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## 1.0 Purpose

Counties Energy is required by the Commerce Commission, in terms of Clause 2.4.6 of the Electricity Distribution Information Disclosure Determination 2012, to publicly disclose its current methodology for the calculation of capital contributions.

This document provides Counties Energy's usual commercial terms for new connections and extensions to its electricity distribution network. It should be noted that Counties Energy reserves the right to review customer connection projects and associated capital contributions on a case-by-case basis.

#### 2.0 Definitions

**Augmentation:** Work to enhance the Network or increase its capacity to distribute electricity. These enhancements are to meet projected system demand, and maintain Network performance in accordance with the applicable Acts and regulations.

**Capital contribution**: An amount paid by a customer towards the existing infrastructure that the customer will utilise and for the construction of assets or enhancement of the Network at the time of the construction or enhancement.

Counties Energy: Counties Energy Limited.

**High voltage metering**: Metering of an ICP provided with electricity supply at high voltage (11kV or above).

**ICP**: An installation control point is the energy retailer's metering and isolation point and has an associated unique number that identifies it as an individual power connection on the Network.

**Network:** Electricity distribution network owned by Counties Energy.

**NCP**: The network connection point is the nearest location in the Network, such as an overhead line pole or link pillar, that can supply a customer.

**POC**: The point of connection is the point where a customer's supply is physically connected to the Network. (Generally, this will be the fuse, switch, or circuit breaker located in the road reserve, at the NCP.)

Rural: Area as designated by local councils.

**Shared Network**: Part of the Network where more than one consumer receives power.

**Urban**: Area as designated by local councils.

#### 3.0 General

- (a) Prior to going live, the customer shall ensure that the installation from the POC is certified by a registered electrical inspector.
- (b) This policy is effective for all new connections provided by Counties Energy on or after 1 September 2019.

## 4.0 Scope

This document covers the following:

- (a) pricing method;
- (b) the assessment of capital contributions for connections or extensions;

- (c) the general assessment of capital contributions for subdivisions reticulation;
- (d) standard categories of connections or extensions and exceptions; and
- (e) policy on shared services.

## 5.0 Pricing principles and considerations

- (a) All newly established ICPs must adhere to Counties Energy Network Connection and Network Demarcation Standards.
- (b) The addition of a new connection should not make existing consumers worse off, either now or in the future. Ideally, the addition of a new connection should benefit existing consumers as the new connection should contribute to shared costs and assets.
- (c) Where connection terms do not fit standard categories (for example, the connection has a large load, the location is physically distant or environmentally unacceptable), Counties Energy will consider it on an individual basis.
- (d) Prices are set to provide sufficient capital to cover Counties Energy's costs, including Network development, utilisation of existing Network capacity<sup>1</sup>, pass-through and recoverable costs, as well as the cost of capital and other economic considerations.
- (e) A proactive approach is taken, to avoid problems related to reliability and quality of supply, by monitoring the impact on Network efficiency and maximum demand and establishing maximum load performance standards.
- (f) Price-averaging is applied over large groups of connections and assets in Urban or Rural areas because it is impractical and costly to calculate each individual connection.
- (g) As the Network expands and is reinforced, assets are often shared to gain the benefits of greater utilisation amongst customers.
- (h) All newly established ICPs are treated as new connections even where the new ICP replaces a previously decommissioned ICP.

#### 6.0 Process

(a) In determining a customer's contribution to reticulate power and connection to a site, 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 project. Customers must satisfy all obligations and comply with all requirements relating to easements and vegetation. Customers are also responsible for all civil works within their premises (e.g. trenching, reinstatement, foundations and ducting).

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<sup>&</sup>lt;sup>1</sup> This ensures that customers pay their fair share of the existing capacity to connect their site.

- (b) To ensure a fit for purpose solution is provided, we will take into account:
  - (i) the customer's load/demand requirements;
  - (ii) the available Network capacity at the POC;
  - (iii) any upstream network augmentation required to meet the customer's load and projected system load;
  - (iv) the location and utilisation of existing Network capacity; and
  - (v) any specific customer requirements (e.g. dedicated solution and/or security of supply (N-1) requirements).
- (c) This information will help determine whether the proposal is:
  - (i) a standard connection (Unit Rate Projects);
  - (ii) a residential subdivision development;
  - (iii) an industrial connection; or
  - (iv) a non-standard connection.
- (c) In all projects, other than standard connections, Counties Energy will provide a high level estimate of the:
  - (i) Total cost of the project these costs are determined based on the level of investment, an appropriate share of the cost to operate and maintain electrical distribution assets upstream from the POC, and applicable cost of capital of the project; and
  - (ii) the capital contribution to be paid by the customer.
- (d) If the customer decides to proceed to the detailed design stage and pays the required non-refundable design deposit:
  - (i) a detailed design will be completed; and
  - (ii) a quote will be provided to the customer. It will detail the:
    - the scope of works to be undertaken; and
    - the capital contribution required to be paid by the customer.
- (e) In accepting the project design and quoted price, the customer enters into a contract with Counties Energy. This means the customer agrees to pay the capital contribution towards the project.

## 7.0 Ownership of electrical assets

- (a) Network extensions and connection equipment which are located between the NCP and the POC, or which are located on public property, or which are paid for by Counties Energy, remain the property of Counties Energy irrespective of any contribution made by a customer.
- (b) Appendix A shows the various ways that the customer can be connected and Appendix B shows the connection of private networks.
- (c) Counties Energy does not contribute to assets downstream from the POC and customers are responsible for maintenance and replacement of privately-owned assets.
- (d) Section 9 further elaborates on the requirements of private networks.

The following sections (7.1 to 7.5) detail the connection categories for new connections and extensions.

#### 7.1 Standard Connection (Unit Rate Projects)

- (a) This category covers individual new connections within the Counties Energy network<sup>2</sup>. The policy provides a straight-forward process under which Counties Energy is responsible for providing the new connection and the customer makes a capital contribution toward network costs.
- (b) This category applies to new connections which are within residential, commercial or industrial areas, and which require a supply capacity of up to 3 phase 100 amps (fuse rating).
- (c) This category does not apply to connections where there is no existing distribution assets (transformer or pillar) at the boundary of the property or where there is not sufficient capacity in these assets to accommodate the connection. Unmetered and/or public utility connections (such as advertising displays, streetlights or traffic lights) also do not qualify for this type of connection.
- (d) Counties Energy will supply and install the service protective fitting and connect (and/or terminate) the customer's electrical installation.
- (e) The customer shall pay a capital contribution towards the cost of assets that Counties Energy already has in place. The capital contribution is payable to Counties Energy, as shown in Table 1 below. Capital contributions are categorised by:
  - (i) number of phases; and

<sup>&</sup>lt;sup>2</sup> Within new residential and commercial subdvisions the developer will have been charged a capital contribution for a certain customer connection capacity. Provided the connection meets or is below this connection capacity, then there is no capital contribution payable.

- (ii) residential or commercial type
- (f) Customers are also responsible for the installation and maintenance of their own electrical installation of line or cable from the POC to their premises; such maintenance includes clearance of vegetation from their service lines.
- (g) This capital contribution requirement does not apply for connections already established in new subdivision developments under section 7.2 below.

**Table 1: Standard Connection (Unit Rate Projects)** 

Require capacity (fuse rating)	Capital contribution per connection (excluding GST)	
	Residential	Commercial/Industrial
Single phase, up to 63 amps	\$1,200	\$2,500
Two or 3 phase, up to 100amps per phase	\$2,000	\$2,750

#### 7.2 Residential Subdivision Development

- (a) This category covers all connections within new subdivision developments consisting of more than five lots, up to 3 phase 100 amps, which require new electrical reticulation within a non-reticulated roading corridor.
- (b) The residential subdivision development must:
  - (i) be immediately adjacent to existing Urban or Rural township areas within Counties Energy's distribution Network
  - (ii) be within Urban/township residential, commercial or industrial areas as designated by the relevant council authority
- (c) As with other infrastructure within new subdivisions (e.g. telecommunications, roading, sewer and stormwater), the developer is responsible for providing electrical reticulation to service the new properties.
- (d) The developer's capital contribution will:
  - pay for the design costs for the extension to meet the specifications provided by Counties Energy;
  - (ii) provide all civil works (e.g. trenching, reinstatement, foundations and ducting);
  - (iii) provide or obtain the necessary land or easements for the installation of any electrical asset at no cost to Counties Energy;
  - (iv) pay for all low voltage assets (cable, link boxes, boundary boxes);

- (v) ensure all electrical installations are approved by a registered electrical inspector prior to supply connection;
- (vi) cover the cost of any assets or construction which the developer elects to install which exceeds Counties Energy's standard specifications; and
- (vii) remove any redundant network assets.
- (e) New connections created through development of subdivisions are not subject to the per connection contribution described in 7.1 above.

#### 7.3 Industrial Connections

Where a consumer's POC capacity requirements exceed 2MVA, Counties Energy's published standard prices may not adequately reflect the actual costs of supplying a consumer or address the commercial risks associated with supplying that consumer.

- (a) In these circumstances Counties Energy use a line function service agreement (LFSA). The LFSA allows for tailored pricing and commercial arrangements to be established between Counties Energy and the consumer and may include a termination payment schedule to protect Counties Energy's future revenue associated with the customer connection project; and
- (b) the installation of high voltage metering will also be required.

#### 7.4 Non Standard Connection

Non-Standard connections are any connections that do not fall into any of the other categories. These would typically include (but are not limited to):

- (a) residential connections where there is not sufficient capacity in existing distribution assets (transformer or pillar) to accommodate the connection;
- (b) unmetered and/or public utility connections (such as advertising displays, streetlights or traffic lights);
- (c) commercial/industrial connection with a capacity requirement of less than 2MVA; and
- (d) upgrades, downgrades and asset relocations.

### 7.5 Other requirements

The following requests will be dealt with individually, and any additional assets and services resulting from these requests will be charged at actual costs:

- (a) Installation of temporary connections or builders' temporary supplies.
- (b) Requests for changes to the route or configuration of Counties Energy's network.

(c) Requests for an extension of capacity of an existing installation.

## 8.0 Augmentation of system

Where Counties Energy determines augmentation is advantageous to Counties Energy, Counties Energy will:

- (a) identify the level of benefits; and
- (b) determine an appropriate cost split between Counties Energy and the customer.

#### 9.0 Private networks

- (a) A private network is a customer-owned network where the service line or cable leaves Counties Energy's Network (at the NCP) on a public road, into the area which may serve one or more customers and where the route does not return to a public road.
- (b) A number of customers' premises may be connected to Counties Energy's Network at a single NCP, as shown in Appendix B. Downstream from the NCP, this is a private network and is jointly owned by each of the other customers connected to the private network (unless there is an agreement to the contrary with or between the other private network customers).
- (c) Each owner of a private network is responsible for the maintenance and replacement of the private network, and for vegetation control (trimming or cutting of trees interfering with that network).
- (d) If Counties Energy is called out to do any work (including the installation of any new connection) on a private network, Counties Energy may:
  - (i) refuse to undertake the work because the private network owner is responsible for maintenance and repairs within the private network;
  - (ii) if Counties Energy agrees to undertake maintenance or repairs, charge the private network owner requesting the work for that maintenance or repairs;
  - (iii) Have authority over the works carried out by private network owners such as the scheduling of works and/or switching of the network at the NCP.

#### 10.0 Network congestion

Connections in rural areas and communities often require substantial electrical infrastructure on a per customer basis.

A levy may apply for new rural connections for feeders supplying rural ICPs, especially remote ICPs, where there exists congestion and future capital expenditure is required to upgrade the upstream network.

## **Appendix A: Methods of installations**

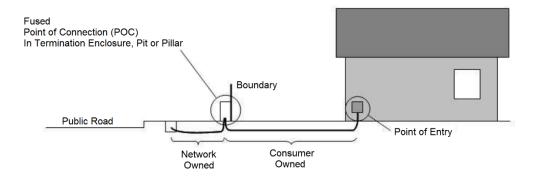


Figure 1 – underground mains

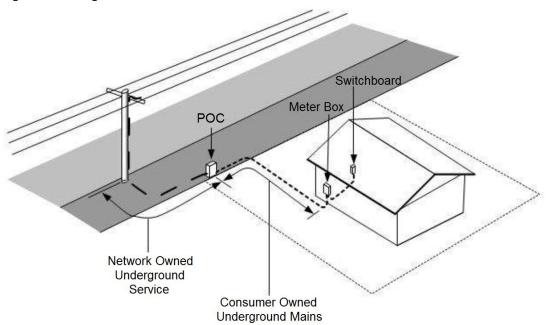
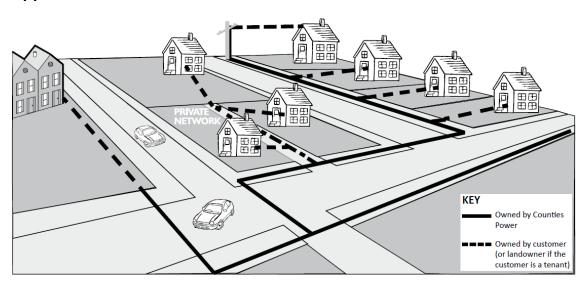


Figure 2 – LV underground supply via distribution pillar

# **Appendix B: Private networks**



## Appendix C: Standard life of key assets

Description	Standard life in years (excluding GST)
Distribution transformer	45
Overhead line using concrete poles	80
Overhead line using wood poles	45
Underground cable (XLPE)	55