Transmission Prices – Roles and Responsibilities

August 2016

GAS INDUSTRY COMPANY LIMITED

Introduction

Gas Industry Co has had a programme of work over several years aimed at improvements to gas transmission code arrangements; the Maui Pipeline Operating Code (MPOC) and the Vector Transmission Code (VTC). The gas transmission systems, previously owned by Maui Development Limited (MDL) and Vector Gas Limited (Vector), are now owned by First Gas Limited (First Gas). First Gas wishes to replace the MPOC and VTC with a single new access regime and pricing methodology. The industry's previous work towards 'code convergence' should prove helpful in that regard.

In parallel, the Commerce Commission (the Commission) has been reviewing its input methodologies and commencing work on the reset of the gas transmission (and distribution) price-quality paths.

Given this changing landscape, some gas users are concerned about potential cost increases for gas transmission services arising from:

(a) allowable revenue;

(b) growth or major maintenance capex; or/and

(c) allocation of costs between users.

To inform stakeholder discussions on these matters, this paper aims to clarify:

(a) current arrangements;

(b) statutory roles/powers of the relevant agencies; and

(c) the relationship between pricing methodology and a new transmission code.

Terminology

The terms used in this paper are:

Access Regime – the arrangements for using the transmission system, including such components as service definition, capacity reservations, nominations, balancing, metering, and reconciliation.

Pricing Principles – the tenets of economically efficient prices, as set out in s2.5.2 of the Commission's *Gas Transmission Services Input Methodologies Determination 2012 consolidating all amendments as of 15 December 2015* (IM Determination).

Practical Constraints – limitations, such as imperfect information, and thinness of markets, that may prevent the Pricing Principles from applying in their purest form.

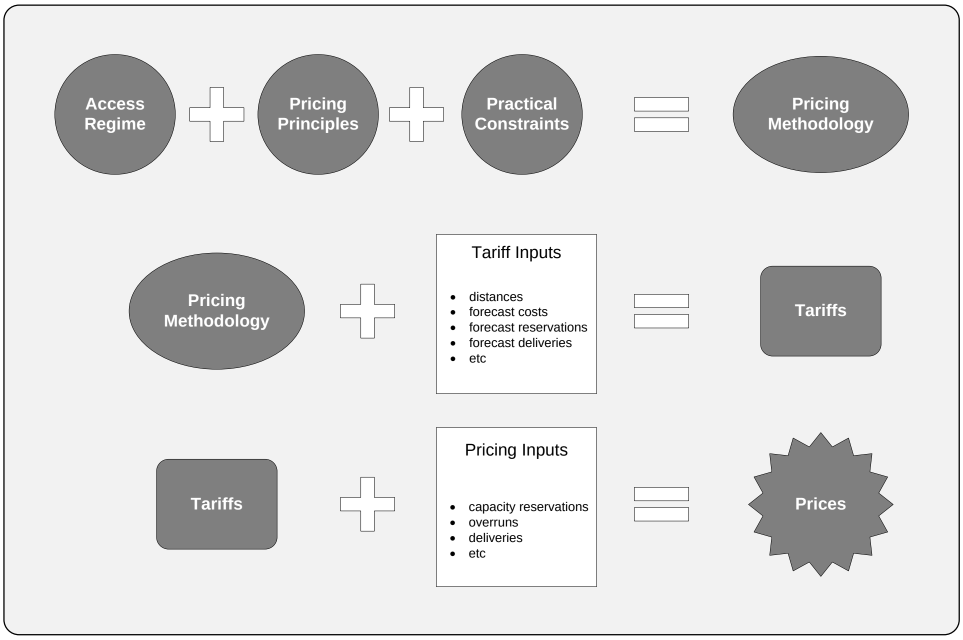
Pricing Methodology – a description of how tariffs will be derived.[1] The methodology is designed to price the services defined in the access regime to achieve the Pricing Principles as far as is practical, given the Practical Constraints.

[1] The Commerce Act defines pricing methodologies as methodologies for setting the prices of individual goods or services, or classes of goods or services, and includes methodologies for setting different prices for different customer groups (s52(c)). s2.4.1 of the ID Determination requires that the GTB's pricing methodology describes how prices are calculated, describes any changes in prices and target revenues, explains the approach taken with respect to pricing in non-standard contracts; and how they may reflect the views of users.

Tariffs – the fees that apply for use of the transmission system, expressed in such units as $/GJ, $/GJ.Km, and $/GJ.MDQ. Tariffs are calculated using the Pricing Methodology and the various inputs such as distances, forecast costs, forecast reservations and forecast deliveries.

Prices – the amounts charged for using the transmission system. Prices are calculated by applying the Tariffs to whatever measures are being charged for, such as capacity reservations, overruns, and deliveries.

The illustration below shows our conception of how the elements of pricing fit together.



1. Current Arrangements

1.1 Commerce Commission requirements regarding pricing methodologies

Under Part 4 of the Commerce Act, the Commission is required to regulate the transportation of gas by pipeline, where gas pipeline services are provided. In order to implement regulation, the Commerce Act requires that the Commission develop input methodologies. These are the upfront rules and processes that must be applied by the Commission when specifying how regulation applies to suppliers of regulated goods or services.[2]

The input methodologies are required by the Commerce Act to include Pricing Methodologies, '…except where another industry regulator (such as the Electricity Authority) has the power to set pricing methodologies' (see Commerce Act s52T(1)(b)).

The IM Determination includes rules relating to Pricing Methodologies, for information disclosure regulation, and for price-quality regulation where a customised price-quality path is set.

The Commission's Gas Transmission Information Disclosure Determination 2012 (ID Determination) requires each regulated gas transmission business (GTB) to:

(a) disclose aspects of its Pricing Methodology; and

(b) explain whether their Pricing Methodology is consistent with the following Pricing Principles specified in s2.5.2 of the IM Determination:

2.5.2 Pricing principles

1. Prices are to signal the economic costs of service provision, by –

   (a) being subsidy free, that is, equal to or greater than the 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.

   (Pricing Principle 1)

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.

   (Pricing Principle 2)

3. Provided that prices satisfy 1 above, prices are responsive to the requirements and circumstances of consumers in order to –

[2] Current s52P regulation under the Commerce Act includes information disclosure regulation and price-quality regulation. Although provided for in the Commerce Act, negotiate/arbitrate regulation does not yet apply to any regulated goods or services.

(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.

(Pricing Principle 3)

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

However, there is no requirement for GTBs to comply with those Pricing Principles (except in certain circumstances that relate to customised price-paths where the Commission will determine a pricing methodology that is consistent with the Pricing Principles). The Commission's approach is explained in its *Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper*, dated December 2010:

(a) the Commission's approach was an intermediate one (somewhere between only requiring disclosure and mandating a detailed pricing methodology);

(b) the approach was consistent with overseas practice, which was generally to set Pricing Principles under which suppliers must develop pricing methodologies;

(c) given the lack of information necessary to set efficient prices, the net benefit of setting prescriptive pricing methodologies was likely to be small; and

(d) GTBs supported a principles based approach whereby they had flexibility in setting their pricing methodologies.

The Pricing Principles were drawn from the Gas Authorisations for Vector and PowerCo that were developed before the input methodologies.

The Commission is currently reviewing the input methodologies. Its draft decision on the input methodologies that apply to GTBs (released on 22 June 2016) proposes that the requirements relating to Pricing Methodologies remain unchanged, but that a 'pure' revenue cap and revenue wash-up mechanism be introduced to remove barriers to GTBs offering more innovative tariffs.[3]

1.2 Current approach under the MPOC

The MPOC incorporates a number of 'Tariff Principles' that predate the Commission's Pricing Principles (the former have been in the MPOC since it was established in 2005). The MPOC Principles lay out how Tariffs will be set to recover capital and operating costs, and therefore are better described as a Pricing Methodology. In essence:

(a) the cost and return of capital is recovered through Tariff 1, a $/GJ.Km price each Shipper is charged based on the quantities of gas delivered to each shipper from the Maui Pipeline multiplied by the distance that gas was transported; and

(b) the operating cost is recovered through Tariff 2, a $/GJ price each Shipper is charged based on the amount of gas delivered to that Shipper from the Maui pipeline.

MDL's most recent disclosure of its Pricing Methodology for transmission services identifies several inconsistencies with the Commission's Pricing Principles (MDL considers that its prices are inconsistent with Pricing Principles 1 to 3). MDL considers that this inconsistency is due to its

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[3] See in particular, *Input Methodologies review draft decisions: Report on the IM review*, 22 June 2016, para 432.

Pricing Methodology being constrained by the MPOC and its revenue being constrained by the MPOC and regulation.

1.3 Current approach under the VTC

The Pricing Methodology underlying the VTC allocates costs on the basis of aggregating delivery points into pricing regions. Costs are defined as 'Connection Costs' (costs directly attributable to a delivery point or a pricing region) and 'Shared Costs' (the balance of Vector's total revenue).

The VTC sets out the components of Vector's transmission Tariffs:

(a) Capacity Reservation Fees, $/GJ of reserved capacity prices each Shipper is charged based on its annual reservations of capacity between receipt points and delivery points;

(b) Overrun Fee, $/GJ prices each Shipper is charged on any amounts it transports in excess of each of its reserved capacity; and

(c) A Throughput Fee, a $/GJ price each Shipper is charged based on the amount of gas delivered to that Shipper from the Vector pipeline.

In addition, and unlike the MPOC, the VTC allows for bespoke Tariffs as part of individually negotiated 'Supplementary Agreements'. Elements of these Supplementary Agreements need to be disclosed under the ID Determination, but not the price-related terms.

The majority of Vector's revenue under the VTC (over 90%) is recovered by the Capacity Reservation Fee and other capacity related fees.

In relation to the Pricing Principles, Vector's most recent disclosure[4] is unable to demonstrate that in all cases prices are greater than incremental cost (Pricing Principle 1). There are a number of connection points were prices are less than incremental cost. Vector also notes the difficulty in ensuring that, in the event of under recovery based on incremental cost, prices are set in a manner that has regard to consumers' demand responsiveness (Pricing Principle 2). This is due to the difficulty in determining individual consumers' demand responsiveness. However, it considers that it complies with the 'intent' of Pricing Principle 2.

[4] Pricing Methodology for Gas Transmission Services Effective from 1 October 2015. Available at: https://vector.co.nz/documents/101943/102864/2016+Gas+Transmission+Pricing+Methodology.pdf/230dc139-6658-4411-9082-391bd38b84d0

2. Statutory Roles/Powers

2.1 Applicable legislation

2.1.1 Commerce Act

Providers of gas pipeline services are subject to regulation under Part 4 of the Commerce Act 1986, which include price and quality regulation. The main components of the Commission's power to regulate price and quality are the ability to set:

(a) The maximum prices[5] (or revenues) that may be charged by a regulated supplier during a regulatory period;

(b) the maximum revenues that may be recovered by a regulated supplier during a regulatory period; and

(c) minimum quality standards that must be met when the gas pipeline services are provided.

In the case of default price-quality regulation, the price-quality paths must include the starting prices that apply, the rate(s) of change in prices that are allowed, and the quality standards that apply.

As discussed earlier, the Commerce Act also provides for the Commission to require information disclosure under s55C of the Commerce Act. The purpose of such regulation is to ensure that sufficient information is made available for interested persons to assess whether the purpose of Part 4 of the Commerce Act (the long-term benefit of consumers) is being met. Prices, terms and conditions relating to prices and Pricing Methodologies are among the matters that may be subject to information disclosure. The current information disclosure regulation is the ID Determination.

2.1.2 Gas Act

Under Part 4A of the Gas Act 1992, Gas Industry Co (as the 'Industry Body') has the power to recommend regulations for specific purposes, including in relation to the wholesale market, processing facilities, and transmission and distribution of gas. The purposes for which Gas Industry Co can recommend regulations that are likely to be most relevant for the Commission's powers in relation to gas transmission are:

(a) prescribing reasonable terms and conditions for access to and use of transmission or distribution pipelines; and

(b) requiring expansions, upgrades or service quality improvements to gas transmission pipelines, including specifying how these will be paid for.

The focus of this paper is on (a) above. For a discussion of (b), see Gas Industry Co's Gas Transmission Security and Reliability Issues Paper (April 2016) at http://gasindustry.co.nz/work-programmes/pipeline-security-and-reliability/gas-transmission-security-and-reliablity-issues-paper/

[5] Where Part 4 of the Commerce Act refers to "price", this includes individual prices, aggregate prices, revenues and related terms of payment.

When exercising its power to recommend regulations, Gas Industry Co's principal objective is to ensure that gas is delivered in a safe, efficient, environmentally sustainable, fair and reliable manner.[6]. There are also a number of other objectives which include:

(a) the facilitation and promotion of the ongoing supply of gas to meet New Zealand's energy needs by providing access to essential infrastructure and competitive market arrangements;

(b) barriers to competition in the gas industry are minimised;

(c) incentives for investment in gas processing facilities, transmission, and distribution are maintained or enhanced; and

(d) delivered gas costs and prices are subject to sustained downward pressure.

Gas Industry Co is also required to have regard to the objectives and outcomes set by the Minister. These are set out in the Government Policy Statement (GPS). Relevant objectives and outcomes are:

(a) energy and other resources used to deliver gas to consumers are used efficiently;

(b) competition is facilitated in upstream and downstream gas markets by minimising barriers to access to essential infrastructure to the long-term benefit of end users;

(c) the full costs of producing and transporting gas are signalled to consumers; and

(d) the quality of gas services where those services include a trade-off between quality and price, as far as possible, reflect customers' preferences.

2.2 Comparison between powers in relation to electricity and gas transmission pricing

s52T of the Commerce Act, which specifies matters to be covered by the Commission's input methodologies, includes Pricing Methodologies. There is a specific exception for Pricing Methodologies from input methodologies where another industry regulator has the power to set Pricing Methodologies. The Electricity Authority is referenced as an example; Gas Industry Co is not.

The Electricity Industry Act 2010 gives the Electricity Authority broad powers to create regulations (the Electricity Industry Participation Code 2010) in relation to the electricity industry, but specifically prohibits the Authority from regulating anything that the Commission is authorised to regulate under Parts 3 or 4 of the Commerce Act, with the exception of Pricing Methodologies for the transmission owner and distributors. In contrast, Gas Industry Co can only recommend regulations and Gas Industry Co has no specific power regarding transmission or distribution Pricing Methodologies.

2.3 Summary on pricing powers

In summary, the Commission has an explicit power to set prices and quality standards in relation to GTBs, and has the power to set Pricing Methodologies. Gas Industry Co has only a general power to recommend gas governance regulations under the Gas Act prescribing reasonable terms and conditions for access to and use of transmission pipelines. Unlike the Electricity Authority, there is no carve-out from the Commission's powers for Gas Industry Co to set Pricing Methodologies.

[6] "Environmentally sustainable" and "fair" are not objectives found in the Gas Act, but they are in the GPS and the industry body is required to have regard to those objectives in the GPS when making any recommendation for gas governance regulations.

There remains potential for overlap between the considerations/actions of the Commission and Gas Industry Co. The following sections of this paper consider how the legislation deals with such overlaps and then considers how pricing matters may unfold in the context of developing a new transmission code.

2.4 Alignment of activities

s55I of the Commerce Act requires Gas Industry Co to advise the Commission as soon as practicable after Gas Industry Co exercises its powers that are likely to be relevant for the Commission's powers under Part 4 of the Commerce Act. That section also requires the Commission to take the following into account when exercising its powers:

(a) any gas governance regulation or rule under Part 4A of the Gas Act and any decision (including a decision by Gas Industry Co) under those regulations or rules that relates to or affects quality standards or pricing methodologies applicable to a pipeline owner;

(b) any guidelines issued by Gas Industry Co that are likely to be relevant to the powers of the Commission under Part 4 of the Commerce Act; and

(c) any levy payable by the pipeline owner under the Gas Act.

s55I of the Commerce Act also requires the Commission to reconsider any determination made by the Commission under s52P, including price-quality determinations, if Gas Industry Co asks it to do so, in order to take account of any of the matters referred to in (a) to (c) above.

The Minister of Energy and Resources also has an obligation, under s43O of the Gas Act, to notify the Commission of a recommendation for a gas governance regulation that is likely to affect any powers of the Commission under Part 4 of the Commerce Act.

Unlike the Commission, which has an obligation to take into account the gas governance framework, there is no specific requirement for Gas Industry Co to consider the Commission's determinations regarding price and quality when making a recommendation for gas governance regulations or rules or a decision in respect of those regulations or rules. However, when undertaking an analysis of the need for gas governance regulations or rules, Gas Industry Co is required to consider a number of matters, including other options for achieving the effect of the regulation and whether the objective of the regulation could be achieved by other means. In effect, this means that Gas Industry Co must consider whether regulation by the Commission is the most appropriate means for achieving the objective of the proposed gas governance regulations.

The aim is to avoid conflict between Gas Industry Co's powers under the Gas Act and the Commission's powers under the Commerce Act.

Gas Industry Co and the Commission have previously recognised the potential for each party's regulatory decision making to impact the other, and in August 2011 the parties signed a *Memorandum of Understanding*. The Memorandum of Understanding specifies how Gas Industry Co and the Commission will work together to ensure that their respective roles are well coordinated, including by regular meetings and information sharing. Both Gas Industry Co and the Commission have given effect to this memorandum of understanding through regular engagement on aspects of their respective work programmes.

3. Pricing in relation to a new transmission code

Gas Industry Co has managed a project over several years aimed, amongst other things, at more efficient code-based transmission access and pricing arrangements – the Gas Transmission Investment Project (GTIP). The 'investment' reference reflects earlier concerns that new investment might have been required to avoid significant congestion in supply to the Auckland area. With the recent closure of the two Auckland gas-fired power stations, this concern diminished, and the focus of the GTIP turned to achieving more efficient transmission access arrangements through 'code convergence'. With the purchase of the two transmission systems by First Gas, the goal is better described as one of replacing the MPOC and VTC with a single new transmission code.

Gas Industry Co will continue to play a leading role in the process of developing a new transmission access arrangements. In particular, by:

(a) upholding the Gas Act principles, as previous GTIP work had done, and promoting that work where it remains relevant to a new framework for access and pricing; and

(b) recommending regulation of 'terms and conditions of access' to transmission pipelines if a new code cannot be agreed between the transmission system owner and its customers.

While it can be anticipated that First Gas will bring fresh ideas, we expect that a new transmission code would include the following basic features:

(a) a primary mechanism for allocating transmission capacity – the current codes are different shades of 'contract' and 'common' carriage; a new transmission code will specify a single regime;

(b) secondary mechanism/s for allocating capacity, for example when capacity is congested/scarce;

(c) a nominations regime; and

(d) pricing arrangements, including:

    (i) a cost allocation to determine standard/'posted' prices;

    (ii) an auction or similar pricing of scarce capacity;

    (iii) scope for negotiation of other 'non-standard' pricing agreements; and

    (iv) process requirements for consultation on proposed pricing changes, disclosure of prices, etc.

Each of these matters will need to be fully explored and debated by stakeholders. This may lead to consensus, but there may also be one or more unsatisfied stakeholders who challenge aspects of any proposed change. If agreement cannot be reached, a regulated solution may be necessary. In that eventuality, it may be relevant that, as noted above, the Commission has an express power to set prices, while Gas Industry Co does not. It may further be relevant to note that although subpart 5 of Part 4 of the Commerce Act provides for negotiate/arbitrate regulation to facilitate agreement between a supplier and its customers on pricing and quality standards, gas pipeline services are not subject to this form of regulation.

4. Summary and Conclusions

4.1 Current transmission access and pricing arrangements

Currently, different Pricing Methodologies apply to services provided under the MPOC and the VTC. Neither Pricing Methodology is regulated, nor is price per se regulated (since a revenue cap applies), but the Commission's ID Determination requires Pricing Methodologies to be disclosed, including demonstrating how they are consistent with the Commission's prescribed Pricing Principles.

4.2 Regulatory powers in relation to transmission access and pricing

The Commission has an explicit power to set maximum prices/revenues and quality standards in relation to a GTB, and to set a Pricing Methodology in its input methodologies. Gas Industry Co has only a general power to recommend gas governance regulations under the Gas Act prescribing reasonable terms and conditions for access to and use of transmission pipelines. There is no carve-out from the Commission's powers for Gas Industry Co to set Pricing Methodologies, as there is for the Electricity Authority in respect of electricity transmission.

4.3 Future transmission access and pricing arrangements

At this stage Gas Industry Co and First Gas envisage a future where the common terms of access to all open access transmission pipelines are contained in a single code with a matching single Pricing Methodology. The new code will contain provisions that allow for the efficient allocation of capacity when congestion occurs, possibly through capacity auctions. These arrangements will need to comply with the Commission's Part 4 price-quality regulation, which is likely to apply a 'pure revenue cap'.

Gas Industry Co believes that First Gas is keen to engage stakeholders in discussions about new access arrangements, including Pricing Methodology. However, there is potential for new arrangements to lead to 'winners and losers', making them difficult to establish through industry consensus. If agreement on new arrangements cannot be reached, it is possible that some regulation may be required.

As the Industry Body under the Gas Act, Gas Industry Co is best placed to work with stakeholders to develop new terms of access. As the economic regulator, the Commission is best placed to regulate the Pricing Methodology and/or prices, if that becomes necessary. The two organisations will continue to work closely together to avoid potential 'regulatory conflict' on these matters

Glossary

Access Regime	The arrangements for using the transmission system, including such components as service definition, capacity reservations, nominations, balancing, metering, and reconciliation.
Commission	The Commerce Commission.
GTB	Gas Transmission Business, defined by the IM Determination as a '…supplier of gas transmission services'.
ID Determination	The Commission's Gas Transmission Services Information Disclosure Determination 2012, NZCC 24, and the 2015 amendments to these, NZCC 8, as consolidated in 2015.
IM Determination	The Commission's Gas Transmission Services Input Methodologies Determination 2012 consolidating all amendments as of 15 December 2015.
input methodology	s52C of the Commerce Act defines an input methodology as '… a description of any methodology, process, rule, or matter that includes any of the matters listed in section 52T and that is published by the Commission under section 52W; and, in relation to particular goods or services, means any input methodology, or all input methodologies, that relate to the supply, or to suppliers, of those goods or services'.
MPOC	The Maui Pipeline Operating Code, that sets out the multi-lateral terms of access to the Maui transmission pipeline.

Price-Quality Determination	The Commerce Commission's Gas Transmission Services Default Price Quality Path Determination 2013, NZCC 6, as amended from time to time.
Pricing Methodology	A description of how tariffs will be derived. The methodology is designed to price the services defined in the access regime to achieve the Pricing Principles as far as is practical, given the Practical Constraints.
Pricing Principles	The tenets of economically efficient prices, as set out in s2.5.2 of the IM Determination.
Shipper	A pipeline user that has contracted with the GTB to transport gas on the GTB's pipeline.
Tariffs	The fees that apply for use of the transmission system, expressed in such units as \$/GJ, \$/GJ.Km, and \$/GJ.MDQ. Tariffs are calculated using the Pricing Methodology and the various inputs such as distances, forecast costs, forecast reservations and forecast deliveries.
VTC	The Vector Transmission Code, that sets out the multi-lateral terms of access to the Vector transmission pipeline.

ABOUT GAS INDUSTRY CO.

Gas Industry Co is the gas industry body and co-regulator under the Gas Act. Its role is to:

- develop arrangements, including regulations where appropriate, which improve
  - the operation of gas markets;
  - access to infrastructure; and
  - consumer outcomes;
- develop these arrangements with the principal objective to ensure that gas is delivered to existing and new customers in a safe, efficient, reliable, fair and environmentally sustainable manner; and
- oversee compliance with, and review such arrangements.

Gas Industry Co is required to have regard to the Government's policy objectives for the gas sector, and to report on the achievement of those objectives and on the state of the New Zealand gas industry.

Gas Industry Co's corporate strategy is to 'optimise the contribution of gas to New Zealand'.

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