



Understanding the Open Access Regime

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Abstract

The paper commences with an outline of the access regulation regime for utilities in New Zealand and its public policy objectives. It then focuses on the regime for gas utilities and outlines the principles of the Gas Pipeline Access Code being developed by Gas House (a gas industry organisation) for gas industry self-regulation and Natural Gas Corporation's (NGC) regime for access to its gas pipeline network.

Introduction

New Zealand's approach to the access regulation regime is called "light-handed" regulation. It follows consideration of other alternative regulatory options such as introducing an industry specific regulator, a specific regulatory regime for essential services, or structurally separating out the local access business. Instead, recognising the theoretical and practical drawbacks of extensive regulatory intervention, the New Zealand Government has opted for a regime that is generic to all natural monopoly industries, yielded relatively "light-handed" regulatory restraints on the monopolist and relied, for enforcement, upon private legal actions together with a generic competition law enforcement body (the Commerce Commission). In addition, the Government has explicitly left open the possibility of more extensive and interventionist regulation should the need arise (see *Regulation of Access to Vertically Integrated Natural Monopolies: A Discussion Paper*, published by the Ministry of Commerce and the Treasury August 1995).

Access to networks has been described as the "main regulatory problem" (*The Regulator's Perspective: Monitoring Utility Sector Competition*, a paper by Dr Alan Bollard, Chairman of the Commerce Commission, 1997 Utility Markets Conference, 24 September 1997). The problem is posed by those utilities where access to an incumbent's network is necessary for new entrants to compete in the provision of upstream or downstream services, for example, telecommunications, electricity and natural gas reticulation. Such firms have an obvious incentive to preserve their monopoly power and profit by hindering access, either by an outright refusal to supply, or by setting an access price high enough to render entry unattractive. A further group of utilities, while natural monopoly facilities, are not vertically integrated. These include electricity transmission, ports, airports, water and roads. These utilities may have the horizontal market power to extract excess profits.

"Light-Handed" Regulation

The "light-handed" approach to the regulation of such utilities starts with the recognition that not all parts of an incumbent's business are natural monopolies. The essential aim is to encourage competition in those related markets where entry is possible, and to ensure that entrants into those markets are not deterred by the market power of the integrated incumbent in the essential facilities services market.

The four main components which make up the "light-handed" regulatory regime are as follows:

- The natural monopoly and contestable elements of the incumbent firm's business are separated by accounting "ring-fencing" for information disclosure purposes. As will be seen, this may, in the future, be supplemented by ensuring that the natural monopoly and contestable businesses are split and held by separate legal entities;
- Reliance is placed on general competition law as enacted by the Commerce Act 1986. Under section 36 of this Act, dominant firms must not seek to deter or to eliminate actual or potential competitors;
- Industry specific regulations require the disclosure of information designed to make transparent the operations of the companies which hold the natural monopoly facilities; and
- Stronger regulatory intervention is threatened through the provision for the introduction of price control under Part IV of the Commerce Act 1986 or other forms of regulation (see *Regulation of Access to Vertically Integrated Natural Monopolies*, supra, page 21 and *A Regulator's Perspective: Monitoring Utility Sector Competition*, supra, page 6).

The Commerce Commission's Approach

The Commerce Commission is responsible for the enforcement of the Commerce Act 1986 and has jurisdiction under Part IV of the Act to advise the Minister of Commerce whether there is insufficient competition in a market so as to justify regulatory intervention.

The Commerce Commission's approach has been to give utilities a breathing space to become familiar with the light-handed regulatory regime. In September 1997, the Commerce Commission signalled quite clearly that it considers that this "honeymoon period" has to come to an end and is taking enforcement action against several utilities as necessary (see *A Regulator's Perspective: Monitoring Utility Sector Competition*, supra, page 6).

Other Sectors

Before turning to the gas sector, it is helpful to consider the access regulatory regime in the telecommunication and electricity sectors.

In the telecommunication sector, the Commerce Act 1986 is reinforced by the Telecommunications (Disclosure) Regulations 1990. These Regulations require Telecom to provide details of pricing of load access related services (for example, interconnection agreements), any substantial discounts offered, and the financial accounts for local access related activities.

The telecommunications access regime has achieved significant profile because of disputes in relation to interconnection agreement prices and conditions, with access by Clear to the local telephone network of Telecom being the subject of extensive litigation. Telecom proposed terms based upon the "Baumol-Willig" rule which asserts that monopolists are entitled to provide services to competitors at the same price they implicitly charge themselves, including monopoly profits. Clear argued that the Baumol-Willig rule was contrary to section 36, Commerce Act 1986. The rule was rejected by the New Zealand High Court, rejected by the New Zealand Court of Appeal, and in 1994 approved by the Privy Council. After a lengthy review of the implications of the case by officials (see *Regulation of Access to Vertically Integrated Natural Monopolies, A Discussion Paper*, supra), the Government issued a statement indicating that it would not wish to see the Baumol-Willig rule applied in the future on the grounds that it would be injurious to competition.

In the electricity sector, the Commerce Act 1986 is reinforced by the Electricity Act 1992 (which repealed local monopoly franchise areas) and the Electricity (Information Disclosure) Regulations 1994 (which introduced the disclosure requirements for firms in the electricity sector). Local electricity supply companies must publicly disclose separate accounting information on their generation, distribution and other activities. The information includes prices, line charges to all consumers and contract provisions. They are required to disclose information on costs and revenues by load group, separate financial statements from line owners and generation, distribution and other activities; and financial and other performance measures for the distribution businesses, with assets valued at the optimised deprival values.

Some shortcomings have emerged. For example:

- the ability to make inter-firm performance comparisons is hindered by the diversity of power companies;
- there is flexibility within the regulations for companies both to define their businesses and to allocate assets and costs between them;
- there is an insufficiently clear boundary between distribution and retailing activities.

The regulations are, therefore, subject to review by Ministry of Commerce officials. Indeed, the Minister of Energy has made it quite clear that further regulation will require power companies to have their natural monopoly distribution businesses and their contestable energy retail businesses held by separate corporate entities. Furthermore, the Minister of Energy, Max Bradford, has been vocal in emphasising the possibility of interventionist regulation to combat increased domestic electricity prices:

"... if the industry is assuming that the Government will not exercise its price control powers under the Commerce Act where there is obvious abuse, the industry is badly mistaken".

See address by Max Bradford, Minister of Energy, to the Barclays de Zoet e Wedd Securities Inc (BZW) Energy Sector Conference, 20 August 1997. Source: New Zealand Executive Government Speak Archive. For a general discussion on this topic, see *Legal Issues and Regulation of Utilities in New Zealand*, Bryan Gundersen and Tanya Thomson, 1997 Utility Markets Conference, 24 September 1997.

Gas Sector

In the gas sector, the Commerce Act 1986 is reinforced by the Gas Act 1992 (which repealed monopoly franchise areas) and the Gas (Information Disclosure) Regulations 1997 which are similar to the Electricity (Information Disclosure) Regulations 1994 in that they require separate financial statements for the transmission, wholesale, distribution and retail businesses; disclosure of contract prices, terms and conditions; publication of financial, efficiency and reliability performance measures, pipeline capacity information and line charges by distributors/retailers.

Information required by the Regulations has yet to be disclosed. Therefore, the jury is out as to whether they suffer the same or similar shortcomings of the Electricity (Information Disclosure) Regulations 1994. Participants in the gas sector have been warned that the information disclosed will be reviewed by the Commerce Commission (see *A Regulator's Perspective: Monitoring Utility Sector Companies*, supra, page 14).

However, the real point of interest and the focus of the paper are developments in the gas sector designed to introduce self-regulation of access to gas pipeline systems. First, the paper focuses on the Pipeline Access Code which is being developed by Gas House. Secondly, the paper focuses on NGC's regime for access to its own pipeline network. This should permit an understanding of the access regulatory regime for the transmission of gas in New Zealand.

This has to be seen in the context that the gas sector has and is responding to the Commerce Commission's view that NGC's wholesale gas supply contracts, put in place when gas utilities had monopoly franchise areas, contained restrictive provisions which were "likely" to breach the Commerce Act 1986 (see *A Regulator's Perspective: Monitoring Utility Sector Competition*, supra, page 13). The development of new gas supply contracts has, in my view, been essential to avoid formal action by the Commerce Commission and provides a base for operation of the access regime for gas pipeline networks in New Zealand.

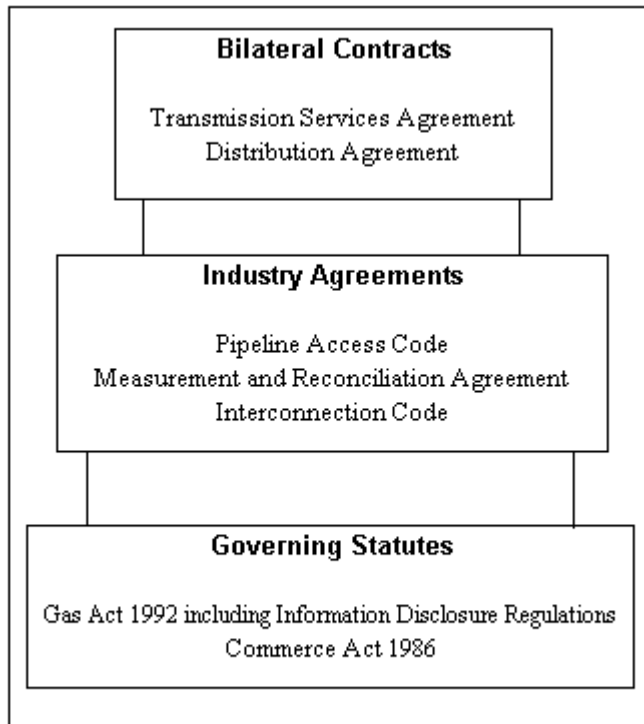
Pipeline Access Code

The Pipeline Access Code is being developed by Gas House, an industry organisation (the objective of which is to provide mechanisms for the establishment and ongoing operation of an open and competitive gas market in New Zealand).

The Pipeline Access Code describes itself as a "voluntary agreement which provides clear procedures for pipeline access and an agreed basis for negotiation of transport contracts". The Code's stated objective is to promote the development of a competitive gas market by establishing appropriate standards of conduct for owners and users of gas pipelines to allow non-discriminatory access to the gas pipelines. The Code is one of three industry Codes which Gas House envisages will provide the framework for industry self-regulation, see the following diagram.

The Pipeline Access Code is still under development, but the scheme of the Code (which is unlikely to change in substance) is as follows:

- A pipeline owner must comply with specified standards of conduct which are designed to ensure that any bona fide user of that owner's pipeline system can have access on a non-discriminatory basis;
- A pipeline owner must ring-fence its transmission business. First, it must provide access to the pipeline system to its own gas distribution/retail business on the same terms as it provides access to other users. Secondly, it must put in place arrangements to ensure that information required from the users is not available to its own gas distribution/retail business;



- A pipeline owner must provide a minimum service of access to all available capacity on a "firm service" basis and on a "demand service" basis unless the absence of either is explained in the Information Memorandum (see below). A "firm service" is a continuous transport over a defined period of time up to a reserved level. An "on demand service" is transport provided on a day-to-day basis subject to clearance by the owner;
- A pipeline owner must provide access to its pipeline system on a non-discriminatory basis. However, the Code does not attempt to determine price levels;
- Each price owner must make available an Information Memorandum which contains:
 1. Details of the pipeline system including system capacity;
 2. A statement of the services offered;
 3. The gas specification;
 4. Prudential requirements;
 5. Administration charges;
 6. Measurement and reconciliation arrangements; and
 7. An agreement for transmission services over the pipeline system;
- The Information Memorandum must also set out the following:
 1. Standard prices;
 2. The methodologies used to determine the prices (or at least reference to from where the information can be obtained);
 3. Financial statements relating to the gas transmission business (or at least a reference to from where the information can be obtained);
 4. Definition of any limits of service;
 5. A description of the form of any capacity entitlement (in particular, the ability to trade the rights held under the entitlements to other parties in a secondary market);
 6. The information which an applicant requesting access must provide to the pipeline owner; and
 7. Procedures for determining the priority for applications for access to the pipeline system;
- Each application received by an owner for access has to be processed in accordance with the procedures set out in the Information Memorandum or, if there is no Information Memorandum, in accordance with the procedures set out in the Code;
- Disputes are managed by an Administration Committee which manages a mediation process (the rules of which are prescribed by the Code) and, if mediation is unsuccessful, by arbitration (and some rules as to the arbitration are, again, prescribed by the Code); and
- The Administration Committee is to comprise representatives of various interests in the gas sector and has the task of monitoring the effectiveness of the Code, proposing amendments, managing the dispute resolution process and promoting the Code as an effective access regime.
- It is clear that some work on the Code remains to be done. For example:

- The status of the Code is not self-evident. It is described as a "voluntary agreement", is to be signed by pipeline owners and contains mandatory obligations. This implies that acceptance of the Code is voluntary but once accepted, it is contractually binding. This intent (if, indeed, it is the intent) and the process needs to be addressed. Clearly, the legal status of the Code and the process by which pipeline owners become party to the Code must be unambiguous;
- If the Code has contractual status, or even as an arrangement or understanding, then its status in terms of sections 27 and 36, Commerce Act 1986, must be determined. The purpose of the Code is clearly not anti-competitive, but its effect on gas wholesale and retail markets will need to be considered once the terms of the Code are finalised; and
- The governance of the Code (in particular, the composition and role of the Administration Committee) needs to be reviewed to ensure its effectiveness and that the cost of the administration of the Code is minimised which, if it is to be entered into by pipeline owners voluntarily, is essential to its success.

Notwithstanding that some work remains to be done, the Code is unique in the access regulation regime. While participants in the electricity sector have been able to establish an electricity wholesale market (the New Zealand Electricity Market administered by Electricity Market Company Limited pursuant to the New Zealand Electricity Market Rules) and to put in place a Metering and Reconciliation Agreement so as to promote competition at the wholesale level, the electricity sector participants have not even attempted to self-regulate for an open and non-discriminatory access to each other's electricity distribution networks. Indeed, it is this area which has excited the Commerce Commission's interest (resulting in legal proceedings by the Commission against the Christchurch electricity distributor, Southpower, for alleged breaches of the Commerce Act 1986).

Nevertheless, the Pipeline Access Code must be put in perspective. It is designed to provide a process by which pipeline owners present before gas sector participants their terms of access to their pipeline systems, rather than to determine the terms of access. In practical terms, access to gas transmission is determined by the terms of access to NGC's pipeline system.

NG's Access Regime

NGC is dominant in the New Zealand national gas transmission market being the owner of high pressure transmission pipelines throughout the North Island and the operator of the high pressure Maui gas pipeline owned by the owners of the Maui gas field (there being no gas transmission pipelines in the South Island). NGC has issued a "July 1996 Information Memorandum" as contemplated by the Pipeline Access Code. This is an updated guide for access to NGC's high pressure gas pipeline system. It replaces NGC's "July 1994 Transmission Services Pricing Methodology" and it is understood that it is presently under review. The Information Memorandum contains three documents:

- "*How to Access the Transmission System*" being a guide to the transportation of gas through NGC's gas pipeline system. It sets out the basic concepts on which the access regime is based, explains how to reserve and transfer capacity and illustrates how prices are applied utilising NGC's 1996/97 Transmission Price Schedule;
- "*Transmission Pricing Methodology and Current Issues*" being a description of the price setting rationale and cost allocation method together with a discussion of issues of concern to users; and
- "*Transmission Services Agreement*" being the terms and conditions of the agreement between NGC and a user for access to the gas pipeline system.

As this documentation is freely available from NGC, this paper only summarises the main points of NGC's access regime.

In relation to access, the main points are:

- NGC's access regime enables users to purchase (reserve) annual blocks of system capacity with a right of first refusal for the same capacity the next year. However, there is a procedure where a user can reserve capacity for up to five years if the user anticipates growing demand. If the user reserves for the five years, the contractual rights/obligations cover the first three years only, with the last two years being indicative of the users requirements, but the users can each roll forward its five year reservations, thus always obtaining certainty for three years;
- Capacity is the entitlement to have specified quantities of gas transported from nominated receipt points to nominated delivery points;
- Once purchased, capacity blocks are divisible into any number of secondary blocks from one day to one year's duration;
- A user may trade any secondary blocks of capacity to other users at freely negotiated prices. The access regime is designed to enable and encourage an active secondary market in capacity trading;
- Capacity can be transferred throughout the system from any one receipt point/delivery point combination to any other, subject only to physical system constraints;
- Overrun arrangements provide for the purchase of capacity in excess of reserved capacity;
- It provides for a dispute resolution procedure which is designed to enable NGC and the user to lock onto the Pipeline Access Code procedure, any other alternative procedure agreed by the parties (including mediation or independent expert) and, ultimately, arbitration; and
- Liability of the parties is limited to direct losses subject to a cap of \$5 million for any one event and of \$30 million for any number of events in a 12 month period.

In relation to price, the main points are:

- Asset costs of an optimised transmission system are allocated across all capacity reservations which rely on the use of those assets. These costs are recovered through a fixed Capacity Reservation Charge;
- Other costs, including operating costs and general asset costs, but net of anticipated overrun charges, are allocated across projected energy throughput in the year ahead. These costs are recovered through a variable Throughput Charge;
- Capacity used in excess of reserved capacity is subject to an Overrun Charge; and
- Over time, NGC aims to recover the economic costs of operating and transmission system including a fair return on assets valued according to the Optimal Deprival Value methodology.

By way of example, suppose a user wished to have gas delivered to a factory in Paraparaumu. If that factory was embedded in the low pressure distribution system, the user would require three contracts:

- A wholesale gas sale and purchase contract;
- The transmission services agreement between NGC and the user to transport gas from the receipt point to the Paraparaumu delivery point through NGC's pipeline network; and
- A distribution contract to transport the gas from the Paraparaumu delivery point through the low pressure distribution pipeline network to the factory.

Under the transmission services agreement, the user would purchase an annual block of system capacity in respect of which it would pay the Capacity Reservation Charge. The user may recognise that its projected daily demand will not always meet the reserved capacity, in which case the unused reserved capacity may be sold by the user on the secondary market. The actual demand may, of course, be different from the projected demand and, on occasions, may exceed the reserved capacity, in which case the user would pay the Overrun Charge for capacity used in excess of the reserved capacity. In addition, the Throughput Charge is payable on every GJ of gas delivered at the Paraparaumu delivery point throughout the year.

NGC's access regime holds no surprises. From a pricing point of view, the relevant considerations (at least from my perspective) are:

- A purely economic perspective suggests that NGC should base its prices purely on marginal cost so that users can trade-off the value of the service they obtain against the cost;
- However, as transmission assets have high fixed/sunk costs and significant economies of scale, prices based on marginal costs will be inadequate to meet the owner's revenue requirement for a fair return on its fixed/sunk costs;
- The alternatives, therefore, are:
 1. Uniform pricing involving a mark-up on marginal costs whereby the mark-up is set to meet the revenue requirement;
 2. Use of "Ramsay Pricing" whereby the mark-up on marginal costs is set for different market segments by reference to their "need" and, therefore, "willingness" to pay; or
 3. A two-part tariff where the usage charge reflects the marginal costs and there is a fixed entry or access fee so as to meet the revenue requirement.

Each have their own equity and economic efficiency implications.

As NGC says in the Information Memorandum, use of the two-part tariff is a common means of resolving the "equity-efficiency" dilemma and NGC's price structure (based on a two-part tariff structure) is quite orthodox in this regard.

It requires users to consider the following issues:

- Is NGC's total revenue requirement correct? Are NGC's operating costs equivalent to those of an efficient operator operating in a competitive environment? Is NGC's valuation of its assets (representing its sunk costs) as per the Optimised Deprival Methodology correct? Is NGC's rate of return on those assets (sunk costs) so valued, fair and reasonable?
- Is NGC's allocation of its revenue requirement to obtain a return on its fixed/sunk costs (as per the Optimised Deprival Value methodology) amongst users of the pipeline system, fair and reasonable?

The real test of the Gas (Information Disclosure) Regulations 1997 will be whether the information disclosed permits a proper consideration of these issues.

Author

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