative and quantitative cost-benefit analysis set out earlier in section 5.
- 5.14.9 The analysis of alternative 2's benefits and costs shows it is possible that alternative 2's net static efficiency benefits may be negative. However, its expected dynamic efficiency benefits are several times larger than the upper end (+\$3.9 million) of its net static efficiency benefits. This means alternative 2 will still have a positive net benefit even if its net static efficiency benefit is in the lower range estimated.
- 5.14.10 *Tie-breaker 1: Principles 4 – 8 apply when the cost-benefit analysis of Code amendment options demonstrates a positive net benefit relative to*

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<sup>51</sup> Where efficiency refers to allocative, productive and dynamic efficiency, and improvements to efficiency include, for example, a reduction in transaction costs or a reduction in the scope for disputes between industry participants.

*the counterfactual, but is inconclusive about which is the best option. The Authority will weight these principles in accordance with their relevance and significance for each proposal.*

- 5.14.11 *Principle 4 – Preference for Small-Scale ‘Trial and Error’ Options:* When considering possible amendments to the Code, the Authority and its advisory groups will give preference to options that are initially small-scale, and flexible, scalable and relatively easily reversible with relatively low value transfers associated with doing so. In these circumstances the Authority will monitor the effects of the implemented option and reject, refine or expand that solution in accordance with the results from the monitoring.
- 5.14.12 The Authority considers that, when compared with alternative 2, alternative 1 is smaller in scale but easily scalable, more flexible and easily reversible.
- 5.14.13 *Principle 5 – Preference for Greater Competition:* The Authority and its advisory groups will give preference to Code amendment options that have larger pro-competition effects, because greater competition is likely to be positive for economic efficiency and reliability of supply.
- 5.14.14 The Authority considers that alternative 2 is more likely to have larger pro-competition effects than alternative 1 because of alternative 1’s voluntary nature making it less certain that its pro-competition benefits will be realised to the same extent as alternative 2’s pro-competition benefits.
- 5.14.15 *Principle 6 – Preference for Market Solutions:* The Authority and its advisory groups will give preference to Code amendment options that directly address the source of the market failure identified under Principle 2, so as to facilitate efficient market arrangements. The Authority and its advisory groups will discount options that subdue or displace efficient market structures.
- 5.14.16 The Authority considers that alternative 1 and alternative 2 both directly address the source of the identified market failure to the same extent.
- 5.14.17 *Principle 7 – Preference for flexibility to allow innovation:* The Authority and its advisory groups will give preference to Code amendment options that provide industry participants with greater freedom and lower costs to adapt to the Code amendment as they see fit, unless more restrictive options are justified on the grounds of non-rivalry and/or non-excludability conditions.<sup>52</sup> In the case where both conditions hold perfectly it is generally

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<sup>52</sup> A good or service is non-rival when additional consumption by one party does not reduce the amount available for any other party to consume. For example, electricity consumption is rival but security of supply is non-rival. A good or service is non-excludable when it is not economically viable to exclude parties from consuming the

efficient to adopt a 'one size fits all' approach, such as uniform standards. Where these conditions do not hold it may be more efficient to utilise flexible mechanisms, such as incentives.

- 5.14.18 The Authority considers that alternative 1 provides industry participants with greater freedom and potentially lower costs to adapt to the Authority's proposed initiative as they see fit. However, the Authority notes that non-industry participants (ie, comparator websites and other third party energy services companies) potentially face higher costs if retailers do not provide information about their generally available retail tariff plans in a standardised file format.
- 5.14.19 *Principle 8 – Preference for Non-Prescriptive Options:* Wherever practicable, when the Authority and its advisory groups are considering standards, they will give preference to Code amendment options that specify the outcomes required of industry participants rather than prescribe what they must do and how they must do it. That is, outcome standards are preferred to input standards, wherever possible.
- 5.14.20 The Authority considers that alternative 1 is less prescriptive than alternative 2 because of its voluntary nature.

### **The assessment does not reveal a clear choice between the proposed alternatives**

- 5.14.21 The assessment against the Code amendment principles does not reveal a clear choice between the two proposed alternatives.
- 5.14.22 Alternative 1 scores higher than alternative 2 in regard to the following tie-breaker principles:
- (a) initially small-scale, and flexible, scalable and relatively easily reversible with relatively low value transfers associated with doing so
  - (b) provides industry participants with greater freedom and potentially lower costs to adapt to the Authority's proposed initiative as they see fit
  - (c) less prescriptive.
- 5.14.23 Alternative 2 scores higher than alternative 1 in regard to the following tie-breaker principle:
- (a) has larger pro-competition effects.

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good or service. For example, electricity consumption is excludable because retailers generally incur a relatively low economic cost to cut power supply to consumers that do not pay their electricity bills. On the other hand, market prices are non-excludable because it is too costly to prevent disclosure of prices to parties that do not contribute to the costs of operating the market.

- 5.14.24 The tie-breaker principles under which alternative 1 scores more highly than alternative 2 focus more on a Code amendment proposal's potential economic dis-benefits. The tie-breaker principle under which alternative 2 scores more highly than alternative 1 focuses more on a Code amendment proposal's expected economic benefits (brought about by increased competition).
- 5.14.25 In other words, the gross economic benefits expected under alternative 1 are lower than under alternative 2, but the expected potential gross economic dis-benefits under alternative 1 are also lower than for alternative 2.
- 5.14.26 What is still unclear though is the relative *net* economic benefits of each of the proposed alternatives.

- |             |                                                                                                                                                                                                                |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Q13.</b> | <b>Do you agree with the Authority's assessment that the proposed Code amendment for each of the proposed alternatives meets the requirements of Section 32 of the Act? Please give reasons if you do not.</b> |
| <b>Q14.</b> | <b>Do you agree with the Authority's assessment of the two proposed alternative options against the Code amendment principles? Please give reasons if you do not.</b>                                          |

## Glossary of abbreviations and terms

|                    |                                              |
|--------------------|----------------------------------------------|
| <b>Act</b>         | Electricity Industry Act 2010                |
| <b>API</b>         | Application programming interface            |
| <b>Authority</b>   | Electricity Authority                        |
| <b>Code</b>        | Electricity Industry Participation Code 2010 |
| <b>csv</b>         | Comma separated values                       |
| <b>EIEP</b>        | Electricity Information Exchange Protocol    |
| <b>ICP</b>         | Installation control point                   |
| <b>kW</b>          | Kilowatt                                     |
| <b>kWh</b>         | Kilowatt hour                                |
| <b>NSP</b>         | Network supply point                         |
| <b>Ofgem</b>       | The Office of Gas and Electricity Markets    |
| <b>PDF</b>         | Portable document format                     |
| <b>Privacy Act</b> | Privacy Act 1993                             |
| <b>SME</b>         | Small and medium-sized enterprise            |



## Appendix A Format for submissions

| Question No. | Question                                                                                                                                                                                                                                                              | Response |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Q1.          | Do you agree that the current arrangements for accessing retail tariff plan data and connection data mean that consumers face higher-than-necessary transaction costs identifying electricity-related offers available to them? Please give reasons with your answer. |          |
| Q2.          | Do you agree that a Code amendment would lower consumers' transaction costs more quickly than would market forces? Please give reasons with your answer.                                                                                                              |          |
| Q3.          | Under alternative 1 do you have any comments or suggestions about all retailers being required to provide retail tariff plan information to ConsumerNZ, and having to provide that same retail tariff plan information to any person who requested it?                |          |
| Q4.          | Under alternative 2 do you have any comments or suggestions about retailers being required to publish information about their generally available retail tariff plans on their websites?                                                                              |          |
| Q5.          | Under alternative 2 do you have any comments or suggestions about the requirement to supply retail tariff plan information using standardised file formats and structures?                                                                                            |          |
| Q6.          | Under both alternatives do you have any comments or suggestions about making publicly available the connection data held in the registry that is set out in appendix D?                                                                                               |          |

|      |                                                                                                                                                                                                         |  |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Q7.  | Do you agree that the objectives of the proposed alternatives are appropriate and consistent with the Authority's statutory objective? Please give reasons if you disagree.                             |  |
| Q8.  | Do you agree that the connection data which the Authority proposes to make publicly available is not personal information?                                                                              |  |
| Q9.  | If you disagree, please give reasons and suggest a way to address the privacy issue(s) you have identified.                                                                                             |  |
| Q10. | Do you agree with the assessment of gross benefits, costs and net benefits? If not, please explain your reasoning.                                                                                      |  |
| Q11. | Do you have any comments or suggestions about whether the additional gross benefits of alternative 2 outweigh its additional costs vis-à-vis alternative 1? Please give reasons with your answer.       |  |
| Q12. | Do you agree that both of the proposed alternatives are preferable to other options? If not, please explain your preferred option in terms consistent with the Authority's statutory objective.         |  |
| Q13. | Do you agree with the Authority's assessment that the proposed Code amendment for each of the proposed alternatives meets the requirements of Section 32 of the Act? Please give reasons if you do not. |  |

|      |                                                                                                                                                                |  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Q14. | Do you agree with the Authority's assessment of the two proposed alternative options against the Code amendment principles? Please give reasons if you do not. |  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

## Appendix B Proposed amendment

Set out below are the draft proposed Code amendments for the Authority's proposed alternatives.

### ALTERNATIVE 1

#### 1.1 Interpretation

(1) In this Code, unless the context otherwise requires,—

...

generally available retail tariff plan means—

(a) a retail tariff plan that a **retailer**, when it accepts new **customers**, will make available to any **consumer** (subject to credit requirements) on request if the **consumer** satisfies any requirements specified for the retail tariff plan relating to 1 or more of the following:

(i) physical location:

(ii) metering configuration:

(iii) price category code; but

(b) does not include a retail tariff plan made available by the **retailer** only under an **uninvited direct sale agreement**

**uninvited direct sale agreement** has the meaning given to it by section 36K of the Fair Trading Act 1986

...

#### 11.1 Contents of this Part

This Part—

- (a) provides for the management of information held by the **registry**; and
- (b) prescribes a process for switching **customers** and **embedded generators** between **traders**; and
- (c) prescribes a process for a **distributor** to change the record in the **registry** of an **ICP** so that the **ICP** is recorded as being usually connected to an **NSP** in the **distributor's network**; and
- (d) prescribes a process for switching responsibility for **metering installations** for **ICPs** between **metering equipment providers**; and
- (e) prescribes a process for dealing with **trader events of default**; and
- (f) requires **retailers** to give **consumers** information about their own consumption of **electricity**; and
- (g) requires **retailers** to make information about their retail tariff plans available to any person.

...

**11.32G Retailers must provide information about generally available retail tariff plans**

- (1) Each **retailer** must provide information about all of its current **generally available retail tariff plans** to ConsumerNZ for use on the website that, on the commencement of this clause, is known as Powerswitch.**
- (2) If any person asks a **retailer** to provide information about 1 or more of the **retailer's** retail tariff that it has provided or provides ConsumerNZ for use on Powerswitch, (whether or not the information relates to a **generally available retail tariff plan**), the **retailer** must give the requested information to the person—**
  - (a) in the case of a retail tariff plan about which the **retailer** has already submitted information to ConsumerNZ for use on Powerswitch, no later than 5 **business days** after receiving the request; and**
  - (b) in every other case, at the same time that the **retailer** submits the information to ConsumerNZ for use on Powerswitch.**

## ALTERNATIVE 2

### 1.1 Interpretation

(1) In this Code, unless the context otherwise requires,—

...

**EIEP** means an electricity information exchange protocol that sets out standard formats for the exchange or provision of information ~~between distributors and traders~~

generally available retail tariff plan means—

- (a) a retail tariff plan that a **retailer**, when it accepts new **customers**, will make available to any **consumer** (subject to credit requirements) on request if the **consumer** satisfies any requirements specified for the retail tariff plan relating to 1 or more of the following:
- (i) physical location;
  - (ii) **metering** configuration;
  - (iii) **price category** code; but
- (b) does not include a retail tariff plan made available by the **retailer** only under an **uninvited direct sale agreement**

**uninvited direct sale agreement** has the meaning given to it by section 36K of the Fair Trading Act 1986

...

### 11.1 Contents of this Part

This Part—

- (a) provides for the management of information held by the **registry**; and
- (b) prescribes a process for switching **customers** and **embedded generators** between **traders**; and
- (c) prescribes a process for a **distributor** to change the record in the **registry** of an **ICP** so that the **ICP** is recorded as being usually connected to an **NSP** in the **distributor's network**; and
- (d) prescribes a process for switching responsibility for **metering installations** for **ICPs** between **metering equipment providers**; and
- (e) prescribes a process for dealing with **trader events of default**; and
- (f) requires **retailers** to give **consumers** information about their own consumption of **electricity**; and
- (g) requires **retailers** to make information about their retail tariff plans available to any person.

...

*Access to information about retail tariff plans*

**11.32G Retailers must publish information about generally available retail tariff plans**

Each **retailer** must make publicly available on its website information about all of its current **generally available retail tariff plans** in accordance with the procedures and any relevant **EIEP publicised** by the **Authority** under clause 11.32I.

**11.32H Requests for information about other retail tariff plans**

If a **consumer** asks a **retailer** to provide information about the **retailer's** retail tariff plans that are available to the **consumer** other than its **generally available retail tariff plans**, the **retailer** must give the information to the **consumer** in a manner that complies with the procedures and any relevant **EIEP publicised** by the **Authority** under clause 11.32I if—

- (a) the **retailer** agrees to provide the information to the **consumer**; and
- (b) the **consumer** requests that the information be provided in that manner.

**11.32IAuthority must publicise procedures for making information about retail tariff plans available**

- (1) The **Authority** must, no later than 20 **business days** after this clause comes into force, **publicise** (and must keep **publicised**)—
  - (a) procedures under which a **retailer** must make information available under clause 11.32G and 11.32H; and
  - (b) 1 or more **EIEPs** with which a **retailer** must comply when responding to such a request.
- (2) The procedures **publicised** by the **Authority** must specify the manner in which information must be made available.
- (3) Each **EIEP publicised** by the **Authority** must specify 1 or more formats in which information must be made available.

## Appendix C Privacy risk assessment

- C.1 The Authority is proposing to make the connection data set out in appendix D, which is a subset of information held in the registry, publicly available.
- C.2 The Authority has analysed the privacy implications of making the connection data available in this way.
- C.3 This appendix sets out the results of the analysis.

### The connection data would be made available on a read only basis

- C.4 The Authority proposes to make publicly available, on a read-only basis, the connection data set out in appendix D.
- C.5 No other information in the registry would be accessible.
- C.6 To achieve this, the Authority proposes to build a portal to the registry. The portal would comprise a web user interface and an application programming interface (API).
- C.7 The web user interface would allow consumers (primarily) to look at the connection data for a particular installation control point (ICP), by entering the ICP identifier or the physical address for the ICP.
- C.8 The Authority expects that comparator websites and other third party energy services companies would use the API. They would also need to enter a consumer's ICP identifier or the ICP's physical address in order to access the connection data.

### Main stakeholders

- C.9 The proposed change would affect:
  - (a) electricity industry participants because they are responsible for providing the connection data that is proposed to be made available
  - (b) consumers, or their agents, because they would be able to view the connection data in the registry
  - (c) comparator websites, energy services companies and other third parties because they would also be able to view the connection data in the registry.
- C.10 The Authority invites these groups to make submissions on the proposed changes.

## Privacy Assessment

- C.11 Currently some electricity industry participants have access to all of the information stored in the registry. The Authority specifies the terms and conditions that apply to that access. The Electricity Industry Participation Code 2010 requires these participants to comply with the access conditions and they are subject to an enforcement regime created by the Electricity Industry (Enforcement) Regulations 2010 if they breach those conditions.
- C.12 The information that the Authority would make available under the proposal is limited to the connection data necessary for consumers to find the best power deal and/or make other energy-related decisions.
- C.13 The information that would be available is so uncontentious that even if it were compiled with other information that identified an individual property owner or occupant, the risk of facilitating privacy intrusions by others are likely to be minimal.
- C.14 In reaching the conclusion that the privacy risk of the proposal is minimal, the Authority has considered the matters in the following table, the format of which was suggested by the Office of the Privacy Commissioner.

| Does the proposal involve any of the following?                                                            | Yes | No | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------|-----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A substantial change to an existing policy, process or system involving personal information               |     | ✓  | <p>Providing read-only access to connection data held in the registry is an important change to access for a limited amount of information in the registry.</p> <p>However, the connection data that would be made publicly available is not personal information.</p> <p>Even if the connection data were to be considered personal information, disclosing it is directly related to one of the purposes for which it was obtained, so is not prohibited by privacy principle 11 (limits on disclosure of personal information).</p> <p>Even if disclosing connection data were to breach privacy principle 11, it would not result in an interference with privacy as described in section 66 of the Privacy Act 1993.</p> <p>Further, the information that is proposed to be made available is so uncontentious that even if it were compiled with other information that identified an individual property owner or occupant, the risk of facilitating privacy intrusions by others is likely to be minimal.</p> |
| A new collection of personal information                                                                   |     | ✓  | The proposal does not involve the Authority collecting any new information, personal or otherwise.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| A significant change in the type of information collected about a person or change in method of collection |     | ✓  | The proposal does not involve any change in the type of information the Authority collects or the way the Authority collects information for other purposes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Does the proposal involve any of the following?                      | Yes | No | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------|-----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A new use or disclosure of personal information that is already held |     | ✓  | <p>The connection data that would be made publicly available is not personal information.</p> <p>Even if the connection data were to be considered personal information, disclosing it is directly related to one of the purposes for which it was obtained, so is not prohibited by privacy principle 11.</p> <p>This is because the Authority collected the connection information to facilitate retail competition in the electricity industry. The Authority is proposing to make the connection data publicly available to facilitate consumers finding the best available power deal. This will promote retail competition in the electricity industry.</p> <p>Even if disclosing connection data were to breach privacy principle 11, it would not result in an interference with privacy as described in section 66 of the Privacy Act 1993.</p> <p>Further, the information that is proposed to be made available is so uncontentious that even if it were compiled with other information that identified an individual property owner or occupant, the risk of facilitating privacy intrusions by others is likely to be minimal.</p> |
| A change in the way personal information is stored or secured        |     | ✓  | <p>The information in question is not personal information.</p> <p>The proposal would allow access only to the connection data specified in the proposal. This access is not directly to the registry, but to a website.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| A change to how sensitive information is managed                     |     | ✓  | <p>Sensitive information is information about matters such as health, race, or financial circumstances.</p> <p>None of the information in the registry, or any of the connection data to be made publicly available, is sensitive information.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Does the proposal involve any of the following?                                                                  | Yes | No | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------|-----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sharing or matching personal information held by different organisations or currently held in different datasets |     | ✓  | <p>The purpose of making the connection data publicly available is so that it can be combined with consumption data and tariff information to find the best available power deals for consumers.</p> <p>However, that process does not involve the sharing or matching of personal information because the connection data to be made publicly available is not personal information.</p> <p>Further, making the connection data publicly available does not enable an organisation to identify any individual. In many cases the organisations are likely to already hold the names and contact details of their customers.</p> <p>Finally, the information that would be available is so uncontentious that even if it were compiled with other information that identified an individual property owner or occupant, the risk of facilitating privacy intrusions by others is likely to be minimal.</p> |
| Transferring information offshore or using a third party contractor                                              |     | ✓  | The proposal does not involve transferring information offshore or using a third party contractor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| A change in policy that results in people being less able to access information about themselves                 |     | ✓  | The proposal would make connection data more readily available to consumers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| A decision to keep personal information for longer than before.                                                  |     | ✓  | <p>The information in question is not personal information.</p> <p>There would be no change to how long information is stored in the registry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Does the proposal involve any of the following?                                             | Yes | No | Comment                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------|-----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Establishing a new way to identify individuals                                              |     | ✓  | <p>The information in question is not personal information.</p> <p>Neither the current access arrangements nor the proposal allow individuals to be identified.</p> <p>Even if connection data were to be compiled with information from another source, it is so uncontentious the risk of facilitating privacy intrusions by others is likely to be minimal.</p> |
| Introducing a system to search individuals' property, persons or premises                   |     | ✓  | Does not apply to the proposal.                                                                                                                                                                                                                                                                                                                                    |
| Surveillance, tracking or monitoring of movements, behaviour or communications              |     | ✓  | Does not apply to the proposal.                                                                                                                                                                                                                                                                                                                                    |
| Moving or altering premises that include private spaces                                     |     | ✓  | Does not apply to the proposal.                                                                                                                                                                                                                                                                                                                                    |
| A new area of taking action against individuals on the basis of information held about them |     | ✓  | Does not apply to the proposal.                                                                                                                                                                                                                                                                                                                                    |
| A practise or activity that is listed on the risk register                                  |     | ✓  | A breach of the Privacy Act is a risk listed on the Authority's risk register. However, this proposal does not involve personal information and therefore is not a practise or activity listed on the register.                                                                                                                                                    |

## Risk assessment

- C.15 The Authority has identified only one possible concern about the proposal to allow access to connection data in the registry.
- C.16 Although connection data is not itself personal information, it might be argued that if another person combined connection data with personal information from other sources, the connection data might thereby become personal information in the hands of the other person.
- C.17 This could potentially allow the other person to enrich their store of personal information. However, the Authority considers that there is very little likelihood that this this would facilitate privacy intrusions by others. This is because of the banal and uncontroversial character of connection data, which is primarily information about the electrical supply arrangements at the premises where an ICP is located, and not information about any person who owns or occupies those premises.
- C.18 The Authority therefore considers that the privacy risk associated with the proposal is very low to nil. This is shown in the following table, the format of which is provided by the Office of the Privacy Commissioner.

| Nature of proposal                                                                                                                                                                                                                                                                                                           | Rating | Explanation and Mitigation (applies only to Medium to High risks)                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------------------------------------|
| <b>Level of information handling</b><br><b>L</b> – minimal personal handling of information<br><b>M</b> – Fair amount of personal handling (or information that could become personal information).<br><b>H</b> – significant amount of personal information (or information that could become personal information) handled | Low    | There would be no personal handling of information. The proposal is to make connection data available as read-only. |
| <b>Sensitivity of the information (eg, health, race, financial)</b><br><b>L</b> – information not sensitive<br><b>M</b> – information may be sensitive<br><b>H</b> – information highly sensitive                                                                                                                            | Low    | Connection data is not personal information, and is not at all sensitive.                                           |

| Nature of proposal                                                                                                                                                                                                                                                                | Rating | Explanation and Mitigation (applies only to Medium to High risks)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Significance of the changes</b></p> <p><b>L</b> - minor change to existing function</p> <p><b>M</b> - substantive change to existing function/new initiative</p> <p><b>H</b> – major overhaul of existing functions/activities: significantly different new initiative.</p> | Medium | <p>Providing read-only access to connection data held in the registry is an important change to access for a limited amount of information in the registry. However, the connection data that would be made publicly available is not personal information, and it would be available only through a website, and not by enabling direct access to the registry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p><b>Interaction with others</b></p> <p><b>L</b> – no interaction with other entities</p> <p><b>M</b> – interaction with one to two other entities</p> <p><b>H</b> – extensive cross-agency (ie, government) or cross-sectional (non-government and government) interaction</p>  | High   | <p>The Authority is proposing this change so that consumers, their agents and other energy services companies have access to connection data in the registry. We expect that over time a number of entities would access the data.</p> <p>However, the connection data that would be made publicly available is not personal information, and as the disclosure is directly related to one of the purposes for which the Authority collected the data, disclosing it is permitted by one of the exceptions to privacy principle 11.</p> <p>Even if disclosing connection data were to be a breach of privacy principle 11, it would not result in any of the kind of harm anticipated by section 66 of the Privacy Act.</p> <p>Finally, even if connection data were to be compiled with personal information from another source, it is so uncontentious the risk of facilitating privacy intrusions by others is likely to be minimal.</p> |

| Nature of proposal                                                                                                                                                                                                                                                                                                                                           | Rating     | Explanation and Mitigation (applies only to Medium to High risks)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Public Impact</b></p> <p><b>L</b> – minimal impact on the Authority and participants</p> <p><b>M</b> – likely to have some impact on our clients due to changes to the handling of personal information; may raise concerns</p> <p><b>H</b> – high impact on participants/wider public and concerns over aspects of project; likely negative media</p> | <p>Low</p> | <p>No personal information is involved.</p> <p>If connection data were to be considered personal information, disclosure is permitted by one of the exceptions to privacy principle 11.</p> <p>Even if the disclosure were to breach privacy principle 11, it would not constitute an interference with privacy because no harm would result.</p> <p>Further, even if connection data were to be compiled with personal information from another source, it is so uncontentious the risk of facilitating privacy intrusions by others is likely to be minimal.</p> <p>However, to the extent that allowing read-only access to connection data increases competition among retailers, the proposal would provide consumers with positive benefits.</p> |

## Conclusion

| The Authority considers that the Privacy Impact of this proposal is:                                                                                                                                                                                                      |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>Low</b> – there is little or no personal information involved, the use of personal information is uncontroversial, the risk of harm eventuating is negligible, the change is minor and something that individuals concerned would expect, or risks are fully mitigated | ✓ |
| <b>Medium</b> – there is some personal information involved, but any risks can be satisfactorily mitigated                                                                                                                                                                | X |
| <b>High</b> – there is sensitive personal information involved and several medium to high risks identified                                                                                                                                                                | X |
| The proposal will lessen existing privacy risks                                                                                                                                                                                                                           | X |
| More information is necessary – more analysis is needed to fully assess the impact                                                                                                                                                                                        | X |

## Summary of privacy assessment

- C.20 The connection data that is proposed to be made publicly available is not personal information. If it were to be personal information the disclosure is permitted. Even if the disclosure were not permitted, there is no risk of harm eventuating from the disclosure, so it would not constitute an interference with privacy.
- C.21 The connection data to be made publicly available is so banal in nature that even if it were to be compiled with personal information from another source, the risk of facilitating privacy intrusions by others as a result is considered to be minimal.
- C.22 Accordingly the Authority has concluded that the privacy risk associated with the proposal is very low to nil.

## Appendix D Connection data to be made publicly available

- D.1.1 Set out below are the registry fields that the Authority proposes to make publicly available. Parties would be able to search for an ICP's connection data using either the ICP identifier or the physical address of the ICP.
- D.1.2 The Authority notes that obtaining the ICP identifier will sometimes not be as easy as using the ICP's physical address (eg, a consumer is moving into a new premise and does not know the ICP identifier when comparing electricity retailers' tariff and service offerings).
- D.1.3 On the other hand searching for connection data using the ICP's physical address is imperfect mainly because of conflicting numbering conventions used by councils, NZ Post and electricity distributors (eg, Flat 1 versus Flat A). In addition, the physical address information held in the registry is the address for the physical supply of electricity to an ICP. Occasionally this differs from the street address for entering the property where the ICP is located (eg, a house on the corner of two streets is supplied electricity from one street, but is entered via the other street).
- D.1.4 The Authority estimates that using the physical address to search for an ICP's connection data will return the connection data in approximately 90% of searches. In the remaining 10% of situations the ICP identifier would need to be used instead, since this will always return connection data.
- D.1.5 The Authority considers that enabling searches for connection data using either the ICP identifier or the ICP's physical address facilitates a greater reduction in search costs for consumers than just relying on the ICP identifier to search.

| Event data                     | Format      | Comments                                                                                                                                                       |
|--------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Trader events</b>           |             |                                                                                                                                                                |
| Network Participant Identifier | Char 4      | Participant identifier for the Distributors network that the ICP is connected to. Refer to the schedule of participant identifiers on the Authority's website. |
| POC                            | Char 7      | Point of connection that the distributor connects to                                                                                                           |
| Reconciliation type            | Char 2      | Valid reconciliation type for distributor and ICP type                                                                                                         |
| Generation Capacity            | Numeric 6.2 | Generation nameplate capacity in kW of embedded generation connected at the ICP                                                                                |

| Event data                       | Format      | Comments                                                                                                                                                                                                                                                              |
|----------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fuel Type                        | Char 15     | A valid Fuel Type of embedded generation connected at the ICP                                                                                                                                                                                                         |
| Direct Billed Status             | Char 11     | Indicates who, out of the Distributor or Trader, directly bills the customer for the lines charges. Valid values are: 'Retailer', 'Distributor', 'Neither', 'Both', 'TBA' and NULL.                                                                                   |
| Distributor Price Category code  | Char 50     |                                                                                                                                                                                                                                                                       |
| Distributor Loss Category Code   | Char 7      |                                                                                                                                                                                                                                                                       |
| Distributor Installation Details | Char 30     | Will be released where the field does not hold addresses                                                                                                                                                                                                              |
| Chargeable Capacity              | Numeric 7.2 |                                                                                                                                                                                                                                                                       |
| Physical Address Street          | Char 30     | Distributor's physical address recorded for the ICP. This may differ from a street address                                                                                                                                                                            |
| Physical Address Suburb          | Char 30     |                                                                                                                                                                                                                                                                       |
| Physical Address Town            | Char 30     |                                                                                                                                                                                                                                                                       |
| Physical Address Post Code       | Numeric 4   |                                                                                                                                                                                                                                                                       |
| Physical Address Region          | Char 20     |                                                                                                                                                                                                                                                                       |
| GPS_Easting                      | Numeric 7.3 | The easting location. Optional but required if GPS_Northing is provided.<br>New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections). |
| GPS_Northing                     | Numeric 7.3 | The northing location. Optional but required if GPS_Easting is provided.<br>New Zealand Transverse Mercator 2000 (NZTM2000) coordinates, as defined in Land Information New Zealand's LINZS25002 standard (Standard for New Zealand Geodetic Datum 2000 Projections). |

| Event data                      | Format  | Comments                                                                                                                                                                                                |
|---------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Trader events</b>            |         |                                                                                                                                                                                                         |
| Trader                          | Char 4  | Trader that has accepted responsibility for the ICP.                                                                                                                                                    |
| Daily Unmetered kWh             | Char 6  | Means that unmetered load is connected at the ICP. Value must be decimal (to three decimal places) or 'ENG' if the load is profiled through an engineering profile in accordance with profile class 2.1 |
| Unmetered Load Details – Trader | Char 50 | Details of unmetered load connected at the ICP                                                                                                                                                          |
| ICP Status                      | Char 3  | Code that represents the energisation and connection status of the ICP<br><br>999—new;<br><br>000—ready;<br><br>001—inactive;<br><br>002—active; or<br><br>003—decommissioned.                          |

| Event data                             | Format | Comments                                                                                                                  |
|----------------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------|
| <b>MEP events</b>                      |        |                                                                                                                           |
| Metering Equipment Provider Identifier | Char 4 | The metering equipment provider responsible for the provision and certification of the metering installations at the ICP. |

**Installation Row:**

| Event data                 | Format | Comments                                                                   |
|----------------------------|--------|----------------------------------------------------------------------------|
| Metering Installation Type | Char 3 | 'HHR' or 'NHH' or 'NON'. Must be 'NON' where the Number Of Components = 0. |

**Meter/Component Row:**

| Event data | Format | Comments                                              |
|------------|--------|-------------------------------------------------------|
| Meter Type | Char 3 | HHR/NHH/PP.                                           |
| AMI Flag   | Char 1 | Indicates if the meter is a communicating AMI device. |

| Event data                     | Format      | Comments                                                                                       |
|--------------------------------|-------------|------------------------------------------------------------------------------------------------|
| Metering Installation Category | Numeric 1   | 1 – 5. The metering category for the metering installation that the component is certified in. |
| Compensation Factor            | Numeric 6.3 | Commonly known as the multiplier. Maximum value is 999999.999.                                 |

**Channel Row:**

| Event data                       | Format    | Comments                                                                                                                                                                                                                                                                                                                                |
|----------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Metering Component Serial Number | Char 25   | Serial number for the measurement device                                                                                                                                                                                                                                                                                                |
| Channel Number                   | Numeric 2 | Must be a unique number that identifies the meter register.                                                                                                                                                                                                                                                                             |
| Register Content Code            | Char 6    | Valid register content code from the static reference table stored in the registry. The register content code identifies when a meter register is active.                                                                                                                                                                               |
| Period of Availability           | Numeric 2 | Records the minimum service hours per day that supply is available for. 24 means that the service is not subject to control by the retailer or distributor.                                                                                                                                                                             |
| Unit of Measurement              | Char 6    | Units that the register measures in. Eg. kWh, kW, kVA, kVarh.                                                                                                                                                                                                                                                                           |
| Energy Flow Direction            | Char 1    | Valid values are<br><br>'I' for injection (measures the flow of embedded generation that is injected by the ICP into the distributors network and<br><br>'X' extraction (measures the flow of consumption that is received by the ICP from the distributors network.                                                                    |
| Accumulator Type                 | Char 1    | Valid values are<br><br>'C' for cumulative. Means that electricity volumes must be calculated as the difference between a start read and an end read at two different dates, in the same way as vehicle odometers record distance.<br><br>'A' for absolute. Means that electricity volumes are recorded directly by the meter register. |