



# FC0021

## Capital Contributions Policy

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# FC0021 Capital Contributions Policy

## Overview

### Document status

Draft In Service Under Review Archived 

### Document purpose

The purpose of this policy is to provide a description of any potential capital contribution required by Unison Networks Limited ('Unison') when a customer requests:

- a new or modified connection to Unison's electricity distribution network, or
- the relocation of network assets.

This policy applies to all Customer Connection Projects and customer requested relocation of network assets undertaken by Unison.

This policy meets the requirements of section 2.4.6 of the Electricity Distribution Information Disclosure Determination 2012.

### What is covered in this policy

This policy covers:

- the capital contributions a customer is required to make for the provision of:
  - Network Connection Points
  - System Network Extensions
  - Network Connection Point Upgrades
  - Network Connection Point Downgrades
  - Relocation of Network Assets
  - Overhead to Underground Conversion ('OHUG'), and
  - Reticulation of New Subdivisions
- the general rules that apply to Customer Connection Projects in respect of Unison's system network.

#### Note

Unison reserves the right to vary terms and conditions on a case-by-case basis at its sole discretion.

### Intended audience

This policy applies to all Unison customers.

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## Overview, Continued

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<b>Document contributors</b>	<b>Contributors</b>	<b>Name and Position Title</b>	<b>Approval Date</b>
	Creator	Jason Larkin Commercial Manager	17/03/2017
	Authoriser	Len Gould General Manager – Commercial	22/03/2017
	Approver	Ken Sutherland Group Chief Executive	27/03/2017

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<b>Key dates</b>	<b>Published Date</b>	28/03/2017
	<b>Next Review Date</b>	07/02/2019

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<b>Related references</b>	<b>Legislation</b> <ul style="list-style-type: none"><li>• Electricity Act (1992) and Amendments</li><li>• Electricity Distribution Information Disclosure Determination 2012</li></ul>
	<b>Unison Policy</b> CM0001 Pricing Policy and Schedules Policy

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<b>Clarification</b>	Clarification of any matter referred to in this document should be directed to:  Commercial Manager Unison Networks Ltd PO Box 555 HASTINGS 4156  Or  1101 Omahu Rd HASTINGS 4120  Ph (06) 873 9300      Fax (06) 873 9311
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<b>Communication</b>	When customers approach Unison about a Customer Connection Project, Unison's Customer Delivery Team will make them aware of this policy and the accompanying procedures.
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## Overview, Continued

### Content

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# 1. Definitions/Abbreviations

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**Augmentation** The enhancement of electrical distribution assets for the distribution or associated with the distribution of electricity. These enhancements are to:

- meet projected system demand, and
- maintain network performance in accordance with the requirements of the Electricity Act (1992).

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**Capital contribution** Capital funding required from the customer in order for Unison to be able to:

- provide the connection or undertake the requested works, and
- achieve an economic rate of return on the project or projects.

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**Consumer** The person who is responsible for the energy consumed at the Network Connection Point.

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**Cost of capital** The opportunity cost of the funds employed as a result of an investment decision. The rate of return that a business could earn if it chose another investment with equivalent risk.

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**Customer** A party (person, persons, trust, corporation or company), or agent thereof, who requests connection to Unison's electricity network, or an upgrade or downgrade.

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**Customer Connection Projects** Projects that require capital expenditure predominantly associated with:

- establishing new Network Connection Points
- making alterations to the existing Network Connection Points, or
- relocating network assets.

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**Downgrades** Customer requests to reduce the capacity of network connection(s) and associated delivery charges. This reduction is through the replacement of existing electrical distribution assets, with assets of a lesser capacity within the existing system network for the distribution, or associated with the distribution of electricity.

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**Electrical distribution assets** Electrical distribution assets include lines, cables, transformers or additional switch gear.

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**Extension** The addition of electrical distribution assets for the distribution or associated with providing a Network Connection Point.

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## Definitions/Abbreviations, Continued

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<b>Network Connection Point</b>	The point on the system network where the consumer is connected. In most situations this is also the point where the responsibility for the equipment that conveys electricity transfers from Unison to the consumer.
<b>Network reticulation</b>	The provision of electrical distribution assets for the distribution or associated with the distribution of electricity within the existing system network.
<b>Network service zone</b>	The area defined for the purpose of service levels and pricing in respect of urban and rural customers as detailed on Unison's website <a href="http://www.unison.co.nz">www.unison.co.nz</a> .
<b>OHUG</b>	Overhead to Underground (OHUG) conversion – is the relocation and replacement of overhead distribution assets to underground and ground mounted assets, for the distribution or associated with the distribution of electricity within the existing system network.
<b>Project costs</b>	All costs relating to the Customer Connection Project.
<b>Rural</b>	Network service zone in Unison's network coverage area deemed to be part of Unison's rural network. This is for the purpose of service levels and for determining the applicable capital contribution rate for standard connections.
<b>Standard connections</b>	Single residential, general and small commercial connections to: <ul style="list-style-type: none"><li>• the existing network within 30 metres of the existing network, and</li><li>• upgrades by residential and small commercial customers.</li></ul>
<b>Substation</b>	Transformer and associated fittings including switchgear, earthing, protection, structure and foundations, and all connections made to them.
<b>System network</b>	The existing electrical distribution assets owned or operated by Unison Networks Limited for the distribution, or associated with the distribution of, electricity to end consumers.
<b>Unison</b>	Unison Networks Limited trading as Unison.
<b>Upgrades</b>	Works undertaken to increase the capacity of a Network Connection Point.

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## Definitions/Abbreviations, Continued

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<b>Urban</b>	Network service zone in Unison's network coverage area deemed to be part of Unison's urban network. This is for the purpose of service levels and for determining the applicable capital contribution for standard connections.
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## 2. Policy Statement

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**2.1 Statement** Unison may require its customers to pay a capital contribution when they request a new or altered connection to its electricity distribution network.

Unison reserves the right to review customer connection projects and associated capital contributions on a case-by-case basis.

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## 3. Background

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**3.1 Process** The first step in determining a customer's contribution to reticulate power and connection to a site is deciding a 'fit for purpose' solution. This takes into account:

- customer's load/demand requirements
- specific customer requirements (dedicated solution)
- non-standard customer requirements (e.g. lower or higher security and reliability), and
- any network augmentation required to meet the customer's load and projected system load.

It determines whether the proposal is a standard connection or a complex project.

The capital contribution for a standard connection is priced at a standard unit rate (standard capital contribution) depending on the connection type and location. Refer to *Appendix A* for Unison's standard capital contribution rates.

In the case of complex projects in some cases the required works could include an extension of the network (including network reinforcement). Unison will provide an initial estimate of the:

- total costs of the project, and
  - capital contribution required to be paid by the customer.
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## Background, Continued

### 3.1 Process (cont)

If the customer decides to proceed to the detailed design stage and pays the required capital contribution pre-payment:

- a detailed design will be completed, and
- a quote will be provided to the customer. It will detail the:
  - scope of works to be undertaken
  - capital contribution required to be paid by the customer, and
  - price category or delivery charges that will apply in respect of any new or upgraded/downgraded connection.

In accepting the project design and quoted price, the customer enters into a contract with Unison. This means the customer agrees to pay the capital contribution toward the project.

Unison may determine an agreement (Line Function Service Agreement) is required with the customer. This will be based on the:

- level of investment required, and
- investment risk profile associated with a Customer Connection Project.

This agreement may include:

- an investment charge, and
- a termination payment schedule to protect Unison's future revenue stream associated with the Customer Connection Project.

These charges and payment schedule are determined based on the 'level of investment and applicable cost of capital' of the project.

## 4. Customer Obligations

### 4.1 Customer obligations and requirements

When a customer makes an application to Unison they must satisfy all of the obligations and comply with all of requirements listed in the table below.

	<b>Customers must satisfy all obligations and comply with all requirements relating to...</b>
<b>Easement</b>	easements as applicable.
<b>Vegetation</b>	vegetation as applicable.
<b>Statutory requirements and issues</b>	statutory requirements and issues as applicable.
<b>New Connections</b>	new connections as applicable.
<b>Capital Contribution</b>	capital contribution as applicable. These requirements and obligations are described in <i>Section 5</i> of this policy.

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## Customer Obligations, Continued

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**4.2 Provision of information** The customer will be required to provide all the necessary information to enable a detailed design, construction plan, and estimation of consumption and demand for the customer project.

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## 5. Capital Contribution

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**5.1 Level of capital contribution for a new investment** Unison will own the electrical distribution assets installed in association with the Customer Connection Project. The customer will be requested to make a capital contribution. The level of capital contribution required is determined based on the project meeting the required rate of return for the investment in line with Unison's 'Cost of Capital'.

Projected future revenue is based on the applicable price category and price options from any new customer connection. For a project investment to be economic, future revenue must cover:

- the cost to operate and maintain any proposed new extension (including indirect administration costs), and
- an appropriate share of the cost to operate and maintain electrical distribution assets upstream from the Network Connection Point. This approach ensures existing customers are no worse off following the connection of a new user. As the expected network revenue from the new customer (in the form of additional charges and/or capital contribution) will cover the incremental cost of supply.

The capital contribution required will be calculated based on the net present value (NPV) of the project. This includes all associated costs and revenue streams over an appropriate period. A negative NPV indicates the investment would be uneconomic for Unison, therefore a capital contribution payment is required from the customer.

Unison's price schedule containing delivery prices for each price category and price option can be found on Unison's website [www.unison.co.nz](http://www.unison.co.nz).

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## Capital Contribution, Continued

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### 5.2 Formula for calculating contribution

The following general approach is used to determine the level of contribution required for a project or projects:

+ Investment in the customer initiated project or projects  
+ Present value (PV) of maintenance and operating expenditure  
**= Total Costs**

– PV of future revenue streams projected from customer (post tax and costs)  
– Equipment salvage value (if any)  
**= Customer Contribution**

For standard connections the capital contribution rate reflects the average contribution required for these types of connections as outlined in *point 5.3*.

Should another customer connect to the network at a point established previously as a Customer Connection Project, the first initiated customer will not be entitled to any refund.

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### 5.3 Types of Customer Connection Projects

#### 5.3.1 Types of Customer Connection Projects

Unison applies the following distinction for Customer Connection Projects:

- Standard Connections (Unit Rate Projects), and
- Complex Projects.

#### 5.3.2 Standard Connections (Unit Rate Projects)

Standard connections for up to two residential new connections to the existing network:

- require a single or two phase 60 Amp or 3 phase 40 Amp connection, and
- are eligible for Unison's residential or distributed generation price categories, low user (M11, G11, TLU), standard (M12, G12, THU), or
- are eligible for Unison's non-permanent residential price category (DNR).

Standard connections up to two small general new connections to the existing network:

- require a single or two phase 60 Amp or 3 phase 20 Amp connection, and
  - are eligible for Unison's general price categories (NDL, NDH and TCU).
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## Capital Contribution, Continued

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### 5.3 Types of Customer Connection Projects (cont)

Standard connections up to two small commercial new connections to the existing network:

- require connections up to 3 phase 100 Amp connection, and
- are eligible for Unison's small commercial price category (MC1).

Unison has standard capital contribution rates for standard connections to the network as per *Appendix A*.

Eligibility for different price categories is detailed in Unison's Pricing Policy available on Unison's website [www.unison.co.nz](http://www.unison.co.nz).

In determining this approach and setting the level of the capital contribution rates, consideration has been given to the principles listed below.

- There should be equity in the allocation of the cost of connection among smaller consumers with similar requirements. The specific cost associated with each connection relates to the provision of the network connection service. Although the actual cost for establishing a connection is dependent on the specific situation, the administrative cost of calculating a specific price for most small connections would make it cost prohibitive.
- A further consideration is that actual costs depend on many variables. For example:
  - which side of the street the existing network is located
  - the availability or not of capacity in an existing distribution transformer, and
  - the availability or not of a point of connection.

These are factors that are a function of network topology. They cannot be reasonably foreseen by a customer wanting to connect to the low voltage network. Therefore, specific costs should not be allocated to the individual customer. Rather, standard capital contributions rates should be set at a level ensuring this group of smaller customers contribute sufficiently to the costs of standard connections in aggregate. This will ensure an economic return on the total investments associated with providing standard connections. Also, the level of standard capital contributions rates should ensure other existing network customers are not burdened with meeting part of these costs.

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## Capital Contribution, Continued

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### 5.3 Types of Customer Connection Projects (cont)

- The level of standard capital contributions rates is determined based on the average contribution required from customers needing standard connections. This ensures Unison receives an economic return at its regulated cost of capital. This level of contribution is reviewed annually. This review is based on the prevailing cost levels and average revenue per customer for a given type in the prior year.
- A standardised approach to pricing of standard connections reduces administrative costs associated with administering the pricing of the capital contribution requirement for each standard connection project individually. This ensures Unison is delivering efficiency in the cost of connection and service to customers.
- A distinction is made between the rate for urban and rural connections. This reflects the:
  - additional cost in mileage and travel time associated with establishing rural connections, and
  - greater requirement for the establishment of new assets including poles and transformers in a rural situation. Whereas, in an urban situation the existing distribution infrastructure is in most cases sufficient.

#### Note

Where an extension to the network is required to provide a connection (for example, more than one pole must be established, or an extension greater than 30m to the existing network is required) these standard rates for residential and small commercial connections do not apply. In these instances, Unison's policy for contributions to 'Complex Projects' applies.

#### 5.3.3 Complex Projects

Complex projects are all works that are not standard connections. For example, subdivisions, large connections, upgrades of network connection capacity, and network asset relocations. The capital contribution required will be determined based on the net present value (NPV) of the project. This includes all associated costs and revenue streams over an appropriate period according to the formula in *point 5.2*. A negative NPV indicates the investment would be uneconomic for Unison. Therefore, a capital contribution payment is required from the customer. The factors listed below must also be taken into account when determining the Customer Connection Project NPV and capital contribution required.

- The value of any deferral of planned and budgeted renewal expenditure from the early replacement of existing assets due to customer initiated work will be determined and taken into consideration.

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## Capital Contribution, Continued

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### 5.3 Types of Customer Connection Projects (cont)

- The timeframe and rate of future connections projected as part of the project taking into account:
  - market conditions
  - build timeframes, and
  - urban/rural subdivision.

Timeframes used are based on actual experience over an extended period. As a guide, connection uptake for rural residential subdivisions will generally be phased over 10 years and urban residential subdivisions over five years.

- Where a significant upgrade of Unison's network is required to accommodate additional load, Unison will deduct associated network general costs from the total cost of the Customer Connection Project. The purpose of this is to determine the capital contribution required. Network general costs are the proportion of costs associated with providing the increased capacity that existing and future upstream customers will benefit from.
- A proportional share of existing upstream assets, based on the maximum anytime or peak loading on network assets, will be included in the total Customer Connection Project value. This value will be used for determining the capital contribution required and any investment charges.

Unison incorporates a minimum capital contribution in its incremental profitability assessment. This discourages 'inefficient' investment by exposing new connections to a portion of the financial cost of the works. It also incentivises new connections to size their connection appropriately in order to minimise the cost of augmentation.

The minimum capital contribution will take into account the non-recoverable incremental project costs. Generally, non-recoverable incremental project costs are equivalent to the value of assets physically or economically not able to be re-deployed in the event the new connection no longer requires them.

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### 5.4 Augmentation of system

Where Unison determines augmentation is advantageous to Unison, Unison will:

- identify the level of benefits, and
- determine an appropriate cost split between Unison and the customer.

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### 5.5 Special enhancements

Where a customer's Network Connection Point requires special enhancements, the cost of these enhancements will be charged to the customer.

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## Capital Contribution, Continued

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- 5.6 Downgrades** Where a downgrade is requested the cost of the downgrade is payable in full by the customer.
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## 6. Embedded Networks

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- 6.1 Third party ownership** If a customer chooses to:
- take supply directly at 11kV, and
  - provide and maintain their own transformer and substation, and/or
  - operate their own embedded network.

All assets not owned by Unison, but connected to Unison's network must be maintained in accordance with Unison's network standards.

If ownership of any new reticulation resides with any other party, Unison will provide, and charge for, the reticulated assets installed up to the Network Connection Point.

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- 6.2 Metering** Embedded networks will be metered at 11kV unless supply is taken from a 400V feeder. The customer is responsible for ensuring, together with their electricity retailer, that compliant metering and current transformers (CTs) are provided and maintained. These must be in accordance with the Electricity Industry Participation Code – Part 10.
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- 6.3 Maintenance** When an electrical supply is provided to an embedded network Unison is not the distribution service provider within the embedded network. Unison must be provided with evidence of a long-term contractual arrangement for continuity and maintenance of supply within the embedded network.
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## 7. Fuse Requirements

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- 7.1 Requirements** If upon livening a Customer Connection Project it is identified the actual customer demand requires a variation to fusing, Unison may make an adjustment to the required contribution. The customer must pay any additional contribution associated with this.
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## 8. Roothing Authorities

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- 8.1 Obligations** Unison ensures it meets all of its obligations in relation to undertaking network asset relocations at the request of Roothing Authorities including any associated cost sharing. These obligations are described in the Electricity Act 1992 and subsequent amendments.
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## 9. Relocation of Network Assets

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- 9.1 Obligations** Unison will accommodate the relocation of existing assets where Unison determines relocation is environmentally sound, prudent and economically viable for Unison.

Unison will determine the capital contribution payable to make the relocation:

- economically viable, and
  - consistent with the principle of the apportionment of costs in proportion to the benefits received between Unison and the customer requiring the relocation.
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## 10. Using Independent Contractors

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- 10.1 Contractors** Unison undertakes all Customer Connection Project works and does not permit the use of independent contractors. This ensures:

- Customer Connection Projects are carried out in a cost effective manner that maintains the integrity of Unison's asset standards, and
- asset management strategies which are designed to deliver whole of life value from Unison's assets.

More information on Unison's asset management strategies can be found in Unison's Asset Management Plan available on Unison's website [www.unison.co.nz](http://www.unison.co.nz).

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## 11. Consistency with Pricing Principles

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- 11.1 Pricing principles** Unison's approach to determining capital contributions outlined in this policy is consistent with Unison's Pricing Objectives and Principles. These are contained in Unison's Pricing Methodology Disclosure available on Unison's website [www.unison.co.nz](http://www.unison.co.nz).

They are consistent with Electricity Authority's and Commerce Commission's pricing principles and are subject to oversight by these industry regulators.

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## Appendix A – Standard Capital Contributions

### Charges – standard connections

Unison has standard capital contribution levels to establish new points of connections to the existing network for residential, general and small commercial customers. The level of these contributions is determined in accordance with this policy and reviewed annually. Listed below are the current capital contributions rates.

Service	Zone	Price Categories	Price
Standard Connection/ Upgrade	Urban	Residential/Distributed Gen	\$750+GST
	Rural	Residential/Distributed Gen	\$1,500+GST
	Urban	General, Non-Permanent Residential	\$2,000+GST
	Rural	General, Non-Permanent Residential	\$2,500+GST
	Urban	Small Commercial (MC1)	\$4,000+GST
	Rural	Small Commercial (MC1)	\$5,000+GST



## Appendix B – Summary of Document Changes

Date	Version No.	Changes to Document	Creator	Authoriser	Approver
26/06/2006	1.0	New Policy – Financial Contribution Policy  Replaces Internet version v2.4; 030604BB	Commercial Analyst	GM Finance & Commercial	Chief Executive
01/07/2009	2.0	Full Policy review.  Definitions and Section 9 rewritten.	Commercial Specialist	Commercial Manager & Chief Financial Officer	Chief Executive
23/05/2013	3.0	Update into new template with minor updating.  Point 3.1 and 5.2 updated to exclude reference to tendering process.  Point 5.3 updated.  Point 6.2 MARIA compliant meters changed to Electricity Authority compliant meters.	Commercial Manager	GM Commercial	Group Chief Executive
06/08/2014	4.0	Full review.  Policy updated to include the requirements of section 2.4.6 of the Electricity Distribution Information Disclosure Determination 2012.  New definitions added for Capital Contributions, Rural, Urban, Upgrades and Network Service Zones.  Addition of point 5.2 – Formula for calculating contribution  Addition of new sections: <ul style="list-style-type: none"> <li>• 6 – Standard Schedule of Capital Contribution Charges</li> <li>• 10 – Using Independent Contractors, and</li> <li>• 11 – Consistency with Pricing Principles.</li> </ul>	Commercial Manager	GM Commercial	Group Chief Executive

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## Appendix B – Summary of Document Changes, Continued

Date	Version No.	Changes to Document	Creator	Authoriser	Approver
07/02/2017	5.0	Full Review. Updates made throughout policy.  Policy Statement amended.  Additions: <ul style="list-style-type: none"> <li>• Section 9 Relocation of Network assets, and</li> <li>• Appendix A – Pricing schedule for standard connections.</li> </ul>	Commercial Manager	GM Commercial	Group Chief Executive
27/03/2017	5.1	Minor review.  Point 5.3 Types of Customer Connection Projects – updated.  Appendix A – Standard capital contributions rates updated following annual review.	Commercial Manager	GM Commercial	Group Chief Executive