
# Pricing Methodology
# Gas distribution network

From 1 October 2012

Pursuant to:
The Gas Distribution Information Disclosure Determination 2012

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# 2 Introduction

2.1 Vector's natural gas distribution network supplies more than 30 towns and cities across the North Island. Vector purchased the Auckland gas network in 2002 and the North Island network from NGC in 2005. Figure 1 shows a map of Vector's Auckland and North Island gas distribution networks.

**Figure 1 – Auckland and North Island gas distribution networks**


2.2 In October 2012, the Commerce Commission (the Commission) issued the Gas Distribution Information Disclosure Determination 2012 (the Determination) which applies to both Vector's Auckland and North Island networks. Amongst other things, the Determination requires Vector to publicly disclose the methodology used to set prices for the forthcoming pricing year.

2.3 This document is Vector's disclosure of our pricing methodology. It provides information about the development of the Gas Distribution Pricing Methodology (GDPM) in a transparent manner and meets the pricing methodology disclosure requirements of the Determination.

# 3 Objective for setting prices

3.1 A key feature of a gas distribution network is that many of the assets used to convey gas are used by many consumers. While the way this system has been built up over time is something that we now have limited ability to influence, we are able to influence present and future decisions to invest in the gas distribution network.

3.2 The pricing methodology (including the published standard prices) is designed, in line with pricing principles published by the Commission, to efficiently recover the costs of the existing gas distribution network and send efficient signals to users when new investments are required.

3.3 Vector's published standard 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 our prices relates to the physical gas distribution assets, for example the pipes, stations and compressors.

3.4 To send the right signals to consumers and to ensure new investments in the system are as efficient as possible, those consumers need to be charged for the full or proportionate cost of those assets (new and existing) they will be using.

3.5 Vector has developed a high-level framework used to guide the development of the GDPM. The applicable requirements which form an overarching set of objectives for the GDPM include:

a) Cost recovery - ensuring Vector recovers its costs, including an appropriate return on and of investment. A key aspect of cost recovery is the predominantly sunk and fixed nature of the costs;

b) Meet regulatory obligations - including compliance with the weighted average price requirements and the pricing principles;

c) Clear pricing structure - by making it attractive to maintain connection and for new consumers to connect. Pricing should be simple and easily understood by consumers.

d) Coherent overall price structure – so that there are not incentives for consumers to switch service classes to take advantage of anomalies in the pricing structure;

e) Cost reflective pricing - to ensure that all consumers face prices that reflect the cost of providing them with service, that charges to all new consumers at least cover the incremental costs of connecting them to the network (including costs associated with upstream reinforcement) and charges to recover overhead costs and the cost of the shared network are allocated

between consumers in a manner that is least likely to distort investment decisions;

f) Consumer centric outcomes – to take account of the economic value of the service to consumers, provide pricing stability and manage rate shock effectively in the transition to new price structures; and

g) Incentivise efficient usage - in other words, encourage/discourage more utilisation of pipe segments to ensure that new investments are efficient and sunk investments are not inefficiently by-passed.

3.6 Finally, price cap regulation is intended to promote improvements in efficiency over time. We consider that this applies equally to the development of pricing methodologies. The reality for Vector is that information on consumer response to prices is highly imperfect. Vector intends to review consumers' responses to prices and will continue to enhance price design over time.

# 4 Methodology for setting prices

4.1 In this section we provide a high level description of Vector's pricing methodology for the gas distribution networks. Vector's pricing methodology is developed to deliver Vector's pricing objectives as described in section 3.

4.2 Vector's pricing methodology is based on defining service classes based on assets used (which are the primary source of costs to be recovered) and the manner in which consumers using those assets to connect to the network. A Cost of Service Model (COSM) is used to establish and allocate costs to those service classes.

4.3 Within the service classes, Vector has defined a number of capacity segments, which reflect a desire to signal economies of scale in network augmentation. Prices in each of the capacity segments are used to provide a coherent overall price structure, which reflects these economies of scale. (i.e. charges increase, but at a decreasing rate as volumes/capacity requirements increase).

4.4 A high level view of the process for developing prices is as follows:

a) Develop consumer segments based on groups of consumers usage of Vector's gas distribution network assets;

b) Incorporate consumer segmentation into tariff structures;

c) Develop COSM to incorporate pricing principles and allocate costs to consumer segmentations;

d) Adjust existing tariffs for CPI increase plus changes in pass-through costs where applicable;

e) Ensure tariffs comply with the forecast allowable notional revenue under the price path;

f) Transition revenue gained through adjusted tariffs towards revenues determined by the COSM by adjusting tariffs accordingly. This step has not been undertaken for the Auckland network for the 2012/13 pricing year due to the significant increase in pass-through costs (i.e. Auckland prices were pro-rated in accordance with step d) only);

g) Ensure overall tariff changes are consistent with the pricing principles and provide for reasonable end consumer outcomes (e.g. mitigating rate shocks where indicated by the COSM); and

h) Ensure overall tariff changes comply with forecast allowable notional revenue under the price path.

4.5 The foundation of the development of the pricing methodology is based on an application of economic pricing principles, given practical, physical and commercial constraints. It is useful to have an understanding of these factors, as it assists in understanding various decisions Vector has reached in establishing the pricing methodology:

a) Gas use is discretionary and customers are heterogeneous;

b) The majority of costs to be recovered are shared costs, which cannot be specifically attributed to particular service classes except at high levels of aggregation;

c) There are practical limits on the information available with which to set prices to improve efficiency, for example gas metering generally does not record time of use or maximum throughput for small consumers;

d) Development of prices necessarily requires a high level of averaging due to the large number of customers and varying levels of consumption. There are practical considerations and administrative barriers in providing individual prices to individual customers; and

e) Implications for the outcomes sought from pricing policy – there are limits to how theoretical pricing principles can be practically applied and the pricing principles are best considered in a holistic fashion.

# 5 Determining target revenues

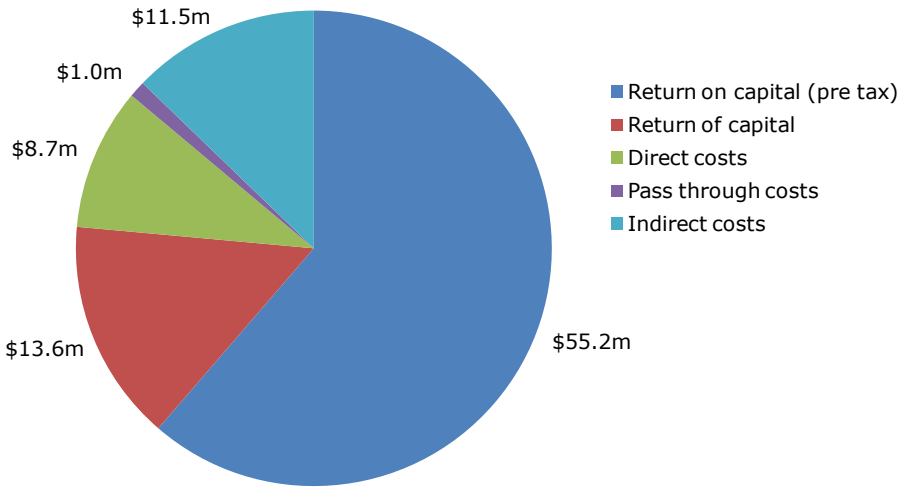
5.1 Vector's gas distribution business revenues are constrained by the requirements of the price path. Revenue changes from year to year are capped by the permitted (CPI-based) increase in weighted average prices, and for increases in pass-through costs on the Auckland Network.

5.2 The target revenue that Vector is able to recover each year is determined by the regulated weighted average prices and the actual number of consumers and gas delivered over the distribution system. The target revenue that Vector expected to receive from the gas distribution system between 1 October 2012 and 30

September 2013 is $89.9m. We note this assessed target revenue incorporates a component of both changes in quantities (growth) and changes in prices when compared with revenue from the previous year.

5.3 A breakdown of the target revenue into the key components is shown in Figure 2. The breakdown of target revenue into the key cost components in the forthcoming year has been determined based on historical percentages of actual cost components and revenue.

**Figure 2 Breakdown of target revenue**




## 6 How the distribution system is segmented

6.1 Vector has segmented consumers based on the nature of the network service they receive. Due to the physical nature of distribution networks and the information that is available on consumer demand characteristics, the consumer segments are defined at a relatively high level. Examples of these considerations are:

a) A large proportion of the network's costs are fixed, which means that they must be allocated in a manner that causes the least distortion to other key economic signals;

b) There is a high degree of network meshing and interconnection of consumers. This means that multiple end consumers utilise many of the same assets. A large industrial consumer consuming large volumes of gas per year is likely to be using some of the same network assets as a residential end consumer consuming only small amounts;

c) End consumers are not generally geographically segmented in their use of different network assets. For example, there are in general no purely "industrial zones" or "residential zones". A residential consumer is likely, in part at least, to use the same assets as an industrial consumer. The GIS-generated diagram of a cross-section representative of the Auckland networks included as Appendix 2 illustrates this point; and

d) A mix of consumers including a large number of consumers with relatively low individual consumption and a small number of consumers with relatively high individual consumption.

6.2 Segmentation of customers by Vector reflects service and utilisation of the network. Costs are then allocated using the most appropriate drivers to ensure prices are cost reflective.

6.3 The starting point for determining prices is to directly attribute costs to customers/service-classes as far as possible. As a general proposition, this means that costs are allocated to customers who benefit from the use of certain assets or parts of the network; this is a "beneficiary pays" approach. Given the shared nature of the majority of network assets, it is then necessary to allocate the remaining common costs to develop prices such that the total costs of the network (directly attributable and shared) can be recovered.

6.4 In terms of direct attribution of costs, Vector has identified three service classes based on the nature of the connection to the gas network. The service classes are defined corresponding to the following three different connection-types:

a) Primary connection types are customers who connect directly to the "A" assets (backbone) by means of their own connection assets.

b) Secondary connection types are customers who connect directly to the "A" assets (backbone) by means of Vector owned connection assets ("B" assets). These customers do not rely on the meshed distribution assets for their service. The small number of Secondary connection types is mostly made up of customers with large gas usage.

c) Tertiary connection types are customers who connect to the "C" assets (meshed distribution). Most customers are connected via Tertiary connections.

6.5 The three asset types are described in more detail as follows:

a) "A" assets are the network that connects gas gate stations and serves as a backbone for to the meshed distribution network ("C" assets). "A" assets include the standard pipe pressure ranges HP, IP and MP7. "A" assets are shared by all connection-types.

b) "B" assets are the connection assets (such as end consumer specific pressure-reducing valves and service pipes) used by Secondary Connection types to connect to the "A" backbone assets. "B" assets are exclusively used by Secondary Connection types.

c) "C" assets are the meshed distribution network which connects to the "A" backbone assets via pressure reducing stations. "C" assets include the standard pipe pressure ranges MP and LP but excluding MP7. "C" assets are exclusively used by Tertiary Connection types.

6.6 Appendix 2 depicts the backbone and meshed networks described above.

6.7 Within each connection type (Primary, Secondary and Tertiary), there are further segmentations made in establishing prices based on the connected capacity of the customer. On the backbone network these include all commercial load groups (≤10scm/h, 10-40scm/h, 40-200scm/h and >200scm/h) whilst the meshed distribution network has all commercial and residential load groups present. The backbone network is categorised by having a significant portion of the higher capacity connections whilst the meshed distribution network has a greater portion of the smaller capacity connections present

6.8 Vector does not consider that load groups, within a service class, represent different services. The actual delivery of gas to different load groups is the same, with the GMS restricting the use of the network service. The role of load groups is to recover the costs of the Primary, Secondary and Tertiary services in an efficient manner that reflects cost causality.

6.9 The consumer segments derived are presented in Appendix 3. Note there is no change in consumer segments from 2011/12 gas distribution prices.

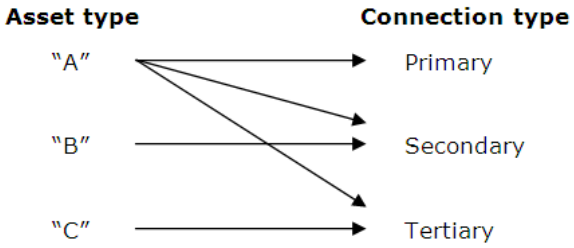
# 7 Allocating target revenues to segments of the distribution system

7.1 Vector uses these asset types on the basis that there are different costs associated with building high pressure and medium pressure networks. Customers also face different costs of connecting to the Intermediate Pressure (IP) network compared to the Medium Pressure (MP) network. IP connections typically require steel service lines and more expensive pressure reduction equipment to cater for the higher pressures. The costs of this equipment can be around five times more than plastics-based polyethylene pipes and equipment used on MP networks[1]. Whether a customer chooses to supply their own service lines and equipment is therefore also very important in distinguishing asset costs.

[1] However, overall such customers use fewer network assets, so their charges will tend to be lower.

7.2 The following figure illustrates the relationship between asset types and connection types:

**Figure 3 - Relationship between Asset type and connection service class**




7.3 The diagram shows that no single connection type, or service class, uses all three asset types. It also shows that Secondary customers have sole use of "B" assets, and Tertiary customers have sole use of "C" assets.

7.4 The "A" assets are allocated to Primary, Secondary, and Tertiary service classes on the basis of the volumes consumed by each connection type. It would be preferable to allocate on the basis of some measure of peak demand, as this would be a better indicator of cost causality, however such information does not exist. Volume is considered a reasonable proxy for peak demand, as on an aggregated basis the demand profiles are similar between Secondary and Tertiary customers.

7.5 Appendix 3 shows prices and target revenues for each customer plan for each network.

# 8 Consistency with pricing principles

8.1 The Commission's pricing principles provide a principle-based approach to developing and assessing pricing methodologies for gas distribution services. This section demonstrates the extent to which the GDPM is consistent with the pricing principles, as required to be disclosed under Subpart 5 of the Commerce Act (Gas Distribution Services Input Methodologies) Determination 2010 (the Input Methodologies).

8.2 Pricing Principle 1 under section 2.5.2 of the Input Methodologies states that:

a) *Prices are to signal the economic costs of service provision, by 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) *Prices are to signal the economic costs of service provision, by having regard, to the extent practicable, to the level of available service capacity; and*
c) *Prices are to signal the economic costs of service provision, by signalling, to the extent practicable, the effect of additional usage on future investment costs.*

8.3 The gas distribution system, by its very nature, consists of pipes with significant capacity. When building the system, economies of scale exist such that the cost of installing a pipe larger than that which is immediately required does not add significantly to the cost of network build. As a consequence many parts of the extant distribution system are characterised by having spare capacity. In most cases, due to the availability of spare capacity, the short run cost of the next unit of capacity is nil.

8.4 Where the system requires expansion, for example in order to connect a new user to the distribution system, then Vector generally funds this expansion through capital contributions and/or non-standard prices which directly offset, or ensure recovery of the incremental capital investment. Vector's approach to recovering these costs is outlined in the gas distribution capital contribution policy. With respect to principle 1(a), the GDPM generally recovers the short run incremental costs specific to a new connection from the connecting party. Such costs are typically quite low, involving the construction of a service line from the distribution network to the meter installation, and are usually recovered in the form of a connection charge.

8.5 The primary driver of the long run incremental cost (LRIC) of any connection, or classes of connections, is the extent to which they contribute to congestion in the system, as such congestion drives the need to periodically expand the capacity of the system.

8.6 In a gas distribution system the relationship between the capacity taken by any one connection (or groups of connections) and congestion in the network is difficult to define. The presence of "line-pack" in a gas distribution system means that there can be significant timing differences between when gas is taken and the timing of congestion. In these instances the costs of using the network (including the cost of network expansion) are allocated to users of the network. This allocation process determines the prices charged for the use of the network. In addition Vector has a capacity determination process whereby Vector systematically assesses the capacity that is available for separate sections of the network, after taking account of the contractual and operating pressure requirements of the network.

8.7 While the cost of investment in additional capacity is signalled to consumers when congestion is identified, there is not currently any particular mechanism to signal through distribution prices that available capacity is becoming (relatively) more scarce.

8.8 Vector has applied the stand alone cost (SAC) test in Principle 1 (a) to the charges for providing gas distribution services to each group of consumers (i.e. those consumers that are part of a particular group, or a single consumer in the case of non-standard contracts). There are large economies of scale in a gas distribution network; the sum of all stand alone costs to provide service to each consumer in the same region is much higher than the cost to provide the same service using a single network. It is these economies of scale that result in there being only one gas network in most locations.

8.9 Vector has checked, using its cost models, that the pricing methodology does not result in any consumer group (including any consumer on a non-standard contract) being charged amounts in excess of an estimated SAC to provide service to them. The market tends to ensure this SAC test is met as a matter of course, as any large consumer, or group of large consumers in the same location that have a lower-cost gas delivery option to what Vector is charging them will usually raise this with Vector in the context of exploring a possible non-standard contract.

8.10 Pricing Principle 2 and 3 under section 2.5.2 of the Input Methodologies state that:

*a) 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.*

*b) Provided that prices satisfy pricing principle 1, 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.*

8.11 The pricing methodology recovers allowed target revenues in a manner that has regard to consumers' demand responsiveness by differentiating charges in the following ways.

a) Charges are differentiated with respect to connection size, with the daily fixed fee rising with the size of connection, and the rate of the throughput charge decreasing (as described under Principle 1). Vector considers connection size is a reasonable proxy for a consumer's likely responsiveness to the level of the fixed charge.

b) Vector has found some residential and small commercial customers are sensitive to the level of fixed charges for gas distribution due their price elasticity of demand. The pricing methodology has regard to the demand responsiveness of these consumer groups by, relative to the charging structures applying to other consumer groups, placing less weight on the daily fixed fee and more weight on the throughput charge.

c) Established rules and criteria for non-standard pricing arrangements to take into account the requirements of individual consumers.

8.12 The pricing methodology also provides for non-standard contractual arrangements, with such arrangements being able to address changes to the structure or level of charges (e.g. for atypical load patterns, or to address particular by-pass or fuel substitute situations), or differing service levels where possible (e.g. a higher level of redundancy, or priority response if an outage occurs). The pricing methodology

obliges Vector to take account of the issues described above under Principles 1 and 2 when considering the design of a non-standard contract.

8.13 As described under Principle 2, the pricing methodology takes account of general consumer responsiveness in the structure of the charges and in the relative weightings and levels of fixed and throughput charges across consumer groups. Consumers will bypass if the cost of alternatives, whether through a competing network or alternative fuel, are lower than the cost of the piped gas. Consumers will cease to consume if the cost of piped gas is more than the economic value of the gas to them. Where the economic value the consumer ascribes to the service is less than the incremental cost of providing the service then Vector would cease to provide this service.

8.14 Pricing Principle 4 under section 2.5.2 of the Input Methodologies states that:

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

8.15 The existing pricing methodology for the gas distribution system is transparent in that it is documented and is available to consumers and other stakeholders from Vector's website and is provided to them on request. Changes to prices have been limited for most consumption patterns to be no more than 10% each year. Vector has consulted with stakeholders in the development of this pricing methodology and continues to consult as appropriate when applying it and future methodologies.

## 9 Consumer consultation on price-quality trade-offs

9.1 Current prices represent the final stages of Vector's Auckland Gas Distribution Network Pricing Methodology Report, 1 May 2009 which was agreed with the Commerce Commission in 2009 and gives Vector very limited flexibility to change direction in its pricing approach. Further to this, Vector consults with retailers on an annual basis as part of its gas distribution price setting process.

## 10 Impact on prices

10.1 Vector's prices from 1 October 2012 have been adjusted, in line with regulation, to reflect the increasing costs of our business.

10.2 For the Auckland network, the price changes incorporate the impact of inflation and large increases in local body rates and other pass-through costs that are beyond our control. Prices have been increased by a weighted average increase of 9.3%. This increase has been uniformly applied to both fixed and variable tariffs. Increases in prices on the Auckland network consist of a 3.3% increase to reflect the impact of inflation on our costs and a 6.0% increase to reflect the increase in pass-through costs. These increases have been applied uniformly across fixed and variable prices.

a) Forecast pass-through costs for the Auckland network have increased significantly in 2012/13. This has been caused, predominantly, by changes to Auckland Council's rating methodology. As a result, Auckland gas distribution network assets owned by Vector have attracted a 116% rates increase from the Auckland Council.

b) Due to the magnitude of the increase in pass-through costs, Vector has been unable to transition revenues for the Auckland network from those recovered under existing prices towards those from the COSM. Vector has also been unable to remove the final location based price component of pricing for the Auckland network and as such, consumer segments have remained the same as for 2011/12 for both the Auckland and North Island networks.

10.3 For the North Island network, the price changes incorporate the impact of inflation. The weighted average price for the North Island network has therefore been increased by CPI of 3.3%. This increase has been applied predominantly to fixed tariffs.

10.4 Appendix 3 shows a side-by-side comparison of the current prices for the Auckland and North Island networks effective from 1 October 2012 with prices effective from 1 October 2011. The weighted average price change has been calculated to demonstrate the change in revenue for all customers in each load group. Individual price changes will vary depending on the customer's annual usage compared with the average in the group. Price changes also reflect compliance with the weighted average price cap

## 11 Non-standard pricing

11.1 In certain circumstances Vector's published standard prices may not adequately reflect the actual costs of supplying a consumer, reflect the economic value of the service to the consumer or address the commercial risks associated with supplying that consumer. In addition to standard published prices, the GDPM also includes non-standard agreements.

11.2 These contracts allow tailored or specific prices and non-standard Network Connection Agreement (NCA) commercial arrangements to be applied to individual points on the distribution system.

11.3 Of the allowable target revenue for 1 October 2012 to 30 September 2013 of $89.9m, 13% is recovered from 196 non-standard consumers.

11.4 Vector has established the following assessment criteria to determine whether to apply non-standard pricing:

a) The total annual quantity of gas consumed or forecast to be consumed per annum (AQ) is greater than 20TJ; or

b) The AQ is between 10TJ to 20TJ and the consumer's point of connection to Vector's gas distribution network is within 2km of a gas transmission delivery point or a gas distribution network not owned or operated by Vector; or

c) It can be demonstrated that alternative sources of energy (including but not limited to wood, coal or electricity) that meet the consumer's requirements are technically, operationally and commercially viable and have a reasonable prospect of being able to be successfully implemented.

11.5 Vector assesses whether to apply non-standard pricing and or commercial arrangements on a case by case basis. Generally if a consumer does not meet at least one of the assessment criteria, they will be subject to published standard distribution prices. Meeting one or more of the assessment criteria does not mean that a non-standard arrangement will apply, merely that the consumer may be further reviewed to determine whether standard pricing and standard contractual terms are suitable given the consumers individual circumstances.

11.6 Current non-standard customer contracts have been adjusted in line with contractual commitments. Non-standard customers whose contracts have expired are reassessed against the criteria and prices are either set to standard prices or re-negotiated.

11.7 New customers that qualify for non-standard pricing are treated on a case by case basis. Vector may look at similar customers (same industry or location or similar load profile) and use this as a comparator to set the base price.

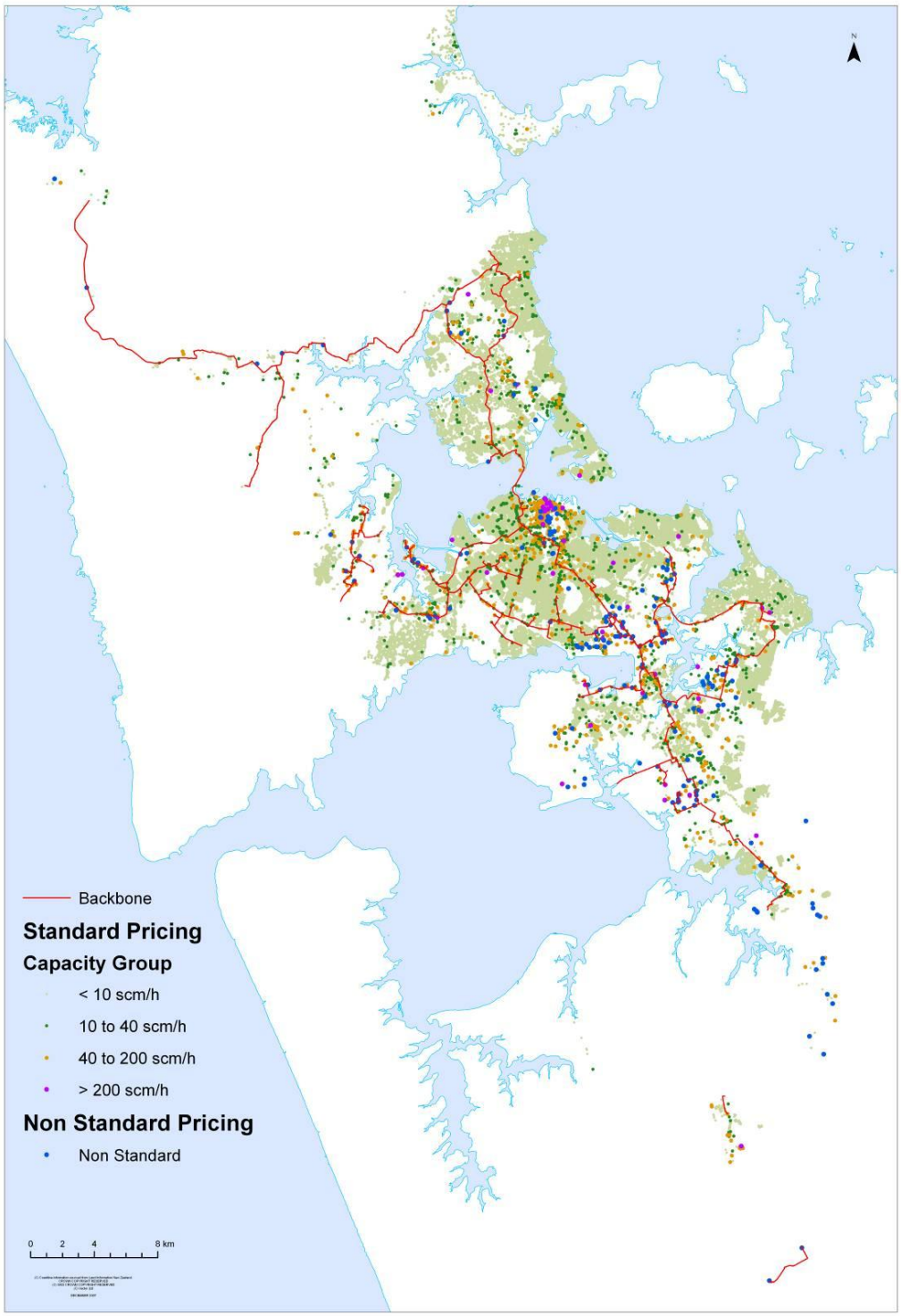
11.8 For new investments which may have an unusual load profile, Vector does benchmarking exercises to determine a suitable cost. Vector may look at customers from the same industry or in the same location or size and provide the new customer with comparable pricing.

11.9 Vector's obligations to consumers under standard and non-standard contracts for distribution services are identical. There are therefore no implications of this approach for determining prices for non-standard customers.

# Appendix 1 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.

# Appendix 2 Customer types on the Auckland network



## Appendix 3 Price and revenue statistics by segment

| Auckland Network | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date / Period | | 2011/12 | | 2012/13 | | | 1-Oct-12 | 2012/13 | | |
| Load Group | Description | Variable ($/kWh) | Fixed ($/day) | Variable ($/kWh) | Fixed ($/day) | Price Change % | Number of Customers | Fixed Revenue ($'000) | Variable Revenue ($'000) | Target Revenue ($'000) |
| GA0R | Residential | 0.0303 | 0.24 | 0.0331 | 0.26 | 9.0 | 86233 | $8,200 | $19,900 | $28,100 |
| GA01 | ≤10 scm/h | 0.0273 | 0.35 | 0.0298 | 0.38 | 9.1 | 2240 | $300 | $1,800 | $2,100 |
| GA02 | >10 and ≤40 scm/h, Zone 0 | 0.0200 | 1.25 | 0.0219 | 1.37 | 9.5 | 2220 | $1,100 | $4,500 | $5,600 |
| GA12 | >10 and ≤40 scm/h, Zone 1 | 0.0143 | 1.08 | 0.0156 | 1.18 | 9.1 | 188 | $100 | $300 | $300 |
| GAS3 | >40 and ≤200 scm/h, Secondary | 0.0119 | 3.55 | 0.013 | 3.88 | 9.3 | 94 | $100 | $900 | $1,000 |
| GAS4 | >200 scm/h, Secondary | 0.0091 | 10.21 | 0.0099 | 11.16 | 8.8 | 20 | $100 | $600 | $700 |
| GAT3 | >40 and ≤200 scm/h, Tertiary | 0.0120 | 3.59 | 0.0131 | 3.92 | 9.2 | 751 | $1,100 | $5,400 | $6,500 |
| GAT4 | >200 scm/h, Tertiary | 0.0096 | 10.75 | 0.0105 | 11.75 | 9.4 | 111 | $400 | $2,600 | $3,000 |
| Non Standards | | | | | | | 111 | | | $7,200 |
| **Total** | | | | | | | | | | **$54,600** |

| North Island Network | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date / Period | | 2011/12 | | 2012/13 | | | 1-Oct-12 | 2012/13 | | |
| Load Group | Description | Variable ($/kWh) | Fixed ($/day) | Variable ($/kWh) | Fixed ($/day) | Price Change % | Number of Customers | Fixed Revenue ($'000) | Variable Revenue ($'000) | Target Revenue ($'000) |
| GN0R | Residential | 0.0336 | 0.24 | 0.0339 | 0.26 | 3.0% | 59888 | $5,800 | $13,000 | $18,700 |
| GN01 | ≤10 scm/h | 0.0299 | 0.32 | 0.0299 | 0.35 | 1.3% | 2112 | $300 | $1,600 | $1,800 |
| GNT2 | >10 and ≤40 scm/h, Tertiary | 0.0288 | 0.44 | 0.0285 | 0.51 | 0.0% | 1307 | $200 | $3,100 | $3,300 |
| GNS2 | >10 and ≤40 scm/h, Secondary | 0.0284 | 0.43 | 0.0281 | 0.50 | 0.5% | 7 | $0 | $0 | $0 |
| GNS3 | >40 and ≤200 scm/h, Secondary | 0.0233 | 2.89 | 0.0229 | 3.32 | -0.9% | 13 | $0 | $200 | $300 |
| GNS4 | >200 scm/h, Secondary | 0.0176 | 8.76 | 0.0172 | 10.51 | -0.3% | 5 | $0 | $200 | $200 |
| GNT3 | >40 and ≤200 scm/h, Tertiary | 0.0237 | 2.93 | 0.0232 | 3.37 | -0.2% | 478 | $600 | $4,100 | $4,700 |
| GNT4 | >200 scm/h, Tertiary | 0.0179 | 8.89 | 0.0175 | 10.67 | 0.1% | 37 | $100 | $800 | $900 |
| Non Standards | | | | | | | 85 | | | $5,400 |
| **Total** | | | | | | | | | | **$35,400** |

## Schedule 18: Certification for Disclosures at the Beginning of a Pricing Year

Clause 2.9.2

We, Michael Stiassny and Alison Paterson, being directors of Vector Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

(a) the following attached information of Vector Limited prepared for the purposes of clause 2.4.1 of the Gas Distribution Information Disclosure Determination 2012 in all material respects complies with that determination.

(b) the prospective financial or non-financial information included in the attached information has been forecast on a basis consistent with regulatory requirements or recognised industry standards.

Director

Director

20 February 2013

Date