Policy for determining capital contributions on Vector's gas distribution network

From 1 July 2021

Pursuant to:
Gas Distribution Information Disclosure Determination 2012

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1. Introduction

1.1 This document describes Vector's policy for determining capital contributions and meets the requirements of clause 2.4.6 of the Gas Distribution Information Disclosure Determination 2012 (consolidated in 2018).

1.2 Vector provides gas distribution services to consumers via its gas distribution network covering the Auckland region. Vector recovers the cost of providing gas distribution services to existing consumers through gas distribution prices, including published standard prices and (in a limited number of circumstances) non-standard prices. Vector's prices are set with reference to the Commerce Commission's Pricing Principles[1] (see Appendix A).

1.3 A key feature of gas distribution networks is that many of the assets used to supply consumers are highly interconnected, so many of the assets are used by many consumers. The way the network of assets has been built up over time is something that Vector now has limited ability to change, however Vector is able to determine present and future investment decisions in the gas distribution network.

1.4 Vector's distribution prices including capital contributions are designed, in line with Pricing Principles published by the Commerce Commission, to efficiently recover the cost of the existing gas distribution network and send efficient signals to users when new investments are required.

1.5 Vector's distribution prices are set to recover the costs of owning and operating the gas distribution network as it currently exists. The most significant cost element reflected in Vector's distribution prices relates to physical gas distribution assets, for example the pipes, valves and pressure reducing stations. These assets are part way through their useful life, meaning their value is also part of that of equivalent new assets. This means that Vector's distribution prices are lower than they would be if the assets were new or, in other words, the distribution prices may be insufficient to recover the full cost of a new investment in the network.

1.6 To send the right price signals to consumers and ensure new investments in the network are as efficient as possible, consumers requiring new or enhanced connections or sole use assets, should be charged for the full or proportionate cost of those assets (new and existing) they will be using. However, Vector's distribution prices are only sufficient to recover existing shared assets and their enhancement, so Vector uses capital contributions to cover connections and sole use assets.

1.7 Vector directs its capital investment primarily at the enhancement and expansion of the shared assets that benefit all consumers. As Vector's capital resources are limited it must prioritise its expenditure. Consequently, investing in assets that are for the connection or sole use of new or existing consumers would result in existing consumers helping to fund these connection and sole use assets. Vector therefore requires consumers to fund connection and sole use assets directly via capital contributions.

1.8 Capital contributions typically take the form of an upfront one-off payment with respect to a new connection or the provision of sole use assets that allow connection to the gas distribution network as well as a contribution related to growth.

[1] The Pricing Principles are specified in clause 2.5.2 of the Gas Distribution Services Input Methodologies Determination 2012 (Consolidated April 2018)

1.9 The Input Methodologies require that capital contributions received are netted off the value of the commissioned assets added to the Regulatory Asset Base (RAB). This means that new connection, sole use and growth assets only contribute to future revenue requirements to the extent they have not already been paid for via a capital contribution. This ensures that there is no cross subsidy between existing and new consumers for connections or sole use assets and any other assets resulting from connections or sole use assets being added to the network.

1.10 This document sets out Vector's policy for determining such capital contributions.

2. Objectives of the capital contribution policy

2.1 Vector's capital contribution policy has been developed with the following objectives:

(a) The addition of a new connection or sole use asset should not make existing consumers worse off either now or in the future.

(b) Ideally, the addition of a new connection should benefit existing consumers as the new connection should contribute towards shared costs and assets via distribution prices.

(c) The cost of providing a new connection or a sole use asset should be determined using a "but for" or avoidable cost approach that identifies the costs attributable to the new connection or sole use asset.

(d) Capital contributions should incentivise improved utilisation of the gas distribution network and not incentivise inefficient construction (for example: over-sized network assets).

2.2 Vector considers that the capital contribution policy and its implementation as detailed in this document achieves these objectives for the following reasons:

(a) Objective (a) is achieved as existing consumers do not subsidise or contribute to the cost of sole use assets or new connections except to the extent that existing consumers derive a benefit from additional assets. As well capital contributions fund the growth costs determined to be attributable to the addition of a sole use asset or new connection.

(b) Objective (b) is achieved as new connections contribute to and benefit from the overall existing and future shared assets through Vector's distribution pricing, including the ongoing maintenance and enhancement of Vector's interconnected distribution system. This is of benefit to all consumers, both present and future.

(c) Objective (c) is achieved as Vector assesses and recovers the costs resulting from the addition of a sole use asset or new connection directly from the new connection party or asset user; "but for" the new connection or sole use asset, no investment would be required by Vector. From Vector's perspective the investment is avoidable.

(d) Objective (d) is achieved as Vector only supplies the connection assets agreed with and required by the connecting party. Vector's capital investment is in assets for the shared use of all consumers. Vector seeks to invest appropriately through time to ensure a reliable and resilient network is provided to existing consumers and is accessible to new connections and consumers.

3. Circumstances for requiring a capital contribution

3.1 Vector requires a connection or sole use asset applicant to pay a capital contribution when any additions to the gas distribution network are required to provide new connection services or sole use assets. The additions considered are specifically a dedicated connection, sole use assets and in some instances other costs that would be avoidable from Vector's perspective, but for the consumers' requirements.

4. Methodology for determining the amount of a capital contribution

4.1 Vector has developed its capital contribution policy to meet the objectives outlined in section 2. Vector has achieved this by:

(a) Adopting an approach to determine individual capital contributions so that the contribution from new connections is either sufficient on average to recover the costs of new connections in the case of standard connections or are equal to Vector's costs in the case of non-standard connections. This avoids cross subsidies between new and existing connections for the connection assets and allows existing and new connections access to the shared network assets on an equivalent basis;

(b) Developing approaches to identify the costs relevant to the new connection and sole use assets and include these costs in the determination of capital contributions; and

(c) Ensuring connection or sole use asset applicants have financial incentives (through capital contributions) to assess the technical requirements of their new connection or sole use assets carefully so that efficiently sized assets are provided.

5. Determining cost

5.1 Avoidable or incremental costs are the costs that would be incurred by Vector from augmenting the gas distribution network which Vector would not otherwise face 'but for' the new connection or sole use assets. Avoidable cost may relate to:

(a) Assets for use only by the connection or sole use asset applicant or consumer and the associated costs (connection and sole use costs);

(b) Wider system assets used by the connection applicant as well as other consumers and the associated costs (shared costs); and

(c) Capital expenditure necessary for growth over the long term (growth costs).

5.2 Avoidable costs relating to the new connection may include but are not limited to the following:

(a) Design and certification costs;

(b) Any costs for conducting a tender process for the connection applicant;

(c) The costs of procuring materials and services, building, constructing and commissioning assets;

(d) Any legal or administrative costs, including procuring appropriate easements, statutory consents and negotiating suitable contractual arrangements,
(e) Augmentation of existing assets to provide the new connection,
(f) The cost relating to changes in the timing of planned shared gas distribution network investment in order to facilitate the new connection; and
(g) The incremental cost of the consumption of existing capacity regarding the level of available service capacity and the effect of additional usage on future investment costs.

5.3 Where avoidable cost relates to sole use costs, these are fully attributed to the new connection.

5.4 Where the avoidable cost relates to shared costs, Vector determines the avoidable cost with reference to:

(a) Changes in the timing of capital expenditure compared with Vector's Asset Management Plan[2] on a 'but for the new connection' basis; and
(b) The connection applicant's allocated share of the actual capital expenditure in shared costs required to provide new connection services; and/or
(c) The connection applicant's allocated share of upstream augmentation.

5.5 Where the avoidable cost relates to growth costs, Vector determines the avoidable cost with reference to:

(a) The forecast system growth expenditure within Vector's Asset Management Plan;
(b) The forecast ICPs by consumer type (residential, SME and commercial & industrial);
(c) The forecast consumption by consumer type based on consumption per ICP; and
(d) The average flow rate (scm/h) by consumer type based on existing consumers.

5.6 The information in 5.5 is used to determine a growth charge per ICP by consumer type. The average annual system growth costs (average of the next 10 years projected system growth capex) is allocated to consumer types by using a weighted average of flow rate × forecast incremental ICPs per annum and forecast annual consumption. The allocated average annual system growth costs by consumer type is divided by the forecast incremental ICPs per annum to give the growth charge per ICP by consumer type.

6. Extent of consumer connection, sole use cost and non-consumer related augmentation

6.1 Vector may elect to augment the gas distribution network to a greater extent than required by the new connection or sole use asset. This may arise due to the economies of scale of installing new gas distribution network infrastructure and the provision of capacity to support further load growth in the future.

6.2 Subject to 6.4 the consumer connection or sole use asset cost will only include those costs necessary to provide the gas distribution services requested by the connection

[2] Vector's Asset Management Plan is available at https://www.vector.co.nz/about-us/regulatory/disclosures-gas/gas-asset-management

applicant at the least cost and technically acceptable standard (as determined by Vector). Consumer connection cost does not include the costs referred to in 6.1.

6.3 If the connection applicant requests assets of a higher standard or more costly nature than Vector considers necessary, then the avoidable cost may include the greater costs (if any) that may result.

6.4 Where a connection applicant's requirements fall between the capacity of two standard size network elements capable of meeting such requirements and Vector installs the larger of the two, this does not constitute Vector electing to perform the work to a higher standard or capacity.

7. Different types and treatments of new connections

7.1 Vector has identified two different types of new connection: standard and non-standard connections. Vector has a different approach to determining the capital contributions that apply. In each case Vector utilises the same underlying approach as specified in section 5.

8. Capital contributions for standard new connections

8.1 Certain new connections to Vector's network require a low level of technical input in order to connect each new consumer, as they are generally of the same technical requirements. Based on this, Vector has standardised new connection prices for eligible consumers into a schedule of standard prices. These prices have been determined based on a review of the costs of connecting a significant number of historical new connections that meet the technical criteria.

8.2 The schedule of prices and eligibility criteria Vector applies to standard new connections are published on Vector's website.

9. Capital contributions for non-standard new connections

9.1 Non-standard connections are all connections and sole use assets that don't meet the eligibility criteria for standard prices. For non-standard new connections Vector applies the specific cost to determine the required capital contribution.

10. Capital contributions for projects by other infrastructure owners

10.1 Vector may apply different methodologies for determining capital contributions for projects involving other infrastructure owners such as territorial authorities or government-owned entities which are covered by other legislation and regulations that would dictate how the contribution is determined. This reflects the potential for cost reductions which arise due to coordination of works by the different infrastructure owners.

11. Adherence to pricing principles

11.1 Vector’s capital contribution policy is consistent with the Pricing Principles published by the Commerce Commission in December 2010. These are included in Appendix A.

11.2 Charging connecting consumers dedicated connection or sole use costs equal to the avoidable costs ensures that any capital contribution falls within the subsidy free range (equal to or greater than incremental costs, and less than or equal to standalone costs).

11.3 Including a growth charge in the capital contributions, provides a price signal to connecting consumers to the level of available service capacity and the effect of additional usage on future investment costs.

11.4 Vector’s distribution prices recover the costs of the existing gas distribution network and a portion of investment and enhancement of shared assets that are to the benefit of all consumers. Vector’s capital contribution policy means that capital contributions recover avoidable costs. These two mechanisms combined ensure that allowed revenues are fully recovered. As a consequence, Vector has not considered revenue under-recoveries in this contribution policy.

11.5 For non-standard new connections, Vector is able to negotiate differing levels of economic value from a service or to mitigate against uneconomic bypass.

11.6 A simple capital contributions structure enhances transparency. The schedule of prices and eligibility criteria Vector applies to standard new connections are published on Vector’s website.

12. Use of independent contractors

12.1 In some circumstances the connection applicant may undertake some of the work that would otherwise be covered by the capital contribution. Vector may allow consumers or the connection applicant to undertake the preparatory work using appropriately trained and qualified personnel familiar with Vector’s standards and requirements prior to Vector installing new gas distribution infrastructure. Preparatory work includes by way of example, trenching and or civil work, reinstatement and laying of duct. Depending on the circumstances Vector may also allow consumers or the connection applicant to install the new gas distribution infrastructure.

12.2 If the consumer or connection applicant performs some of the work or installs new assets that Vector will then own, then the costs associated with this work will be excluded from the costs used to determine the capital contribution. They will also be excluded from the RAB and hence the determination of distribution prices.

13. Definitions

Augmentation means the expansion, upgrade, increase, addition to, removal, relocation or enhancement of any part of the gas distribution network which would not otherwise be required but for the requirements of a new connection service. Augmentation may include the allocation of extant spare capacity (i.e. prior augmentation) to a new connection service.

Avoidable cost means the costs determined in accordance with section 5.

Capital contribution means money or the monetary value of other consideration to be charged to or received from consumers or other parties for the purposes of asset construction, acquisition or augmentation that is in addition to, and separate from any ongoing revenue from distribution prices.

Capital contribution policy means the document that outlines the policy or methodology for determining capital contributions. Vector's current and previous capital contribution policies are available at https://www.vector.co.nz/about-us/regulatory/disclosures-gas/capital-contributions.

Connection and sole use assets mean assets connected to the network for use by only one connecting consumer in order to receive gas distribution services.

Connection and sole use costs mean the costs associated with connection and sole use assets.

Connection applicant means a local authority and any association of persons whether incorporated or not applying for a new connection service and may include a consumer.

Consumer means any person who is supplied, or who applies to be supplied, with gas, as defined in the Gas Act 1992.

Distribution prices means Vector's standard published prices and non-standard prices for the provision of as distribution services.

Gas distribution network means the Vector owned works that are used or intended to be used by Vector to provide gas distribution services.

Gas distribution services means the provision of gas distribution services as defined in the Commerce Act (Gas Distribution Services Input Methodologies) Determination 2010.

Input Methodologies means the Gas Distribution Services Input Methodologies Determination 2012.

New connection means a new point on the gas distribution network or an existing point, either of which requires augmentation in order for Vector to provide gas distribution services to a consumer or connection applicant.

New connection service means the provision of gas distribution services on the gas distribution network to a new connection.

RAB means Vector's regulatory asset base, in respect of the gas distribution network.

Shared assets mean a network asset used by more than one consumer in order to receive gas distribution services.

Shared costs mean the costs associated with shared assets.

Vector means Vector Limited and its related companies (as defined in the Companies Act 1993).

Appendix A Pricing principles

(1) Prices are to signal the economic costs of service provision, by-
- (a) being subsidy free, that is, equal to or greater than incremental costs and less than or equal to standalone costs, except where subsidies arise from compliance with legislation and/or other regulation;
- (b) having regard, to the extent practicable, to the level of available service capacity; and
- (c) signalling, to the extent practicable, the effect of additional usage on future investment costs.

(2) Where prices based on 'efficient' incremental costs would under-recover allowed revenues, the shortfall is made up by prices being set in a manner that has regard to consumers' demand responsiveness, to the extent practicable.

(3) Provided that prices satisfy (1) above, prices are responsive to the requirements and circumstances of consumers in order to-
- (a) discourage uneconomic bypass; and
- (b) allow negotiation to better reflect the economic value of services and enable consumers to make price/quality trade-offs or non-standard arrangements for services.

(4) Development of prices is transparent, promotes price stability and certainty for consumers, and changes to prices have regard to the effect on consumers.