Firstgas

Pricing Methodology for Gas Transmission Services

From 1 October 2018

Pursuant to the Gas Transmission Information Disclosure Determination 2012

First Gas Limited
September 2018

Introduction

First Gas operates 2,500 kilometres of gas transmission pipelines (including the Maui pipeline), and more than 4,600 kilometres of gas distribution pipelines across the North Island. These gas infrastructure assets transport gas from Taranaki to major industrial gas users, electricity generators, businesses and homes, and supply around 20 percent of New Zealand's primary energy needs.

For further information on First Gas, please visit our website www.firstgas.co.nz.

Information disclosure

This document is the pricing methodology for gas transmission services prepared pursuant to clause 2.4 of the *Gas Transmission Information Disclosure Determination 2012* (consolidating all amendments as at 3 April 2018), issued by the Commerce Commission on 3 April 2018 (the ID Determination).

This Pricing Methodology covers the 12-month pricing year from 1 October 2018.

The following documents are provided with this Pricing Methodology:

- Maui pipeline pricing methodology
- Non-Maui pipeline pricing methodology
- Director certification

This Pricing Methodology was prepared on 31 August 2018.

Further information

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Approach to pricing methodologies for 2018/19

For the pricing year commencing 1 October 2018, First Gas has elected to continue to apply the existing pricing methodologies for the Maui and Non-Maui gas transmission systems. While these apply different methodologies, we have incorporated them into one disclosure document because First Gas has a single regulated revenue cap for our Gas Transmission Business (GTB).

Continuation of two existing pricing methodologies

First Gas will retain the structure of the prices under the Maui Pipeline Operating Code (MPOC) and Vector Transmission Code (VTC) for the year beginning 1 October 2018. First Gas has been working with stakeholders on a single transmission code, the Gas Transmission Access Code (GTAC). The GTAC is still under development and will not come into force until 1 October 2019 at the earliest. The existing pricing methodologies will therefore continue to apply for 2018/19, and have been updated to reflect changes in allowable revenue, forecast transmission quantities, pass-through and recoverable costs.

There have been no pricing structure changes for the MPOC or the VTC.

Consolidation into a single disclosure document

The MPOC and VTC methodologies are presented together in this document. This reflects the fact that the regulatory control under the current Default Price-quality Path (DPP) applies to our GTB as a whole (i.e. including both Maui and non-Maui systems), and we are required to demonstrate that our prices for 2018/19 comply with this revenue cap.

Compliance with revenue cap for GTB

First Gas' GTB is required to set its prices to recover an amount no greater than the Forecast Allowable Revenue (FAR) under the current DPP (2017 – 2022). Compliance with the FAR requirement is determined by ensuring the 2018/19 prices multiplied by the forecast 2018/19 quantities (the Target Revenue) is less than or equal to the FAR. From 1 October 2017, First Gas now has a single revenue cap, covering both the Maui and Non-Maui transmission pipelines.

Target Revenue for the 2018/19 pricing year and our compliance with the FAR is set out in Table 1 below. First Gas is compliant with its DPP revenue cap.

Table 1: Determining Target Revenue

	Amount
Forecast Net Allowable Revenue	$123,904,000
Pass-through and recoverable costs	$4,016,527
Forecast Allowable Revenue	**$127,920,527**
Target Revenue	**$127,887,406** [1]
Compliance (Target Revenue ≤ FAR)	**Compliant**

[1] Equals the sum of the Target Revenue in Table 5 of the Maui Pipeline pricing methodology plus the Target Revenue in Table 12 of the Non-Maui pipeline pricing methodology.

Appendix 1: Maui pipeline pricing methodology

Pricing Methodology for Maui Gas Transmission Services

Effective from 1 October 2018

Pursuant to Gas Transmission Information Disclosure Determination 2012

First Gas Limited
September 2018

1 Summary

This document describes the Gas Transmission Pricing Methodology (GTPM) that applies to the Maui gas transmission assets owned by First Gas.

1.1 Existing pricing methodology will continue until 30 September 2019

Section 19.9 of the MPOC requires First Gas to use the methodology set out in Schedule 10 of the MPOC for setting prices for the Maui transmission system while the MPOC is in effect.

> *"19.9 TSP may review and/or change Tariff 1 and/or Tariff 2 in accordance with the tariff principles set out in Schedule 10…"*

Schedule 10 of the MPOC is quoted in **Appendix B.**

1.2 Gas Default Price-quality Path (DPP)

This GTPM applies to the second year of the current DPP, which runs from 1 October 2017 – 30 September 2022.[2] First Gas' DPP was reset by the Commission in May 2017.[3]

The current DPP uses a different compliance methodology than the previous DPP. The current DPP uses forecast quantities for the upcoming year when determining compliance against the revenue cap. The previous DPP used quantities from two years previous. This change allows First Gas to adjust prices based on expected changes in quantities in the coming year.

1.3 This pricing methodology complies with regulatory requirements

First Gas' revenue from gas transmission services is subject to and complies with the current DPP. This pricing methodology also meets the requirements listed in the Gas Information Disclosure Determination 2012 (IDD).[4]

1.4 Transmission prices for 2018/19 have changed

The transmission prices charged under the MPOC that will apply for the 2018/19 year (commencing 1 October 2018) have increased by 1.5% from the prices for the 2017/18 year. This compares with a change in CPI over the past 12 months of 1.6%.

Table 1: MPOC Prices 2018/19

Fee	Unit	2017/18	2018/19
Tariff 1	$ / GJ.km	0.001578	0.001601
Tariff 2	$ / GJ	0.072061	0.073132

[2] http://www.comcom.govt.nz/regulated-industries/gas-pipelines/gas-default-price-quality-path/2017-2022-gas-dpp/
[3] http://www.comcom.govt.nz/regulated-industries/gas-pipelines/gas-default-price-quality-path/initial-default-price-quality-path/
[4] Gas transmission information disclosure determination 2012 – consolidating all amendments as at 3 April 2018.

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2 Overview

2.1 Background

The Maui gas transmission pipeline runs 299 km from the Oaonui Production Station (south of New Plymouth) to the Huntly Power Station (south of Auckland) in the North Island of New Zealand.

Beginning transmission in 1979, the Maui Pipeline carried 18 PJ of gas from the Maui field in its first year of operation. In 2015, the Maui Pipeline carried 143 PJ of gas from seven production stations that are directly connected. More than half of that gas goes to three consumer connections to the pipeline: the Huntly Power Station and the two methanol plants owned by Methanex.

First Gas also owns other gas transmission pipelines that are directly connected to the Maui Pipeline at 13 interconnection points.

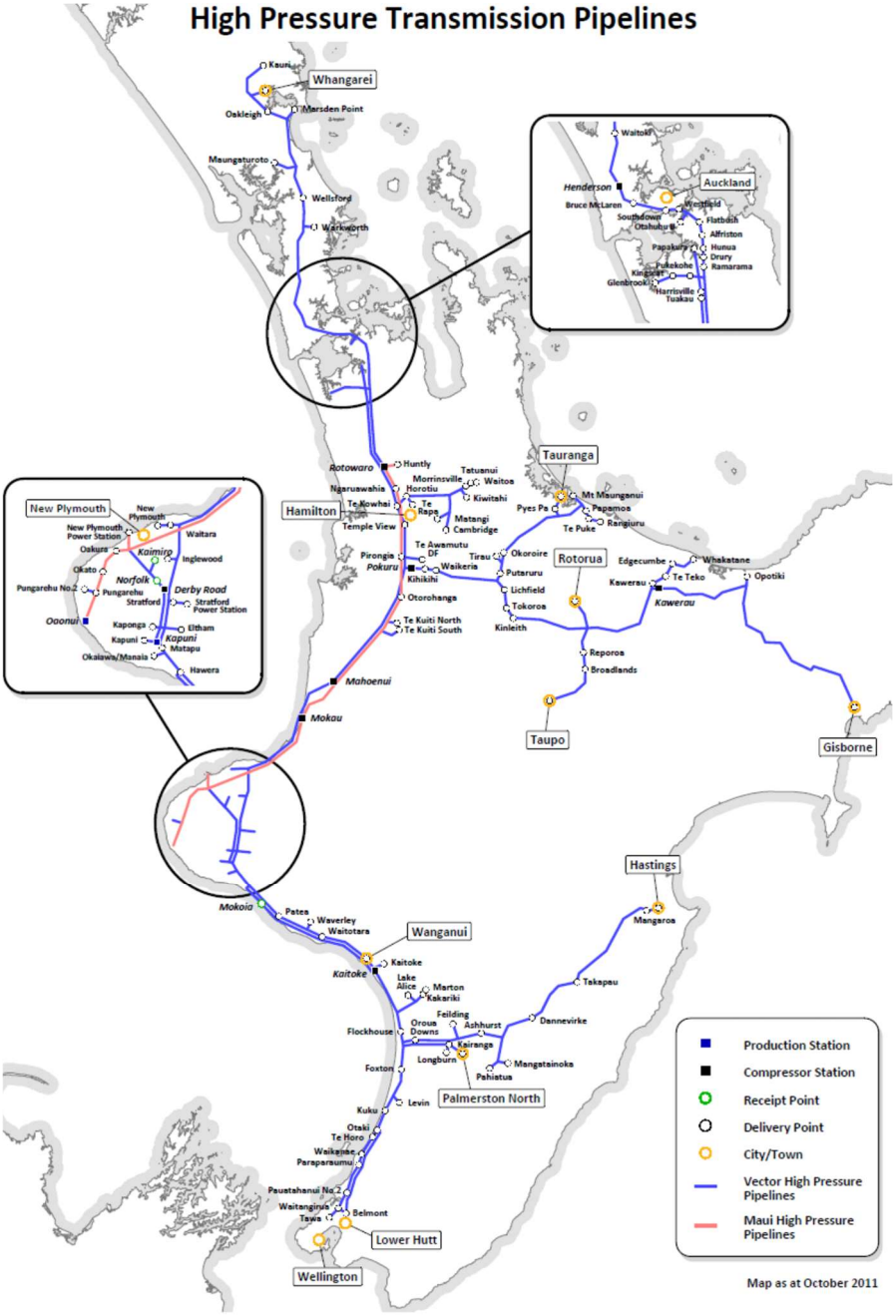
The Maui Pipeline operates under an 'Open Access' regime. This means that any party wishing to carry gas on the Maui Pipeline or wishing to connect to it may do so on standard terms and conditions set out in the Maui Pipeline Operating Code (MPOC). There are currently 12 different parties who ship gas through the Maui Pipeline.

The map below shows both the transmission system purchased from Vector (in blue) and the ex -Maui Development Limited (MDL) pipeline (in red).

From 1 October 2017, the gas transmission system is subject to the revenue cap specified in the 2017-2022 DPP.

In addition, the ID Determination requires the GTB to explain whether its prices comply with the Pricing Principles.

Figure 1 **First Gas' transmission system**



2.2 Applicable regulations

This disclosure is prepared in accordance with clause 2.4 of the ID Determination. Compliance with the requirements of this clause is demonstrated in the compliance matrix in Section 6.

The GTB's gas transmission services revenue is set in accordance with the current DPP Determination.

The Pricing Principles are defined in clause 2.5.2 of the Input Methodologies.[5]

2.3 Additional disclosures

Gas transmission prices are subject to annual approval by the GTB's Board of Directors. Prices are set to comply with the current DPP and recover the Target Revenue.

First Gas' Board of Directors has not made any decision to amend the transmission pricing structure beyond the 2018/19 pricing year or approved any Pricing Strategy.

GTBs are also required to provide an *ex-ante* compliance statement that states whether the GTB has complied with the price path set in the DPP determination. This compliance statement must also detail how the GTB has calculated its Forecast Revenue from Prices and Forecast Allowable Revenue. This compliance statement must be certified by at least one of the Directors from the GTB's Board.

2.4 Development of a new transmission code and pricing methodology

Having become the owner of all open-access gas transmission pipelines in the North Island in 2016, a high priority for First Gas is to lead the development of a single new gas transmission code covering that entire gas transmission network. The new gas transmission code will not be in place before the 2019/20 pricing year.

We see any gas transmission pricing methodology as being inseparable from the prevailing gas transmission code. The GTPM is codified in the MPOC and is fit for purpose. However, the GTPM does not cover pricing for the VTC transmission pipelines and is unlikely to be an appropriate fit for a new code that covers the entire gas transmission network. The design of a new GTPM must therefore occur in step with the development of a new gas transmission code.

The current GTPM will apply for 2018/19 and should continue until such time as the service and pricing-related elements of the new gas transmission code are resolved.

[5] *Gas transmission services input methodologies determination 2012*, consolidating all amendments as at 3 April 2018, Commerce Commission.

3 Tariffs and cost components

3.1 Tariffs to recover different cost components

The tariff principles set out in Schedule 10 of the MPOC mean that Tariff 1 is the price component intended to provide for a return on Maui pipeline asset base and investments, while Tariff 2 is the price component intended to cover Maui pipeline operational costs.

4 Methodology for setting tariffs

This section describes the methodology used to calculate prices for gas transmission services provided under the MPOC.

4.1 Tariff setting approach and calculation

We use a three-step approach to setting MPOC tariffs for our pricing year starting on 1 October 2018.

1. Determine the Ideal Target Revenue as per the MPOC pricing methodology (0)
    1.1. This follows the methodology stipulated in Schedule 10 of the MPOC
    1.2. This determines what the Target Revenue for the Maui Pipeline would be if it was treated in isolation while utilising the Maui pipeline relevant costs used for the current DPP (the Ideal Target Revenue)
2. Determine the Maui Pipeline notional revenue cap (0)
    2.1. This is what the Maui Pipeline's revenue cap under the current DPP would be if the Maui Pipeline was treated in isolation
3. Determine the tariffs and MPOC Target Revenue (0)
    3.1. The Adjusted Ideal Target Revenue is determined by proportionally adjusting the Ideal Target Revenue for Tariff 1 and Tariff 2 by the Total Ideal Target Revenue less the Transmission Revenue via Cash Outs
    3.2. Tariff 1 and Tariff 2 are then set so that their respective revenue is less than their individual Target Revenue
    3.3. The tariffs are rounded down to 6 decimal places so that the revenue will be less than the Forecast Allowable Revenue
    3.4. The sum of Tariff 1 and Tariff 2 multiplied by the forecast quantities for each tariff plus the Cash Out Revenue determines the MPOC Target Revenue
4. Determine the Target Revenue for Compliance (Table 5)

    The MPOC Target Revenue includes an amount included in the Transmission Revenue via Cash Outs which is charged to First Gas through its VTC connections to the Maui Pipeline (and not directly passed through to VTC shippers when incurred). The Cash Out revenue charged to First Gas is removed from the Maui Target Revenue as this amount is recovered from VTC fees

    4.1. Target Revenue for Compliance is the MPOC Target Revenue less the Transmission Revenue via Cash Outs from First Gas

Table 2: Determining MPOC Ideal Target Revenue

	$ million per pricing period
Tariff 1 Ideal Target Revenue	
Pipeline Asset Value (A)	289.654
WACC (post-tax) (B)	6.41%
Revaluation Adjustment (C)	-4.937
Required Return (D) = (A) x (B) + (C)	13.630
Depreciation (E)	8.331
Taxation Adjustment (F)	5.301
Tariff 1 Ideal Target Revenue (G) = (D) + (E) + (F)	27.261
Tariff 2 Ideal Target Revenue	
Operational Expenditure Forecast (K)	12.986
Tariff 2 Ideal Target Revenue (L) = (K)	12.986
Total Ideal Target Revenue	
Total Ideal Target Revenue (M) = (G) + (L)	**40.247**

Table 3: Determining Notional MPOC Revenue Cap

	$ million per pricing period
Forecast Net Allowable Revenue (N)	39.371
Pass-through Costs (O)	0.742
Recoverable Costs (P)	0.610
Forecast Allowable Revenue (Q) = (N) + (O) + (P)	**40.722**

Table 4: Determining MPOC Tariffs and Target Revenue

	$ million per pricing period
Tariff 1 and 2 Target Revenue	
Transmission Revenue via Cash Outs from external parties (R)	0.244
Transmission Revenue via Cash Outs from First Gas (S)	0.123
Tariff Adjusted Ideal Target Revenue (T) = (Q) – (R) – (S)	40.355
Tariff 1 Adjusted Ideal Target Revenue (U) = (G) x (T) / (M)	27.334
Tariff 2 Adjusted Ideal Target Revenue (V) = (L) x (T) / (M)	13.021
Tariff 1	
Throughput forecast (TJ.km) (V)	16,416,406
Tariff 1 ($ / GJ.km) (W) ≤ (T) / (V)	**0.001601**
Tariff 2	
Throughput forecast (TJ) (X)	155,759
Tariff 2 ($ / GJ.km) (Y) ≤ (U) / (X)	**0.073132**
MPOC Target Revenue	
MPOC Target Revenue (AA) = (W) x (V) + (Y) x (X) + (R) + (S)	**38.041**

Table 5: Determining Target Revenue for Compliance

	$ million per pricing period
Maui Pipeline Target Revenue (AB) = (AA) – (S)	**37.918**

4.2 Quantity forecasts

Aretê Consulting Limited (Aretê) was employed to produce forecasts for Maui system quantities (GJ and GJ.km) and VTC system delivered quantities (GJ). These quantities are shown in Table 4.

The forecast is based the following methodology. Tariff 2 quantities were determined first.

Tariff 2

Volumes delivered were taken from the Aretê model which was based on the following assumptions:

- Methanex sites are assumed to continue maximising their production and consume 72PJ across their three connections
- Huntly Power Station will have a 'normal' year resulting in 25PJ of consumption
- Other demand connections are for the VTC transmission systems which supplies a combination of distribution networks (e.g. the Auckland network) and direct connections (e.g. Marsden Point refining facility). For each of these connection types:
    - Historic data was reviewed for evidence of any previous step change in demand
    - Where there has been no step change or that step change is sufficiently dated, a statistical time series was used to forecast the 2018/19 quantity
    - Where the step change is relatively recent, an estimate based on the previous year was used
    - Where additional demand is expected to come on during 2018/19, that demand is added the forecast

Tariff 1

Volumes were determined using the following process:

- Receipt quantities from each field were determined from recent trends and production forecasts in Ministry of Business, Innovation and Employment (MBIE) annual reserves report[6]
- GJ.km quantities were determined by estimating a realistic routing of gas between receipt and delivery based on:
    - multiplying the delivery quantity and receipt quantity for each connection by its distance from Oaonui this determines the GJ.km for all gas shipped into and out of the pipeline with reference to the southernmost Connection Point
    - Deducting the sum of GJ.km of the receipt connections from the sum of GJ.km of the delivery connections to get the sum of GJ.km for all gas shipped on the system if all gas were routed via the most efficient route
    - Inflating the quantity from the efficient routing above by the average % difference between the efficient routing of gas and the actual billed quantity for the last five years.

4.3 Pass-through and recoverable cost forecasts

The current DPP requires pass-through and recoverable costs to be forecast for the coming year so they can be used for determining the Forecast Allowable Revenue for 2018/19 (see 0).

Pass-through costs are the sum of rates and industry levies. The forecast for 2018/19 is generated based on previous year's costs with an allowance for inflation.

[6] http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand

Recoverable costs are the sum of:

- Balancing Gas costs: based on the realised costs for the 2016/17 year
- Cash out revenue: based on the realised revenue for the 2016/17 year
- Mokau fuel gas costs: determined using the forecast quantity, from the Aretê forecast, multiplied by the average realised price for the 2016/17 year
- CAPEX wash-up adjustment: the difference between the forecast value of commissioned assets used for the current DPP and the actual value of commissioned assets as at 30 September 2017.

5 Consistency with Pricing Principles

Regulatory requirement

*2.4.3(2) Demonstrate the extent to which the pricing methodology is consistent with the **pricing principles** and explain the reasons for any inconsistency between the pricing methodology and the **pricing principles**;*

5.1 Consistency with Pricing Principles

The Commerce Commission has determined pricing principles for regulated gas pipeline business. First Gas is required to comply with those principles. As part of our disclosure, however, we are required to "demonstrate the extent to which the pricing methodology is consistent with the pricing principles and explain the reasons for any inconsistency between the pricing methodology and the pricing principles". Our views on the consistency between First Gas' GTPM and the pricing principles are set out in Table 6.

Table 6: Consistency with Pricing Principles

Pricing principles	Pricing methodology consistency
(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.	GTPM is not consistent with this principle: • Incremental and standalone costs have not been considered. • Economic costs of service provision have not been considered • Available capacity has not been considered. • The effect of additional usage on future investment costs has not been considered.
(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.	GTPM is the same for all our consumers and does not take into account demand responsiveness.
(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.	GTPM does not satisfy principle (1). Uneconomic bypass is not possible in most cases. Where bypass or alternative fuels are an economic option, the customer cannot apply for non-standard prices under the terms of the MPOC.
(4) Development of prices is transparent, promotes price stability and certainty for consumers, and changes to prices have regard to the effect on consumers.	GTPM promotes price stability and certainty for our consumers in the short to medium term. In setting prices this year, First Gas has maintained a price increase in line with CPI.

Inconsistencies between the GTPM and the Commerce Commission's pricing principles is due to the pricing methodology being prescribed by the MPOC, and revenue being constrained by both the MPOC and the current DPP.

The MPOC is a set of terms and conditions that was extensively negotiated among all gas industry participants before the start of the open access regime on the Maui pipeline. Any changes to the MPOC, including its pricing methodology, would require prior industry consultation and a positive recommendation from the Gas Industry Company (GIC).

First Gas has not sought the views of other parties when preparing this pricing methodology. This is because prices charged under the MPOC are defined by principles set out in that code, and First Gas proposes to adopt a new GTPM from 1 October 2019 with the adoption of the GTAC.

6 Compliance matrix

Table 7 is included to demonstrate how this disclosure complies with the Gas Transmission Information Disclosure Determination 2012.[7]

Table 7: Compliance matrix

Pricing principle	Description
2.4.1 Every **GTB** must **publicly disclose**, before the start of each **pricing year**, a pricing methodology which-	See individual clauses below.
(1) Describes the methodology, in accordance with clause 2.4.3, used to calculate the **prices** payable or to be payable;	Section 4
(2) Describes any changes in **prices** and **target revenues**;	Section 4
(3) Explains, in accordance with clause 2.4.5 of this section, the approach taken with respect to pricing in **non-standard contracts**; and	N/A Non-standard contracts do not exist for the MPOC.
(4) Explains whether, and if so how, the **GTB** has sought the views of **consumers**, their expectations in terms of **price** and quality, and reflected those views in calculating the **prices** payable or to be payable. If the **GTB** has not sought the views of **consumers**, the reasons for not doing so must be disclosed.	Section 0
2.4.2 Any change in the pricing methodology or adoption of a different pricing methodology, must be **publicly disclosed** at least 20 working days before **prices** determined in accordance with the change or the different pricing methodology take effect.	N/A
2.4.3 Every disclosure under clause 2.4.1 of this section must-	See individual clauses below.
2.4.3(1) Include sufficient information and commentary for interested persons to understand how **prices** were set for **consumers**, including the assumptions and statistics used to determine **prices** for **consumers**;	Section 4
2.4.3(2) Demonstrate the extent to which the pricing methodology is consistent with the **Pricing Principles** and explain the reasons for any inconsistency between the pricing methodology and the **Pricing Principles**;	Section 0

[7] Consolidating all amendments as of 3 April 2018.

Pricing principle	Description
2.4.3(3) State the **target revenue** expected to be collected for the **pricing year** to which the pricing methodology applies;	Section **Error! Reference source not found.**
2.4.3(4) Where applicable, identify the key components of **target revenue** required to cover the costs and return on investment associated with the **GTB**'s provision of **gas transmission services**. Disclosure must include the numerical value of each of the components;	Section 3
2.4.3(5) If **prices** have changed from **prices** disclosed for the immediately preceding **pricing year**, explain the reasons for changes, and quantify the difference in respect of each of those reasons;	Section 1.4
Revenue by Consumer Group 2.4.3(6) Where applicable, describe the method used by the **GTB** to allocate the **target revenue** among **consumers**, including the numerical values of the **target revenue** allocated to **consumers** and the rationale for allocating it in this way;	Section **Error! Reference source not found.**
Revenue by Price Component 2.4.3(7) State the proportion of **target revenue** (if applicable) that is collected through each **price component** as **publicly disclose**d under clause 2.4.18.	Section 4
Effect of Pricing Strategy 2.4.4 Every disclosure under clause 2.4.1 above must, if the **GTB** has a **pricing strategy**- (1) Explain the **pricing strategy** for the next 5 **pricing years** (or as close to 5 years as the **pricing strategy** allows), including the current **pricing year** for which **prices** are set; (2) Explain how and why **prices** are expected to change as a result of the **pricing strategy**; (3) If the **pricing strategy** has changed from the preceding **pricing year**, identify the changes and explain the reasons for the changes.	N/A no pricing strategy exists for the Maui pipeline other than the move to a new GTPM under the GTAC. This is due to the pricing methodology being prescribed within the MPOC.

Pricing principle	Description
Prices for Non-Standard Contracts 2.4.5 Every disclosure under clause 2.4.1 above must- (1) Describe the approach to setting **prices** for **non-standard contracts**, including- (a) the extent of **non-standard contract** use, including the value of **target revenue** expected to be collected from **consumers** subject to **non-standard contracts**; (b) how the **GTB** determines whether to use a **non-standard contract**, including any criteria used; (c) any specific criteria or methodology used for determining **prices** for **consumers** subject to **non-standard contracts**, and the extent to which these criteria or that methodology are consistent with the **Pricing Principles**; (2) Describe the **GTB**'s obligations and responsibilities (if any) to **consumers** subject to **non-standard contracts** in the event that the supply of **gas transmission services** to the **consumer** is interrupted. This description must explain- (a) the extent of the differences in the relevant terms between **standard contracts** and **non-standard contracts**; (b) any implications of this approach for determining **prices** for **consumers** subject to **non-standard contracts**.	N/A Non-standard prices do not exist for the MPOC.

Appendix A: Glossary

Act:	the Commerce Act 1986.
Connection Point (CP):	an aggregation of one or more Delivery Points (DPs) for cost allocation purposes.
CPI:	the Consumer Price Index.
CRF:	Capacity Reservation Fee, a charge applied for each GJ of reserved capacity.
Delivery Point or **DP:**	means a point at which a Shipper's gas is taken (or made available to be taken) from a pipeline into another transmission pipeline (whether owned by the GTB or another party), a gas consuming facility or a distribution network.
Determination:	the Gas Information Disclosure Determination, Decision NZCC24, 1 October 2012.
DPP:	the previous DPP is the Gas Transmission Services Default Price-Quality Path Determination 2013, NZCC, 28 February 2013. The current DPP is the Gas Transmission Services Default Price-Quality Path Determination 2017, NZCC14, 29 May 2017.
GJ:	Gigajoule, a unit of energy.
GTB:	the gas transmission business, meaning Vector prior to 20 April 2016 and First Gas Limited thereafter.
GTPM:	Gas Transmission Pricing Methodology.
Incremental Cost (IC):	the cost of providing a defined service to an additional consumer or group of consumers given that service is already provided to other consumers.
Input Methodologies:	the Gas Transmission Services Input Methodologies Determination 2010 (Commerce Commission Decision 712, 22 December 2010.
MPOC:	the Maui Pipeline Operating Code.
NSFA:	Non-system fixed assets.
Price Component:	the various tariffs, 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 Transmission Services Input Methodologies Determination 2010 (Commerce Commission Decision 712, 22 December 2010).
Pricing Strategy:	a decision made by the Directors of the GTB on the GTB's plans or strategy to amend or develop prices in the future, and recorded in writing.
SFA:	System Fixed Assets.
Shippers:	A person named as a shipper in a Transmission Services Agreement with First Gas.
Stand Alone Cost (SAC):	the cost of providing a defined service or group of services to a particular consumer or group of consumers, without providing any other services or serving any other consumers.

Target revenue:	the revenue the GTB expects to receive during the pricing year, as described in section **Error! Reference source not found.**.
VTC:	Vector Transmission Code.

Appendix B: MPOC Schedule 10

SCHEDULE 10 TARIFF PRINCIPLES

TSP will set the Transmission Charges in accordance with the standard practice adopted by utilities businesses in New Zealand. Accordingly, TSP will recover the cost and return of capital as follows. TSP will:

(a) calculate the Maui Pipeline's Optimised Deprival Value or Optimised Depreciated Replacement Cost and multiply this value by a nominal WACC, and then subtract any revaluation gains/losses on the asset ("Required Return");
(b) calculate the return of capital based on the useful life of the asset Depreciation");
(c) aggregate the Required Return and Depreciation to derive the "Required Revenue";
(d) derive a GJ.km tariff ("Tariff 1"); and
(e) apply Tariff 1 across the Maui Pipeline Shippers on the basis of quantity of Gigajoules of Gas transported multiplied by the distance of Gigajoules of Gas transported.

In any given year, in the event that TSP's total revenues are more or less than its required revenue then Tariff 1 may be adjusted for the following years in a manner that endeavours to reduce pricing volatility for Shippers.

The approach adopted by TSP to recover operating expenditure is to:

(a) aggregate the Maui Pipeline's operating costs ("Operational Expenditure");
(b) allocate Operational Expenditure across every Gigajoule of Gas delivered from the Maui Pipeline.

In any given year, in the event that TSP's total Operational Expenditure recovery is more or less than its required recovery then Tariff 2 may be adjusted for the following years in a manner that endeavours to reduce pricing volatility for Shippers.

Appendix 2: Non-Maui pipeline pricing methodology

Pricing Methodology for Non-Maui Gas Transmission Services

Effective from 1 October 2018

Pursuant to Gas Transmission Information Disclosure Determination 2012

First Gas Limited
September 2018

1 Summary

In April 2016, First Gas purchased the gas transmission system previously owned by Vector Limited. This network includes all of the high-pressure gas transmission pipelines in the North Island, except the Maui gas transmission pipeline. In June 2016, First Gas also purchased the Maui gas transmission pipeline that runs from Oaonui to Huntly, which was previously owned by Maui Developments Limited (MDL).

1.1 First Gas developing a new gas transmission code and pricing methodology

First Gas is currently developing a new gas transmission code (the Gas Transmission Access Code, GTAC) that will apply across both the ex-Vector and Maui transmission systems. The GTAC is being developed in consultation with the Gas Industry Company (GIC), shippers, gas producers, major gas users and other stakeholders. The GTAC will replace both the Vector Transmission Code (VTC) and the Maui Pipeline Operating Code (MPOC) and will require a new gas transmission pricing methodology (GTPM). First Gas is aiming for the GTAC and a new pricing methodology to take effect from 1 October 2019.

1.2 Existing pricing methodology continue until 30 September 2019

Based on the time required to develop the GTAC and accompanying pricing methodology, First Gas will continue to apply the current GTPM for non-Maui gas transmission assets for the 2018/19 pricing year. Vector developed the current GTPM after an extensive consultation process in 2012/13, and we consider that the GTPM remains fit for purpose as a way to price the access products under the VTC.

This document is an edited version of the GTPM paper produced by Vector. It is intended to meet First Gas' obligations under the Gas Transmission Information Disclosure Determination 2012 (ID Determination).[8] This document provides information to enable interested parties to understand how gas transmission prices are set and includes a description of the current GTPM's development.

1.3 Gas Default Price-quality Path (DPP)

This GTPM applies to the second year of the current DPP, which runs from 1 October 2017 – 30 September 2022.[9] First Gas' DPP was reset by the Commission in May 2017 and has decreased revenue on First Gas' transmission business relative to the revenue that it was earning by approximately 10% (under the previous DPP)[10].

The current DPP uses a different compliance methodology than the previous DPP. The current DPP uses forecast quantities for the upcoming year when determining compliance against its revenue cap. The previous DPP used quantities from two years previous. This change means First Gas can better adjust its prices to meet future changes in quantities. However, this also means First Gas loses the advantage of being able to gain two years of revenue from new demand before that demand falls under the revenue cap.

1.4 This pricing methodology complies with regulatory requirements

First Gas' revenue from gas transmission services is subject to and complies with the current DPP. This pricing methodology also meets the requirements of the ID Determination.

1.5 Transmission prices for 2018/19 have changed

The transmission prices that will apply in the year commencing 1 October 2018 are different from the prices that applied for 2017/18. Some standard fees, and any fees in non-standard contracts linked to those standard fees, have increased. These price increases comply with the DPP. Fees for ongoing non-standard contracts

[8] Gas transmission information disclosure determination 2012, consolidating all amendments as of 3 April 2018, Commerce Commission.
[9] http://www.comcom.govt.nz/regulated-industries/gas-pipelines/gas-default-price-quality-path/2017-2022-gas-dpp/
[10] http://www.comcom.govt.nz/regulated-industries/gas-pipelines/gas-default-price-quality-path/initial-default-price-quality-path/

have increased as per their defined price paths. Fees for renewed or new non-standard contracts are determined on a case by case basis.

This results in weighted average prices for non-Maui gas transmission services across all VTC contracts for 2018/19 being approximately 1.6% higher than the prices that applied in 2017/18. This is relative to CPI of 1.6% during the same period.

This average price reduction is evenly spread across the network except for the Greater Hamilton network. Prices for the Greater Hamilton network are on a steeper price path, so that they will be equal to the prices for surrounding networks in the future. Previously, the prices for the Greater Hamilton network were kept lower by Vector to mitigate the risk of a bypass by the nearby MDL owned Maui transmission pipeline. Now that First Gas owns all of the transmission systems this bypass threat no longer exists. Greater Hamilton's increase for 2018/19 is 9.2%.

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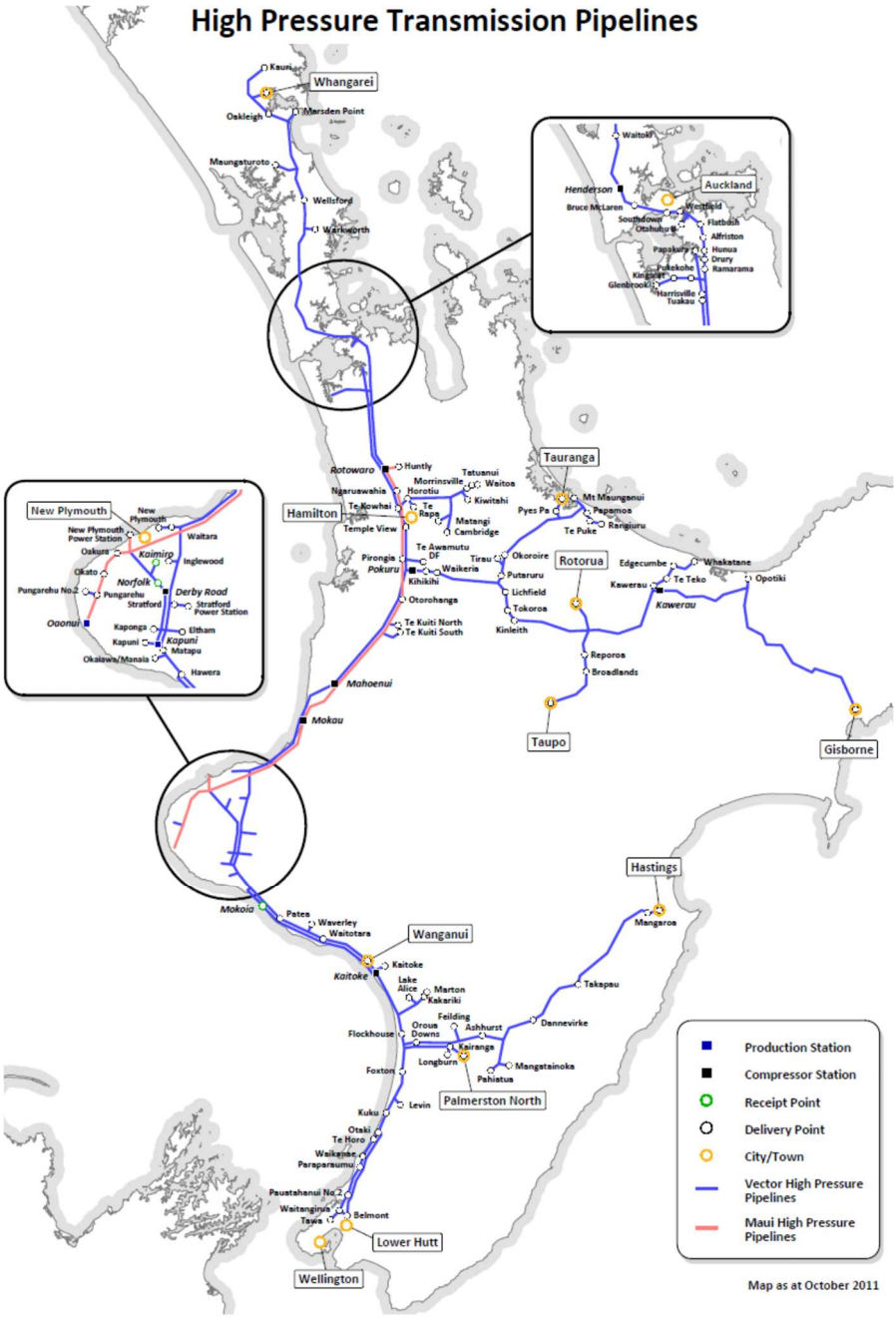
2 Overview

2.1 Background

First Gas provides gas transmission services in the North Island over a network comprising approximately 2,200 kilometres of pipeline. The system was largely built between 1968 and the mid-1980s by the Natural Gas Corporation (NGC). It was purchased by Vector in 2005, and subsequently by First Gas in April 2016. The map in Figure 1 below shows both the transmission system purchased from Vector (in blue) and the ex-MDL pipeline (in brown).

Figure 1 First Gas' transmission system



Gas is taken from the transmission system at some 130 Delivery Points (DPs) owned by First Gas. These DPs supply both distribution networks and large gas consumers such as industrial plants and power stations. First Gas contracts with Shippers. First Gas transports gas from sources of supply through the transmission system for Shippers. At present, there are eight Shippers. Seven of those Shippers operate as gas retailers, though some also ship gas to their own gas consuming facilities. The other Shipper has yet to engage transmission services or gas retailing.

From 1 October 2017, the gas transmission system is subject to regulation under the current DPP. In addition to complying with the DPP, the ID Determination requires First Gas to demonstrate how (and, if not, why) its prices comply with the Pricing Principles.

In 2013, Vector (as the previous owner) undertook an extensive review of the gas transmission pricing methodology. The current GTPM is an evolution of the outcome of that process.

2.2 Applicable regulations

This disclosure is prepared in accordance with clause 2.4 of the ID Determination. Compliance with the requirements of this clause is demonstrated in the compliance matrix in Section 6.

The GTB's gas transmission services revenue is set in accordance with the current DPP.

The Pricing Principles are defined in the Input Methodologies.[11]

2.3 Additional disclosures

Gas transmission prices are subject to annual approval by the GTB's Board of Directors, and are set to comply with the current DPP. They should also deliver the Target Revenue.

First Gas' Board of Directors has not made any decision to amend the transmission pricing structure beyond the 2018/19 pricing year or approved any Pricing Strategy.

2.4 Price setting policy framework

This section highlights some of the key factors that influenced the design of the current GTPM. Current transmission prices are founded on an application of economic pricing principles, subject to practical, physical and commercial constraints. An understanding of these factors assists in understanding the various decisions underpinning the current GTPM.

2.4.1 Recovery of shared costs

The transmission system can be broadly described as a network of pipelines radiating from Taranaki and supplying multiple Connection Points along each pipeline's length. A key feature of the gas transmission system is that many of the assets used to convey gas are used by multiple Shippers and many consumers.

The shared use of a significant portion of assets has significant implications for the development of transmission prices. Transmission prices largely represent a recovery of common costs, rather than being directly attributable to the provision of a specific service to a connection. Decisions must inevitably be made in determining appropriate allocation methods. This has constrained the scope of the Cost of Supply Model (COSM) to high levels of aggregation, with more general "cost reflectivity" principles applying to the manner in which prices are developed consistent with the aggregated cost allocations.

[11] Gas transmission services input methodologies determination 2012, consolidating all amendments as of 3 April 2018, Commerce Commission.

2.4.2 Practical limits on the ability of prices to improve efficiency

The GTB normally contracts with consumers indirectly, through Shippers, and in effect provides a wholesale transmission services to Shippers. Shippers can repackage the transmission charges they pay, meaning that price signals do not necessarily reach the consumer. Gas transmission costs also represent a small portion of the average consumer's bill, so any price signal at the transmission level tends to be overwhelmed by wholesale gas costs, distribution charges and retail costs.

2.5 Development of the Current GTPM

The current GTPM was developed as part of an extended consultation process with Shippers and consumers, summarised in Table 1.

Table 1: GTPM consultation process

Event	Detail
December 2011 **GTPM Framework**	The December 2011 Framework paper communicated the context and objectives of the review together with an outline of the indicative process.
May 2012 **GTPM Position Paper - Proposed Framework & Provisional Prices for PY2013**	The 31 May 2012 GTPM Position Paper developed an Assessment Framework to guide the development of the GTPM. The Assessment Framework included the Pricing Principles and continues to be relevant under the DPP. Vector applied this framework to determine provisional price changes for 2013 which involved an adjustment to the balance between fixed and variable Price Components.
August 2012 **GTPM - Summary & Response to Submissions**	On 31 August 2012, Vector published a Summary and Response to Submissions by interested parties on the Position Paper. This included confirmation of final prices, which reflected submitters' concerns regarding the re-distributive impact of the provisional price proposal on Auckland and Wellington DPs. The reduced Throughput Fee and uniform dollar increase in CRFs proposed meant a larger relative increase to CRFs in Auckland. The price changes were driven primarily by a desire to rebalance the fixed and variable charge components to better reflect underlying costs. However, these also took into account the need to minimise distortions to incentives and in particular incentivise less consumption in Auckland, where capacity was constrained at the time. The interim price change took the fixed/variable revenue split from approximately 60%:40% to 65%:35%.
March 2013 **GTPM Cost Allocation Framework & Pricing Methodology**	On 28 March 2013, Vector published a consultation paper on the cost allocation framework and methodology to apply within the GTPM. This paper introduced the approach described in sections 3.2 and 3.3. Cost allocations and prices were prepared on a Connection Point basis.
May 2013 **GTPM Summary of Submissions, Provisional prices PY2014**	On 31 May 2013, Vector summarised feedback received on the 28 March paper and notified provisional prices using the revised Pricing Regions described in section 3.1.
May 2014	In May 2014, Vector notified provisional prices for the 2014/15 year. The provisional prices incorporated uniform increases to all prices. Shippers provided no feedback on the provisional prices. On 29 August 2014, Vector notified final prices for the 2014/15 year to Shippers. These prices became effective from 1 October 2014.

Event	Detail
May 2015	In May 2015, Vector notified provisional prices for the 2015/16 year. The provisional prices incorporated uniform increases to CRFs, with an additional increase to the throughput fee on the Frankley Road pipeline. Shippers provided no feedback on the provisional prices. On 28 August 2015, Vector notified final prices for the 2015/16 year. These prices became effective from 1 October 2015.
May 2016	In May 2016, First Gas notified provisional prices for the 2016/17 year. The provisional prices incorporated uniform increases to CRFs, and a decrease to the throughput fee on the Frankley Road pipeline. For consistency in the pricing of transmission services, the Kapuni Lactose delivery point was moved from a CRF based price to the Frankley Road pipeline throughput fee. Shippers provided no feedback on the provisional prices. On 31 August 2016, First Gas notified final prices for the 2016/17 year. These prices became effective from 1 October 2016.
May 2017	In May 2017, First Gas notified provisional prices for the 2017/18 year. The provisional prices incorporated price decreases in order to comply with the current DPP revenue cap. The price changes were not uniform as the aim was to harmonise pricing across the geographic zones that will eventually form the basis of pricing under the GTAC. Pricing for Greater Hamilton was also increased to begin to bring pricing in line with nearby points on the network.

2.6 Development of a new transmission code and pricing methodology

Having become the new owner of all open-access gas transmission pipelines in the North Island in 2016, a high priority for First Gas is to lead the development of a single new gas transmission code covering that entire gas transmission network. Given the work that this involves, the new gas transmission access code is not likely to be in place until the 2019/20 pricing year.

We see any gas transmission pricing methodology as being inseparable from the prevailing gas transmission code. First Gas inherited the current GTPM when it purchased the GTB from Vector, and it is clearly fit for purpose under the VTC. However, the GTPM does not cover pricing for the Maui pipeline and will not be an appropriate fit for a new code that covers the entire gas transmission network. The design of a new GTPM must therefore occur in step with the implementation of a new gas transmission access code.

The current GTPM will therefore continue to apply for the upcoming regulatory and pricing year (1 October 2018 to 30 September 2019). First Gas also considers that the GTPM should continue to apply until the service and pricing-related elements of the new gas transmission code are agreed with Shippers and other stakeholders.

3 Commercial price-setting framework

3.1 Competitive pressures on pricing

The starting point for establishing prices for gas transmission services is a consideration of the role of gas as a fuel. Unlike electricity, gas is a discretionary fuel for many consumers. Given the substantial costs of the transmission system, there is a strong commercial drive on the GTB to maintain and improve economies of density (more consumers per unit of pipeline) and economies of scale (more GJ delivered per unit of pipeline). Improved economies of scale and density mean that the GTB can use its capital more efficiently; consumers ultimately benefit from the sharing of common costs across a wider number of consumers and/or gas throughput. A more diverse consumer base is also in the GTB's commercial interests as it mitigates asset stranding risks and increases the commercial resilience of gas transmission.

3.2 Pricing against alternative energy sources

A key part of the GTB's pricing methodology is testing proposed prices against the lowest cost alternative energy source.

In 2012, Vector asked PricewaterhouseCoopers (PwC) to calculate an implied cap for gas transmission cost based on the cost of alternative fuels, using the approach summarised in 0. The implied cap on gas transmission cost is a proxy for the maximum price that could be charged for a gas transmission service before an alternative fuel becomes more cost effective.

Table 2: Calculation of implied transmission cost

All-in delivered cost of alternative
Less
– GST
– replacement capital expenditure (annualised)
– gas cost
– retailer margin
– gas distribution cost (if relevant)
– other costs
= Implied cap on gas transmission cost

Bottled LPG, biomass, and coal were the alternative fuels examined. For each consumer group, the lowest implied transmission cost was selected from these three fuels. As shown in 0, bottled LPG sets the implied transmission cap for domestic and commercial consumers, while coal sets the implied transmission cap for industrial consumers.

Table 3: Implied transmission costs caps set by alternative fuel costs

Consumer type	Alternative fuel	Implied transmission cap ($/GJ 2012)
Small domestic	Bottled LPG	39.05
Medium domestic	Bottled LPG	31.57
Large domestic	Bottled LPG	27.75
Small commercial	Bottled LPG	20.22
Medium commercial	Bottled LPG	15.24
Large commercial	Bottled LPG	20.09
Large industrial	Coal	4.20
Very large industrial	Coal	4.90

Vector used the above to derive weighted average transmission cost caps for Connection Points. The distribution of consumer types at each DP was informed by institutional knowledge, the ratio of TOU and non-TOU consumers obtained from the transmission allocation agent, as well as samples of the actual breakdown of consumer categories obtained from Vector's gas distribution business.

The implied transmission cost caps are incorporated into the GTB's price-setting process, with SAC being set to the lesser of the implied transmission cap set by alternative fuels and the cost of an alternative network.

There are limits to the extent to which a standardised pricing schedule can take account of the particular circumstances of individual consumers, so in certain circumstances the GTB and a consumer may enter into a non-standard contract as described in Section 6.

4 Methodology for standard prices

This section describes the methodology the GTB uses to calculate prices for gas transmission services.

Under this GTPM, prices are set for Pricing Regions, which are an aggregation of Connection Points.[12] Section 4.1 provides the rationale for the use of Connection Points and Pricing Regions, and lists the Pricing Regions and Connection Points comprising multiple DPs.

Section **Error! Reference source not found.** describes the assessment of each Pricing Region.

4.1 Pricing regions

DPs in the same or close geographical location are linked to a single "Connection Point" on the transmission system. For example, the Edgecumbe Connection Point combines the Edgecumbe dairy factory and Edgecumbe town DPs into one Connection Point with a single price.

0 below lists all Connection Points which have multiple DPs linked to them. The remaining CPs have only a single DP linked to them.

All stakeholders who submitted on Vector's March 2013 proposals supported greater levels of aggregation for pricing. Consequently, Vector adopted aggregation into pricing regions. Since the 2017/18 year First Gas has developed and maintained the aggregations into the Pricing Regions shown in Table 5. These Pricing Regions account for distances gas is transmitted and to better align the current pricing with the intended GTPM for the GTAC.

[12] Connection point is a group of delivery points feeding the same network and/or delivery points located at the same gate station

Table 4 Aggregation of Delivery Points into Connection Points

Connection Point	Delivery Points
Ammonia Urea	Ballance 8201 and 9626
Drury	Drury 1
Edgecumbe	Edgecumbe, Edgecumbe DF
Greater Auckland	Westfield, Henderson, Papakura, Waikumete, Bruce McLaren
Greater Hamilton	Temple View, Te Kowhai
Greater Mt Maunganui	Mt Maunganui, Papamoa, Papamoa 2
Greater Tauranga	Tauranga, Pyes Pa
Greater Waitangirua	Waitangirua, Pauatahanui 2
Hastings	Hastings, Hastings (Nova)
Hawera	Hawera, Hawera (Nova),
Hunua	Hunua, Hunua (Nova), Hunua 3
Kawerau	Kawerau, Kawerau (ex-Caxton), Kawerau (ex-Tasman)
Kinleith	Kinleith, Kinleith (Paper mill)
Kiwitahi	Kiwitahi 1 (Peroxide), Kiwitahi 2
Marsden	Marsden 1 (NZRC), Marsden 2
Morrinsville	Morrinsville, Morrinsville DF
Okaiawa \ Manaia	Manaia, Okaiawa
Tawa	Tawa A, Tawa B (Nova)
TCC \ Stratford	Stratford 2 (Peaker), Stratford 3 (Storage), TCC Power Station
Te Awamutu \ Kihikihi	Kihikihi, Te Awamutu DF
Tirau	Tirau, Tirau DF

Table 5: Aggregation of Delivery Points into Pricing Regions

2018/19 Pricing Region		Delivery points
1	Taranaki	Ammonia Urea, Eltham, Inglewood, Kaponga, Kapuni (Lactose), New Plymouth, Stratford, Waitara, Oakura, Okato, Opunake, Pungarehu No 1, Pungarehu No 2, Pokuru 2 Delivery, Stratford 2 (Peaker), Stratford 3 (Storage), TCC Power Station
2	Waikato South	Otorohanga, Pirongia, Te Awamutu DF, Te Kuiti North, Te Kuiti South,
3	Auckland	Alfriston, Drury 1, Flat Bush, Glenbrook (Steel Mill), Greater Auckland, Harrisville, Hunua, Hunua (Nova), Hunua 3, Kingseat, Pukekohe, Ramarama, Tuakau 2, Waitoki
4	Northland	Marsden 1 (NZRC), Marsden 2, Kauri DF, Maungaturoto DF, Warkworth, Wellsford, Whangarei
5	Waikato North	Cambridge, Horotiu, Huntly Town, Kiwitahi 1 (Peroxide), Kiwitahi 2, Matangi, Morrinsville, Morrinsville DF, Ngaruawahia, Tatuanui DF, Te Rapa Cogen Plant, Waitoa
6	South Taranaki - Whanganui	Hawera, Hawera (Nova), Kaitoke, Kakariki, Lake Alice, Okaiawa \ Manaia, Marton, Matapu, Mokoia, Patea, Waitotara, Wanganui, Waverley
7	Manawatu - Horowhenua	Ashhurst, Feilding, Flockhouse, Kairanga, Longburn, Mangatainoka, Oroua Downs, Pahiatua, Pahiatua DF, Palmerston North, Foxton, Kuku, Levin,
8	Hawkes Bay	Dannevirke, Hastings, Hastings (Nova), Mangaroa, Takapau
9	Wellington	Belmont, Greater Waitangirua, Otaki, Paraparaumu, Pauatahanui 2, Tawa A, Tawa B (Nova), Te Horo, Waikanae 2
10	Waikato East	Kihikihi, Kinleith, Kinleith (Paper mill), Lichfield DF, Lichfield 2, Okoroire Springs, Putaruru, Tirau, Tirau DF, Tokoroa, Waikeria
11	Bay of Plenty West	Greater Mt Maunganui, Greater Tauranga, Rangiuru, Te Puke
12	Bay of Plenty South	Broadlands, Kawerau, Kawerau (ex-Caxton), Kawerau (ex-Tasman), Reporoa, Rotorua, Taupo,
13	Bay of Plenty East	Edgecumbe, Edgecumbe DF, Te Teko, Whakatane
14	Eastland	Gisborne, Opotiki
15	Hamilton	Greater Hamilton, Temple View, Te Kowhai

4.2 Price setting

Within the GTPM, revenue and prices are determined through the following steps:

1. Forecast Allowable Revenue (FAR) for the combined Maui and non-Maui transmission systems is determined
2. Non-Maui transmission system share of the FAR is determined
3. Prices and revenue for non-standard contracts is determined
4. Revenue to be made up via standard prices is determined by deducting the non-standard contract revenue from the non-Maui transmission system share of FAR
5. Standard prices are changed so that revenue from those prices is equal to or less than the total determined in step 4

These steps are detailed in 4.2.1 to 4.2.5 with a description of how quantities were forecast for price setting in 4.2.6.

4.2.1 Forecast Allowable Revenue (FAR)

The Forecast Allowable Revenue using the Forecast Net Allowable Revenue as a starting point. Pass-through and Recoverable Costs are then deducted to give the Forecast Allowable Revenue as shown in Table 6.

Table 6: Forecast Allowable Revenue for First Gas' Transmission Systems

	$ million per pricing period
Forecast Net Allowable Revenue (A)	123.904
Pass-through Costs (B)	2,464
Recoverable Costs (C)	1.552
Forecast Allowable Revenue (D) = (A) + (B) + (C)	**127.921**

Pass-through costs are the sum of rates and industry levies. The forecast for 2018/19 is generated based on previous year's costs with an allowance for inflation.

Recoverable costs are the sum of:

- Balancing Gas costs: based on the realised costs for the 2016/17 year.
- Balance incentive costs/revenues: based on the realised costs for the 2016/17 year.
- Cash Out revenue: based on the realised revenue for the 2016/17 year.
- Mokau fuel gas costs: determined in the MPOC GTPM.
- CAPEX wash-up adjustment: the difference between the forecast value of commissioned assets used for the current DPP and the actual value of commissioned assets as at 30 September 2017.

4.2.2 Non-Maui transmission system Forecast Allowable Revenue

The 2018/19 transmission revenue determined for the MPOC via its GTPM is deducted from the FAR. The portion of MPOC cash out transmission revenue charged to the VTC but not passed through to VTC customers is added to determine the non-Maui transmission system FAR (Table 7).

Table 7: Forecast Allowable Revenue for the non-Maui Transmission Systems

	$ million per pricing period
Forecast Allowable Revenue (D)	127.921
MPOC Target Revenue (E)[13]	38.041
MPOC Cash Out Throughput Revenue charged to the VTC but not passed through to VTC customers (F)	0.123
Non-Maui transmission system Forecast Allowable Revenue (G) = (D) - (E) + (F)	**90.003**

4.2.3 Prices and Revenue for Non-Standard Contracts

Non-Standard contracts include Supplementary Agreements (SAs), Interruptible User Contracts (IUCs), Interruptible Shipper Contracts (ISCs) and Interconnection Agreements (ICAs).

Prices for these contracts are a combination of ongoing contracts on a set price path and contracts that are renewed on an annual basis. Contracts that are to be renewed have had their 2018/19 prices increased by the 2018 March annual weighted average Consumer Price Index (CPI) as published by Statistics New Zealand[14].

The forecasts of the quantities for these contracts are discussed in 4.2.6.

The determined prices multiplied by the forecast quantities give the forecast 2018/19 revenue for 2018/19 non-standard contracts ($24.060 million).

The total for the non-standard contracts is then deducted from the Forecast Allowable Revenue (FAR) for the non-Maui transmission systems to give the amount to be recovered by Standard Prices.

4.2.4 Revenue via Standard Prices

Table 8: Revenue via Standard Prices

	$ million per pricing period
Non-Maui transmission system Forecast Allowable Revenue (G)	90.003
Non-Standard Contract revenue (H)	24.060
Maximum Revenue via Standard Prices (I) = (G) - (H)	**65.943**

4.2.5 Standard Price setting

Standard Price means any price that is published as part of the Confirmed Standard Transmission Fees Schedule published on OATIS[15].

Standard Prices include the prices for the Frankley Road pipeline and the price for transmission from Kapuni to Pokuru.

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[13] This is the MPOC Target Revenue published in Tables 4 of the Maui Pipeline/MPOC GTPM.

[14] https://www.stats.govt.nz/information-releases/consumers-price-index-march-2018-quarter

[15] www.oatis.co.nz > VTC Information Exchange > Publications > Transmission Fees

The Standard Prices set for 2018/19 are a transition toward the GTAC GTPM. These prices maintain the price proportionality set by the 2017/18 prices.

Prices do not flow mechanistically from cost allocations. The GTB is able to vary the fixed/variable split and move CRFs by uniform or different amounts. First Gas uses these adjustments to ensure there is parity between pricing regions and also to prepare for the eventual GTAC GTPM. Specific actions for the 2018/19 pricing year are:

- Increase in the CRF for Greater Hamilton from $150/GJ.MDQ to $165/GJ.MDQ to continue to bring this into line with other connections in the region
- Increase in the CRF for Northland delivery points from $515/GJ.MDQ to $525/GJ.MDQ to align with non-standard contracts in the region
- Increase in the standard Frankley Road Interruptible transmission fee to $0.29/GJ to maintain parity with Maui pipeline tariffs
- Maintenance of the standard Kapuni to Pokuru Interruptible transmission fee at $0.37/GJ to ensure parity with Maui pipeline tariffs
- Increase in the transmission fees for other delivery points and services by 1.4% on a weighted average basis compared to inflation of 1.5%.

The CRF is expressed in whole dollars. It is generally set at a level that will comply with the DPP and (consequently) recover approximately the same Target Revenue as implied by the cost allocations plus a pro-rata allocation of pass-through costs.

Table 9 details the price changes for the Throughput Fee (TPF) and the Capacity Reservation Fee (CRF,)

Table 10 shows the forecast revenue effect of those changes. The Frankley Road pipeline has had an overall revenue reduction as a delivery point that was on non-standard prices has moved to standard prices which produced a reduced average charge per delivered GJ.

Firstgas

Table 9: Standard price changes

2018/19 Pricing Region		2017/18		2018/19		Comment
		TPF $/GJ	CRF $/GJ.MDQ	TPF $/GJ	CRF $/GJ.MDQ	
1	Taranaki	0.05	80	0.05	81	Kept equivalent to Frankley Road
2	Waikato South	0.05	350	0.05	356	
3	Auckland	0.05	340	0.05	345	
4	Northland	0.05	515	0.05	525	Equalises pricing over standard and non-standard contracts
5	Waikato North	0.05	350	0.05	356	
6	South Taranaki - Whanganui	0.05	330	0.05	335	
7	Manawatu - Horowhenua	0.05	340	0.05	345	
8	Hawkes Bay	0.05	350	0.05	356	
9	Kapiti - Wellington	0.05	420	0.05	427	
10	Waikato East	0.05	350	0.05	356	
11	Bay of Plenty West	0.05	430	0.05	437	
12	Bay of Plenty South	0.05	450	0.05	457	
13	Bay of Plenty East	0.05	470	0.05	478	
14	Eastland	0.05	490	0.05	498	
15	Hamilton	0.05	150	0.05	165	Price path to match Waikato Regions
Frankley Road		0.28	N/A	0.29	N/A	Kept equivalent to Taranaki Region
Kapuni to Pokuru		0.37	N/A	0.37	N/A	Kept equivalent to the MPOC fee for Frankley Road to Pokuru

Table 10: Standard price change in revenue

2018/19 Pricing Region		Standard Price Revenue		Change	Comment
		P2018*Q2019	P2019*Q2019	%	
1	Taranaki	$423,098	$427,660	1.1%	
2	Waikato South	$8,006,676	$8,139,777	1.7%	Accounts for some 2017/18 non-standard priced contracts moving to standard prices for 2018/19
3	Auckland	$21,297,062	$21,598,059	1.4%	
4	Northland	$333,702	$340,016	1.9%	
5	Waikato North	$2,269,300	$2,306,550	1.6%	
6	South Taranaki - Whanganui	$2,681,380	$2,720,258	1.4%	
7	Manawatu - Horowhenua	$3,423,607	$3,472,468	1.4%	Accounts for some 2017/18 non-standard priced contracts moving to standard prices for 2018/19
8	Hawkes Bay	$3,453,634	$3,511,061	1.7%	
9	Kapiti - Wellington	$7,348,407	$7,467,370	1.6%	
10	Waikato East	$1,352,078	$1,374,657	1.7%	
11	Bay of Plenty West	$1,936,718	$1,967,323	1.6%	
12	Bay of Plenty South	$3,119,272	$3,166,411	1.5%	
13	Bay of Plenty East	$2,392,638	$2,432,275	1.7%	
14	Eastland	$1,240,091	$1,259,951	1.6%	
15	Hamilton	$1,142,364	$1,247,925	9.2%	
Frankley Road		$3,731,136	$3,620,998	3.0%	Accounts for some 2017/18 non-standard priced contracts moving to standard prices for 2018/19
Kapuni to Pokuru		$857,463	$857,463	No Change	
Total		**$65,008,624**	**$65,910,221**	**1.4%**	

4.2.6 Forecast quantities used for price setting

Aretê Consulting Limited (Aretê) was employed to produce forecasts for MPOC quantities (GJ and GJ.km) and VTC delivered quantities (GJ).

The forecast VTC delivered quantities were used to estimate the throughput quantities for each non-standard contract and each standard Price Region.

Non-standard contract capacity quantities were maintained at the same values or the same proportionality to throughput as actuals for 2017/18. It is difficult to foresee the way individual users will book capacity and therefore these historic patterns give the best basis for future behaviour.

Standard priced capacity quantities have been kept to the same values as at 31 March 2018. Again, it is difficult to foresee how individual users will book capacity and therefore historic bookings are the best guide to future capacity reservations.

Non-standard overrun quantities have been kept equal to the previous 12 months (April 2017 to March 2018) unless those overruns are considered an aberration or immaterial, in which case they are forecast to be zero.

Standard priced overrun quantities have been treated on a revenue basis rather than a quantity basis. This is because the choice shippers make on the level of overruns they plan to incur can be seen as an economic decision rather than a quantity management decision. The percentage value of overruns relative to throughput revenue plus capacity revenue for each pricing region is kept equal to the average for the previous three years.

4.3 Target revenue by Pricing Region

Regulatory requirement

2.4.3(6) *Where applicable, describe the method used by the **GTB** to allocate the **target revenue** among **consumers**, including the numerical values of the **target revenue** allocated to **consumers** and the rationale for allocating it in this way;*

It is not possible to disclose the Target Revenue for individual consumers. The cost allocation approach allocates costs to Connection Points and Pricing Regions. Consumers of transmission services may take delivery of gas at any given Connection Point or Pricing Region and it is the allocation for the Pricing Region is a relevant measure of the distribution of revenue among consumers. The outcome of the pricing methodology is the allocation between Pricing Regions shown in Table 12.

Table 12: Target revenue by pricing region

2018/19 Pricing Region		Target revenue from prices (P_{i2019},Q_{i2019})[16]
1	Taranaki	$11,551,233
2	Waikato South	$7,098,282
3	Auckland	$22,054,859
4	Northland	$10,748,486
5	Waikato North	$4,017,606
6	South Taranaki - Whanganui	$2,958,368

[16] Determined by actual forecasted quantities by region times prices

7	Manawatu - Horowhenua	$3,983,883
8	Hawkes Bay	$3,902,191
9	Kapiti - Wellington	$7,837,388
10	Waikato East	$3,157,703
11	Bay of Plenty West	$2,235,153
12	Bay of Plenty South	$3,532,441
13	Bay of Plenty East	$4,288,724
14	Eastland	$1,355,546
15	Hamilton	$1,247,925
Target Revenue		**$89,969,789**

4.4 Revenue by price component

Regulatory requirement

2.4.3(7) *State the proportion of **target revenue** (if applicable) that is collected through each **price component** as **publicly disclose**d under clause 2.4.18.*

The Determination defines “Price Component” as the various tariffs, fees and charges that together make up the total price paid, or payable, by a consumer. The standard gas transmission Price Components in the VTC, are:

- Capacity Reservation Fee (CRF), applied to the (annual) GJ of capacity reserved at a Connection Point
- Throughput Fee (TPF), applied to GJ delivered
- Overrun Fee, equal to 10 times the relevant CRF divided by days in the year and applied to GJ delivered in excess of reserved capacity.

The proportion of revenue recovered by each price component is shown in Table 13.

Table 13: Proportion of target revenue by price component

Price component	Target revenue	Proportion
Capacity Reservation Fees	$55,276,867	61.4%
Other Fixed Fees	$22,532,436	25.0%
Throughput Fees	$6,498,689	7.2%
Overrun Fees	$4,260,267	4.7%
Interruptible Contracts	$1,401,530	1.6%
Total	**$89,969,789**	**100%**

4.5 Price changes

Regulatory requirement

2.4.3(5) *If **prices** have changed from **prices** disclosed for the immediately preceding **pricing year**, explain the reasons for changes, and quantify the difference in respect of each of those reasons;*

From 1 October 2017, First Gas transmission services revenue cap are set to comply with the current DPP. Weighted average gas transmission prices charged are 1.5% higher than those charged in 2017/18. This is in line with CPI of 1.5% for the year. Differences in the percentage of revenue changes between regions reflect the proportional difference of throughput, capacity and overrun quantities, changes in non-standard prices and, changes in allocation of revenue as described in 4.2.5. Table 14 below shows the price changes by Pricing Region.

Table 14: Price changes by Pricing Region

Pricing Region		Notional revenue		Revenue change
		P_{i2018},Q_{i2019}	P_{i2019},Q_{i2019}	%
1	Taranaki	$11,916,996	$11,551,233	-0.5%
2	Waikato South	$6,982,616	$7,098,282	1.7%
3	Auckland	$21,738,851	$22,054,859	1.5%
4	Northland	$10,201,353	$10,748,486	5.4%
5	Waikato North	$3,913,087	$4,017,606	2.7%
6	South Taranaki - Whanganui	$2,912,552	$2,958,368	1.6%
7	Manawatu - Horowhenua	$3,924,139	$3,983,883	1.5%
8	Hawkes Bay	$3,835,538	$3,902,191	1.7%
9	Kapiti - Wellington	$7,706,588	$7,837,388	1.7%
10	Waikato East	$3,116,980	$3,157,703	1.3%
11	Bay of Plenty West	$2,200,866	$2,235,153	1.6%
12	Bay of Plenty South	$3,480,412	$3,532,441	1.5%
13	Bay of Plenty East	$4,222,120	$4,288,724	1.6%
14	Eastland	$1,334,409	$1,355,546	1.6%
15	Hamilton	$1,142,364	$1,247,925	9.2%
Notional revenue		**$88,629,869**	**$89,969,789**	**+1.5%**

5 Consistency with Pricing Principles

5.1 Regulatory requirement

*2.4.3(2) Demonstrate the extent to which the pricing methodology is consistent with the **pricing principles** and explain the reasons for any inconsistency between the pricing methodology and the **pricing principles**;*

5.2 Consistency with Pricing Principles

The Commerce Commission has determined pricing principles for regulated gas pipeline businesses. First Gas is required to report consistency with those principles in its GTPM. Our evaluation of the consistency between First Gas' GTPM and the pricing principles is set out in Table 15 below.

Table 15: Consistency with Pricing Principles

Pricing principles	Pricing methodology consistency
(1) Prices are to signal the economic costs of service provision, by-m (d) 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; (e) having regard, to the extent practicable, to the level of available service capacity; and (f) signalling, to the extent practicable, the effect of additional usage on future investment costs.	GTPM is not fully consistent with this principle: Although the GTPM inherited from Vector did consider incremental and standalone costs, First Gas believes that the Pricing Regions *used previously do not reflect the commonality of the delivery points within those regions.* To address this issue, while avoiding unnecessary price changes, First Gas has adjusted prices to better reflect the differences between Pricing Regions. The ability to signal available capacity and the effect of additional usage on future investment costs is driven as much by the access products offered under the code as the way those products are priced. Access products under the GTAC (particularly the ability to offer priority rights), have been developed to provide better price signals in situations when transmission is scarce.
(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.	The GTPM is not fully consistent with this principle. As with principle 1, the terms of transmission access code have a material impact on consistency with this principle. In the case of the VTC, the ability to offer non-standard pricing in certain circumstances provides the ability to directly gauge alternative energy supply options that are available to consumers and reflect those in prices. Pricing in this GTPM is based on location and the pricing structure inherited under previous versions of this GTPM.

Pricing principles	Pricing methodology consistency
(3) Provided that prices satisfy (1) above, prices are responsive to the requirements and circumstances of consumers in order to- (c) discourage uneconomic bypass; and (d) 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.	Where bypass or alternative fuels are an economic option, the customer can apply for non-standard prices under the VTC.
(4) Development of prices is transparent, promotes price stability and certainty for consumers, and changes to prices have regard to the effect on consumers.	We believe development of our prices is transparent and the GTPM promotes price stability and certainty for our consumers in the short to medium term.

First Gas has not sought the views of other parties for this pricing methodology, given that we intend for the structure of this methodology to only apply for one more year. We are seeking the views of other parties for the pricing methodology that will apply under the GTAC from 1 October 2019 and will consult on that methodology in 2019.

6 Pricing for non-standard contracts

This section describes the approach to setting prices for non-standard contracts.

6.1 Extent of non-standard contracts

*2.4.5(1) Describe the approach to setting **prices** for **non-standard contracts**, including-*

*(a) the extent of **non-standard contract** use, including the value of **target revenue** expected to be collected from **consumers** subject to **non-standard contracts**;*

In certain circumstances 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 GTPM also covers the following non-standard transmission agreements:

a) Supplementary agreements: a bi-lateral agreement between the GTB and a Shipper that amends parts of the VTC and provides firm transmission capacity for the purposes of delivery of gas to:

- A specific consumer and/or specific site; or
- A specific Delivery Point.

b) Interruptible agreements: a form of supplementary agreement under which the capacity provided is fully interruptible.

These contracts allow tailored or specific prices and contractual terms to be applied to individual points on the transmission system.

There are 39 non-standard contracts[17]. Their estimated charges represent 25% of Target Revenue for 2018/19.

6.2 Criteria for non-standard contracts

*2.4.5(1)(b) Describe the approach to setting **prices** for **non-standard contracts**, including-*

*how the **GTB** determines whether to use a **non-standard contract**, including any criteria used;*

Vector published a policy that provided a general guide to the steps to be taken and factors to be considered when deciding whether or not to offer a non-standard contract (supplementary agreement) on the transmission system. This document, *Supplementary Agreements Policy* (March 2012), can be found on OATIS at: https://www.oatis.co.nz/Ngc.Oatis.UI.Web.Internet/Common/Publications.aspx .

First Gas is maintaining this policy pending the development of a new transmission access code and GTPM.

[17] This includes: supplementary agreements which apply the standard CRF and TPF for the relevant DP as well as those that don't (including where there are no standard prices for the relevant DP); all interruptible agreements (including those that apply published standard prices); and all "deemed" contracts on the Frankley Road pipeline, i.e. where Shippers are charged the throughput fee for that pipeline.

6.3 Methodology for non-standard prices

*2.4.5(1) Describe the approach to setting **prices** for **non-standard contracts**, including-*

*(c) any specific criteria or methodology used for determining **prices** for **consumers** subject to **non-standard contracts**, and the extent to which these criteria or that methodology are consistent with the **Pricing Principles**;*

The prices for non-standard contracts are set to reflect the circumstances of the specific Shipper/consumer. In all cases prices are tested to ensure they are not less than incremental cost and not greater than standalone costs.

When a non-standard contract is due for renewal pricing is re-assessed to determine whether non-standard prices should continue to apply.

The flexible approach to pricing for non-standard contracts ensures that compliance with the Pricing Principles is enhanced, as demonstrated in Table 16 below.

Table 16: Compliance of non-standard pricing with the Pricing Principles

Pricing principle	Extent of compliance without non-standard pricing	Extent of compliance with non-standard pricing
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.	Prices are subsidy-free There are no capacity constraints currently on the network to be reflected in current pricing. Price structure is set to generally encourage use of spare capacity. However, some spare capacity may be unused in the absence of non-standard pricing if the consumer disconnects from the gas transmission system.	Prices remain subsidy-free Compliance is *enhanced* because non-standard pricing ensures that consumers that would otherwise disconnect from the gas transmission system will remain connected and use available capacity that would otherwise be unutilised. These consumers will continue to pay some portion of the shared costs of the gas transmission system at least equal to or above incremental costs - providing a benefit to all connected parties.
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.	If a consumer disconnects because standard prices exceeded their "reservation cost" then those prices did not reflect the demand-responsiveness of that consumer.	Compliance is *enhanced* because the demand-responsiveness of a price-sensitive consumer has been taken into account by the non-standard pricing.
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	All prices are subsidy-free so meet (1) above. Prices have been explicitly set to account for the cost of alternative sources of energy for the average consumer in a category, but do not account for the specific circumstances of all consumers.	Prices continue to be subsidy-free so meet (1) above. Compliance is *enhanced* because non-standard pricing allows differential prices to be set for the specific consumers where bypass is viable or would otherwise be uneconomic.

Pricing principle	Extent of compliance without non-standard pricing	Extent of compliance with non-standard pricing
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.		Compliance is *enhanced* because non-standard pricing allows prices for gas transmission services to be customised to reflect the economic value of gas transmission services to specific consumers. This allows the consumer to make quality/price trade-offs.
4) Development of prices is transparent, promotes price stability and certainty for consumers, and changes to prices have regard to the effect on consumers		Compliance is *enhanced* because allowance can be made for the effect on consumers whose circumstances make them particularly sensitive to prices.

6.4 Obligations in respect of service interruptions

*(2) Describe the **GTB**'s obligations and responsibilities (if any) to **consumers** subject to **non-standard contracts** in the event that the supply of **gas transmission services** to the **consumer** is interrupted. This description must explain-*

*(a) the extent of the differences in the relevant terms between **standard contracts** and **non-standard contracts**;*

*(b) any implications of this approach for determining **prices** for **consumers** subject to **non-standard contracts**.*

The GTB's obligations in respect of the provision of transmission capacity under (standard) transmission services agreements and (non-standard) supplementary agreements (excluding interruptible agreements) are identical.

Transmission capacity provided under Shippers' transmission services agreements (reserved capacity) ranks equally with firm capacity provided under supplementary agreements (supplementary capacity) in the event of any emergency or other event affecting the relevant part(s) of the transmission system.

The VTC requires First Gas to use all reasonable endeavours to curtail consumers on interruptible agreements before restricting Shippers' reserved capacity or supplementary capacity.

The main difference between firm transmission capacity and interruptible capacity is the probability of curtailment. Firm capacity may only be curtailed as the result of an emergency (unless the Shipper is in overrun), whereas interruptible capacity may be interrupted at any time.

A Shipper whose firm capacity is curtailed will normally be entitled to a rebate of the fixed transmission fees.

A Shipper using interruptible capacity will not be charged to the extent of the interruption.

7 Compliance matrix

Table 17 is included to demonstrate how this disclosure complies with the Gas Transmission Information Disclosure Determination 2012.

Table 17: Compliance matrix

Principle	Description
2.4.1 Every **GTB** must **publicly disclose**, before the start of each **pricing year**, a pricing methodology which-	See individual clauses below.
(1) Describes the methodology, in accordance with clause 2.4.3, used to calculate the **prices** payable or to be payable;	Section 4
(2) Describes any changes in **prices** and **target revenues**;	Section 4
(3) Explains, in accordance with clause 2.4.5 of this section, the approach taken with respect to pricing in **non-standard contracts**; and	Section 6
(4) Explains whether, and if so how, the **GTB** has sought the views of **consumers**, their expectations in terms of **price** and quality, and reflected those views in calculating the **prices** payable or to be payable. If the **GTB** has not sought the views of **consumers**, the reasons for not doing so must be disclosed.	Section 5
2.4.2 Any change in the pricing methodology or adoption of a different pricing methodology, must be **publicly disclosed** at least 20 working days before **prices** determined in accordance with the change or the different pricing methodology take effect.	N/A
2.4.3 Every disclosure under clause 2.4.1 of this section must-	See individual clauses below.
2.4.3(1) Include sufficient information and commentary for interested persons to understand how **prices** were set for **consumers**, including the assumptions and statistics used to determine **prices** for **consumers**;	Section 4
2.4.3(2) Demonstrate the extent to which the pricing methodology is consistent with the **Pricing Principles** and explain the reasons for any inconsistency between the pricing methodology and the **Pricing Principles**;	Section 5
2.4.3(3) State the **target revenue** expected to be collected for the **pricing year** to which the pricing methodology applies;	Section **Error! Reference source not found.**

Principle	Description
2.4.3(4) Where applicable, identify the key components of **target revenue** required to cover the costs and return on investment associated with the **GTB**'s provision of **gas transmission services**. Disclosure must include the numerical value of each of the components;	N/A Prices have been set subjectively so that price shocks in the transition to the GTAC GTPM are minimised.
2.4.3(5) If **prices** have changed from **prices** disclosed for the immediately preceding **pricing year**, explain the reasons for changes, and quantify the difference in respect of each of those reasons;	Section 4.5
Revenue by Consumer Group 2.4.3(6) Where applicable, describe the method used by the **GTB** to allocate the **target revenue** among **consumers**, including the numerical values of the **target revenue** allocated to **consumers** and the rationale for allocating it in this way;	Section 4.3
Revenue by Price Component 2.4.3(7) State the proportion of **target revenue** (if applicable) that is collected through each **price component** as **publicly disclose**d under clause 2.4.18.	Section 4.4
Effect of Pricing Strategy 2.4.4 Every disclosure under clause 2.4.1 above must, if the **GTB** has a **pricing strategy**- (1) Explain the **pricing strategy** for the next 5 **pricing years** (or as close to 5 years as the **pricing strategy** allows), including the current **pricing year** for which **prices** are set; (2) Explain how and why **prices** are expected to change as a result of the **pricing strategy**; (3) If the **pricing strategy** has changed from the preceding **pricing year**, identify the changes and explain the reasons for the changes.	First Gas applied the GTPM developed by Vector and has used it in the determination of transmission prices for 2018/19. A new pricing methodology will be applied under the GTAC.

Principle	Description
Prices for Non-Standard Contracts 2.4.5 Every disclosure under clause 2.4.1 above must- (1) Describe the approach to setting **prices** for **non-standard contracts**, including- (a) the extent of **non-standard contract** use, including the value of **target revenue** expected to be collected from **consumers** subject to **non-standard contracts**; (b) how the **GTB** determines whether to use a **non-standard contract**, including any criteria used; (c) any specific criteria or methodology used for determining **prices** for **consumers** subject to **non-standard contracts**, and the extent to which these criteria or that methodology are consistent with the **Pricing Principles**; (2) Describe the **GTB**'s obligations and responsibilities (if any) to **consumers** subject to **non-standard contracts** in the event that the supply of **gas transmission services** to the **consumer** is interrupted. This description must explain- (a) the extent of the differences in the relevant terms between **standard contracts** and **non-standard contracts**; (b) any implications of this approach for determining **prices** for **consumers** subject to **non-standard contracts**.	Section 6 Section 6.1 Section 6.2 Section 6.3 Section 6.4

8 Glossary

Act:	the Commerce Act 1986.
Allowable Notional Revenue:	the revenue First Gas is allowed to earn during the pricing year under the GDPP.
Connection Point (CP):	an aggregation of one or more Delivery Points (DPs) for cost allocation purposes.
COSM:	Cost of Supply Model.
CPI:	the Consumer Price Index.
CRF:	Capacity Reservation Fee, a charge applied for each GJ of reserved capacity.
Delivery Point or **DP:**	means a point at which a Shipper's gas is taken (or made available to be taken) from a pipeline into another transmission pipeline (whether owned by the GTB or another party), a gas consuming facility or a distribution network.
Determination:	the Gas Information Disclosure Determination, Decision NZCC24, 1 October2012.
DPP:	the previous DPP is the Gas Transmission Services Default Price-Quality Path Determination 2013, NZCC, 28 February 2013. The current DPP is the Gas Transmission Services Default Price-Quality Path Determination 2017, NZCC14, 29 May 2017.
GJ:	Gigajoule, a unit of energy.
GTB:	the gas transmission business, meaning Vector prior to 20 April 2016 and First Gas Limited thereafter.
GTPM:	Gas Transmission Pricing Methodology.
Incremental Cost (IC):	the cost of providing a defined service to an additional consumer or group of consumers given that service is already provided to other consumers.
Input Methodologies:	the Gas Transmission Services Input Methodologies Determination 2010 (Commerce Commission Decision 712, 22 December 2010.
Maximum Flow:	the peak flow rate or capacity of a transmission asset (eg pipeline or DP) or Connection Point.
MPOC:	Maui Pipeline Operating Code.
NGC:	Natural Gas Corporation.
NSFA:	Non-system fixed assets.
Price Component:	the various tariffs, 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 Transmission Services Input Methodologies Determination 2010 (Commerce Commission Decision 712, 22 December 2010).
Pricing Region:	a group of Delivery Points with the same CRF (as set out in section 3.1); not the same as a "Transmission Pricing Zone" as defined in the VTC.
Pricing Strategy:	a decision made by the Directors of the GTB on the GTB's plans or strategy to amend or develop prices in the future, and recorded in writing.

SFA:	System Fixed Assets.
Shippers:	A person named as a shipper in a Transmission Services Agreement with First Gas.
Stand Alone Cost (SAC):	The cost of providing a defined service or group of services to a particular consumer or group of consumers, without providing any other services or serving any other consumers.
Target revenue:	the revenue the GTB expects to receive during the pricing year, as described in section **Error! Reference source not found.**.
TOU:	Time of use.
TPF:	Throughput fee, a charge applied to each GJ of gas delivered at a DP.
VTC:	Vector Transmission Code

Appendix 3: Director certificate

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

Clause 2.9.2

We, Philippa Jane Dunphy 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 Transmission Information Disclosure Determination 2012* in all material respects complies with that determination; and

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

20 August 2018

Date

Director

20 August 2018

Date