

Guide to electricity capital contributions



Updated 2023

Contents

Introduction.....	3
Definitions	3
Objective of the contribution policy.....	5
Customer initiated works process.....	6
Can I use my own contractor?.....	7
Is there a non-network solution?	7
Will I have to pay a contribution and how will it be calculated?.....	7
1. Customer contribution assessment principles.....	7
2. How do I know how much to pay?.....	8
3. Types of customer-initiated work.....	9
3.1 Standard investment amounts	9
3.2 "Medium" & "Complex" project investment amounts.....	12
What if I have questions about the contribution?.....	13
Consistency with Electricity Authority pricing principles.....	13

Introduction

This Policy describes Powerco Limited's methodology for calculating customer capital contribution. The Policy meets the requirements of clause 2.4.6 of the Electricity Distribution Information Disclosure Determination 2012.

If you want to connect to Powerco's electricity distribution network or you require alteration to existing services, we may require you to contribute towards the capital costs of the design and installation of these electricity assets. This payment is called a capital contribution or a customer contribution.

This guide outlines when you may be required to contribute, how the amount is calculated, and the process that is followed.

Powerco reviews its policy on customer contributions annually. This guide is updated on the Powerco website (www.powerco.co.nz) after any changes are made. After reading this guide, if you have any further questions about our customer contributions process, please contact Powerco using any of the following details:

e-mail: CustomerWorksEastern@powerco.co.nz

phone: 0800 POWERCO (0800 769 372)

web: www.powerco.co.nz/Contact-Us

Large commercial and industrial customers who have a Powerco Account Manager should contact their Account Manager directly or email CustomerRelations@powerco.co.nz for any questions on customer contributions.

Definitions

The following technical terms are used in this guide and defined below:

Capital Contribution is the amount of money a customer must contribute to the Customer Initiated Work to enable the work to proceed.

Customer Initiated Work means work to construct new assets that will form part of Powerco's network (and be owned by Powerco) and/or work to upgrade, alter or relocate existing Powerco assets for any of the following reasons:

- a) the connection of a new customer to Powerco's network
- b) the extension of Powerco's network into new subdivisions
- c) the upgrade of Powerco's network to meet the electrical capacity¹ needed for the purposes of (a) or (b), or to meet the electrical capacity needs of an existing customer where their load or capacity requirements have increased
- d) the relocation, alteration or removal of the existing Powerco network for an existing customer or a third party with an interest in the assets.

¹ Capacity upgrades may be for load or generation.

For upgrades to Powerco's existing electricity network, work that will form part of the Customer Initiated Work includes:

- a) all 400V network work
- b) distribution transformer work (including associated ancillary equipment, switchgear, fusing and enclosure) where the new load represents more than 10% of the capacity of the existing distribution transformer
- c) all distribution feeder work (including all associated distribution assets: overhead lines, switchgear, switches, auto-reclosers and sectionalisers, underground cables and associated ancillary equipment) where the new load represents more than 10% of the existing capacity of the feeder or part of the feeder being utilised or any item of the distribution assets
- d) all zone substation and sub-transmission work where the new load represents more than 10% of the capacity of the supply zone substation and the new load is greater than 2,000kVA anytime peak demand.

Customer Contribution (see Capital Contribution)

Customer Work means poles, lines, cables, fittings, mains and other assets between the Point of Supply and the customer's premises (normally a house or other building), including adjoining private property. Powerco is not responsible for the maintenance of these assets.

Incremental Upstream Assets means the upgrade of distribution system assets upstream of a customer's connection point, required to meet the capacity or security requirements of the new additional load.

New Revenue means additional revenue to Powerco as a result of a new customer connection and/or an upgrade to an existing customer's load resulting in new revenue.

Point of Supply means the demarcation point between Powerco's network and the customer's assets. Powerco has an Ownership Policy that provides additional details on this matter.

Powerco Contribution (see Powerco Investment)

Powerco Investment means the amount of money Powerco is willing to invest in the Customer Initiated Work. This is calculated based on the future forecast returns from the development.

Powerco Managed means that Powerco will assign a project manager to manage the work associated with the CIW request and assign the contractor to conduct the work.

Powerco Supplied Equipment means equipment supplied to the contractor for incorporation into the Customer Initiated Work. Powerco has a "Powerco Supplied Equipment for Customer Initiated Work" standard that provides more detail on this matter.

Objective of the contribution policy

Powerco's electricity network is constantly growing with the development of new homes and businesses. Existing consumers also require new assets as their electricity demand increases. To be fair to our current electricity consumers, who are not increasing their load, we sometimes require a customer contribution.

A customer contribution is a payment by a customer towards the costs associated with Customer Initiated work where:

- customers need extensions or reinforcements to the electricity network that will benefit them
- customers connections to the network that requires new assets to be built

The principal objective of the contribution is to ensure the increased (uneconomic) costs associated with any customer-initiated work are paid for by the customer who requested it and existing customers (that require no additional investment) are unaffected.

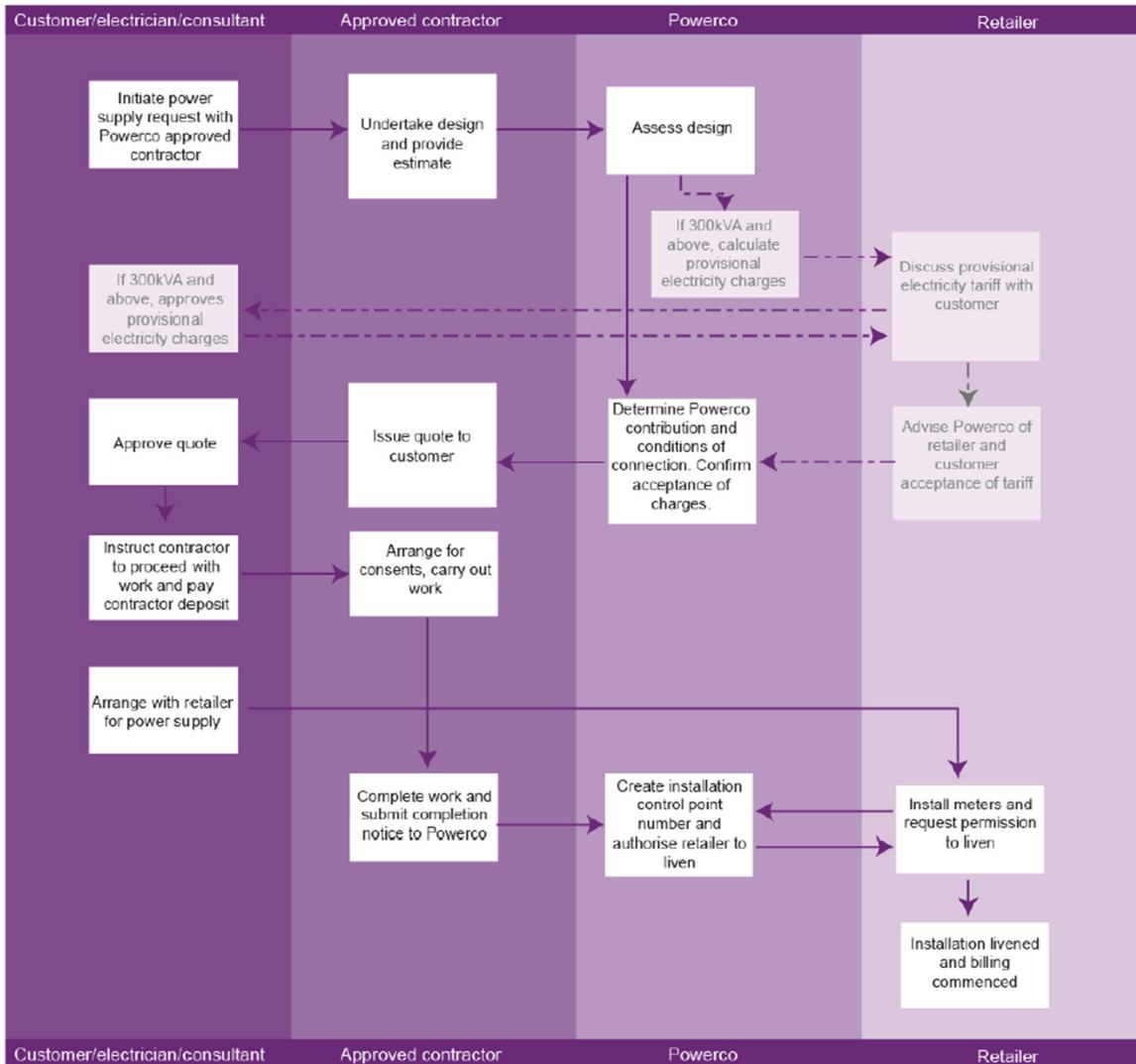
A secondary objective of the contribution is to ensure customers have appropriate signals to assess the cost effectiveness of connecting to the network (or increasing their load) versus alternative options that may be available to them. These alternative options include increased energy efficiency to offset any required load increase, onsite generation, and/or alternative fuel sources such as gas or battery storage.

An alternative to upfront customer contributions would be for Powerco to take a long-term recovery approach. Powerco would undertake the full investment and recover the additional costs from the consumer as part of regular electricity charges over a period of time. However, this approach is not generally practicable for the following reasons:

- the assets built are likely to have a long life (e.g., over 40 years) and it is not reasonable to expect consumers to be locked into a contract for this length of time
- in practice, charging arrangements need to be reasonably simple and consistently applicable to a large number of customers; it is not usually feasible to tailor charges to individual customers, unless they are very large
- how a new connection or new investment will be utilised in the future, and by how many parties, is unknown, so it is not possible to accurately estimate the revenues received and the subsequent costs that should be recovered from an individual consumer.

Customer initiated works process

For most new connections and network reinforcements the following steps apply:



You will need to engage a Powerco approved contractor. They will determine what is required to provide the supply you need and give you a quote for the cost. The contractor will need to know the address details for the property (as will the retailer) and also the size of the electrical load you are going to connect. Your electrician should be able to help determine the load size. Some electricians will arrange everything with the Powerco approved contractor on your behalf.

The contractor will also obtain approval from Powerco for their proposed design concept and notify you if we have any special requirements, such as easements.

You may ask for competitive quotes from more than one Powerco approved contractor, so that you can be confident you are getting a fair price and good customer service. [Click here](#) for a list of Powerco approved contractors.

Can I use my own contractor?

Powerco allows customers to choose from a list of pre-approved independent contractors. This approach enables customers the freedom to choose their own contractor while providing Powerco with the confidence of the quality of the work. The competition between contractors also ensures customers get competitive quotes.

Powerco approved contractors are selected because they meet minimum standards of expertise and have very good safety and operational records.

The Customer Initiated Work must comply with Powerco's design and construction standards and be undertaken by an approved contractor, for Powerco to:

- a) invest in the Customer Initiated Work
- b) allow the Customer Initiated Work to be undertaken on Powerco's existing assets
- c) take ownership responsibility for the Customer Initiated Work.

The Contractor must also use the defined Powerco Supplied Equipment when undertaking the Customer Initiated Work if Powerco is to invest in the Customer Initiated Work.

Is there a non-network solution?

If you are in a remote rural location and there is some distance from existing power lines to your property, new connections are likely to require a significant amount of investment.

If you are in this situation, you may wish to consider possible alternative investment options such as Powerco's **BASEPOWER** units. These units offer a stand-alone power solution designed to deliver the convenience of power line delivered electricity at a lower overall cost for remote locations.

To find out more about **BASEPOWER** solutions please view our website at:

<http://www.powerco.co.nz/get-connected/base-power/> or email info@basepower.co.nz

Will I have to pay a contribution and how will it be calculated?

This section describes the circumstances in which you may have to pay a contribution towards Powerco's investment in new or upgraded network assets.

When you apply to connect to Powerco's network, or require additional capacity, Powerco's Customer Works team will follow the principles below to determine if you need to pay a customer contribution.

1. Customer contribution assessment principles

1. The level of investment Powerco makes toward any Customer Initiated Work will be directly related to the return that Powerco will receive once the work is completed. The return is determined based on:
 - a) The new revenue received from the new customer or existing customer upgrade,
 - b) The new incremental costs which include:

- the marginal increase in operating and maintenance costs
 - the marginal increase in overhead costs
 - the marginal increase in transmission costs (applicable to the electricity network only)
- c) The value of any deferral of renewal expenditure that results from the early replacement of existing assets due to Customer Initiated Work will be determined and accounted for in the analysis.
- d) The allocation of Incremental Upstream Assets costs arising from the Customer Initiated Work.
2. New Revenue will only be accounted for once for the life of the Customer Initiated Work, specifically:
- New Revenue for subdivisions will be assigned to the development of the reticulation for the subdivision
 - For commercial and industrial subdivisions, the New Revenue estimated to be derived from the development will be assigned to the development of the reticulation for the subdivision.
 - For commercial/industrial customers - If commercial/industrial load requirements subsequently exceed the capacity of the development, this will trigger a new Customer Initiated Work, with its own New Revenue attributable to that work.
3. The customer may be required to make a Customer Contribution to the cost of the Customer Initiated Work where the level of Powerco Investment does not cover the cost of the Customer Initiated Work and the Incremental Upstream Assets. The Incremental Upstream Asset cost may include a proportional share (based on the size of the customers load) of existing works, where that work was specifically carried out in anticipation of future customer connections.
4. Where the need for the Customer Initiated Work is shared among a number of customers, the Customer Contribution will be apportioned between those customers based on their projected annual consumption or load requirements.

2. How do I know how much to pay?

All Customer Initiated Work is undertaken by approved Powerco contractors, who must provide a quote for the work. The contractor's quote to you for the Customer Initiated Work is calculated as follows:

	Contractor's price for performing the Customer Initiated Work
Plus:	Cost of equipment supplied by Powerco
=	Total cost of Customer Initiated Work
Less:	Powerco investment
=	Customer Contribution (for Customer initiated Work)
Plus:	Contractor's price for performing other work for the customer
=	Total quote to customer

Note: Where the total cost of the Customer Initiated Work is less than the standard Powerco Investment, the Powerco Investment will be reduced to match the total cost of the Customer Initiated Work.

The cost of Powerco Supplied Equipment will be added as a cost to the Customer Initiated Work by the Powerco Customer Initiated Works Engineer, to obtain the total cost of the Customer Initiated Work. The Powerco Investment will be deducted from the total cost of the Customer Initiated Work to result in the Customer Contribution.

3. Types of customer-initiated work

Powerco defines all customer-initiated work as either standard, medium or complex based on the size, cost and complexity of different projects.

“Standard projects” are defined as all residential and small commercial connections that are up to 70 kVA (including sub-divisions). These are typically, relatively straightforward projects which we undertake thousands of times a year. To keep things simple, we apply a standard pre-determined contribution to these types of CIW projects (as detailed in table 1.1 and 1.2).

“Medium projects” are defined as projects for commercial connections that have a connected capacity of greater than 70 kVA but less than 300 kVA and are for a value of less than \$100,000. Complex projects are for all large commercial and industrial connections that are greater than 300 kVA or are for a value of greater than \$100,000.

“Medium” and “Complex” projects can be relatively complicated with very specific individual requirements. As such Powerco determines the customer contribution for these projects on a case-by-case basis (as detailed in section 7.3.2).

3.1 Standard investment amounts

The maximum investments Powerco will provide for different types of Customer Initiated Work are set out in the table below. The actual investment amount may be adjusted to a level below these maximum amounts in cases where the maximum Powerco Investment is greater than the typical cost of the specific Customer Initiated Work (as assessed by Powerco).

Table 1.1 – Standard contribution amounts²

No.	Description of Customer Initiated Work	Conditions	Maximum Powerco Contribution
1.0	New Connection to existing fuse, or, Load Group change or alteration to supply.	Standard Connections / Load Group Changes, no network assets.	\$50
2.0	Installation of new service fuse on pole or in existing pillar.	Includes two and three phase supplies where there is sufficient capacity on the network and sufficient room in the existing pillar / pole for the extra fusing.	\$100 per fuse
3.0	Extension and/or upgrade of the network to a new urban or rural customer, including the connection of the new customer	Limited to E1, T06 and V06 Price Categories. Annual consumption less than 15,000 kWh.	\$800

² All investment figures exclude GST. Powerco’s investment in the Customer Initiated Work must not exceed the cost of the Customer Initiated Work. Powerco may from time to time assess the cost of Customer Initiated Work that meets the criteria set out in items 1 to 3 and adjust the maximum Powerco Investment to equal the lowest cost delivered by an approved contractor.

No.	Description of Customer Initiated Work	Conditions	Maximum Powerco Contribution
4.0	Extension and/or upgrade of the network for Infill residential urban subdivision (1 – 5 lots)	Limited to E1, T06 and V06 Price Categories. Annual consumption less than 15,000 kWh No reinforcement of the existing distribution network required to enable supply	\$300
4.1		Urban Infill, transformer already overloaded or new load less than 10% of existing transformer or low voltage capacity	Contribution determined on an individual basis using Powerco investment model.
4.2		Rural - existing network transformer is NOT currently overloaded, but upgrade required for additional connections, new load more than 10% of existing network capacity.	Contribution determined on an individual basis using Powerco investment model.
5.0	Extension and/or upgrade of the network to a new commercial or industrial subdivision.	E1 or E100 Price Category T22 / V24 Price Category Annual consumption greater than 15,000 kWh	Contribution determined on an individual basis using Powerco investment model.
6.0	Extension and/or upgrade of the network to a new commercial or industrial subdivision; and the proposed customer meets the following criteria:	E100 & E300 Price Category. T24 / V28 Price Category Annual consumption greater than 15,000 kWh Total load less than 300kVA (Western BOP, Waikato, Thames Valley and Coromandel regions).	Contribution determined on an individual basis using Powerco investment model.
7.0	Extension and/or upgrade of the network for large subdivisions, greater than 100 lots.	Projects may be Powerco Managed based on the following criteria: <ul style="list-style-type: none"> • Significant Upstream Infrastructure required • Size of overall development, including timelines and staging • Risk of Bypass or Embedded Network. 	If Powerco Managed, contribution determined on an individual basis using Powerco investment model (otherwise standard contribution rates apply as per 3.0).
8.0	Extension and/or upgrade of the network to a new large commercial or industrial customer.	Capacity over 300kVA (Western BOP, Waikato, Thames Valley and Coromandel regions). Capacity over 1,500kVA (Taranaki, Whanganui, Manawatu & Wairarapa regions).	Contribution determined on an individual basis using Powerco investment model.

No.	Description of Customer Initiated Work	Conditions	Maximum Powerco Contribution
9.0	Upgrade or extension of the existing network to cater for a smaller customer (new connection or extra load for existing connection).	Annual Consumption less than 3,000kWh Load upgrade of less than 20kVA for E100 & E300 Price Category customers Apartment Blocks Retirement village units Low-cost housing / Papa Kainga units	1 bedroom \$200, larger \$300
10.0	Moving, relocating or altering existing Powerco assets for an existing customer or a third party with an interest in the assets.		Contribution determined on an individual basis using Powerco investment model taking into account the provisions of the Electricity Act
11.0	Relocating Powerco Assets for Road Controlling Authority.		In accordance with the Electricity Act Section 32
12.0	Phone Cabinet Supplies (including Flow meters, bus shelters, CCTV, traffic control, phone box etc). Will allow more than 10m of service cable in road reserve for these, but longer runs should be in duct to allow for future LV upgrade.		Refer Fuse rates if only fuse required, or standard connection rates if a pillar or LV extension required
13.0	New Streetlights.		\$50 for paperwork plus \$10 per extra light. (for streetlight jobs only, does not apply for subdivisions)
14.0	Coffin to Pillar with additional connection.		Powerco to contribute standard rate for pillar supply & installation
14.1	Coffin to pillar, no extra connection.		Powerco to contribute standard rate for pillar supply & installation, customer to pay the balance
15.0	Overhead-Underground conversion (OHUG) of road crossing.		\$1,500
16.0	Meter Relocates or service main (OHUG).		\$0, contractor to verify a new ICP is not required
17.0	Decommission of ICP	Full decommission of standard connection point at pole or pillar.	\$300

No.	Description of Customer Initiated Work	Conditions	Maximum Powerco Contribution
17.1	Decommission of ICP, where removal of Network Assets is required		Contribution determined on an individual basis using the Powerco Investment model and taking into account the assets involved

3.2 "Medium" & "Complex" project investment amounts

"Medium" and "Complex" projects are for all commercial and industrial connections that are greater than 70 kVA (or are for a value of greater than \$100,000). These are projects with very specific individual requirements which can have significant implications for Powerco's network. As such Powerco determines the customer contribution for these projects on a case-by-case basis.

All medium and complex Customer Initiated Work is undertaken by approved Powerco contractors, who must provide a quote for the work. The cost of Powerco Supplied Equipment will be added as a cost to obtain the total cost of the Customer Initiated Work. The Powerco Investment will be deducted from the total cost of the Customer Initiated Work to result in the Customer Contribution.

The salvage value of major items of equipment (typically distribution transformers) that will be replaced as a result of capacity upgrades will be credited to the cost of the Customer Initiated Work.

Where Powerco has previously invested in the assets concerned, the proportion of the salvage value that represents Powerco's interest in the asset will not be credited to the cost of the Customer Initiated Work.

The Customer Contribution to the Customer Initiated Work will be treated as pre-payment of uneconomic line charges. The customer will not be entitled to a refund of any portion of the contribution should any other party connect to that part of the Powerco network that was constructed for the first customer.

Example of how the customer contribution is calculated

Cost of Customer Initiated Work	\$50,000
+ Incremental Upstream Assets required by new connection	\$10,165
+ Maintenance expenditure	\$1,675
= Total cost	\$61,840
- Present value of future revenue after costs (as detailed in section 7.1)	\$26,499
- Equipment salvage value	\$5,000
= Customer contribution	\$30,341

What if I have questions about the contribution?

If you have concerns or questions about the level of the contribution, please contact Powerco's Customer Works team. The customer works team will respond to your query within 10 working days and provide you with an explanation of how the contribution was determined.

Contact details for the Customer Works team are:

e-mail: CustomerWorksEastern@powerco.co.nz

ph. 0800 POWERCO (0800 769 372)

Large commercial and industrial customers who have a Powerco Account Manager can contact their Account Manager directly or email CustomerRelations@powerco.co.nz.

Consistency with Electricity Authority pricing principles

Powerco considers the customer contribution policy is consistent with the Electricity Authority's pricing principles.

This section discusses the consistency between this policy and the Electricity Authority's pricing principles that are relevant to customer contributions³. The pricing principles were designed primarily for distribution pricing rather than customer contributions. As a result, some of the principles do not apply and are not discussed⁴.

Electricity Authority pricing principles

(a) Prices are to signal the economic costs of service provision, including by:

- i. being subsidy free (equal to or greater than avoidable costs, and less than or equal to standalone costs);

Prices are equal to or greater than avoidable costs

The term "avoidable cost" means the costs that can be avoided by not serving a customer or customer group. Examples of avoidable costs include customer service costs, connection cost specific to a customer or customer group and additional maintenance costs.

Two aspects of avoidable costs are relevant to a new connection:

1. Costs from additional assets required to connect a consumer to the network or expand capacity. Powerco's approach to customer contributions ensures these costs are recovered by the customer's contribution and their regular electricity charge.
2. Cost imposed on the existing network by additional load. This cost is often zero because the existing capacity of the network meets demand. The avoidable cost can be large if the next unit of electricity requires additional capacity.

³ <https://www.ea.govt.nz/industry/distribution/distribution-pricing/>

⁴ Powerco's Electricity Pricing Methodology incorporates a wider discussion of the pricing principles and can be located at: <http://www.powerco.co.nz/Publications/Pricing-Schedules/Electricity/>

Our policy requires the customer who initiates the need for the additional work to pay a share of the cost in proportion to capacity used. For example, if a customer's load growth triggers a capacity upgrade and their expected load is 20% of the upgraded capacity, they would be required to fund 20% of the cost of the upgrade, less the amount justified by the new income we expect to receive from their connection.

The application of this policy is dependent on the circumstances of the upgrade.

- **Residential load growth.** The policy is not applied to capacity upgrades triggered by residential customer load growth. This is because of the small incremental growth involved and the difficulty associated with identifying which sites have triggered the need for the upgrade. Standard tariff setting processes reflect the costs of these upgrades.
- **Expected future load.** Upgrade costs can reflect future load expectations if significant upgrades are required and attributable to the load. For example, for two customers connecting the first may not trigger an upgrade and the second might. The charge to the first customer will capture a share of the upgrade. To estimate this charge correctly, we may assess future load growth to calculate the level of upgrade work required to supply all the proposed loads. The upgrade costs for the new connections are then determined using this information.

Prices are less than or equal to stand-alone cost

Powerco's policy is that customers never pay more than the total costs of Customer Initiated Work. Customer Contributions will therefore always be below the standalone cost.

- ii. reflecting the impacts of network use on economic costs;
- iii. reflecting differences in network service provided to (or by) consumers; and

These two principles require prices reflect long run costs. Prices should be low when future investment is low and spare capacity exists (a-ii). Prices should be high when capacity is constrained, and new investment is needed (a-iii).

Section [Customer contribution assessment principles](#) describes how customer contributions reflect the long-run costs of new investment.

- iv. encouraging efficient network alternatives.

See section [Is there a non-network solution?](#)

(b) Where prices that signal economic costs would under-recover target revenues, the shortfall should be made up by prices that least distort network use.

We consider this principle is not relevant to customer contributions.

(c) Prices should be responsive to the requirements and circumstances of end users by allowing negotiation to:

- i. reflect the economic value of services; and
- ii. enable price/quality trade-offs.

Powerco gives consumers the freedom to choose from a list of independent contractors and obtain numerous competitive quotes for connection to our network. Customers also have the ability to consider a variety of non-network solutions. This helps enable customers to make appropriate price quality trade-off decisions and ensure prices reflect the economic value of services provided.

For non-standard customers, Powerco is able to offer a service more tailored to their requirements. Powerco consults with these customers via one-to-one liaison with key account managers, in accordance with the Parson Brinckerhoff Associates best practice recommendations.⁵ This works well, as large customers are usually familiar with the issues involved in price/quality trade-offs and strong relationships provide a firm foundation for discussing all aspects of quality and price.

(d) Development of prices should be transparent and have regard to transaction costs, consumer impacts and uptake incentives.

Transparency

This capital contributions guide is published on Powerco's website.

Transaction costs

Powerco's policy of having standard contributions amounts for small and medium CIW jobs is an example of how we seek to minimise transaction costs wherever feasible. By having a standard contribution amount for the vast majority of CIW jobs we minimise administration costs, provide consistency and certainty for the customer and retailers.

Powerco also regularly reviews our CIW process to ensure the process is as efficient as it can be to connect new customers and to investigate (and approve) network investments.

The customer contributions policy is applied consistently to all customers and across all retailers and as such we consider it is economically equivalent across retailers (as is Powerco's pricing methodology).

Regard to consumer impacts and uptake incentives

The impact on customers of changes to the allocation methodology is a central consideration in the pricing process. Powerco's approach to customer contributions has not changed materially over the last five years and this has helped provide certainty and stability. Powerco consults with retailers and other customers a number of times throughout the year to discuss all aspects of our pricing approach (including potential improvements). This provides a mechanism to enable customers to communicate any concerns they may have about the impact of prices on them. A description of this process is available on request from Powerco.

For non-standard customers, Powerco consults with customers via one-to-one liaison with key account managers. This provides a channel for discussions of all aspects of quality and price

