Pricing Methodology for Gas Distribution Services

From 1 October 2020 (Pricing Year 2021)

Pursuant to the Gas Distribution Information Disclosure Determination 2012

First Gas Limited
June 2020

Executive Summary

First Gas Limited (Firstgas) owns and operates gas distribution networks across the regions of Northland, Waikato, Central Plateau, Bay of Plenty, Gisborne and Kapiti. Since the establishment of Firstgas in 2016, we have focused on increasing the growth of gas connections across our networks. We are also looking to ensure that prices across our networks support growth and utilisation of our networks.

Firstgas recovers the cost of owning and operating our distribution networks predominantly through standard prices for gas distribution services, supplemented by 17 non-standard connection contracts. We also earn revenue from capital contributions for new gas connections. For further information on our capital contributions policy, please see our website here.

Pricing for year commencing 1 October 2020 (Pricing Year 2021)

There have been no substantive changes to Firstgas' Distribution Pricing Methodology (DPM) in the past 12 months.

Firstgas undertook a substantive review of our pricing methodology in 2017. This review involved analysing the mix of consumers on our networks and the underlying causes of the costs of providing gas distribution services. This work resulted in a new DPM for 2017,[1] with a substantially revised allocation of costs from our previous pricing methodology. The 2017 DPM saw an increase in the proportion of costs allocated to mass-market consumers and large industrials, while decreasing the proportion allocated to business and commercial consumers. The 2017 DPM also sought to recover substantially lower costs overall than in previous years, reflecting the reset of the Default Price Path for 2017 – 2022.[2] This resulted in all consumer groups, other than large industrials, having reduced network charges from 1 October 2017.

Firstgas will continue to apply the same pricing methodology for Pricing Year 2021 (PY2021)[3] and has updated this methodology to ensure compliance with the price path set out in the Commerce Commission's *Default Price-Quality Path Determination 2017*. This approach results in fixed and variable tariffs for all customer groups increasing by approximately 2%.

We are also continuing to offer a fully variable residential tariff. For the reasons set out in section 11, there are conditions for accessing this tariff option (including only being available for new consumers initially). We consider that this will ensure an efficient allocation of costs is maintained.

Finally, we are continuing to offer a single set of prices across our network. Our evaluation in 2017 found that there were no significant cost differences across regions, and we seek to keep our pricing as simple as possible.

[1] http://firstgas.co.nz/wp-content/uploads/FGL-Distribution-Pricing-Methodology-4-Sept-17_with-Cert.pdf.

[2] Final decisions announced 31 May 2017, full information available from the Commerce Commission's website here: http://www.comcom.govt.nz/regulated-industries/gas-pipelines/gas-default-price-quality-path/2017-2022-gas-dpp/

[3] 1 October 2020 to 30 September 2021.

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We, Mark Adrian Ratcliffe and Euan Richard Krogh, being directors of First Gas Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

a) the following attached information of First Gas 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: Mark Adrian Ratcliffe

Director: Euan Richard Krogh

4 June 2020
Date

4 June 2020
Date

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Glossary

Act	The Commerce Act 1986.
Allowable Notional Revenue (ANR)	The mechanism that determines prices for the period. Allowable notional revenue (ANR) is determined by multiplying prices from the prior year against quantities from two years prior. The result is adjusted for CPI movement and pass-through and recoverable costs. Total allowable notional revenue is then allocated to the various price groups, determining prices for each group for the current pricing period.
Cost Allocators	The measures used to allocate costs / target revenue among consumer groups.
CPI	Consumers Price Index, a measure of changes to the prices for consumer items purchased by New Zealand households giving a measure of inflation.
GDB	Gas Distribution Business
IDs	The *Gas Distribution Information Disclosure Determination 2012*, consolidating all amendments as at 3 April 2018, published by the Commerce Commission.
ICP	An installation control point being a physical point of connection on a local network which a distributor nominates as the point at which a retailer will be deemed to supply gas to a consumer
kWh	Kilowatt-hour, a unit of energy being the product of power in watts and time in hours.
DPP	The Gas Distribution Services Default Price-Quality Path Determination 2017, as published by the Commerce Commission.
Price component	The various prices, fees and charges that constitute the components of the total price paid, or payable, by a consumer.
Pricing Principles	The Pricing Principles specified in clause 2.5.2 of the *Gas Distribution Services Input Methodologies Determination 2012* (consolidating all amendments as at 3 April 2018) and included in section 16.
Pricing strategy	A decision made by the Directors of a Gas Distribution Business (GDB) on the GDB's plans or strategy to amend or develop prices in the future, and recorded in writing
Pricing Year (PY)	The annual period beginning on 1 October and ending on 30 September.
RAB	Regulatory Asset Base, the regulated value of the assets that Firstgas uses to provide gas distribution services.
scm/h	Standard cubic metres per hour, a measure of gas capacity based on the flow rate.
Target revenue	The revenue Firstgas expects to receive from prices during the pricing year.

1. About Firstgas

Firstgas operates 2,500 kilometres of gas transmission pipelines and more than 4,800 kilometres of gas distribution pipelines across the North Island. These gas infrastructure assets transport natural gas from Taranaki to major industrial gas users, electricity generators, businesses and homes, and transport around 20 percent of New Zealand's primary energy supply. Our distribution network services approximately 63,000 consumers across the regions of Northland, Waikato, Central Plateau, Bay of Plenty, Gisborne and Kapiti.

The Firstgas Group also owns energy infrastructure assets across New Zealand through our affiliate Gas Services NZ Limited (GSNZ), a separate business with common shareholders that owns the Ahuroa gas storage facility and Rockgas. The Ahuroa gas storage facility (trading as Flexgas) can store up to 18PJ of gas, with expansion planned over the next two years to increase the injection and withdrawal rates of the facility. Rockgas has over 80 years' experience providing LPG to over 100,000 customers throughout New Zealand.

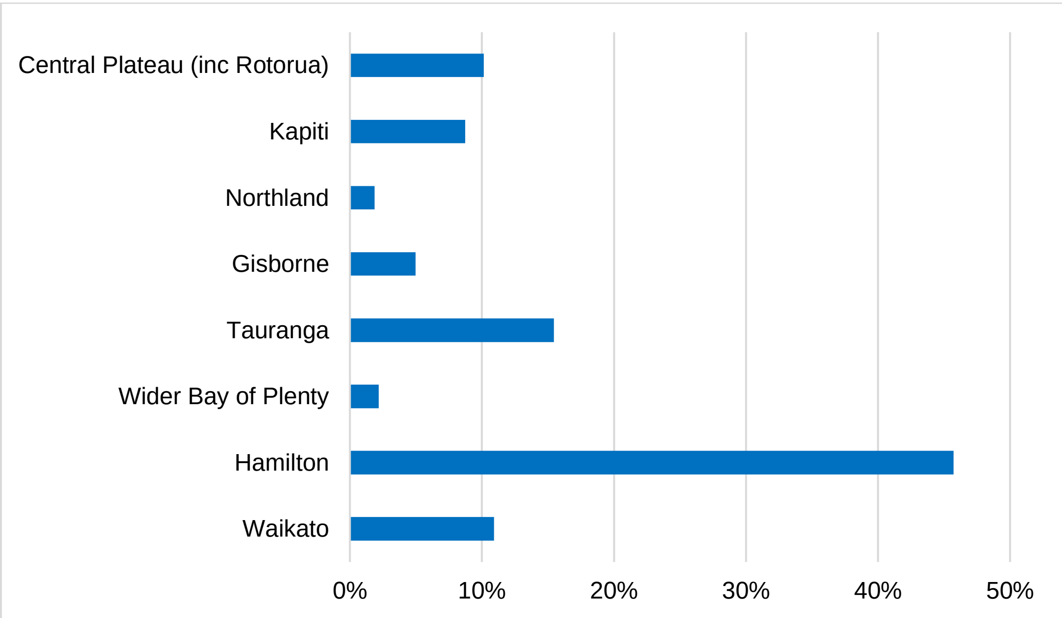
Firstgas is committed to investigating the opportunities for alternative fuels that will reduce New Zealand's carbon emissions. Our gas transmission and distribution networks cover much of the North Island and are ideally placed to support the development, transfer and use of emerging fuels such as hydrogen or biogas.

We have announced that we will begin feasibility studies and a hydrogen trial this year. We intend to base staff at the new National Energy Development Centre to design and run an initial trial of hydrogen in gas pipelines to demonstrate that the existing gas network can be repurposed and is suitable for conversion to transport hydrogen.

1.1 Our approach to distribution pricing

Firstgas' prices are charged to retailers who then incorporate them into retail bills to end consumers. Due to this dynamic, Firstgas does not have direct control over the cost of energy to consumers and will work closely with retailers to ensure that consumers' expectations are met where possible.

Figure 1: Proportion of gas distribution consumers by region (as at 1 April 2020)



Our gas distribution services are regulated by the Commerce Commission under Part 4 of the Commerce Act 1986. These services are subject to price-quality path regulation and information disclosure requirements. Our regulatory disclosures can be found on the Firstgas website here.

Firstgas is focused on growing our distribution networks and the number of customers that use our networks. Increasing the utilisation of our networks will reduce the cost of providing distribution services to all consumers. We believe that natural gas has an important role to play in New Zealand's energy future as an affordable, efficient, and environmentally responsible fuel.

1.2 Distribution pricing methodology

Every gas distribution business maintains a distribution pricing methodology. The purpose of this document is to describe how the business determines the prices that it charges each consumer group.

The methodology takes the target revenue for the business set by regulation and analyses the underlying costs that build up that revenue. The methodology then sets out how costs will be allocated among consumer groups and non-standard customers.

The methodology is updated annually as part of the annual pricing review, and feedback is sought from all retailers. The final distribution pricing methodology is published on the Firstgas website.

1.3 Use of non-standard contracts

Firstgas generally recovers the cost of providing gas distribution services to existing consumers through standard prices. However, Firstgas also offers non-standard pricing and contracts to a small number of consumers in circumstances where standard prices on our distribution networks may not:

- Adequately reflect the 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.

Non-standard contracts allow tailored or specific prices and non-standard commercial arrangements to be applied to individual consumers on the distribution system.

1.4 Contact Firstgas

For any questions regarding the distribution pricing methodology, please contact:

Peter Sandston
Distribution Commercial Manager
peter.sandston@firstgas.co.nz
027 285 8091

For further information on Firstgas and its gas distribution and transmission businesses, please visit our website www.firstgas.co.nz.

2. Regulatory context

The development of Firstgas' distribution pricing methodology (DPM) is governed by our regulatory obligations under Part 4 of the Commerce Act 1986, enforced by the Commerce Commission. This section outlines the regulatory obligations that are relevant to this DPM.

2.1 Requirement to disclose a pricing methodology

The Commerce Commission's *Gas Distribution Information Disclosure Determination 2012* (IDs)[4] requires all gas distribution businesses to publicly disclose at the beginning of each pricing year, the methodology used to determine the prices payable for the provision of gas distribution services.

2.2 Alignment with pricing principles

The Commerce Commission's ID Determination requires Firstgas to disclose its pricing methodology and provide:

- An explanation of the extent of consistency of our pricing methodology with the Pricing Principles (which are defined in the Input Methodology)[5] or
- Reasons for any inconsistency between our pricing methodology with the Pricing Principles.[6]

The Commerce Commission's Pricing Principles are provided in section 16 of this DPM, along with an explanation of how we have reflected these principles in this pricing methodology.

In applying the Commerce Commission's Pricing Principles, Firstgas does not rank one objective higher than others but seeks to achieve the best balance between competing principles to achieve our business objectives. This approach will always have an element of judgement involved, and we seek to provide additional detail in this DPM where this judgement has been applied.

2.3 Allowable notional revenue

Firstgas' Allowable Notional Revenue (ANR) for each pricing year is calculated in accordance with the Commerce Commission's *Gas Distribution Services Default Price-quality Path Determination 2017* (DPP). The DPP sets a weighted average price cap that applies to Firstgas' gas distribution business. Firstgas' Notional Revenues (NR) must not exceed the Allowable Notional Revenue (ANR).

The term "notional" refers to the use of historical quantities that are used in the compliance calculations. Actual throughput for the pricing year in question in not known prior, so historical values are used as the best proxy. The same historic quantities are used in the calculation of ANR and NR.

Further information on the IDs, DPP, and IMs that apply to Firstgas' distribution business can be found on the gas pipelines section of the Commerce Commission website.[7]

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[4] *Gas Distribution Information Disclosure Determination 2012 (consolidating all amendments as at 3 April 2018),* Commerce Commission, http://www.comcom.govt.nz/regulated-industries/gas-pipelines/key-information-gas/

[5] Clause 2.5.2 of the *Gas distribution services input methodologies determination 2012 (consolidated all amendments as at 3 April 2018)*, Commerce Commission, https://comcom.govt.nz/__data/assets/pdf_file/0029/59717/Gas-distribution-services-input-methodologies-determination-2012-consolidated-April-2018-3-April-2018.pdf

[6] Clause 2.4.3(2).

[7] http://www.comcom.govt.nz/regulated-industries/gas-pipelines/

3. Pricing strategy and objectives

This section outlines the relevant business strategies and objectives that have been incorporated into our review of the DPM.

3.1 Pricing strategy

The Commerce Act 1986 requires all gas distribution businesses to disclosure in their DPM the linkages to a business Pricing Strategy, where applicable, and any changes to this strategy in the preceding years.[8] Firstgas does not maintain a Pricing Strategy as defined in the IDs. We have determined that the establishment of fair and efficient pricing for our network services will be:

- Guided by high-level pricing objectives, as set out below and
- Compliance with the various regulatory frameworks mentioned in section 2 above.

For PY2021, Firstgas has retained the current DPM to ensure an efficient allocation of the costs between consumers, and to continue the alignment of the fixed and variable cost split with the underlying cost drivers of our business.

3.2 Objectives for setting prices

When setting prices, we need to consider the overarching objectives of our pricing. The objectives need to be weighed up when determining the most appropriate pricing to set for any period. Firstgas does not rank one objective higher than others but seeks to achieve the best balance between competing objectives as required. This approach will always have an element of judgement involved, and we seek to provide additional detail in this DPM where this judgement has been applied.

Firstgas' DPM has been guided by the following objectives:

a) Cost-reflective pricing

All consumers should face prices that are reflective of the costs of providing gas distribution services to them. Prices for new consumers should recover the additional costs of connecting them to the network, including earning a fair return on the investment. This includes an appropriate alignment of fixed and variable revenue with sunk costs and incremental costs.

b) Clear and concise pricing structure

A simple pricing structure, with as few pricing categories as required, should allow the prices to be easily understood by both retailers and end consumers. Clear pricing, including full transparency on how prices were developed, should encourage consumers to stay connected and new consumers to connect where economic.

c) Encourage network growth

Pricing should encourage consumers to connect to and use the distribution network where economic and desirable. Customer growth generally improves asset utilisation since most of the costs of providing gas distribution services are fixed.

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[8] Clause 2.4.4 of the ID Determination.

d) Achieve full recovery of the ANR

Full recovery of our ANR ensures that Firstgas is sufficiently resourced to deliver on our Asset Management Plan (AMP),[9] whilst delivering reasonable returns to our shareholders.

e) Discourage uneconomic bypass or alternative fuels

There has been significant sunk investment in the existing gas distribution networks. Pricing should ensure that customers with bypass or alternative fuels are not incentivised to make sub-optimal decisions that lead to efficiency losses, where there is available capacity on the distribution network.

f) Promote price stability and avoid price shocks

Firstgas took the opportunity in 2017 to realign its prices to the costs of its business, due to the downward effect on prices from the DPP reset for this regulatory period (2017 – 2022). This price reset enabled Firstgas to rebalance the recovery of costs, without increasing the prices charged to any consumer group. The rebalance affects how much each consumer groups' prices are reduced, with some having more significant reductions than others.

g) Signal economic cost of service provision

Firstgas' pricing should help signal to potential consumers whether gas is an economic option for their demands. To truly signal the economic cost of service provision, the pricing methodology needs to align with Firstgas' capital contribution policy.

h) Pass the benefits of new pricing categories directly onto end consumers

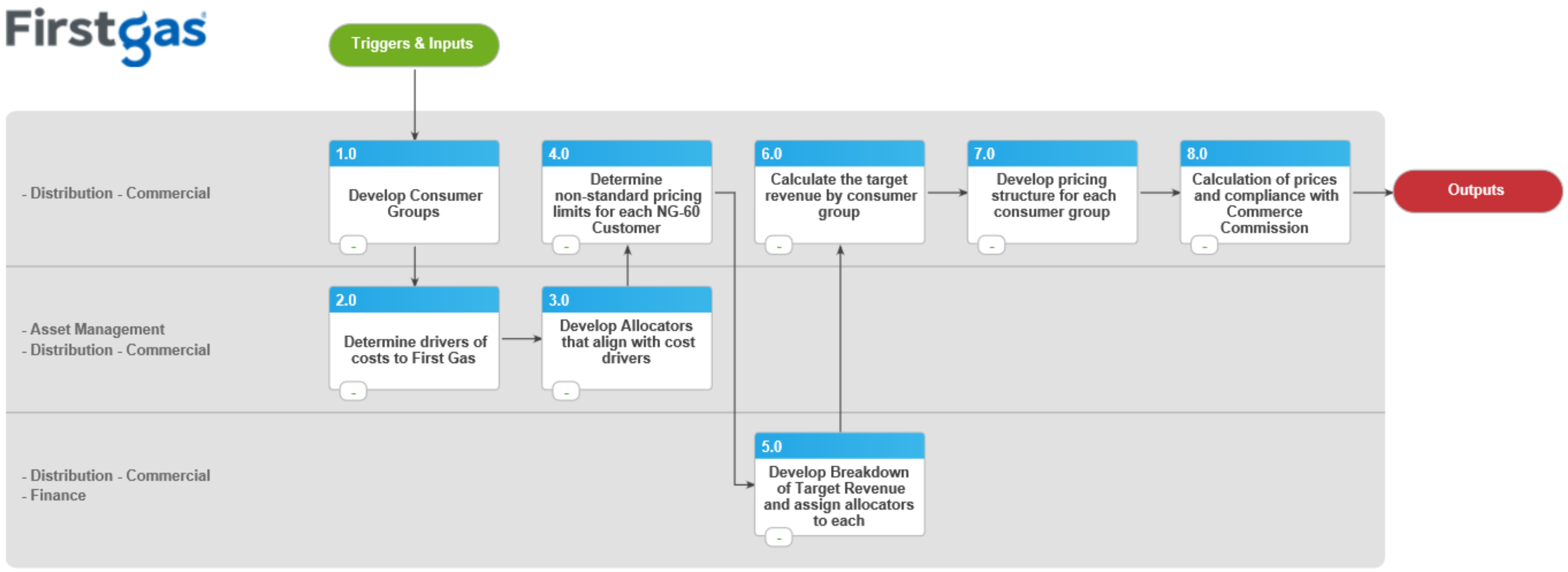
Firstgas is aware that there are different drivers in the gas value chain, from production stations through to end consumers, and that not all drivers in the supply chain are directly aligned. All changes that Firstgas makes to its pricing have the intention of passing the effect on to the end consumers of gas. For this reason, the variable tariff has criteria other than peak load that must be met for a consumer to be eligible.

[9] 2019 *gas distribution asset management plan - Summary document, https://firstgas.co.nz/wp-content/uploads/First-Gas-Distribution-2019-AMP-Update.pdf* and 2018 gas distribution asset management – Appendices, https://firstgas.co.nz/wp-content/uploads/Gas-Distribution-Asset-Management-Plan-2018-Appendices.pdf

4. Overview of pricing methodology process

Firstgas' DPM process is summarised in the diagram below and expanded on further in the following sections. This process has involved close collaboration across different functional teams within Firstgas – our commercial team, our asset management team, and our finance team.

Figure 2: Pricing methodology process



5. Development of consumer groups

Firstgas has retained the consumer groups that existed upon acquiring the distribution assets in 2016.

Our consumers are divided into four consumer groups based on the maximum flow rate of their connection, measured in standard cubic metres per hour (scm/h). We then add a consumer group for non-standard contracts. Table 1 sets out the five consumer groups that we use for pricing. Consumer groups are mutually exclusive so a consumer can only fit within one group. However, there can be multiple price categories within the consumer group.

Firstgas reviewed the relevance of these consumer groups, and the underlying drivers of each during 2017. We concluded that the historical classifications remain suitable. Consumers within each group have broadly similar demand profiles, responsiveness to price changes and willingness to pay.

Table 1: Consumer groups

Consumer group	Flow rate (scm/h)
Mass market	< 10
Small commercial	10 < 40
Large commercial	40 < 200
Industrial	> 200
Non-standard	Varied

5.1 Customers on non-standard contracts

Firstgas currently has 17 non-standard customers across our network. Further details on our non-standard contracts are provided in **Appendix A**.

Firstgas continues to assess requests for non-standard contracts (from new and existing customers) and will transition customers off non-standard contracts onto standard prices when circumstances suggest this is appropriate.

The industrial consumer group is split into two pricing categories, with the largest users (GN05) being parties who would have previously been on non-standard contracts. These consumers have been standardised to a specific pricing category. This category reflects a discount on standard rates under a pure cost allocation method to reflect that they have all the hallmarks of non-standard consumers.

6. Allocation methodology

Firstgas built a new cost of service model (or cost allocation model) for the 2017/18 pricing year that reflects the drivers of our business. We reassess the model each year to ensure it remains appropriate for our business. This cost of service model seeks to ensure that costs are efficiently allocated across consumer groups (as identified in section 5 above), based on a bottom-up assessment of cost drivers.

The allocation of costs to each consumer group is determined by an assessment of which consumers are the beneficiaries or exacerbators of various costs. For Firstgas, few costs can be directly attributed to an individual consumer group, as most of the costs relate to shared services. These shared service costs can be considered common to multiple consumer groups.

There is no single best way to allocate shared costs. Firstgas has taken a practical approach to cost allocation that uses cost allocators that are measurable based on currently available information. We prepared a full list of potential allocators, then reduced this down to the allocators that are currently measured. This process led several allocators to be removed, such as the average length of pipe per connection for each consumer group. While some of Firstgas' costs are related to the length of pipeline, due to the integrated nature of our consumers including across multiple consumer categories, it is not possible to determine the distinct length of pipeline (including mains) that serves any particular consumer or consumer group.

6.1 Allocators selected

The allocators we have used in this DPM are:

- Aggregate (consumer groups) peak monthly consumption (**Capacity**)
- Annual gas consumption in GJ (**Annual Load**) and
- Number of active ICPs (**Number of Connections**).

Firstgas has proceeded with a **Capacity** allocator using the monthly peak. While we would ideally prefer to measure **Capacity** at a time period that is appropriate to a gas network's operation (daily), data granularity varies across the network, from hourly for Time of Use (TOU) large sites to multiple months for some mass market connections. Monthly peak consumption is the lowest granularity possible that can be provide with consistent and measurable data. If data availability improves, this will be revised in future years.

Prior to 2017, an average peak flow rate (i.e. 5 scm/h per residential load) per consumer for each category was used to determine the allocation. Upon reassessing the costs of the business, Firstgas determined that this was no longer is the most appropriate measure. Given usage data is available across the consumer groups (at the monthly level), it is possible to look directly at each consumer groups' impact on the network peak month. Firstgas will investigate options for getting better data to understand the coincident peak load information and each consumer group's impact on the network capacity further in future years. This would allow allocations to more accurately reflect each consumer group's impact on the Network's peak period. A residential smart meter roll-out may enable such improvements in accuracy.

7. Value of allocators

Each of the allocators have had the historical data for the previous year applied to determine appropriate allocation rates for each.

Industrial and non-standard customers have other characteristics that impact the level of cost recovery that Firstgas seeks from each customer. These include considerations such as bypass risk, alternative fuels, and available capacity in the network area. Firstgas determines the revenue expected from non-standard customers for any year before allocating the remainder across standard tariff categories.

One assumption that needs to be made at the start of this allocation process, is what costs non-standard customers contribute towards. Firstgas has applied the non-standard revenue pro-rata across all cost categories. This is not a precise assumption but is easy to implement and avoids remaining costs being weighted towards a particular consumer group.

The remaining revenue is then allocated against the totals of all groups excluding the non-standard consumers. The results are shown in the table below.

Table 2: Historical figures for determining allocation splits

Allocator	Number of consumers		Annual Load		Capacity
Units	ICP		GJ/year		GJ/month
Source	**Schedule 8 IDs**	**%**	**Schedule 8 IDs**	**%**	**%**
Mass market	61,948	96.8%	1,444,000	31.7%	38.9%
Small commercial	1,470	2.3%	475,000	10.4%	10.3%
Large commercial	510	0.8%	904,000	19.9%	19.4%
Industrial	76	0.1%	1,731,000	38.0%	31.4%
Total	64,004	100.0%	4,554,000	100%	100%

8. Pricing for non-standard contracts

8.1 Level of non-standard contracts in PY2021

As noted above, Firstgas has been seeking to reduce the number of non-standard contracts on the distribution network. We currently have 17 active non-standard customers, two of which are considered to be equivalent to direct connects to the Transmission network. We recover revenue from the remaining 15 non-standard consumers. 15 of the non-standard consumers have discounts on standard pricing due to the criteria in 8.3 below, whilst 2 customers have higher than standard pricing to recover investment costs required to provide distribution services to those customers.

8.2 Revenue from non-standard contracts

Firstgas expects to recover notional revenue of approximately $880,000 from the 15 chargeable non-standard consumers in PY2021, which represents 3.7% of Firstgas' target revenue for its distribution services.

8.3 Criteria for non-standard contracts

Consumers may be assessed for non-standard terms or pricing if they meet one or more of the following criteria:

- The total annual quantity of gas consumed or forecast to be consumed per annum (Annual Quantity or AQ) is greater than 20TJ or
- The AQ is between 10TJ to 20TJ and the consumer's point of connection to Firstgas' gas distribution network is close to the gas transmission system or
- It can be demonstrated that alternative sources of energy (including but not limited to wood, coal or electricity) could meet the consumer's requirements at a lower cost than our standard prices, are technically, operationally and commercially viable, and would have a reasonable prospect of being successfully implemented. In these circumstances, it would be uneconomic to connect the consumer on standard prices
- The cost to serve is higher than the GN04 or GN05 would allow recovery on, and the consumer would prefer ongoing higher charges to a capital contribution.

Firstgas will continue to assess whether to apply non-standard pricing and the corresponding contractual arrangements to new consumers 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, but rather that the consumer may be reviewed to determine whether standard pricing and standard contractual terms are suitable, given the consumer's individual circumstances. A full summary of the current non-standard customers is available in **Appendix A**.

For new non-standard investments, Firstgas applies a capital contributions policy. Firstgas' policy for determining capital contributions on our distribution networks is available on our website here.

9. Target revenue and assigned allocators

This section sets out the amount of revenue that Firstgas expects to recover through prices (target revenue), broken down by key cost components.

To determine target revenue from prices, Firstgas uses allowable notional revenue calculated in accordance with the 2017 DPP Determination. This establishes the amount of revenue that Firstgas expects to earn from gas distribution services in PY2021.

Table 4: Target revenue broken down by cost categories

Cost Category	Allocator	Cost allocated ($)
Rates on Network Assets	System peak	$480,000
Regulatory Levies	System peak	$155,000
Marketing and Sales initiatives	Number of connections	$360,000
Service Interruptions	Number of connections	$2,600,000
Third Party Damage	Number of connections	$525,000
Routine Maintenance	System Peak	$1,240,000
Corrective Maintenance	Number of connections	$800,000
Network Support Unplanned	Number of connections	$1,950,000
Prof Fees - Audit	Number of connections	$30,000
Motor Vehicle Costs Total	Number of connections	$35,000
Administration Expenses Total	Number of connections	$17,000
Notional Deductible interest (Tax)	Number of connections	$2,700,000
Regulated Return on Investment	System peak	$5,900,000
Depreciation on Regulated Asset Base	System peak	$5,100,000
Revaluations	System peak	$2,079,000
Target Revenue		$23,971,000

10. Target revenue allocation by consumer group

Firstgas calculated target revenue from each consumer group using the method of allocation discussed above. The allocations are shown in the table below:

Table 5: Target Revenue Allocation across Consumer Groups

Consumer Group	Cost allocated	%
Small Business/Mass market	$14,013,603	58.5%
Small commercial	$1,680,341	7.0%
Large commercial	$2,857,285	11.9%
Industrial	$4,539,640	18.9%
Non-standard	$880,132	3.7%
Total	$23,971,000	100.0%

11. Development of price categories

The following section provides an overview of the various price categories that Firstgas offers within each consumer group. Firstgas has retained the historical price categories where appropriate and will continue to offer the variable tariff even though no consumers have yet utilised the category. This is to ensure consumer choice, and lower barriers to retailers providing variable charges to consumers.

11.1 Mass-market consumer group

The mass market consumer group is split into two subgroups: residential and general/business. Residential consumers are more sensitive to fixed charges. Therefore, the residential group has a lower fixed charge than the general/business. Additionally, consumers are increasingly calling for a variable pricing model for gas when they are consuming multiple energy sources/services from the same retailer.

The subgroups map directly into price categories as set out in Table 6 below.

Table 6: Price categories within each consumer group

Consumer group	Price category code	Price category description
Mass market	GN0R GN01 GN0V	Residential General/business New connection variable
Small commercial	GN02	Small commercial
Large commercial	GN03	Large commercial
Industrial	GN04 GN05	Industrial Large industrial

Additionally, new consumers are using alternative fuels (such as LPG) with higher variable, but lower fixed charges. This is an indication of the residential sector of the mass market group's sensitivity to fixed charges, especially consumers who have low to nil consumption through summer months. Subsequently, Firstgas is continuing its offer of a fully variable network tariff.

To ensure that such a product's benefits make it through to end consumers, the following criteria will apply:

a) The retailer must not charge a daily fee for the gas services (including network charges, metering and the retailers own internal costs) and
b) The consumer must be installing either natural gas hot water or central heating and
c) The connection must be a new connection or reconnection of an ICP that has not been connected for 12 months.
d) Firstgas reserve the right to issue ICPs with under 9 GJ (2,500 kWh) consumption in a 12-month period, or no consumption for 3 plus months with a termination notice for the new connection variable tariff. These consumers will need to be transitioned to a different pricing category within three months, unless evidence is provided showing a change in circumstance that would make them compliant with the minimum usage criteria over the next 12 months.

The variable residential pricing category does not directly align with the high fixed costs associated with running a distribution network. We believe that it reflects the requirements and circumstances of consumers. Additionally, we see this tariff option as an opportunity to increase the number of connections (and network use) by responding to demonstrated consumer preferences, match the cost structure of competitive energy sources, and thus lower the overall cost of natural gas services to all consumer groups.

Firstgas will continue a variable price for at least five years from when the consumer is first connected to ensure price stability. We do not want the consumers making investment decisions based on a model that could change in the short term.

All new connections that are eligible for GN0V pricing will be identified in the gas registry. If the consumer has installed gas hot water, or central heating at the time of connection this will be identified using the tariff code GNFR. This tariff code signals that while the consumer is currently on the fixed/variable tariffs equivalent to GN0R, they are eligible to be transitioned to GN0V. There are issues with the registry information to date still showing GN0R for eligible connections that should show GNFR. Firstgas is looking to rectify this issue in June- September 2020.

11.2 Commercial consumer groups

The small and large commercial consumer groups map directly to price categories based on load.

11.3 Industrial consumer group

The industrial consumer group is split into two sub-groups: industrial and large industrial.

Firstgas has maintained the "large industrial" price category with a higher fixed price (GN05). This price category is suitable for consumers with annual consumption greater than approximately 12,000 MWh per annum, but who do not meet the "stand alone cost test". Offering this price category reduces the administrative burden of offering these consumers' individual non-standard prices.

The GN05 category is the underlying cause of the need to transfer cost allocation from industrial to business and commercial consumers. The large industrial consumers have historically been non-standard consumers and raising their prices by the ~75-100% that would have occurred under the allocation calculations would have bumped a number back onto non-standard network charges.

11.4 Overview of price components that Firstgas uses

Each price category has two price components for consumers, a fixed daily price ($/day) and a volume price ($/kWh).

Table 7: Description of price components

Price type	Price component	Code	Units	Description
Fixed	Daily	FIXD	$/day	Daily price applied to the number of days each consumer's point of connection is connected to the gas distribution network.
Variable	Volume	24UC	$/kWh	Volume price, applies to all gas distributed to each consumer.

11.5 How the price for each component is derived

Firstgas' price structure reflects the price sensitivity of our consumers. The fixed price for each price category increases with consumer capacity and consumption, i.e. the larger the consumer, the higher the fixed price.

Firstgas is aware of the effect of price changes for consumers. As in previous years, a first principles basis has been applied. The fixed and variable nature of our costs has not changed and the previous approach to fixed and variable pricing is sound.

Each consumer group is assessed on their impacts on Firstgas' costs. Small consumers, such as residential households have a higher (energy weighted) marginal cost to serve than larger consumers. It is therefore expected that the proportion of target revenue that is recovered through fixed costs increases as the size of the consumer load increases. The largest consumers (GN05) are on tariff structure that is highly fixed.

When deriving the pricing for the mass-market, consumers' willingness to pay is a significant driver. Small businesses appreciate stable costs and are more suited to a high proportion of fixed costs. Residential mass-market consumers on the other hand prefer to only pay for goods as services consumed. A highly variable pricing model suits these consumers more appropriately. Firstgas has endeavoured to meet consumer expectations by providing a variable tariff option, but only in cases where the variable pricing will reach the end consumer. Given it is not directly aligned with the high fixed costs on our businesses, a variable tariff that is repackaged into a fixed price-based model by retailers is the least efficient outcome. For this reason, Firstgas will retain the existing residential pricing model of high fixed, low variable charges for existing consumers and any new consumer or retailer who wishes to opt for it.

12. Fixed revenue proportion of each consumer group

Table 8: Fixed and variable pricing allocation by price category

Consumer group	Price categories	Fixed prices Daily	Variable prices Volume
Mass market	GN0R	51.91%	48.09%
	GN0V	0%	100%
	GN01	56.40%	43.60%
Small Commercial	GN02	38.05%	61.95%
Large Commercial	GN03	34.77%	65.23%
Industrial	GN04	19.44%	80.56%
	GN05	65.79%	34.21%

13. Consultation process

Firstgas has consulted with retailers on behalf of consumers, to discuss the changes to our pricing methodology and the resulting prices proposed for PY2021. The consultation process was conducted in early May 2020. Due to the COVID-19 lockdown restrictions, it was not possible to hold a retailer workshop as we have done in prior years. Instead, each retailer was offered an individual meeting time to discuss any concerns or queries they may have.

Firstgas received no feedback or requests for meetings from retailers.

14. Impact of PY2021 price changes

Table 9: Price changes by price category

Price category	Number of consumers as at December 2019	PY2020 prices		PY2021 prices		Price change PY2020 to PY2021		
		Fixed price ($/day)	Volume price ($/kWh)	Fixed price ($/day)	Volume price ($/kWh)	Fixed price change	Volume price change	Estimated total price change*
GN0R	60522	0.36	0.021	0.368	0.0214	2.222%	1.905%	2.07%
GN0V	0	0	0.05	0	0.052	0.000%	2.000%	0.00%
GN01	2110	0.66	0.0078	0.677	0.008	2.576%	2.564%	2.57%
GN02	1478	1.14	0.0076	1.169	0.00779	2.544%	2.500%	2.52%
GN03	513	5	0.007	5.13	0.00717	2.600%	2.429%	2.49%
GN04	68	14.5	0.0066	14.86	0.00677	2.483%	2.576%	2.56%
GN05	9	240	0.0016	246	0.00164	2.500%	2.500%	2.50%

*For an average consumer on each price category

15. Consistency with pricing principles

The Pricing Principles are specified in clause 2.5.2 of the Gas Distribution Services Input Methodologies Determination 2012. The table below assesses the compliance with each criteria.

Pricing principle	Description of compliance
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;	Firstgas has conducted a complete cost allocation exercise in 2017 to determine the amount of Target Revenue that is recovered from each consumer group. This cost allocation model accurately reflects Firstgas' business and brings the network pricing in line with the Firstgas costs. By mapping the Target Revenue directly to the cost allocation model, Firstgas is confident that the services are being provided in an economical manner and are subsidy free across consumer groups. Two of the allocators used by Firstgas are tied to consumer load, as constraints from the remaining capacity of the system often drives significant capital investments. Firstgas has assessed the alternative fuel options, especially LPG and electricity, and has worked to ensure prices can be offered in the range between incremental and stand-alone costs. This is challenging for some potential new consumers (low use residential, or highly seasonal mass-market) and the capital contribution policy should be read in conjunction with this DPM to understand how only economic consumers, that will not require subsidies from other users, are connected to the network.
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.	Our prices include the provisions for returns on Capital Expenditure, as allowed by the Commerce Commission, which effectively allocates any investment in system capacity to the users who caused the constraint. Our network uses a single set of prices across all network areas which results in some limitations in compliance with principle 1(b). There were no significant differences identified in the costs of owning and operating networks across the different locations, and we sought to keep pricing as simple as possible. Firstgas will continue to assess this approach as part of the annual pricing exercise. Firstgas is particularly conscious of the effect of its pricing on consumers and will look to implement a pricing structure that provides appropriate incentives for consumers to connect to the gas distribution network and continue to use natural gas.
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.	Firstgas has considered consumers' demand responsiveness and factored that into the DPM. It is difficult to determine the precise demand responsiveness of a consumer group due to the variation between consumers in a group. Firstgas believes that the pricing derived for commercial and industrial consumers under the 'efficient' allocation of incremental costs closely aligns with the demand responsiveness of these consumers. For the few consumers where this does not align, non-standard pricing is an option.

Pricing principle	Description of compliance
	The mass-market consumer group however has a slight disconnect between the ‘efficient’ incremental costs, and some consumers demand responsiveness. The mass-market issue is exacerbated by the fact that the distribution tariffs are only a portion of the costs charged to the end users. Energy costs and retailers’ costs and margins are also included. Mass-market consumers have sensitivity to high daily charges, and the proportion of revenue that is recovered through fixed charges (at the retailer level) is substantial and drives some consumers away from natural gas as a fuel. To address this inconsistency between the pure cost allocation and the demand responsiveness, Firstgas is continuing its GN0V tariff, which is a fully variable tariff. To recognise that the purpose is to provide pricing aligned to mass-market consumers demand responsiveness, and aversion to fixed costs, the tariff code has a criterion that no additional fixed charge is applied by a retailer. The pricing must be fed through to the end consumer in a variable structure.
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.	Our non-standard contracts are continually reassessed to transition as many consumers back to standard network pricing where the justifications for non-standard pricing no longer apply, or the "efficient" incremental costs for a consumer have changed. We have also signed up our first customer at higher-than-posted tariffs to ensure that there is no cross-subsidisation by existing users of the network. As described in this DPM, the non-standard consumers’ revenue is removed from the allocation exercise, along with the non-standard consumers loads and number of connections to ensure all remaining costs are efficiently allocated to standard consumers.
4) Development of prices is transparent, promotes price stability and certainty for consumers, and changes to prices have regard to the effect on consumers.	Firstgas strives to adhere to principle 4 but notes that we are limited by the overarching regulation. All non-standard customers who are transitioned back to standard prices do not see price increases greater than 10% any year to help manage the price shock component. Firstgas has once again had to apply a cross subsidization from large consumers onto other consumer groups to manage the annual pricing increase for large industrial consumers. The large industrials have been limited to a 6% (average consumer) increase in pricing this year.

Appendix A: Non-standard price summary

ICP	Justification	Standard tariff equivalent	Discount to standard
0008000027NGD9C	Bypass	GN05	92.1%
0008000029NGE07	Bypass	GN05	77.3%
0008000033NG63B	Bypass	GN05	95.2%
0008000038NG8EF	Bypass	GN05	64.1%
0008000040NGFA6	Bypass	GN05	80.7%
0008000051NG94E	Bypass	GN05	25.5%
0008000072NG8DB	Bypass	GN05	91.2%
0008000074NG954	Bypass	GN05	92.9%
0008000080NG849	Transition to Std	GN05	68.5%
0008000147NGB68	Transition to Std	GN04	49.0%
0008000249NGBF0	Bypass	GN05	93.4%
0008000300NGE00	Bypass	GN05	94.0%
1001294166NGCC4	Cost of service higher than standard	GN05	-18%
1001295720NG848	ICF requirement, Bypass risk	GN05	-157%
1001296139NG852	ICF requirement, Bypass risk	GN05	N/A
0008000032NGA7E	Measurement only	N/A	0
0008000047NG26C	Measurement only	N/A	0

Appendix B: Director certification

We, Mark Adrian Ratcliffe and Euan Richard Krogh, being directors of First Gas Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

a) the following attached information of First Gas 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: Mark Adrian Ratcliffe	Director: Euan Richard Krogh
4 June 2020	4 June 2020
Date	Date