
Capital Contributions

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1 Purpose and Scope of this Document

This document details how contributions toward the capital cost of establishing new and upgraded connections are determined.

2 Definitions

"Aurora Authorised Contractor" means a contractor that is approved, in accordance with Aurora's Contractor Approval and Operational Requirements policy, to work on the Aurora distribution network, and to design and construct additions to the network

"Allocated Capital Cost" is the total cost of the network extension as priced by an Aurora Authorised Contractor, including any applicable reapportionment charge, and less:

- The portion of the total cost allocated to other Customers. This is applicable when multiple Customers wish to share the cost of an extension.
- The portion of the total cost allocated to Aurora development as determined by Delta's Infrastructure Performance Manager.

"Customer" means the person, or organisation, for whom Aurora will provide the new or upgraded connection. The term Customer is to be read synonymously with the terms "consumer", "developer" or "subdivider" that may be in use in other policy documents.

"Large Connection" means a new or upgraded connection with a capacity equal to, or greater than, 150kVA, or any connection where supply is taken at high voltage.

"Small Connection" means a new or upgraded connection with a capacity less than 150kVA, but excludes new connections of 100A or less that will connect to existing low voltage distribution.

3 References

Contractor Approval and Operational Requirements - available from www.auroraenergy.co.nz.

Network Connection Requirements - available from www.auroraenergy.co.nz

Use-of-System Pricing Methodology - available from www.auroraenergy.co.nz

4 General

The boundaries between Aurora network assets and a Customer's installation assets are defined in the Network Connection Requirements (NS5.1) policy. It is the Customer's responsibility to fund and maintain installation assets.

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The policy for capital contributions toward new Aurora assets is dependent on the size of the new or upgraded connection. Small connections generally have a lesser impact on the assets required to give or maintain supply and, correspondingly, the higher cost of a more sophisticated approach is not justified. The policy detailed in Section 5 applies to Small Connections and the policy in Section 6 applies to Large Connections.

5 Policy for Small Connections

Network extensions associated with small connections are of two types:

- Provision of a new connection or the upgrade of an existing network connection for specific individual Customers.
- Provision of the electrical reticulation in subdivisions, which will provide facilities for the future connection of unknown Customers.

For new small connections, Aurora may require the Customer to contribute towards the capital cost of extensions in accordance with Section 5.1.

Where the development is a rural subdivision comprising high voltage circuits only; ie no substations or low voltage circuits, then Aurora will require the capital cost of the high voltage circuits to be wholly funded by the Customer.

5.1 Components of the Capital Contribution Calculation

The capital contribution required from a Customer is equal to the Allocated Capital Cost less the Serviced Capital Cost, as defined below:

5.1.1 Serviced Capital Cost

The Serviced Capital Cost is a factor that limits, in proportion to the chargeable capacity of the new connection(s), the amount of the capital contribution required from the Customer, and is calculated as:

$$\text{Serviced Capital Cost} = p \times f$$

Where:

p is the expected new revenue attributable to the proposed network connection(s)

f is a factor, set equal to 1.5 by the Aurora Directors on 29 August 2001.

5.1.2 Expected New Revenue (p)

The expected new revenue is the distribution component of Aurora's annual line charge payable by an electricity retailer for delivery to the proposed network connection(s).

For a connection upgrade, p is the increase in the distribution component due to the upgrade.

For subdivisions, the expected new revenue is the sum of the distribution revenue for all lots serviced by the subdivision. When a subdivision is developed in stages, only the line charges

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associated with the lots in each stage are to be included in the calculation of p; lots associated with future stages are not to be included.

The expected new revenue has two components; the capacity charge, and Control Period Demand (CPD) charge.

CPD is the average load presented during periods of load control on the Aurora network. For new connections, CPD will be set to the average value for connections of the same size, on the same grid exit point. However, if the entire load is to be controlled by the irrigation load control channel, or is a summer only off peak load, then the assessed CPD will be 0%.

Charges and CPD kW for an existing connection are available from Delta's Network Connections Manager or the Aurora website.

5.2 Payment

Payment of the capital contribution must be made before livening will take place. Where a capacity upgrade requires a capital contribution, the capital contribution must be paid before the upgrade is commenced.

6 Policy for Large Connections

For new Large Connections, Aurora may require the Customer to contribute toward the capital cost of extensions in accordance with Sections 6.1 to 6.4.

6.1 Investment Analysis

Aurora will conduct an economic investment analysis of the new or modified connection to determine whether the investment to be made by Aurora is economic or uneconomic.

Specifically the analysis:

- (a) Calculates the expected new revenue to be generated from the connection.
- (b) Estimates the whole-of-life cost of providing the connection, based on the Allocated Capital Cost, including depreciation recovery, operational costs, maintenance costs, and a proportional cost of upstream assets that have already be provided by Aurora.
- (c) Calculates the present value of the investment to be made by Aurora, allowing for taxation. A positive present value supports investment in the connection by Aurora, whereas a negative present value indicates that it is not economic for Aurora to make the investment, and provides a basis for the Customer to make an additional payment to Aurora in respect of the new connection.

6.2 Capital Contribution

Where the economic investment analysis yields a positive present value, no capital contribution will be required from the Customer; however, where the economic investment analysis yields a negative present value, the Customer may be required to pay a capital contribution not exceeding the amount required to yield a present value of zero.

6.3 Contracted Capacity

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In recognition of the long life of electricity distribution assets, upon which the economic investment analysis model is predicated, the contracted capacity upon which distribution charges are based will be fixed for a period of ten years. If a Customer wishes to downsize the connection within that period, further economic analysis will be undertaken which may indicate that an additional capital contribution is required to preserve the economics of Aurora's investment.

Aurora may also require physical works to be undertaken to allow the contracted capacity to be reduced; for example, a transformer change. In such circumstances, the cost of physical works will be factored into the further economic analysis; however costs will be offset by the value of returned equipment in accordance with normal practice.

For subdivisions where the reticulation will be owned by Aurora, the Customer (the subdivider) will be required to acknowledge that the investment analysis is based on those individual connection capacities and that they will become the contracted capacity for those lots. Additionally, the Customer (the subdivider) will be required to incorporate that information into sale and purchase agreements for those lots.

Where the subdivision reticulation constitutes a Secondary Network, as defined by the Electricity Authority, the contracted capacity will be based the sum of the distribution transformer capacity installed by the Customer.

6.4 Payment

Payment of the capital contribution must be made before livening will take place. Where a capacity upgrade requires a capital contribution, the capital contribution must be paid before the upgrade is commenced.

7 Reapportionment Charge

A reapportionment charge applies where a new connection will utilise assets for which other Customers have made a capital contribution within the previous five years, but does not apply to assets funded by subdividers, including multi-tenanted buildings and apartments.

Where reapportionment applies, the historic cost of the assets, depreciated at 20% p.a. straight line, will be reapportioned between the affected Customers based on connection capacity. The additional Customers shall pay a reapportionment charge to Aurora who will reimburse the present owners of the premises that contributed toward the assets. All Customers affected by a reapportionment will be sent a copy of the calculations.

8 Contract Agreements

Customers will be required to enter into contract agreements for the provision of new assets. This requirement applies to both Large Connections and Small Connections. The contract agreements describe the final ownership of the new or modified assets, along with the respective obligations of Aurora, the Customer and, where required, the Contractor.

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9 Policy for Temporary Connections

In accordance with section 17.5 of the Network Connection Requirements (NS5.1), the costs associated with the provision and removal of temporary connections, including any applicable reapportionment charges, are to be borne by the Customer.

New assets required to enable the temporary connection are wholly funded by the Customer, and will remain their property following removal. If sufficient stocks are available, Aurora may provide a rental transformer for the duration of the temporary supply, which will have the effect of reducing the Customer's costs.

Where Customer supplied temporary assets subsequently form part of a permanent connection, Aurora will, subject to the requirements of this policy and satisfactory evidence of value, include the value of those assets in capital funding calculations for the permanent connection.

10 Moving Works

This section describes the policy arrangements that apply when a Customer requests that Aurora owned works are relocated.

10.1 Moving Works in the Road Reserve

Sections 32 & 33 of the Electricity Act 1992 (the Act) apply to the moving of works in the road reserve when a controlling authority requests the movement. The cost of electrical fittings only is paid by Aurora; all other costs including the cost of labour, plant, and civil works are to be paid by the controlling authority.

Where Aurora elects to reconstruct the works to specifications different to the original; for example, replace an overhead line with underground cable, Aurora will pay for all of the additional costs that arise from the changed specification. Similarly, where Aurora elects to install additional works, Aurora will pay for all of the additional costs that arise from installation of the additional works.

Where the controlling authority elects or requires reconstruction to specifications different to the original, including underground conversion, the controlling authority will pay for all of the additional costs that arise from the changed specification.

Note that, as a result of the Infrastructure (Amendments Relating to Utilities Access) Act 2010, local authorities no longer have controlling authority status and the cost share arrangement in section 33 of the Electricity Act 1992 does not apply. Local authority requests to move works in the road reserve are treated on a causer pays basis.

10.2 Land Owner or Occupier Requests

Section 35 of the Act allows land owners or occupiers to request the movement of works on private land. Aurora may not unreasonably withhold approval for the relocation; however,

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the full cost of relocation, including the cost of creating any necessary easements, is payable by the land-owner, or occupier. Aurora may also set reasonable conditions for moving the works.

10.3 Other Requests

Network owners have no legal obligation to move works in the road reserve at the request of private individuals. Movement will be permitted, however, providing that it is technically feasible and will not adversely affect system reliability or increase on-going maintenance costs. The full cost of moving the works, including the costs of creating any necessary easements, shall be met by the requestor.

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10.4 Form of Requests

Controlling authorities relying on Section 32 of the Act shall give formal notice of the requirement to move works. Notice shall be forwarded to:

Aurora Energy Limited
C/- The Delivery Manager
Delta
PO Box 1404
DUNEDIN 9054

All other requests for Aurora to move works may be initiated through an Aurora approved contractor.

11 Explanation of Capital Contribution Charges

Aurora commits to providing a reasonable explanation regarding the components of specific capital contribution charges and how they were determined, within 10 working days of receiving a reasonable request from a Customer.

12 Application of Pricing Principles

The Electricity Authority (the Authority) has determined a set of pricing principles that are designed to guide distribution (line charge) pricing by businesses like Aurora. These principles have been incorporated, by reference, into the Commerce Commission's Electricity Information Disclosure Determination 2012. Under the Determination, Aurora is required to provide a description of the extent to which this capital contributions policy is consistent with relevant pricing principles.

Aurora provides a detailed overview of the Authority's pricing principles and provides statements of conformity in its Use-of-System Pricing Methodology (available from the Information Disclosure section of the Aurora website – www.auroraenergy.co.nz).

The pricing principles are designed to guide Electricity Distribution Businesses (EDBs) in the derivation of prices that will recover the efficient costs of providing electricity distributions services. They were not intended to guide EDBs in developing policies or methodologies for determining capital contributions. However, Aurora accepts that there is at least a moderate link between the two.

In general, capital contributions are designed to recover the residual costs of extending network services in circumstances where the total cost of extending the services is unlikely to be recovered through use-of-system charges attributable to the person(s) requesting the extension. If residual costs are not recovered by capital contributions, those costs would have to be allocated to Customer groups as a whole, and would therefore be borne in part by Customers having no beneficial interest in the extended services.

Aurora considers its pricing to be fully compliant with the pricing principles. Since Aurora determines capital contributions with regard to future line charge revenue that will be generated by the new assets, through prices, it follows then that Aurora's method of

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determining capital contributions has, to a degree, an inherent regard for the principles. The following specific commentary is provided, and should be read in conjunction with Aurora's Use-of-System Pricing Methodology:

- Pricing Principle (a) Signalling Economic Costs

Capital contributions reflect cost causality in that the actual cost of extending network services, through construction contractor pricing, is used as a primary input to the calculation. Capital contributions are subsidy free, in that they result in revenue that is sufficient to recover incremental costs without over-recovering standalone costs. They directly reflect the level of available service capacity, since they are generally only required where existing service capacity cannot be provided without incurring additional costs.

- Pricing Principle (b) Ramsay Pricing

Aurora recognises that some sophistication in the recovery of its costs can facilitate the retention and expansion of its Customer connection base, and this may, *inter alia*, lead to greater efficiency and lower overall costs per Customer. Aurora is prepared to negotiate alternative arrangements with developers where it can be genuinely demonstrated that the long term interest of other Customers to do so.

- Pricing Principle (c) Responsive to Stakeholder Requirements/Circumstances

Since capital contributions generally focus on incremental costs, there should be little or no incentive provided for developers to contemplate uneconomic bypass. Aurora may in certain circumstances, however, choose not to require a capital contribution, or to charge a discounted capital contribution. Aurora also provides the ability for Customers to pay for enhanced reliability through additional or higher specification equipment, which could be recovered by additional capital contributions or non-standard pricing; however, in the case of the latter, full consideration to the impact of the pricing principles must be considered; prices should be seen as equitable by other Customers, and the cost of added complexity inherent in non-standard pricing should also be considered. In general, Aurora considers that the combination of capital contributions and prices provide a benchmark for Customers to objectively assess the economics of distribution and transmission alternatives.

- Pricing Principle (d) Regard to Stakeholder Impacts

Aurora considers that its capital contributions process provides Customers requesting extension of network services with sufficient information to allow them to make informed and objective decisions concerning the immediate and on-going delivery costs associated with their location and anticipated demand for, or consumption of, electricity. While stability in capital contributions policy is important, Aurora will continue to make refinements where doing so will better signal the cost of investment to Customers.

- Pricing Principle (e) Regard to Downstream Competition Impacts

Aurora considers that this pricing principle has negligible application to capital contributions.

13 Independent Contractor Statement

Subject to section 13.1, customers wanting to connect to the Aurora network, or who request that Aurora move works, may contact any Aurora Authorised Contractor (a number

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of which are independent) to have that work undertaken, subject to Aurora's approval of the final design and costs. All contract works shall remain under the direct control of Aurora, or its appointed agents.

Customers may not directly engage contractors to perform the work in lieu of paying a capital contribution.

Aurora considers that this approach is warranted and reasonable given the very specific obligations imposed on it, under the Electricity (Safety) Regulations 2010 and Health and Safety in Employment Act 1992, to ensure the on-going safety of the network, and to ensure that no employee, contractor, subcontractor or other person is harmed during the execution of contract works or operation of the network.

13.1 New and Amended Irrigation Connections – Clyde Grid Exit Point

Very rapid growth in irrigation demand in the Central Otago region prompted Aurora, in December 2013, to review its policies and practices for the procurement of design and construction services associated with extensions to the electricity network. All applications for new and/or amended irrigation connections that will be supplied from the Clyde Grid Exit Point will be managed, designed and constructed by Aurora Energy's preferred contractor – Delta Utility Services Limited.

To support the growth in irrigation demand, Aurora has already committed to around \$14 million of investment in its subtransmission network, including construction of new zone substations at Tarras and Hawea Flat and Lauder. A similar level of investment in the high voltage distribution network is expected to be required, to directly support new irrigation and associated connections. A high level of coordination and integrated network design is required in order to optimise expenditure for the long term benefit of electricity consumers. Proper oversight of network planning and development activities avoids piecemeal solutions and inefficient investment by Aurora that could lead to unnecessarily increased charges to electricity consumers.

14 Records

For every extension for which consumers have made capital contributions Aurora will retain the following information for a period of 10 years after the extension is completed:

- Description of the extension that clearly defines and locates the extension.
- Original construction cost of the extension and completion date.
- Name and address of capital contributors and description of the properties supplied by the extension.
- Any reapportionment calculations.

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