Retail Advisory Group

Review of secondary networks

Issues and options paper

21 April 2015

Note: This paper has been prepared for the purpose of the Retail Advisory Group. Content should not be interpreted as representing the views or policy of the Electricity Authority.

906395-5

Contents

Tables

Figures

Executive summary

The Retail Advisory Group (RAG) is considering the potential to promote competition, efficiency and reliability for the long-term benefit of consumers on secondary networks. The RAG will report its findings and recommendations to the Electricity Authority.

The purpose of this paper is to seek feedback on issues, problems and options to promote competition, efficiency and reliability on secondary networks.

There are three types of secondary network:

1. customer networks;
2. embedded networks; and
3. network extensions.

Secondary networks are generally small networks located within a local distribution network, and include:

- multi-tenanted office blocks,
- residential apartment buildings,
- retirement villages,
- shopping centres,
- industrial/commercial parks, and
- permanent camping sites.

Secondary networks have evolved as a practical and commercial means of providing consumers at specific locations with electricity retail services, network services and performing market functions (e.g. undertaking registry management, customer switching processes, trading arrangements and reconciliation).

The RAG has initially identified several issues relating to competition, reliability and efficiency on secondary networks:

- **Consumers on customer networks don't have choice of retailer**. The issue is that consumers may be disadvantaged by the situation, for example, because retail prices may be higher than they would be if they could choose their retailer. However, the effects are uncertain and it is difficult to know whether consumers are, in general, disadvantaged by the situation.
- **Retailers are discouraged from operating on embedded networks.** The issue has two parts:
    a) retailers don't find it easy to negotiate use-of-system agreements (UoSA) with embedded networks; and
    b) retailers don't find it easy to maintain relationships with embedded networks.

  Embedded networks don't use standardised UoSAs which raises the costs of negotiation and entry onto the network for retailers. Embedded networks can have different operating practices which raises the cost for retailers of doing business.
- **Interactions between retailers, distributors and secondary networks could be improved** to avoid adversely affecting the performance of market functions. For example, poor coordination between

parties for the process of converting an embedded network to a customer network can lead to retailers breaching terms of their customer contracts or upset the performance of market functions.

- **Interactions between retailers, distributors, secondary networks and consumers could be improved** to reduce costs of performing market functions and providing retail and network services. For example, retailers and distributors are not always clear about responsibility for fault management for consumers on network extensions. The issue is that consumers face worse reliability outcomes because retailers and distributors may not know if a customer is on a network extension, thereby increasing the time needed to fix a fault and imposing unnecessary costs on the retailer and distributor.

The RAG considers that the issues indicate the following competition, reliability and efficiency problems:

- **Retail competition is reduced** because retailers are discouraged from operating on embedded networks.
- **Efficient operation is reduced** because interactions between retailers, distributors and secondary networks are less efficient.
- **Reliability of supply for individual consumers is reduced** due to poor coordination between retailers, distributors and secondary networks.

The RAG does not consider that retail competition is reduced as a result of consumers not having choice of retailer on customer networks.

The RAG has considered several options for addressing the problems identified:

- Retail competition can be promoted by introducing a default UoSA for embedded networks.
- Efficient operation can be promoted by amending the Electricity Industry Participation Code 2010 (Code) to provide more certainty about two aspects of the process for converting from an embedded network or from a network extension.
- Reliability of supply for individual consumers can be promoted by amending the Guidelines for Secondary Networks to outline how parties describe and allocate responsibility for business to business interactions, for example, for identifying and resolving a fault occurring on a secondary network.

The RAG also considers that increased awareness by secondary networks of obligations under the Electricity Industry Act 2010 and the Code will promote efficient operation.

The RAG has completed a qualitative assessment of the costs and benefits of the incremental benefits and costs of the preferred options relating to embedded networks. The assessment identifies net economic benefits.

This is a preliminary assessment. Information on the types of benefits and costs, and on their dollar value, is sought via this consultation. The assessment will be reviewed upon receipt of feedback from interested parties.

1 The RAG is reviewing competition and efficiency on secondary networks

1.1 Purpose of the RAG's review

1.1.1 The Electricity Authority (Authority) has requested the Retail Advisory Group (RAG) recommend options to promote competition and efficiency on secondary networks for the long-term benefit of consumers.

1.1.2 The RAG notes retailers, particularly small retailers, may not be able to compete on customer networks and embedded networks.

1.2 Purpose of this paper

1.2.1 The purpose of this paper is to:

a) provide an overview of secondary networks

b) describe issues that appear to have an adverse effect on competition and efficiency on secondary networks

c) consider potential solutions to address these key issues and propose a preferred solution

d) assess the high level costs and benefits of the preferred solution for improving competition and efficiency on secondary networks

e) seek feedback from interested parties on the issues and solutions discussed.

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 with "RAG – Secondary Networks Review" in the subject line.

1.3.2 Do not send hard copies of submissions unless it is not possible to do so electronically. If you cannot or do not wish to send your submission electronically, you should post one hard copy of the submission to either of the addresses provided below or you can fax it to 04 460 8879 if you have any questions.

Postal address

Retail Advisory Group
C/- Electricity Authority
PO Box 10041
Wellington 6143

Physical address

Retail Advisory Group
C/- Electricity Authority
Level 7, ASB Bank Tower
2 Hunter Street
Wellington

1.3.3 Please note that we want to publish all submissions we receive. If you consider that we should not publish any part of your submission, please indicate which part, set out the reasons why you consider we should not publish it and provide a version of your submission that we can publish (if we agree not to publish your full submission).

1.3.4 If you indicate that there is part of your submission that should not be published we 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 we receive, including any parts that we may not have published, can be requested under the Official Information Act (OIA). This means that we would

be required to release them unless good reason exists under the OIA to withhold them. We will normally consult with you before releasing any material that you had identified should not be published.

1.4 When to make a submission

1.4.1 Submissions should be received by 5pm on Tuesday 2 June 2015. Please note that late submissions are unlikely to be considered.

1.4.2 Submissions will be acknowledged electronically. Please contact the Submissions Administrator if you do not receive electronic acknowledgement of your submission within two business days.

2 An overview of secondary networks

2.1 What are secondary networks?

2.1.1 There are two types of networks that convey electricity from the transmission grid to consumers:

a) local networks – networks that are directly connected to the transmission grid – these are usually called local distribution networks (local networks)

b) secondary networks – networks that are connected to the transmission grid via another network (typically via a local network).

2.1.2 There are three different types of secondary networks:

a) **Customer networks** – a network owned by a customer network owner who manages the network supplying a number of consumers at a single location. The customer network owner provides the consumers with network services. The owner also provides certain retail products and services (e.g. the owner bills the associated consumers for their electricity consumption). See section 2.4 for more detail.

b) **Embedded networks** – a network owned by an embedded network owner that provides network services to a number of consumers at a single location. The consumers obtain retail services from retailers that operate on that embedded network. See section 2.5 for more detail.

c) **Network extensions** – a network where the network extension owner provides network services relating to connection and provision of a reliable electricity service while the associated local network performs market functions. The consumers obtain retail services from retailers that operate on the associated local network. See section 2.6 for more detail.

2.2 Why secondary networks exist

2.2.1 Secondary networks have evolved as a practical and commercial means of providing consumers at specific locations with electricity products and services, network services and performing market functions.

2.2.2 Examples of secondary network premises include: multi-tenanted office blocks, residential apartment buildings, retirement villages, shopping centres, airports, industrial/commercial parks, residential subdivisions, and permanent camping sites.

2.2.3 Customer networks and network extensions are a long-standing feature of New Zealand's electricity sector. They emerged as a practical means to assign responsibility for the electricity purchase costs and responsibility for providing electricity services of multi-tenant properties.

2.2.4 Embedded networks are a more recent feature. They emerged in the late 1990s, initially in response to the legislative requirement for ownership separation of electricity lines from generation and retail activities. Embedded networks are a variant of customer networks.

2.2.5 The alternative to secondary networks is that the local networks provide networks services and market services at multi-tenanted locations by taking greater responsibility for maintenance for internal wiring.

2.3 A comparison of a consumer's experience on local and secondary networks

2.3.1 Electricity supply to consumers involves providing a service and a good.

2.3.2 The network service is supplied by the local or secondary network and involves providing the network infrastructure required for the transport of electricity.

2.3.3 The network service includes connection to the network and provision of a reliable electricity service (operation of the network to meet demand, maintenance and fault management). A reliable network service also has a safety dimension. Distributors need to comply with electrical safety legislation pursuant to the Electricity Act,[1] any Code of Practice issued under the Act,[2] and the Electricity (Safety) Regulations 2010.[3]

2.3.4 The electricity good (electricity provided to the consumer) is supplied by the retailer.

2.3.5 Supplying the network service and the electricity good requires coordination between the retailer and the distributor to meet the quality and reliability standards agreed with the consumer and to carry out market functions such as settlement in the wholesale market.

2.3.6 The common approach in New Zealand is for retailers to contract with consumers to provide the electricity good and service with the contract setting out the terms and conditions of supply, such as customer service and reliability standards and electricity pricing. The retailer separately contracts with distributors through a use-of-system agreement (UoSA) to establish the terms and conditions of supply of the network service and requirements for business-to-business interactions (e.g. supply of data).

2.3.7 The retailer 'interposes' itself between the distributor and the consumer. In general, what this means is the consumer contracts with a retailer who agrees to supply electricity for a specified price and to meet certain quality and reliability standards. The retailer typically is responsible for all contact with the consumer. The consumer can choose from the retailers that have agreements with the local distributor to operate on the network that the customer is connected to. The retailer and distributor will agree quality and reliability standards necessary for the retailer to meet its contracts with consumers.

2.3.8 A few distributors in New Zealand adopt a conveyance model for supplying network services. In general, what this means is the consumer contracts with both the retailer and the distributor separately. The retailer supplies the electricity service; the distributor supplies the network services.

2.3.9 Secondary networks are a further variation for allocating responsibility for providing the electricity service and the electricity good:

a) customer networks provide both the network service and the electricity good. The customer network owner will typically set out the terms and conditions of supply (e.g. price, quality and reliability standards) in a contract with its customers

b) embedded networks provide the network service, but retailers provide the electricity good making them similar in most respects to local networks. The embedded network owner sets out the conditions of supply for network services with retailers. That is, it adopts an interposed or conveyance use-of-system agreement and/or utilises the embedded network example use-of-system agreement

---

1 See section 169 and 61A of the Electricity Act 1992.

2 Electrical Codes of Practice, available at: http://www.med.govt.nz/energysafety/legislation-policy/electricity-acts-regulations-codes/standards-and-codes-of-practice/new-zealand-electrical-codes-of-practice.

3 See 61A of the Electricity Act 1992: Electricity generators and electricity distributors must have safety management systems.

c) network extensions provide network services related to connection to the network and quality and reliability performance, but contract with the local network to provide market functions. Retailers operating on the local network provide the electricity good. The network extension will set out the conditions of supply with its customers for network services and with the local distributor for market functions.

2.3.10 Irrespective of whether a consumer is supplied via a local network or a secondary network, the price, the quality of service expectations and the reliability of supply expectations are, or should be, set out in contracts or a UoSA, or both. Consequently, the consumer experience will differ depending on factors such as where they are, the service they expect, who provides the retail service and who provides the network service.

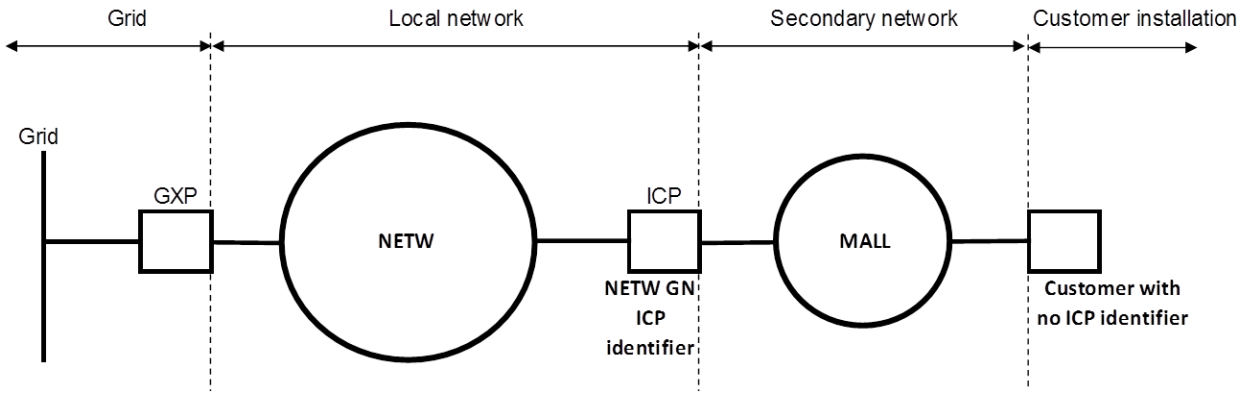
2.3.11 There is potential for differences in the quality of service and reliability of supply by secondary networks relative to local networks. One reason is that secondary networks are not solely focused on the business of supplying electricity services – their primary business activity is likely to be providing accommodation/building services.

2.4 Specific characteristics of customer networks

2.4.1 A customer network owner provides its consumers with network services (including connection) and a retail service.

2.4.2 Figure 1 shows the configuration of a typical customer network.

Figure 1 Customer network configuration



Source: Electricity Authority

Notes:
1. Each consumer does not have their own ICP on a customer network.
2. NETW stands for Network

2.4.3 A customer network owner usually has a supply contract with a retailer(s) for delivered electricity to the site. This site will typically be represented by a single ICP in the Authority's registry.[4] The customer network owner typically purchases electricity (including the cost of transmission and distribution network services) from a retailer, but may separately purchase electricity from the

[4] The Authority's registry does not currently include which ICPs are for sites which are customer networks.

clearing manager[5] and network services from the local network owner. The customer network owner then on-sells electricity to consumers on their network.

2.4.4 The customer network owner provides distribution lines services to all of the consumers on the customer network by taking responsibility for maintaining the lines (often the building's internal wiring) conveying electricity to consumers.

2.4.5 The customer network owner typically bills consumers to recover the cost in accordance with the arrangements that have been agreed between the customer network owner and consumer/tenant (e.g. tenancy agreement). The consumer is billed either directly (e.g. electricity bills) or indirectly (e.g. corporate fees, rent or lease payments). Some customer network owners engage an agent to bill tenants.

2.4.6 Consumers on a customer network are not 'visible' for market purposes because no customer installation connected to the network has an installation control point (ICP) identifier.[6] Further, there may or may not be a meter at the installation.[7] This means that consumers on a customer network cannot choose their retailer (unlike on a local network).

2.4.7 There is no robust data on the number of customer networks or the number of consumers served by customer networks in New Zealand. The Authority does not have visibility of customer networks, as there are currently no customer networks recorded in the Authority's participants' register. However, the Authority is aware there are potentially many hundreds of customer networks in New Zealand.[8]

2.5 Specific characteristics of embedded networks

2.5.1 An embedded network is a separate network where the embedded network owner provides consumers with network services. The network owner also must have Code-compliant metering installations, registry management information and switching customer processes, trading arrangements and reconciliation.

2.5.2 Retailers who wish to trade on the embedded network must negotiate a UoSA with the embedded network owner. They must also establish trading arrangements in their billing and customer management systems including retail pricing and service arrangements.

2.5.3 Customers on an embedded network are 'visible' for market purposes and can choose their retailer because they have an ICP identifier. These ICP identifiers are created and managed by the embedded network owner.

2.5.4 Embedded network owners can buy network services in bulk from the local network owner and then sell to retailers at the same or similar tariff rates as would apply to an equivalent ICP on the local network (that is, buy wholesale and sell retail).

---

5 The Clearing Manager is responsible for ensuring that industry participants pay or are paid the correct amount for the electricity they generated or consumed and for market related costs, available at: https://www.ea.govt.nz/operations/market-operation-service-providers/clearing-manager/.

6 An ICP is a physical point of connection on an electricity distribution network at which a retailer is deemed to supply electricity to a consumer. Each ICP is assigned an ICP identifier.

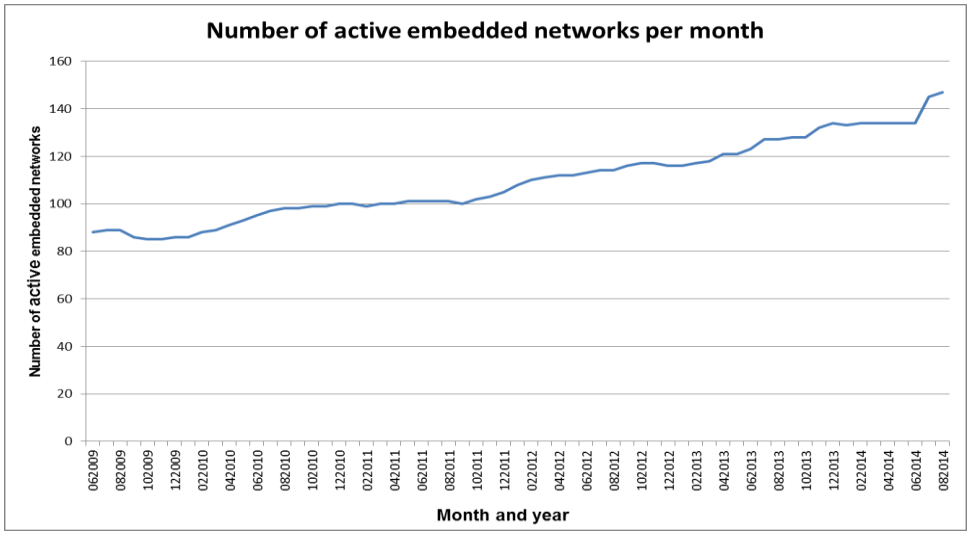
7 If there is a meter at the consumer's premise, it should comply with the accuracy and installation requirements for meters set out in Part 10 of the Electricity Industry Participation Code (the Code).

8 Customer network owners, as electricity industry participants, are required by the Electricity Industry Act 2010 to record their details in the participant register. A failure to do so may result in them being liable to conviction for an offence and subject to enforcement measures, as described in the Act.

2.5.5 Some embedded network owners also advise they offer an enhanced customer experience compared to a local network owner (including on-site fault management, on-line information services and emergency standby power generation).

2.5.6 Embedded networks are becoming more prevalent. In 2009 there were about 88 embedded networks in New Zealand, with about 6,872 consumers (ICPs) on them. Figure 2 shows the increase in the number of embedded networks from 2009 to today. There are currently about 149 embedded networks in New Zealand, with about 10,673 consumers (ICPs).[9]

Figure 2 Number of embedded networks (2009-2014)



Source: Electricity Authority

Notes:

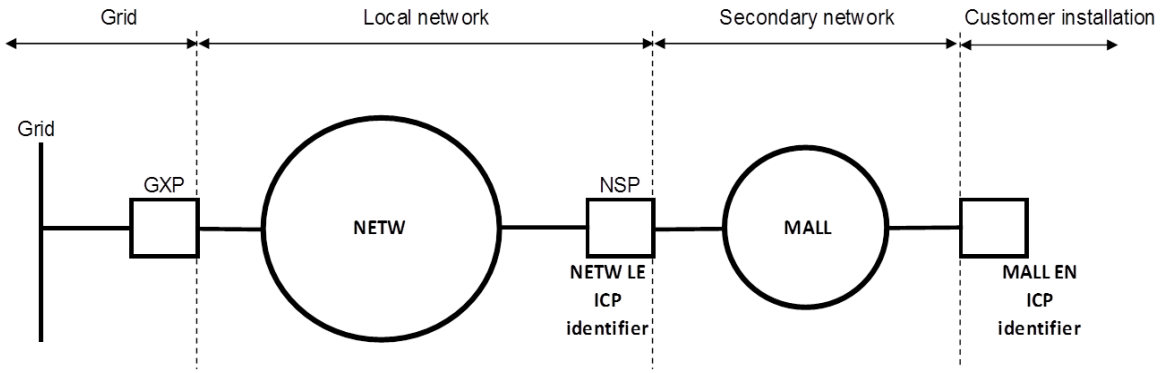
1. In 2009, there were 88 embedded networks in New Zealand
2. In 2014, there are about 149 embedded networks in New Zealand (10,673 consumers).

2.5.7 Figure 3 shows the configuration of a typical embedded network. Electricity entering the embedded network is metered using a 'gateway' meter at the point labelled "NSP" (network supply point). Electricity used by each consumer with an ICP identifier on the embedded network is also recorded by a meter at each consumer's installation. The metering equipment on an embedded network must comply with specific requirements set out in the Code.[10]

[9] Data from the registry and current as at 1 October 2014 (the figures exclude Nelson City which was incorporated into the surrounding local network).

[10] Specific metering obligations under the Code are in Part 10, see https://www.ea.govt.nz/code-and-compliance/the-code/part-10-metering/.

Figure 3 Embedded network configuration



Source: Electricity Authority

Notes:
1. Each consumer has their own ICP on an embedded network.
2. NETW stands for Network

2.6 Specific characteristics of network extensions

2.6.1 A network extension is a secondary network that is treated in the New Zealand electricity market's processes as a part of the local network to which it is connected. The Authority has no information on the number of network extensions in New Zealand.

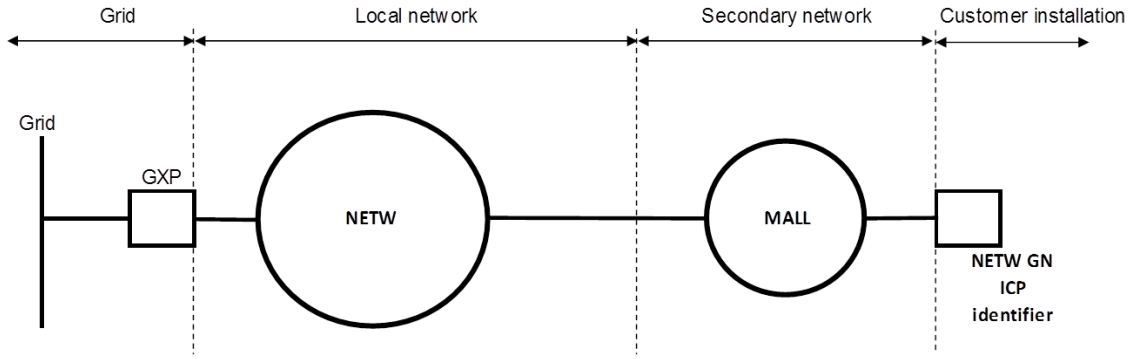
2.6.2 All ICPs on a network extension must have ICP identifiers in the registry. These are created and managed by the local network owner.

2.6.3 The network extension owner provides distribution services and is responsible for maintenance, safety, connections, and so on. The retailer does not need to establish any special trading arrangements as ICPs on the network extension are treated the same as if they are on the local network for the purposes of metering and switching.

2.6.4 Consumers on a network extension can choose and obtain retail electricity products and services from any retailer that has access to the local network.

2.6.5 Figure 4 below shows the configuration of a network extension.

Figure 4 Network extension configuration



Source: Electricity Authority

Notes:
1. Each consumer has access to all retailers on a network extension.
2. NETW stands for Network

Q1. Please provide any comments and views on the description of the characteristics for customer networks, embedded networks and network extensions. Please provide evidence on your comments and views, where possible.

2.7 Secondary networks are participants

2.7.1 The Electricity Industry Act 2010 (Act) defines parties as industry participants if they are one or more of the following:[11]

a) a distributor – which means a business engaged in distribution (the conveyance of electricity on lines other than lines that are part of the national grid)

b) a retailer – which means a business engaged in retailing (the sale of electricity to a consumer other than for the purpose of resale)

c) any other person who owns lines – which are defined as works used or intended to be used to convey electricity.

2.7.2 All secondary network owners are industry participants because:

a) a customer network owner is a 'retailer' and may be a 'distributor' or 'any other person who owns lines'

b) an embedded network owner is a distributor

c) a network extension owner is a distributor.

2.7.3 The Act imposes various obligations on 'industry participants', including:

a) to register with the Authority as an industry participant

[11] Refer to section 7 (industry participants) and section 5 (interpretation) of the Act.

b) to comply with the ownership separation requirements in Part 3 of the Act (if the participant is in the business of providing electricity line function services)

c) to make available a low fixed charge tariff option for domestic consumers in accordance with the Electricity (Low Fixed Charge Tariff Options for Domestic Consumers) Regulations 2004.

2.7.4 Retailers and distributors must be a member of the dispute resolution scheme that is administered by the Electricity Gas and Complaints Commission (EGCC).[12] The EGCC is actively attempting to identify customer network owners that should be members of its scheme so it can investigate consumer complaints. Six customer network owners were members of the EGCC scheme as at February 2015, up from two in January 2015. The EGCC expects more customer networks to join the scheme this year.

2.7.5 The Code, which is made and enforced by the Authority, places obligations on 'embedded network owners' and 'distributors', but does not specifically refer to customer networks or network extensions. The Authority also makes voluntary market facilitation measures, which industry participants are expected to align their activities and practices with. These include:

a) the *Guidelines for Metering, Reconciliation and Registry Arrangements for Secondary Networks* (Guidelines for Secondary Networks) which set out the Authority's expectations for embedded networks' operation practices, and to a lesser degree those of customer networks and network extensions[13]

b) the *Guidelines for drafting embedded network use-of-system agreements* which provide guidance on drafting an embedded network UoSA with a model example.[14]

2.7.6 The Code provisions and market facilitation measures relating to secondary networks primarily focus on embedded networks and the performance of market functions, e.g. switching processes and reconciliation. Customer networks and network extensions have a peripheral role in market processes because the relevant market functions are performed by another party (in the case of a network extension)

Legal framework for customer networks

Obligations of a "participant" under the Act

2.7.7 A customer network owner is a 'retailer' because they are engaged in the sale of electricity (which includes supply). A customer network owner may also be a distributor or an owner of lines, depending on the configuration of the specific customer network.

2.7.8 Whether a customer network owner is a 'distributor' or a 'person who owns lines' depends on the meaning of the word "lines":

a) 'lines' mean works used to convey electricity

b) 'works' mean fittings (as defined in the Electricity Act 1992) used in connection with the… conveyance of electricity; but does not include an electrical installation

[12] See section 96 of the Act.

[13] Available at: www.ea.govt.nz/dmsdocument/6077.

[14] Guidelines for drafting embedded network use-of-system agreements, available at: www.ea.govt.nz/dmsdocument/13648. See also the Authority's example UoSA for an embedded network, available at: www.ea.govt.nz/dmsdocument/13653.

c) 'electrical installation' mean the fittings used to convey electricity from the point of supply to the point of consumption

d) 'point of supply' means, generally, the boundary of a property. However, where the fittings are owned by a tenant or licensee of the owner or occupier of the property then the point of supply is the point where the fittings reach the premises occupied by the tenant or licensee. There can, however, be exceptions to this, created by agreement.

2.7.9 These definitions mean it is not possible to say generally how the definitions in the Act apply to customer networks without considering the configuration of the specific customer network. However, it is likely that owners of customer networks are distributors under both the Act and the Code if the convey electricity on lines.

2.7.10 Owners of customer networks may also be participants because they own lines. However, the examples below show when a network owner is or is not a line owner:

a) *example of a participant as the owner who 'owns lines':* a retirement facility is connected to the local network but the facility consists of a village of separate units, each of which is owned by its occupier. The unit owners pay the retirement facility owner for the provision of various services, including electricity supply. It is likely the retirement facility owner is a participant because the lines that the customer network owner owns are separated (in an ownership sense) from the lines on the property for each separate unit. Instead of owning lines that go all the way to the consumer, the customer network owner owns the lines between the point of supply for the facility as a whole and (most likely) the boundary line for each unit. It follows that the lines are fittings used or intended for use in the conveyance of electricity so the facility owner owns them and is thus a participant.

b) *example of a non-participant because the owner does not 'owns lines':* where a customer network owner owns a retirement facility that is connected to a local network then the people who live in the facility have the right to occupy the facility but otherwise have no property rights in it. The owner is most likely not a participant because the relevant assets – the lines on the retirement facility – do not come within the definition of works because they fall under 'electrical installation'. The lines instead constitute fittings that convey electricity from the point of supply to the points throughout the facility from which electricity will be consumed by those who live there. The residents of such a facility do not have legal title to a particular area of the retirement home and thus it would not be possible to identify a separate point of supply for any resident. Rather there is only a point of supply for the facility as a whole.

Obligations under the Code

2.7.11 The Code does not specifically establish obligations on customer network owners because, to date, they have not been visible for market purposes or required to perform market functions, eg metering, switching processes or reconciliation.

Obligations under Guidelines

2.7.12 The *Guidelines for Secondary Networks* provide specific guidance about the process for converting a customer network to a network extension or an embedded network.[15]

[15] See page 4 of the Guidelines for Metering, Reconciliation and Registry Arrangements for Secondary Networks.

Legal framework for embedded networks

2.7.13 An embedded network owner is an industry participant under the Act because they are a business engaged in distribution. That means they are a distributor.

2.7.14 An embedded network owner has specific obligations under the Code.[16] These obligations generally relate to the performance of market functions and include metering processes and responsibilities for testing, calibrating and certifying metering installations (Part 10), registry management information and switching customer processes (Part 11), trading arrangements (Part 13) and reconciliation (Part 15).

2.7.15 In addition, embedded network owners are subject to requirements of the following market facilitation measures:[17]

a) the *Guidelines for Secondary Networks*.[18] These guidelines outline expectations on embedded network owners for metering, reconciliation and registry arrangements

b) the *Guidelines for drafting an embedded network use-of-system-agreement* (UoSA) are intended to help embedded network owners draft a UoSA for retailers wanting to trade on the embedded network. These guidelines indicate how the interposed model UoSA can be adapted for embedded network use.[19]

Legal framework for network extensions

2.7.16 The owner of a network extension is an 'industry participant' because it is a distributor.

2.7.17 The Code does not impose obligations specific to network extensions. This is because network extensions do not perform market functions, instead leaving these to be performed by the associated local network.

2.7.18 The *Guidelines for Secondary Networks* provide minimal guidance to retailers and owners of their responsibilities under this type of arrangement.[20]

Q2.	Please provide any comments and views on the description of the legal framework for customer networks, embedded networks and network extensions. Please provide evidence on your comments, where possible.

[16] See, for example Schedule 11.1 and Part 17; see also Parts 10, 11, 13 and 15.

[17] See Parts 1, 8.54B; 10.28; 11, 13, 14 and 15 of the Electricity Industry Participation Code 2010 (the Code).

[18] See pages 7-25, 27-29 of the Guidelines for Metering, Reconciliation and Registry Arrangements for Secondary Networks, available at: www.ea.govt.nz/dmsdocument/6077.

[19] Guidelines for drafting embedded network use-of-system agreements, available at: www.ea.govt.nz/dmsdocument/13648. See also the Authority's example UoSA for an embedded network, available at: www.ea.govt.nz/dmsdocument/13653.

[20] The Guidelines only include the characteristics and examples of network extensions with a note that further information will be developed: see pages 5-6 of the Guidelines for Metering, Reconciliation and Registry Arrangements for Secondary Networks.

3 Issues and problems

3.1 Stakeholders have raised several issues about competition and efficiency on secondary networks

3.1.1 The RAG has undertaken desktop research to gain an understanding of issues that may be inhibiting competition and efficiency on secondary networks. A cross-section of retailers, secondary network owners and consumers were interviewed and discussions held with the Commerce Commission, the EGCC and Consumer NZ.

3.1.2 Stakeholder raised various issues. These are summarised below.

Issues raised about customer networks

Consumers do not have choice of retailer

3.1.3 The characteristics of a customer network mean that individual consumers do not have choice of retailer.

3.1.4 Consumers on a customer network obtain their electricity from the customer network owner. The customer network owner negotiates a retail supply offer with a retailer, which effectively is on behalf of the consumers on the customer network. In this way, a customer network is like a group buying arrangement. However consumers may not have any say in which retailer the customer network owner selects.

3.1.5 The consumers on a customer network agree to the customer network delivering retail electricity services when entering in to an occupancy or tenancy agreement. However, the electricity supply arrangements may not be something a consumer focuses on when renting or buying an apartment or office space and signing the contracts. It would be helpful for consumers to be informed about the implications for their electricity supply arrangements, including choice of retailer, when moving into a customer network.

3.1.6 One of the benefits of a customer network arrangement for consumers is the bulk discount on electricity that the customer network owner has potential to negotiate. In addition, consumers have the convenience of dealing directly with the customer network owner, who is often (but not always) the same person that owns the building and bills them.

3.1.7 However, it is possible that the customer network owner may not pass on any discount to the consumer. This would likely provide the customer network owner a financial advantage. The ability to achieve this advantage would often depend on the specific contractual arrangements between the customer network owner and the consumer.[21]

3.1.8 The Unit Titles Act 2010 aims to prevent body corporates from 'clipping the ticket' in such circumstances but it does not extend to a third party service provider to the body corporate, such as a customer network owner.[22] This would be determined by the contract between the parties.

---

[21] See section 54C(2)(g) and (h) of the Commerce Act, available at: http://www.legislation.govt.nz/act/public/1986/0005/latest/DLM1940014.html.

[22] See sections 125 of the Unit Titles Act 2010, available at: http://www.legislation.govt.nz/act/public/2010/0022/latest/DLM1160600.html If any amenity or service is supplied to the unit title development and the body corporate installs and maintains a meter recording the use of that amenity or service by any principal unit, the body corporate may charge the owner of that unit the cost of the usage as indicated on the meter. Any

Lack of certainty about process for converting a customer network to a different type of network

3.1.9 A customer network can convert to a different type of network, such as an embedded network or network extension. The conversion process is similar to that required when creating ICPs and involves the ex-customer network owner, a retailer(s), and, perhaps, the local distributor.[23] The retailer is involved because they are responsible for the new ICP(s) in the registry. The Code does not establish a process for converting from a customer network. Nor do the secondary network guidelines provide much guidance about the process to be followed. Consequently, customer networks and retailers involved in a conversion face a lack of clarity and certainty that can increase the time and effort for negotiations between the customer network owner and others involved in the process. However, aside from the parties involved in the process, there are no adverse market effects, eg reconciliation processes are not affected. Similarly, consumers on the ex-customer network should be affected only to the extent they are dealing with a different supplier of electricity retail services.

Uncertainty about who is responsible for managing faults and service levels

3.1.10 Retailers have informed the RAG that when consumers on a customer network experience a fault, they often telephone a retailer's call centre even though it is the customer network owner who is responsible for managing the fault. Retailers report that consumers telephone them because they recall the retailer's branding or have seen the retailer's brand in the new customer network arrangement, hence that retailer is front-of-mind for the consumer.

3.1.11 RAG spoke to consumers who had paperwork from both the retailer and the consumer network owner. This could lead to consumers being confused about whom to contact when a fault occurs. When a consumer calls the retailer, the retailer explains the situation to the consumer who then calls the customer network owner. According to retailers interviewed by the RAG, this is an inefficient process and likely increases the retailers' operating costs by taking these calls and servicing these customers who ought to be directly liaising with the secondary network owner.

3.1.12 Reliability standards and fault management arrangements on a customer network are a matter for negotiation between the customer network owner and its customers and any party the customer network owner may use to provide electricity services. There is no electricity industry specific regulation or guidance on the terms and conditions of supply to consumers on a customer network. Nor is there any electricity industry specific regulation or guidance about interactions particular to customer network owners and the local network or retailers. Instruments such as the model use-of-system agreement were not developed with customer networks specifically in mind.

Issues raised about embedded networks

Difficulties and costs of negotiating UoSAs

3.1.13 Retailers can negotiate an arrangement – a new UoSA - with each embedded network owner to be able to supply consumers on each owner's embedded networks.[24] The Code requires the terms of the UoSA must be negotiated in good faith.[25]

---

charge is recoverable from the owner of the principal unit as if it were a levy. The cost of the usage charged by the body corporate to the principal unit owner must be the same as that charged by the provider of the amenity or service.

[23] The process for establishing ICPs is described in the Code.

[24] See the EA's website for the model UoSA, available at: http://www.ea.govt.nz/operations/distribution/distributors/use-of-system-agreements/.

3.1.14 Some retailers consider the cost of negotiating a UoSA for each embedded network owner is too high relative to the number of consumers they might be able to obtain. Retailers say that a major influence on the cost of negotiating UoSAs for embedded networks is because embedded network owners have historically offered bespoke UoSAs with unique terms and conditions that require legal review in each case.

3.1.15 Retailers informed the RAG that the terms of some embedded network UoSAs offered by embedded network owners to retailers attempt to depart significantly from the provisions of the example embedded network UoSA. This can make it difficult for the parties to reach agreement in a timely manner.

Difficulties and costs of maintaining relationship with embedded network

3.1.16 Some retailers consider that the cost of maintaining a presence on an embedded network is too high relative to the number of consumers they might obtain in the process, i.e. high cost to serve relative to local networks. One retailer reported that it costs the same to serve one consumer on an embedded network as it does to serve 1,000 customers on a local network.

3.1.17 Retailers mention the following factors as influencing the costs of serving customers on an embedded network:

a) the cost of managing the proliferation of embedded network tariffs and loss factors, as each embedded network will require bespoke set-up and bespoke maintenance of tariffs and loss factors, for a relatively low number of customers

b) the cost of managing 'additional' queries from customers on the embedded network arising from the customers' uncertainty about who is responsible for which services, for example fault management

c) the cost of non-standard reporting and data exchange requirements and processes used by embedded network owners. Retailers informed the RAG that they need to set up their own templates for processes when networks are converted and that these bespoke processes for each premises can be costly to administer.

Uncertainty about who is responsible for managing faults and service levels

3.1.18 In the example embedded network UoSA, a clause allows for either the distributor *or* the retailer to provide a 24 hour, seven day a week unplanned service Interruption diagnosis and information service in accordance with the agreement.[26] The terms of the final agreement are decided by the parties.

3.1.19 Where the responsibility lies with the embedded network owner, then if a consumer raises concerns with the embedded network owner about the power quality – either the frequency or voltage of the supply - then the embedded network owner should investigate. If appropriate, the embedded network owner will then install equipment at the consumer's point of connection to measure power quality, and provide the results of such measurements to the retailer. If such

[25] See 12A.2 of the Code. The definition of distributor in Part12A is the definition under the Act. Therefore, an embedded network owner must negotiate a UoSA in good faith with a retailer.

[26] See 2.1(d) and 2.2(d) of the Model Use of System Agreement (Interposed – Embedded Network example, Final Draft, September 2012).

installation requires the services to be interrupted, the embedded network owner should restore the services as soon as is reasonably practicable.[27]

3.1.20 The RAG was informed that when consumers on an embedded network experience a fault, they typically phone a retailer's call centre, even if the UoSA assigns responsibility for fault calls to the embedded network. This is because consumers may be confused as to who to contact because fault contact details appear on retailer's bills and in other cases it will be the embedded network owner's contact details. The time taken to resolve a fault is set out in the UoSA between the embedded network and the retailer or in the contract between the customer and the embedded network.[28] A co-ordination problem appears to exist between retailers, embedded network owners and consumers which could be costly to the consumer.

Lack of certainty about process for converting an embedded network to a different type of network

3.1.21 An embedded network can convert to a different type of network, such as a customer network or network extension. Converting an embedded network to a customer network requires disestablishing ICPs and involves the embedded network and retailers trading on that network; converting to a network extension requires transferring ICPs and involves the embedded network, the retailers trading on that network and the local distributor.

3.1.22 There are three issues with the process of converting from an embedded network:

a) the Code requires retailers to give consent to the disestablishing/transfer of ICPs before the conversion can take place. However, there is no requirement for retailers to give their consent. No retailer has yet blocked a conversion by refusing, but this is currently a possibility

b) there is no certainty about how long the process should take. This has resulted in retailers being asked (and agreeing) to consent to a conversion at short notice (ie less than 40 business days), which has adverse market effects, eg on reconciliation processes or by putting retailers in breach of their domestic contracts

c) the embedded network owner can disestablish the gateway meter (NSP) for the network, before the ICPs on the network have been disestablished. This can lead to adverse market affects, eg by affecting reconciliation processes.

3.1.23 In some cases, the RAG understands that embedded network owners have only given retailers as little as five business days for the transferral process. Lack of adequate notice adversely affects retailers and customers in these circumstances. The RAG understands that this situation has led to a retailer being forced to compensate affected customers when an embedded network was transferred to a local network. In one case, the retailers' costs from credits to customers amounted to $30,000 in lieu of providing the required 30 days' notice for the consequential price increases applicable to the new network owner.

---

[27] See 2.1(i) of the Model Use of System Agreement (Interposed – Embedded Network example, Final Draft, September 2012).

[28] One business consumer on an embedded network that the RAG spoke with complained because they could not contact the designated fault manager when they called after hours. They have also been required to wait up to four days for electricians to fix an electricity fault at their leased premises. There is considerable cost to the consumer involved when they do not have electricity for such a period of time. Their own electricians can assist within four hours. In this case, the consumer now organises and pays its own electrician to fix the fault. This consumer reported that this is cheaper than having no electricity supply. On average, this consumer reportedly pays $500-$1,000 for an electrician to fix their electricity fault per year. Over the course of the 12 year tenancy, this amounts to $6,000-$12,000 in bills for fault costs.

3.1.24 Retailers also report that embedded network owners often provide inaccurate information to retailers during the conversion process, which delays the conversion process.

Issues raised about network extensions

Uncertainty about who is responsible for managing faults and service levels

3.1.25 The registry identifies if an ICP is on an embedded network, but does not identify if the ICP is on a network extension. This means that the local network owner may not be able to easily identify or reach the location of a fault that is on a network extension. In addition, when the location is identified, it may instead be the responsibility of the network extension owner to fix the fault. This can give rise to delays for the consumer in having their fault fixed.

3.1.26 Responsibility for fault management and service levels should be agreed between the network extension owner, the local network and the retailer. If these arrangements are imperfect, then the local network, customer network and retail could be exposed to transaction costs from poor coordination and consumers could be exposed to poor reliability resulting from poor coordination.

Lack of certainty about process for converting a network extension to a different type of network

3.1.27 A network extension can convert to a different type of network, such as a customer network or embedded network. Converting a network extension to a customer network requires disestablishing ICPs and involves the network extension, local distributor and retailers trading on that network; converting to an embedded network requires transferring ICPs and involves the network extension, local distributor and the retailers trading on that network.

3.1.28 There are two issues with the process of converting from a network extension:

a) the Code requires retailers to give consent to the disestablishing/transfer of ICPs before the conversion can take place. However, there is no requirement for retailers to give their consent. No retailer has yet blocked a conversion by refusing, but this is currently a possibility.

b) there is no certainty about how long the process should take. This has resulted in retailers being asked (and agreeing) to consent to a conversion at short notice (ie less than 40 business days), which has adverse market effects, eg on reconciliation processes or by putting retailers in breach of their domestic contracts

3.2 Stakeholders' issues with secondary networks indicate there is a problem

3.2.1 The issues identified with customer networks, embedded networks and network extensions suggest there may be a problem with the extent to these networks are furthering the Authority's statutory objective:

a) reduced retail competition because retailers are discouraged from supplying consumers on embedded networks

b) reduced operational efficiency due lack of certainty and consistency in operational processes underpinning interactions between secondary networks and retailers

c) reduced reliable supply because of difficulties locating or reaching faults on network extensions and because of a lack of certainty and consistency in allocation of responsibility between secondary networks, retailers, and local networks.

Reduced retail competition because retailers are discouraged from supplying consumers on embedded networks

3.2.2 Retail competition delivers benefits to consumers by providing incentives on retailers and energy services companies to deliver innovative products and services and to seek operational efficiency gains. This keeps prices lower than they otherwise would be.

3.2.3 Retail competition may be reduced because retailers may be discouraged from supplying consumers on embedded networks due to:

a) the high transaction costs associated with negotiating UoSAs

b) the high transaction costs of maintaining relationships with customers (e.g. fault management).

3.2.4 Smaller retailers, in particular, consider that negotiating a UoSA with embedded networks is costly and time-consuming.

3.2.5 In addition to reducing the efficient operation of the electricity industry, the difficulties and costs retailers experience in maintaining a relationship with embedded networks likely reduce retail competition. These costs discourage retailers from wanting to enter a relationship with embedded networks. Costs include having to deal with non-standard reporting and data exchange processes.

3.2.6 Lastly, retail competition on embedded networks is also likely to be lower if embedded network owners are not negotiating UoSAs with retailers in good faith, as required under the Code.

3.2.7 Retailers do not negotiate UoSAs with customer networks because they do not use the customer network; and do not negotiate UoSAs with network extensions because they rely on the UoSA with the associated local network.

Reduced efficiency due to lack of certainty and consistency in operational processes underpinning interactions between secondary networks and retailers

3.2.8 Secondary networks appear to be having an adverse impact on the efficient operation of the electricity industry due to:

a) secondary network owners imposing unnecessary transaction costs on retailers by using non-standard processes and reporting requirements, and due to poor processes for fault management

b) higher-than-necessary transaction costs in transferring a secondary network to another secondary network or local network and vice versa.

3.2.9 Currently the Code does not specify a minimum or adequate notice period for ICPs being transferred or decommissioned from one secondary network type to another secondary network or from one secondary network to a local network.[29]

Reduced reliability of supply due to difficulties locating or reaching faults

3.2.10 Reliability of supply for individual consumers is reduced for two reasons:

a) on network extensions, the time required to resolve a fault can be increased because the retailer for a consumer reporting a fault may not know the consumer is located on a network

[29] See schedule 11 of the Code.

extension. This can result in the associated local distributor incorrectly being asked to identify and resolve fault when responsibility for doing so lies with the network extension owner.

b) on a customer network or embedded network, the time required to resolve a fault can be increased because they may not be advised of the fault as soon as possible. In some cases, the consumer reporting a fault may contact a retailer instead of the customer network or embedded network.

3.3 The number of types of secondary networks does not indicate there is a problem

3.3.1 Secondary network owners can decide *which* network services, retail services and market functions are provided. They can also decide on *how* they are provided.

3.3.2 If the number of secondary network types (e.g. customer networks) was decreased, then this means making a decision which party can most efficiently provide network and retail services and market functions in order to achieve long-term benefits for consumers. To make such a decision, it is necessary to know:

a) will the local distributor or other selected party be more efficient in providing network services (and do they want the job)?

b) will the ability of retailers to compete to supply each consumer on a customer network deliver a net benefit relative to retailers competing to supply each group of consumers?

c) is it practical to include consumers on customer networks into market systems and processes?

3.3.3 Evidence is not currently available to answer these questions and establish that reducing the number of secondary network types will achieve long-term benefits for consumers. An increasing number of secondary network owners joining the EGCC means that our data and information on secondary networks grows as we have more sight of their quantity and behaviour to determine their net benefit.

3.4 Stakeholders' issues with a lack of consumer choice on customer networks does not indicate there is a problem

Customer networks can be an efficient way of supplying electricity at multi-tenanted locations

3.4.1 Some stakeholders raise the issue that the lack of consumer choice of retailer on customer networks is an issue for consumers. Consumers on a customer network obtain electricity from the customer network owner who chooses the retailer that supplies the premises.

3.4.2 However, the benefits from a customer network might, in fact, offset the cost of not being able to choose their own retailer. The benefits include, for example:

a) customer networks can be an efficient and convenient way of supplying electricity services at a multi-tenanted location

b) the customer network owner may also be able to negotiate a volume discount with retailers, resulting in consumers on the customer network paying less than if they were individually contestable

c) the customer network owner can avoid the capital and operating costs of providing certified metering installations for each consumer on the customer network by taking responsibility for supplying electricity services and thus reduce pass through cost to consumers.

3.4.3 Nevertheless, an important consideration is whether a consumer is fully informed, with their "eyes wide open", upon entering in to an arrangement on a customer network that is a consequence of purchasing or leasing a premise on a customer network (e.g. an apartment or a shop) means they do not have choice over their retailer.

3.4.4 The RAG understands that consumers may be unaware of their inability to choose a retailer when they enter in to a sale or lease agreement as, for example, the tenancy or occupancy agreement may be silent on the provision of electricity services and consumers may also not receive information on this from the agent. It would be valuable if the agent (e.g. property manager or real estate agent) clearly and openly informs consumers about the implications of buying or leasing in a customer network arrangement, particularly if the lease or sale agreement is silent.

Q3.	Please comment on the issues identified with customer networks, embedded networks and network extensions. Please provide evidence where possible.
Q4.	Please comment on the description of the problems relating to reduced competition, efficiency and reliability of supply.

4 The RAG's proposal for addressing the problem

4.1.1 The RAG notes that the EGCC is actively pursuing secondary network owners, and particularly customer network owners, to become members of the EGCC scheme. The exercise is also assisting these parties to understand their obligations under the Code and Electricity Industry Act 2010 more generally. Once secondary network owners become more aware, or understand, their role and responsibilities for consumers on their networks is, in most cases, analogous to local networks then the incentive for them to operate and perform market functions efficiently should increase.

4.2 Options to promote retail competition and efficient operation on embedded networks

4.2.1 Industry participants began developing voluntary model (standard) UoSAs in the late 1990s, following the ownership separation of electricity lines from electricity generation and retail activities.

4.2.2 In 2012 the Authority published a model UoSA for local networks, and guidelines for drafting embedded network UoSAs as well as an example UoSA for an embedded network.[30]

4.2.3 As well as providing guidance on best-practice contract terms and conditions, the Authority expected that the model UoSAs would provide the basis for significantly enhanced levels of standardisation in UoSAs negotiated between retailers and distributors/embedded network owners. The objective of this was promoting efficiency and retail competition through reduced transaction costs, particularly for smaller parties with limited resources.

[30] The Authority's model UoSA (interposed) is available at: www.ea.govt.nz/dmsdocument/13646. The Authority's model UoSA (conveyance) is available at: www.ea.govt.nz/dmsdocument/13647. The Authority's guidelines for drafting embedded network UoSAs are available at: www.ea.govt.nz/dmsdocument/13648 and its example UoSA for an embedded network is available at: http://www.ea.govt.nz/operations/distribution/distributors/use-of-system-agreements/.

Option 1 (preferred): introduce a default UoSA for embedded networks

4.2.4 For a retailer to supply electricity on an embedded network, they require a UoSA with the network owner. This UoSA must be negotiated in good faith between parties.[31]

4.2.5 UoSAs are used by distributors and retailers to formalise agreement of the terms under which retailers use the distributor's lines, in order to supply its customers. A distributor's provision of distribution lines services is the primary service covered in UoSAs.

4.2.6 The RAG acknowledges that bespoke terms may be required for particular UoSAs. Retailers and distributors have expressed that they require some flexibility in negotiations.

4.2.7 However, retailers and embedded network owners consider it is currently problematic when negotiations are lengthy and costly when parties depart over terms in the model UoSA. Thus, the RAG considers there are likely to be material net benefits from developing a default secondary network UoSA as a 'fall back' to apply at the end of a certain negotiating period (e.g. 2 months) if parties cannot agree to alternative terms. The term of the negotiation process could be included in the default UoSA.

4.2.8 Compared with the status quo, a default UoSA for embedded networks should reduce the negotiating costs retailers and embedded network owners currently face when entering into UoSAs. In addition, it is advantageous that there is a mechanism to clearly set out the requirements for all embedded networks.

Option 2: (status quo) an example embedded network UoSA/model Interposed and Conveyance UoSA is considered an inferior option to a default embedded network UoSA

4.2.9 The RAG has also considered the option of retaining the current situation where retailers and embedded network owners negotiate from the example UoSA for embedded networks and Interposed UoSA and the Conveyance UoSA. The difference between this option and a default embedded network UoSA is that the example/model UoSA is only a basis for negotiation and provides significant flexibility for the parties to depart from it without a restricted timeframe for the parties to agree.

4.2.10 However, the RAG considers that the example/model UoSA approach is less preferred than option 1 because of the high transactions costs of negotiating each UoSA in circumstances where embedded networks are typically small-scale. The cost for retailers and secondary network owners is likely to be much lower if a default embedded network UoSA was put in place as a "fall back". Furthermore, the parties to the model UoSA are less likely to strictly adhere to it in comparison to a default UoSA. A further benefit is that this default UoSA could be drafted so as to apply to other relevant types of secondary networks types, including network extensions and customer networks. The RAG therefore does not prefer this option.

Q5.	Do you agree that a default embedded network UoSA will promote retail competition by making it easier and less costly for retailers to supply consumers on embedded networks? Please give reasons for your view.

[31] See Part 12A of the Code.

4.3 Promoting operational efficiency on secondary networks

4.3.1 Secondary networks appear to be having an adverse impact on the efficient operation of the electricity industry due to:

a) embedded network owners imposing unnecessary transaction costs on retailers by using non-standard processes and reporting requirements

b) higher-than-necessary transaction costs associated with the processes for converting a secondary network to a different type of network.

Operational efficiency problems relating to embedded networks should be addressed by a default UoSA

4.3.2 The efficiency problems caused by embedded networks using non-standard processes and reporting requirements should, at least partly, be addressed by introducing a default embedded network UoSA. A default UoSA will assist standardised practices and processes used by embedded network owners, and will provide retailers with a clear set of terms and conditions and expectations against which to hold embedded networks to account.

Operational efficiency problems relating to conversion processes requires certainty about two aspects of the process

4.3.3 There are two aspects of the process for converting from an embedded network or from a network extension that can prevent efficient operation of the industry:

a) An embedded network owner can decommission an NSP while ICPs are still active or inactive on the registry against that NSP. This can impose costs on retailers by affecting performance of market functions. To address this problem, it is proposed to amend the Code to prevent an embedded network owner from decommissioning an NSP while ICPs are still active or inactive on the registry against that NSP.

b) There is no certainty about the timeframe for converting from an embedded network or from a network extension, including the timeframe for the affected retailer(s) to give consent to the conversion. This can impose costs on retailers by affecting performance of market functions or putting them in breach of domestic contracts with consumers. Alternatively, the retailer could refuse to give consent. To address these problems, it is proposed that a retailer must agree a change of network type within 40 business days of notification, and cannot refuse the notification.

4.3.4 The process for decommissioning of an NSP is described in schedule 11.1 of the Code. The proposed change is considered a relatively minor change to the existing process.

4.3.5 The RAG considered four options for providing more certainty about the timeframe for converting from an embedded network or from a network extension.

4.3.6 According to some retailers, on occasion, secondary or local network owners have provided retailers with as little as five business days' notice of a required transfer of ICPs from one secondary network type to another (or from a secondary network to a local network). Retailers have informed the RAG that this notice period of five business days or similar is insufficient time to convert a network and that a more appropriate minimum notice period would be 40 business days. Many of the secondary network owners interviewed by the RAG agreed that this longer notice period could be workable.

Option 1: amend the Code to a minimum notice period for converting from an embedded network or a network extension

4.3.7 Under this option, the Code would be amended to require that the responsible retailer(s) must give an embedded network owner or network extension owner, that has notified them of an intention to convert, at least 40 business days' notice (unless the parties mutually agree otherwise). Further, the retailer(s) would be unable to refuse the conversion. At the moment the Code does not require traders to agree, it just sets out the process. As is currently drafted, the retailer could unnecessarily hold up the conversion process between networks.

4.3.8 The advantage of this approach for minimum notice periods in the Code is that it:

a) provides parties with certainty over the arrangement and time to process system changes and notifications to affected customers. Certainty of conversion is important for retailers, in particular, to reduce the number of, and possibly automate some of, the processes and procedures they have to accommodate such status changes

b) means that the provisions are all in one place (in the Code) rather than the provision being included in Guidelines

c) ensures that retailers are unable to delay the conversion process unnecessarily

d) allows for consistency in that all embedded networks and network extensions are converted in the same way in the same timeframe.

4.3.9 The disadvantage is that prescribing a timeframe in the Code means there is less flexibility for the secondary network owner and the retailer if that timeframe is unsuitable. However, it is commonplace for the Code to prescribe timeframes. Further, the provision could also state 'unless the parties agree on an alternative timeframe' so parties did in fact have an option if 40 business days was not conductive to that situation.

Option 2: include minimum notice period to convert a network in the existing (example embedded network UoSA/model) UoSAs

4.3.10 Under this option, the UoSA would be drafted to allow better co-ordination between the parties and a 40 day notice period be given by the embedded network/network extension owner to the relevant retailer if they propose a transfer of ICPs and the ICP must not be decommissioned without the prior consent of the relevant retailer.

4.3.11 This approach would only partly address the problem as retailers do not have UoSAs with network extension owners. Consequently, including relevant provisions into a UoSA would not achieve the benefits of consistency or certainty of amending the Code.

Option 3: amend the Secondary Network guidelines to establish a minimum notice period for converting a secondary network

4.3.12 The Secondary Network Guidelines could be updated to suggest embedded network/network extension owners to provide retailers with a minimum notice period of 40 business days when converting their network. The guidelines could also be amended to suggest retailers provide their consent to the conversion in the same timeframe. Updating the guidelines would provide clarity about the timeframes for the conversion process. However, the guidelines would not prevent retailers from using the requirement in the Code to gain consent to a conversion from preventing a conversion. Consequently, this option is unlikely to solve the problem which is to provide

consistency and certainty in the timeframe of when any embedded network/network extension is to be converted.

Option 4 (status quo): improved communication and co-ordination

4.3.13 Improved communication and coordination between embedded network/network owners and retailers could address the issues with lack of certainty about process. Retailers could negotiate the timeframe for a conversion directly with secondary network owners.

4.3.14 The success of improved communication and coordination depends on the parties involved. Consequently, it is likely that an absence of any guidance about the conversion process would not avoid the costs identified by retailers.

Q6.	Do you agree with amending the Code to prevent an embedded network owner from decommissioning an NSP before the status in the registry of the associated ICPs is also changed? Please give reasons for your view.
Q7.	Do you agree with mandating a minimum notice period for converting an embedded network or network extension through amending the Code? Please give reasons for your view.
Q8.	Do you consider there are other viable options, in addition to those considered by the RAG, for improving operational efficiency in respect of secondary networks? Please give reasons for your view.

4.4 Promote reliability of supply and efficiency for consumers on secondary networks

Certainty about fault management processes and inefficiency on secondary networks

4.4.1 Reliability of supply for individual consumers is reduced for two reasons:

a) on network extensions, the time required to resolve a fault can be increased because the retailer for a consumer reporting a fault may not know the consumer is located on a network extension. This can result in the associated local distributor incorrectly being asked to identify and resolve fault when responsibility for doing so lies with the network extension owner

b) on a customer network or embedded network, the time required to resolve a fault can be increased because they may not be advised of the fault as soon as possible. In some cases, the consumer reporting a fault may contact a retailer instead of the customer network or embedded network.

4.4.2 Generally, the RAG also considers there would be benefits of secondary networks and retailers clearly defining business to business interactions and assigning responsibility for key functions, particularly fault management. In particular, better communication and coordination between embedded networks and retailers and between customer networks and retailers would assist in reducing the number of consumers contacting the inappropriate party to report a fault (or to assist with some other matter).

4.4.3 The RAG has considered the following options to avoid retailers and consumers incurring unnecessary costs, including uncertainty for the consumer, from inefficient fault management on, primarily, network extensions. The options could also assist to improve individual reliability of supply due to inefficient fault management practices on embedded networks and customer networks.

Option 1: amendment to the (proposed) default UoSA

4.4.4 The proposed introduction of a default UoSA (see section 4.2 above) could be drafted to include a provision that provides certainty over *which* party is responsible for management of a fault when it occurs and to communicate this to the consumer in communications material by the retailer or embedded network owner.

4.4.5 A UoSA is beneficial because it provides parties with flexibility to negotiate terms and conditions in good faith. This approach would allow parties and the consumer to clearly understand their obligations. It would also be straight forward to draft (so perhaps less costly) because provisions for fault management exist in the existing example embedded network UoSA and Interposed/Conveyance UoSAs.

4.4.6 The disadvantage of this option is that it does not address the issues relating to network extensions (or customer networks).

Option 2: improved co-ordination between retailer and secondary network owner and amendment to the example embedded network UoSA /UoSAs

4.4.7 The example embedded network UoSA/model Interposed and Conveyance UoSAs could be amended to ensure certainty over *which* party is responsible for management of a fault when it occurs.

4.4.8 This approach would be straight-forward because provisions of fault management exist in the existing example embedded network UoSA and Interposed/Conveyance UoSAs. A further benefit is that the UoSA provides parties with flexibility to negotiate terms and conditions in good faith.

4.4.9 The disadvantage of this option is that it does not address the issues relating to network extensions (or customer networks).

Option 3: amend the Guidelines for Secondary Networks (preferred)

4.4.10 The Guidelines for Secondary Networks could specify how parties' describe and allocate responsibilities, for example, arrangements for identifying and resolving a fault occurring on a secondary network. This approach has the advantage of covering all types of secondary network, but does not establish binding requirements on parties to do anything.

4.4.11 The Guidelines for Secondary Networks could describe expectations on network extensions to establish appropriate arrangements with the associated local network to record the location of the ICPs on the network extension with the local distributor. This would enable the local distributor to identify immediately if a consumer reporting a fault is on a network extension or on the local network.

4.4.12 The RAG's preferred option is to clearly define parties' roles in managing faults on secondary networks by amending the Guidelines for Secondary Networks. The RAG believes that flexibility in this area is more important for parties than certainty. This is because specifying the full range of scenarios for managing faults on secondary networks is difficult to determine, as faults could be caused either by the local network, or within the secondary network, and so on.

Option 4: amend the Code

4.4.13 Amending the Code to make parties' responsibilities clear and certain when a fault occurs is an option that would provide certainty over the respective roles of each party in the arrangement.

However this option would not provide parties with the same flexibility as under the other considered options.

Option 5: reliance on individual contractual arrangement

4.4.14 The issue of uncertain responsibilities when a fault occurs could be remedied by each party relying on its own contractual arrangement and being directed by the terms and conditions about fault management. This would be a cost-effective option and provide flexibility and certainty on a case by case basis. However, in many cases, the parties do not hold a contract that specifies the process to be followed by the parties when a fault occurs. The RAG was informed by a consumer that their tenancy agreement was silent on electricity supply and any related issues

Option 6: educate consumers over who manages faults on their network

4.4.15 Education of consumers by the retailer/secondary network owner will also be a necessary part of the process. Education only is considered insufficient to solve this issue entirely because of the time taken to educate consumers over this complex area of the electricity industry and it still remains the responsibility of the secondary network owner/retailer. However this option would likely complement the other options set out above on fault management.

Q9.	Do you agree the secondary network guidelines should specify expectations on secondary networks (particularly network extensions) to identify and allocate responsibility for business to business interactions, for example responsibility for fault management? Please give reasons for your view.
Q10.	Do you consider there are viable options, in addition to those considered by the RAG, for improving reliability of supply on secondary networks? Please give reasons for your view.

5 Assessment of benefits and costs

5.1.1 This section contains a *qualitative assessment* of the incremental benefits and costs of the preferred option (counterfactual) against the status quo. It is concluded that the preferred option delivers net economic benefits vis-à-vis the status quo.

5.1.2 The assessment is of the preferred option's net benefits in respect of *embedded networks only*. The preferred option does not have material benefits and costs in respect of customer networks and network extensions, and so a cost-benefit analysis has not been undertaken for them.

5.1.3 This is a preliminary assessment. Information on the types of benefits and costs, and on their dollar value, is sought via this consultation. The assessment will be reviewed upon receipt of feedback from interested parties.

Summary assessment of preferred option's net benefits

5.1.4 The table below summarises the preferred option's net benefits, with reference to the Authority's statutory objective. The qualitative assessment indicates that a default embedded network UoSA is the component of the preferred option with the largest net benefit vis-à-vis the status quo. Of the remaining key elements of the preferred option, the qualitative analysis indicates the net benefits may be minor.

Table 1 Summary assessment of preferred option's net benefits

Preferred option's key elements	Competition net benefits	Reliability net benefits	Efficiency net benefits
Default UoSA for embedded networks	✓	✓? (Possibly faster fault resolution)	✓
Uniform notice period for setting up or decommissioning secondary networks		✓	✓
Standardised data transfer formats	✓?		Questionable whether any benefits

Economic efficiency concepts that underpin this cost-benefit analysis

5.1.5 The economic benefits and costs of the preferred option have been categorised as follows:

i) productive efficiency

ii) allocative efficiency

iii) dynamic efficiency.

5.1.6 *Productive efficiency* is achieved when goods and services desired by consumers are produced at minimum cost to the economy.

5.1.7 *Allocative efficiency* is achieved when the marginal value consumers place on a product or service equals the cost of producing that product or service, so that the total of individuals' welfare in the economy is maximised.

5.1.8 *Dynamic efficiency* is achieved by firms having appropriate incentives to innovate and invest in new products and services over time, thereby increasing their productivity and lowering the relative cost of products and services over time.

Productive efficiency net benefits

5.1.9 Under the preferred option, the transaction costs associated with facilitating competition on embedded networks should be lower than under the status quo.

5.1.10 Transaction costs can be thought of as the costs faced by retailers, embedded network owners and other relevant parties in the sale of electricity to consumers on embedded networks.[32]

Reduced transaction costs associated with negotiating embedded network UoSAs

5.1.11 The transaction costs associated with embedded network owners and retailers entering into embedded network UoSAs include the costs of drafting, reviewing, negotiating, amending, approving and maintaining an embedded network UoSA. These costs include time spent by business analysts, technical experts, lawyers, managers and members of Boards or Body Corporates.

5.1.12 By using the default embedded network UoSA under the preferred option, embedded network owners and retailers are able to avoid a significant amount of the transaction costs associated with entering into embedded network UoSAs. Using the default agreement would also reduce the elapsed time for negotiating embedded network UoSAs (for example, from months to weeks, or from weeks to days).

5.1.13 Transaction costs will not be completely eliminated, for at least two reasons. First, the default embedded network UoSA would need to provide for bilateral negotiation of various inter-business operational details (e.g. service standards, business-to-business information exchange, service interruption and connection policies, and pricing and billing information). Second, the default embedded network UoSA would need to evolve over time to accommodate investment and innovation in service and product offerings by retailers and embedded network owners. These transaction costs could be minimised by the Authority updating the default embedded network UoSA in a timely manner.

5.1.14 Over time the reduced transaction costs associated with negotiating embedded network UoSAs may facilitate some dynamic efficiency benefits. Embedded network owners and retailers could be more willing to make amendments to embedded network UoSAs for reasons of service innovation and product development, knowing that the cost of doing so would be materially less than at present.

[32] Examples of other relevant parties include local network owners and metering equipment providers.

Q11.	Based on your experience, what is the average time and cost for a retailer and an embedded network owner to negotiate and thereafter administer an embedded network UoSA when the retailer is entering the embedded network for the first time?
Q12.	What estimated cost saving would your organisation receive from the use of a default embedded network UoSA?

Reduced transaction costs from standardised data transfer formats

5.1.15 If a default embedded network UoSA is adopted, retailers' cost to serve embedded network customers should be reduced. A default embedded network UoSA arrangement would mandate the use of Electricity Information Exchange Protocols (EIEPs) 1, 2, 3 and 12.[33] This would then standardise the process and format for the exchange of line charge billing and related information between embedded network owners and traders (retailers).[34] This standardisation is expected to reduce the costs currently incurred by retailers in their transactions with embedded network owners.

5.1.16 At least some, but possibly all, of this benefit to retailers would represent a wealth transfer from embedded network owners that do not use these EIEPs to retailers. By not currently using these EIEPs that potentially reduce costs through standardisation, embedded network owners are, in effect, shifting certain costs from themselves (and their customers) to retailers and their customers.[35] Such a transfer of economic wealth would not be taken into account by the Authority if it were to consider a Code amendment in this area.[36]

5.1.17 If embedded network owners were forced to use EIEPs 1, 2, 3 and 12, it is conceivable the benefit to retailers and their customers would be less than the cost to embedded network owners and their customers. That is, the overall cost increase for embedded network consumers could be greater than the overall cost decrease for local network consumers.

5.1.18 There may be some competition benefits for embedded network consumers from adopting EIEPs. These competition benefits would result from more retailers being prepared to compete on more embedded networks.[37]

---

[33] Retailers and distributors are required to use EIEPs 1, 2, 3 and 12 if they have entered into a UoSA.

[34] EIEP 1 sets out a format for traders (retailers) to use when providing billing and volume information to distributors at an ICP level, to support the invoicing of fixed and variable line charges and/or to meet operational information requirements of the distributor. It also allows distributors to provide information to traders to support line charge invoices and traders to reconcile the distributor's line charges.

EIEP 2 sets out a format for traders to use when providing aggregated EIEP 1 billing and volume information to distributors. It can also be used by distributors to provide information to traders that supports the distributor's invoice and assists with reconciliation of the distributor's charges.

EIEP 3 sets out a format for traders to use when providing billing and volume information to distributors at an ICP level, to support the invoicing of fixed and variable line charges where half hour metering information is required. For embedded networks this EIEP allows embedded network owners to provide billing and volume information to the parent network owner.

EIEP 12 sets out a format for distributors to use when notifying retailers of changes to tariffs, including the introduction or removal of tariffs.

[35] Consumers are anticipated to be the ultimate recipients of any benefits/costs from standardising data transfer formats.

[36] Refer to the Authority's interpretation of its statutory objective, available at: www.ea.govt.nz/dmsdocument/9494.

[37] It is not just the number of retailers competing on an embedded network that facilitates competition, but also the *threat* of new entrant retailers competing.

5.1.19 Overall, based on information to hand, it is not currently possible to determine whether there would be a positive or negative net economic benefit from fewer embedded network tariffs, and from standardising the format for exchanging embedded network tariff information.

Q13.	What would be the cost saving or additional cost to your organisation if embedded network owners were required to use EIEP 1, 2, 3 and 12?

Reduced transaction costs associated with changing the status of an embedded network

5.1.20 Under the preferred option the Code would be amended to specify a minimum timeframe for converting an embedded network or network extension to a customer network. This minimum timeframe should reduce transaction costs, and provide sufficient time to notify affected consumers, for retailers operating on many secondary networks.

5.1.21 It will enable retailers in particular, but also local network owners, to reduce the number of processes and procedures they have to accommodate such status changes. It may also enable retailers, and possibly local network owners, to automate manual processes and to reduce the number of manual workarounds of existing automated processes.

Q14.	What would be the cost saving to your organisation from adopting the notice period in the RAG's preferred option?

Allocative efficiency net benefits

5.1.22 Electricity consumers on embedded networks may receive a greater level of satisfaction from the distribution services they receive under a default embedded network UoSA than under existing embedded network UoSAs. In economic terms, the 'consumer surplus' under a default embedded network UoSA may be greater than under the suite of existing embedded network UoSAs.38

5.1.23 It is the RAG's understanding that an improvement in consumers' satisfaction with embedded network distribution services could be made in respect of:

i) establishing very clear definitions of services received by consumers on embedded networks, defining measures against which to gauge embedded network owners' service performance, and specifying target service levels (for example, the management of faults on embedded networks)

ii) providing further clarification in respect of various activities where embedded network owners interact with consumers on embedded networks (for example, entering a consumer's premises, responding to a request for disconnection).

5.1.24 It is unknown whether these and other improvements under the proposed default embedded network UoSA would result in material additional ongoing costs to embedded network owners. If there were to be an increase in costs for embedded network owners and these were to be passed on to embedded network consumers, then provided this cost was smaller than what the consumers were prepared to pay for the improved service, consumer surplus would increase and there would be a net benefit. However, the reverse may hold.

[38] Consumer surplus is the economic term for the benefit a consumer receives from buying a good or service. It is the difference between the price a consumer pays for a good or service and the maximum price that consumer would be prepared to pay for the good or service.

5.1.25 Operational cost savings for retailers and local network owners as a result of these improvements are expected. For example, secondary network consumers would be expected to liaise more with their secondary network owner over faults, rather than their retailer and/or the local network owner. Assuming the markets for retail and local network services are delivering workably competitive outcomes, these savings should be passed onto consumers over time.[39]

5.1.26 Overall, it is expected that the allocative efficiency net benefits from using a default embedded network UoSA will be positive, although relatively minor.

Q15.	What would be the cost saving or additional cost to your organisation from clarifying with consumers on embedded networks that the embedded network owner has responsibility for the management of faults, not retailers or local network owners?

Dynamic efficiency net benefits

5.1.27 In some markets, uniform standards have the potential to reduce service and product innovation, as well as to delay improvements to customer service standards (including the cost-effectiveness and efficiency of customer services). The market for designer clothing can be thought of as a good example of this situation. That is, uniform standards in the designer clothing industry would reduce designers' creativity and innovation in clothing.

5.1.28 However, where there is a monopoly provider of a service or product with a high degree of homogeneity across the consumers of that service or product, uniform standards can be an efficient means by which to reflect the preferences of those consumers. This, in turn, provides an opportunity for third parties to provide value-add services or products based on the underlying product or service.

5.1.29 The provision of electricity distribution services on embedded networks is a reasonably good example of this situation. Embedded network owners provide a relatively homogenous service that enables consumers on embedded networks to purchase energy from retailers offering relatively heterogeneous products or services.

5.1.30 In this situation the greatest dynamic efficiency gains arise from strong competition between the energy retailers using the embedded network, as they seek to innovate and offer new and/or more cost-effective products or services to consumers over time. In this way, dynamic efficiency is enhanced by having uniform standards for the provision of embedded network services.

5.1.31 An important caveat is that the standards must be capable of evolving over time where this assists product or service innovation, on the part of embedded network owners as well as retailers, and therefore enhances dynamic efficiency. The RAG anticipates that a default embedded network UoSA would evolve over time, as the electricity regulator's information set evolved.

5.1.32 The RAG's proposed approach also provides for embedded network owners and retailers to bilaterally agree variations to a default embedded network UoSA. This recognises that many individual economic agents will collectively have superior information than the regulator.

[39] The Authority interprets competition to mean workable or effective competition. Under workable competition, for example, sellers compete on price, quality, location and/or service, or by differentiating their goods or services from their rivals, or through their sales and marketing effort, or via a combination of those activities. Refer to the Authority's interpretation of its statutory objective, available at: www.ea.govt.nz/dmsdocument/9494.

5.1.33 By providing for this flexibility in negotiating an embedded network UoSA, the RAG considers it unlikely that adopting the preferred option will have significant adverse impacts on dynamic efficiency.

5.1.34 On the other hand, the RAG believes there may be reasonable material dynamic efficiency benefits from adopting a default embedded network UoSA, through the lowering of barriers to entry for entrant retailers on embedded networks.

5.1.35 Enhanced retail competition, including the threat of entrant retailers on embedded networks, increases competitive pressure on electricity prices and encourages efficient investment in capital goods and innovation. It provides embedded network consumers with greater confidence that the price of electricity more closely reflects the marginal cost of producing, transporting and retailing electricity to them, and that price movements are driven by underlying supply and demand movements.

5.1.36 This is consistent with the Authority's interpretation of the competition limb of its statutory objective, which is that the Authority will [exercise] its functions in ways that facilitate or encourage increased competition in the markets for electricity and electricity-related services, taking into account long-term opportunities and incentives for efficient entry, exit, investment and innovation in those markets.40

5.1.37 By reducing the transaction costs associated with retailers entering embedded networks, adopting a default embedded network UoSA should increase the number of retailers/traders competing on embedded networks. Alternatively, it should reduce the likelihood of retailers/traders ceasing to compete on embedded networks. This in turn would lead to increased competitive pressure on electricity prices in embedded networks vis-a-vis what would arise under the status quo.

5.1.38 In summary, the dynamic efficiency benefits from adopting a default embedded network UoSA are expected to be larger than any potential dampening of dynamic efficiency from adopting such an arrangement.

Q16.	Do you agree that the adoption of a default embedded network UoSA will enhance retail competition on embedded networks? Please give reasons supporting your answer.

Establishment costs

5.1.39 The Authority and industry participants would incur implementation costs if the RAG's preferred option were to be implemented.

5.1.40 The Authority's costs would relate primarily to the cost of preparing a default embedded network UoSA, including consultation with interested parties.

5.1.41 Participants' costs would primarily relate to responding to further consultation documents released by the Authority, and making any necessary changes to their internal policies, procedures and systems to accommodate the terms of the default embedded network UoSA and the Guidelines for Secondary Networks.

[40] Paragraph A.30 of the Authority's interpretation of its statutory objective, available at: www.ea.govt.nz/dmsdocument/9494.

Q17.	What is the cost estimate for your organisation to review and comment on a draft default embedded network UoSA, prepared using the Authority's model local network UoSA and the Authority's guidelines for drafting embedded network UoSAs?

Appendix A Format for submissions

Question No.	General comments in regards to the:	Response

Appendix B Jurisdiction over secondary networks

5.1.42 The legal framework for secondary networks includes the:

a) the Act[41]

b) Commerce Act 1986[42]

c) Fair Trading Act 1986[43]

d) Consumer Guarantees Act 1993[44]

e) the Code[45]

f) Guidelines for Metering, Reconciliation and Registry Arrangements for Secondary Networks[46]

g) Guidelines for drafting embedded network use of system agreements[47]

h) Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.

5.1.43 The legislative requirements do not explicitly specify:

a) that consumers must have individual choice of retailer

b) a reasonable notice period for retailers and secondary network owners to set up or decommission a secondary network

c) clear responsibilities for managing faults on secondary networks

d) a mandatory UoSA for embedded networks.

5.2 The jurisdiction of the Commerce Commission and the Authority

5.2.1 The RAG is mindful of potential confusion between the Authority's role and that of the Commerce Commission. The Commerce Commission is responsible for enforcing the Fair Trading Act and the Commerce Act, which help promote competition. For this reason, the RAG considers a number of the issues raised on secondary networks during the course of its research may fall in an area that the Commerce Commission is responsible for, not the Electricity Authority. In brief:

a) the Fair Trading Act helps ensure consumers get accurate information when making purchasing decisions. The Fair Trading Act makes it illegal for businesses to mislead consumers, give false information, or use unfair trading practices. The Fair Trading Act does not tell businesses what they can or cannot charge customers but it does tell businesses that their prices, and how they represent those prices, must be accurate[48]

---

41 Electricity Industry Act 2010, available at: www.legislation.govt.nz/act/public/2010/0116/latest/whole.html#DLM2634233.

42 Commerce Act 1986, available at: www.legislation.govt.nz/act/public/1986/0005/latest/DLM87623.html.

43 Fair Trading Act 1986, available at: www.legislation.govt.nz/act/public/1986/0121/latest/DLM96439.html.

44 Consumer Guarantees Act 1993, available at: www.legislation.govt.nz/act/public/1993/0091/latest/DLM311053.html.

45 Electricity Industry Participation Code, available at: www.ea.govt.nz/code-and-compliance/the-code/.

46 Guidelines for Metering, Reconciliation and Registry Arrangements for Secondary Networks, available at: www.ea.govt.nz/dmsdocument/6077.

47 Guidelines for drafting embedded network use of system agreements, available at: www.ea.govt.nz/dmsdocument/13648.

48 Commerce Commission, *Electricity and the Commerce Commission's role* www.comcom.govt.nz/regulated-industries/electricity/electricity-role/.

b) the Commerce Act is intended to promote competition in markets for the long-term benefit of consumers. The Commerce Commission regulates markets where competition is limited because, in these circumstances, there is the risk that consumers are overcharged or do not receive the quality of service they require. For electricity, the Commerce Commission investigates anti-competitive behaviour across the electricity industry and regulates transmission and distribution lines services. The Commerce Act makes a range of anti-competitive behaviour illegal, including where a business uses its market power anti-competitively.[49] Under section 36 of the Commerce Act, a business that has a substantial degree of power in a market must not take advantage of that power to restrict the entry of another business into that or any other market or prevent or deter a business from engaging in competitive conduct in that or any other market.[50]

5.2.2 The memorandum of understanding between the Authority and the Commerce Commission sets out the respective roles under the Act and the Commerce Act.[51]

5.2.3 The Authority must consult with the Commerce Commission before amending the Code in a manner that will, or is likely to, affect the Commerce Commission in the performance of its functions or exercise of its powers.[52]

5.2.4 Under Part 4 of the Commerce Act 1986 suppliers of electricity lines services are subject to default/customised price-quality regulation. However, as most customer networks convey electricity for a total number of less than 500 consumers with a total amount of electricity that is less than 20 gigawatt hours per year, the customer networks are likely in all cases to be exempt from both price-quality regulation and information disclosure requirements. Furthermore, even if they were subject to price-quality regulation, the Commission does not control the pricing methodology of regulated suppliers.

5.2.5 The Ministry of Business, Innovation and Employment (MBIE) administers the Act. If it was decided that more stringent regulation is required or, for example, that a particular type of network ought to be absolved, then MBIE would be responsible for this decision.

[49] Commerce Commission, *Electricity and the Commerce Commission's role*, www.comcom.govt.nz/regulated-industries/electricity/electricity-role/.

[50] See section 36 of the Commerce Act.

[51] MOU between the Authority and the Commerce Commission, available at: www.ea.govt.nz/dmsdocument/8957.

[52] See section 54V of the Commerce Act.