Application of Gas Governance Arrangements to Private Networks

Prepared for

Gas Industry Company Ltd

by

Geoff Bertram

Simon Terry Associates

CONTENTS

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Simon Terry Associates Ltd, 142 Featherston Street, PO Box 24102, Wellington.
Tel. +(64 4) 4998597 sta@actrix.co.nz

1. Introduction

The Gas Industry Company has sought a review by Simon Terry Associates Ltd (STA) of the extent to which gas market governance arrangements ought to apply to "private gas distribution networks". The areas to be covered include

- the Switching and Downstream Reconciliation Rules,
- the Government's policy framework for the gas industry as set out in the Gas Act 1992 and the Government Policy Statement on Gas Governance published in April 2008, and
- the regulatory provisions of the Gas Act 1992 insofar as they apply to a co-regulation regime.

The general view taken to date by the Gas Industry Company in recommending industry rules and regulations has been that irrespective of the type of distribution network to which particular customers are connected, all customers are entitled to the same benefits and protections which gas governance arrangements provide. There are, however, certain features which distinguish private networks from open-access ones, which may affect the appropriate scope of rules and regulations.

A case for exemption of a private network from a rule or regulation can potentially be made if

- the exemption does not significantly limit the effectiveness of the regulatory and governance framework in achieving the objectives which the Gas Industry Co is required to pursue as the co-regulator of the gas industry, while
- resulting in a significant resource saving (from the viewpoint of society at large) and/or the protection of an element of substantial and desired competitive pressure in the downstream retail gas market.

The terms of reference for this study entail

- an overview of the different types of gas distribution networks and the features which distinguish each of the types;

- a set of principles which the Gas Industry Company can use as a filter to establish whether private networks should or should not be covered by a particular set of gas governance arrangements; and
- if appropriate, a methodology to use when applying the principles, together with boundary conditions defining any limits on applicability; together with
- a review of which pipelines ought to be covered by each element of the gas governance arrangements, including in particular the Gas (Switching Arrangements) Rules 2008 and the Gas (Downstream Reconciliation) Rules 2008. Other pending governance arrangements relating to consumer complaints, model contracts, and access terms for distribution networks, are also encompassed within the terms of reference.

No distinction between "private networks" and others appears in the Gas Act, nor in the April 2008 Government Policy Statement on gas industry governance. The detailed regulatory provisions set out in the recently-promulgated Gas (Downstream Reconciliation) Rules 2008 and Gas (Switching Arrangements) Rules 2008 will apply to all "industry participants" (as defined in the Gas Act 1992), including those which are private networks, unless exemptions are recommended by the Gas Industry Company in accordance with the applicable rules. To justify an exemption there would have to be clear evidence of a significant compliance burden, together with no detriments to the effective functioning of the gas market as a whole from giving private networks privileged status with respect to matters such as (e.g.) information disclosure, registry participation, and inclusion in the industry reconciliation and allocation procedures.

Not all private distribution networks are "industry participants" or "gas retailers" in terms of the Gas Act, and this implies *de facto* exemption for some networks from regulations and rules made under the Act. The discussion of types of private network in this report is extended to include those which lie outside the scope of Part 4A of the Act, partly because a wider frame of reference helps to identify grounds on which exemptions are appropriate in principle, and partly because there are potential opportunities for gaming at the boundary between those private networks which are subject to regulation under the Act and those which are not.

Implicit in the terms of reference is that the analysis is directed to certain issues that arise within the regulatory regime of "co-regulation" established by the 2004 amendments to the Gas Act 1992, and does not extend to a more wide-ranging discussion of the extent to which the regulatory regime itself may have given rise to those issues. This relates in particular to the emergence and survival of bypass networks in the New Zealand gas distribution sector. Some of the regulatory arrangements which were discussed as policy options at the outset of industry reform in the early 1990s would have pre-empted facilities duplication, by providing appropriately-designed and -implemented access price regulation. To this extent, the existence of private bypass systems in some cases has been an artefact of Government policy, not of the fundamental economics of gas distribution.

2. Objectives of Regulation

The central issue to be addressed in this report is how to secure fair, efficient, sustainable and competitively-neutral outcomes in an industry where natural monopoly would be the usual market outcome but where, under the industry status quo, private and open-access systems coexist and compete in some market segments.

The Government's April 2008 *Policy Statement on Gas Governance*[1] lays out an extensive set of objectives:

> **Government Policy Objectives for the Gas Industry**
>
> 7. The Gas Act 1992 sets out the principal policy objective for Gas Industry Co., when recommending rules or regulations for wholesale market, processing facilities, transmission, and distribution of gas, as follows:
>
> *"To ensure that gas delivered to existing and new customers in a safe, efficient, and reliable manner."*
>
> 8. It is the Government's objective that when recommending rules, regulations or non-regulatory arrangements Gas Industry Co. applies this policy objective to all its work.
>
> 9. It is also the Government's objective that Gas Industry Co. takes account of fairness and environmental sustainability in all its recommendations. To this end, the Government's objective for the entire gas industry is as follows:
>
> *To ensure that gas is delivered to existing and new customers in a safe, efficient, fair, reliable and environmentally sustainable manner.*
>
> 10. It is against this objective that Gas Industry Co. must have regard when making recommendations for rules, regulations or non-regulatory arrangements for any part of the gas industry and against which it must report.
>
> 11. The Gas Act 1992 also sets out the following other objectives for Gas Industry Co. when recommending rules or regulations for wholesale market, processing facilities, transmission, and distribution of gas:
>
> 1. The facilitation and promotion of the ongoing supply of gas meets New Zealand's energy needs, by providing access to essential infrastructure and competitive market arrangements;
> 2. Barriers to competition in the gas industry are minimised;
> 3. Incentives for investment in gas processing facilities, transmission and distribution, energy efficiency and demand-side management are maintained or enhanced;
> 4. Delivered gas costs and prices are subject to sustained downward pressure;

[1] http://www.med.govt.nz/templates/MultipageDocumentTOC____34497.aspx

5. Risks relating to security of supply, including transport arrangements, are properly and efficiently managed by all parties; and
6. Consistency with the Government's gas safety regime is maintained.

12. It is the Government's intent that these other policy objectives should apply to all Gas Industry Co. recommendations for rules, regulations or non-regulatory arrangements for all parts of the gas industry. In addition, the Government adds the following objectives:

1. Energy and other resources used to deliver gas to consumers are used efficiently;
2. 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;
3. The full costs of producing and transporting gas are signalled to consumers;
4. The quality of gas services where those services include a trade-off between quality and price, as far as possible, reflect customers' preferences; and
5. The gas sector contributes to achieving the Government's climate change objectives as set out in the New Zealand Energy Strategy, or any other document the Minister of Energy may specify from time to time, by minimising gas losses and promoting demand-side management and energy efficiency.

The scope of these objectives is very broad, which places a substantial burden of evidence and argument upon any applicant for exemption from particular rules or regulations. It would not be sufficient, for example, for a private network owner to seek a general exemption from the switching or reconciliation rules simply on grounds of compliance cost and/or private status, unless it could be shown that such an exemption would have no adverse implications on the achievement of the Policy Objectives.

3. Governance Framework

The governance framework for the gas industry is set out in Part 4A of the Gas Act 1992, as amended in 2004. The Gas Industry Company is an industry body approved by Order in Council under s.43ZL of the Act, for the purpose of co-regulation of the industry. In relation to governance arrangements under this institutional option, section 43J provides that the industry body may recommend to the Minister, and the Minister may thereupon recommend to the Governor General, the making of regulations relating to issues set out in the following sections of the Act:

- 43F (wholesale market, processing facilities, transmission, and distribution);
- 43G (a range of issues including retail customer switching, information disclosure, meter access, and consumer contracts);
- 43H (low fixed tariff option);
- 43S (rules and procedures for information disclosure, delegation of responsibilities, maintenance of registries, and "any other matters contemplated by this Act or necessary for its administration or necessary for giving it full effect");
- 43T (providing for offences to be punishable by fines up to $20,000).

Included among the matters on which the industry body may make recommendations to the Minister under s.43S is for rules and regulations providing for the "exemption … of any person or class of persons from all or any of the requirements in regulations or rules made under this subpart" (s.43S(f)). There is a parallel provision in s.43H.3(e) for exemption of gas providers who "materially comply with the objective of this section". Elsewhere in s.43 exemptions are implicitly included in the power to recommend the content of rules and regulations. No specific criteria are provided in the legislation to guide the industry body responsible for recommending exemptions.

4. Types of Distribution Networks: a Taxonomy

For the purposes of this report, a "private network" is defined as a pipeline system owned and operated by, and for the exclusive benefit of, a party or consortium which owns all gas transported on the system. The exclusion of third parties from use of the facility is central to its characterisation as private.

When owned and operated by a gas supplier selling at arm's length to downstream users, a private network is often described as a "merchant pipeline":[2]

> [D]epending on the number of suppliers and clients, and the regulations governing the construction and operation of a gas pipeline, the role of a pipeline can be that of a gas merchant, a hybrid pipeline, or a gas transporter. A 'merchant' pipeline typically buys all the gas at the inlet point, transports it and resells it at outlets to different clients; it does not provide third party access, unless specifically required to do so by law. In the latter case, it becomes a 'hybrid' pipeline. A 'hybrid' pipeline would engage in both gas sale and purchase and gas transportation activities, as well as in any of the associated services….. A 'gas transporter' pipeline does not engage in gas purchase and sale; it only provides the service of transportation and related services (e.g. balancing, storage, swap platform etc) to both upstream and downstream clients.

The New Zealand gas distribution sector contains examples of all three of the above cases. Powerco, for example, operates as a gas transporter; Vector as a hybrid; and Nova Gas as a merchant. In the terminology common in the New Zealand industry, both hybrids and transporters are classed as "open-access networks", and merchant pipelines as "private networks".

Not all private distribution systems are merchant pipelines. The classic natural-monopoly merchant distributor represents only one end of a spectrum of cases which incudes, *inter alia*, the following:

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[2] B. Nitzov, "Prospects for Gas Supply and Demand and their Implication with reference to Transit Countries and their Policy", in *Security of Natural Gas Supply through Transit Countries*, edited by J. Hetland and T. Gochitashvili, Springer, 2004, pp.296-297.

- Direct-supply customers. Large gas users such as electricity generators and large industrial plants sometimes opt to take their gas supply direct from a transmission system, bypassing distribution altogether as a matter of customer choice. Since distribution is by definition the segment of the supply chain that lies between the transmission system and the delivery of gas to a final customer, direct-supply users are in effect internalising the distribution function within the firm rather than turning to a third-party provider. The usual arrangement is for the customer meter to be located at the transmission gate station with the customer's service pipe performing the physical function of moving gas to the location of final use. This is an example of a decision to "make" rather than "buy" a service, which reflects special features of the customer (size, location) that make it cheaper to substitute the customer's own physical connection infrastructure than to rely on distribution facilities owned by another party.

- A consumer cooperative operating its own local network. These are not common in New Zealand but would be typified by, for example, a new housing subdivision with its own self-contained distribution network, connected either to a transmission system or at an ICP[3] to an upstream distribution network. The decision to form such a cooperative is again a make-or-buy choice, made at the level of a group of final gas users and involving the installation and operation of distribution assets that are owned and controlled by the final users through collective management and governance arrangements of some sort. These would need to provide for resolution of reconciliation and balancing issues, and allocation of common costs across cooperative members. The cooperative's single metered ICP would appear in the central Gas Industry Company registry but downstream of that point its affairs would lie outside the regulated arena. The Gas (Switching Arrangements) Rules 2008 and Gas (Downstream Reconciliation) Rules 2008 both define a "consumer installation" in terms which leave this possibility open: "one or more gas installations that have a single point of connection to a distribution system

[3] Installation control point as defined in the Gas (Switching Arrangements) Rules 2008.

or transmission system and for which there is or has previously been a single consumer"[4].

- Merchant distribution pipelines in a competitive market, in which facilities-based competition has produced multiple dense networks offering retail supply at competitive rates to final users. While hypothetically possible, this situation is generally regarded as both unlikely and economically inefficient, given the diseconomies of scale and of scope associated with the duplication of sunk-cost lumpy infrastructure assets.

- A merchant pipeline in a market where competition is limited – for example, a duopoly of two systems. In this case final users are dependent on one or other system for gas delivery but not fully captive to either. Customers will have a choice of more than two retailers only if at least one of the systems provides open access to third party gas suppliers.

- A monopoly merchant network supplying fully captive customers.

All of the above fall under the heading of "private distribution networks", but the competition and regulation implications vary greatly. Analytically, it is useful to take the standpoint of the final acquirer of gas – the consumer, whose interests ought ultimately to be served by any regulatory regime, along with any wider interests of society – and to ask in each case to what extent the consumer is empowered to choose freely among alternative sources of supply and to secure the best possible value for money.

At the direct-supply end of the spectrum of private systems, the customer itself has opted to exercise countervailing power by withholding its business from the local distribution system (if any). There are then no clear regulatory concerns with regard to switching, reconciliation, market power and the like at the distribution level, although these issues may remain live upstream in the wholesale and transmission levels of the industry (outside the scope of this study).

[4] *Gas Downstream Reconciliation) Rules 2008* section 5.

Where a gas user opts to operate its own distribution facility in preference to using a third-party distribution system, there is in principle a strong presumption in favour of exemption from regulatory oversight other than for safety matters.

At the monopoly-merchant-network end of the taxonomy, the case for regulation is clear, given that (a) customers are captive to a sole supplier, with no ability to switch to alternative retail suppliers; and (b) customers are potentially exposed to price-gouging[5] by the monopoly provider.

Table 1 summarises the taxonomy of private distribution systems sketched above, with some of the regulatory implications.

New Zealand policy since 1990 has generally aimed at eliminating the monopoly merchant pipeline model by enforcing third-party access for competing gas retailers on existing distribution networks. Of the other cases outlined above, the only one definitely absent at distribution level in the New Zealand gas industry is full facilities-based competition, which has been ruled out by the economies of scale and high sunk entry costs in gas distribution. At this point no retail customers in the New Zealand gas market are able to be supplied by more than two distribution networks.

As already noted, Powerco operates pure gas-transporter open networks, and companies including Vector and Wanganui Gas operate hybrid open networks. Nova Gas operates private networks in limited bypass (duopoly) markets (these markets are discussed further in section 6 below) and has a merchant distribution network with a local monopoly in the newly-developing Auckland suburb of Flatbush. Several large industrial operations take direct supply from the transmission system, internalising their distribution and retail functions in-house as private "make" rather than market arms-length "buy" transactions. No consumer cooperative network with a single shared ICP has been identified in the present research, but some may well exist downstream of larger existing distribution networks.

[5] Note that price-gouging is not illegal under New Zealand competition law, but is not readily reconciled with the "fairness" requirement set out in the Government Policy Statement on gas governance.

Table 1

	Type	Subtype	Are structural limitations on downstream competition of concern?	Is there a case for independently-enforced operating rules e.g. reconciliation?	Does monitoring of industry-wide performance require detailed information disclosure?
Owned/operated by distributors	Open access monopoly network	Transporter	No	Yes	Yes
		Hybrid	Yes	Yes	Yes
	Private merchant monopoly or duopoly with no open access		Yes	Possibly	Yes
	Duopoly networks with open access on at least one		Ideally no	Yes	Yes
	Full facilities-based competition amongst numerous merchant networks		No	No	Yes
Owned/operated by final gas users	Consumer cooperative facilities connected to upstream distribution or transmission systems		No	No	No
	Direct-supply customers		No	No	No

Regulatory requirements for private merchant pipelines may differ in some respects from those for open-access systems because of the absence of within-system requirements to maintain competitive neutrality, balancing and reconciliation arrangements across multiple gas owners using the same set of pipes to move gas. However, there are many regulatory functions which will apply uniformly across both categories of network. There is no general principle justifying exemption of private pipelines *per se* from rules and regulations made for the gas industry as a whole. The question of whether exemption from regulation ought to be allowed requires consideration of the circumstances of each case and of the purposes being pursued by the regulator.

5. Open Access and Regulation

When the New Zealand gas industry was restructured in the 1990s along lines set out in a major 1991 officials' report[6], two central planks in the reform package were open access for third party gas on transmission and distribution networks in geographical markets where these had a natural-monopoly, and the introduction of mandatory information disclosure to promote competitive discipline and accountability to customers. Mandatory open access places substantial restrictions on the property rights of a pipeline owner, justified by the detriment to competition associated with natural monopoly. Information disclosure was intended to provide customers with countervailing power in negotiations (and potentially litigation) with network owners.

The policy switch from so-called "heavy-handed regulation" of the gas industry towards open-access in the 1990s did not lead to a general elimination of private networks from the industry for two reasons:

- as Table 1 indicates, not all private distribution arrangements merit regulation;
- the principled case for imposing open access upon merchant distributors rests upon the "essential facilities doctrine" which was formulated for monopoly conditions, and which requires modification under the duopoly conditions encountered in bypass markets. New entrants to distribution markets already served by an open-access network have in practice been allowed to operate as private networks.

The 1993 Hilmer Report in Australia, from which much of the infrastructure policy thinking in Australia and New Zealand has been derived, set out four criteria that should apply before a monopoly facility serving multiple customers should be required to operate as an open-access carrier[7]:

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6 Officials Coordinating Committee, *Review of the Regulation of the Natural Gas Industry: Report to the State Sector Committee* March 1991.

7 Hilmer, F.G. et al, *National Competition Policy*, Canberra: Australian Government Printing Office 1993, Chapter 11: "Access to 'Essential Facilities'", pp.251-252.

I. Access to the facility in question is essential to permit effective competition in a downstream or upstream activity;

II. The making of the declaration [requiring open access] is in the public interest, having regard to:

(a) the significance of the industry in the national economy; and

(b) the expected impact of effective competition in that industry on national competitiveness.

III. The legitimate interests of the owner of the facility must be protected through the imposition of an access fee and other terms and conditions that are fair and reasonable, including recognition of the owner's current and potential future requirements for the capacity of the facility.

IV. The creation of such a right must have been recommended by an independent and expert body.

Pipeline systems that do not meet the four Hilmer tests have been allowed to remain private in the New Zealand gas industry, making "private" status the default option[8]. This default applies not only at distribution level, but at all five levels of the gas supply chain:

- gas-gathering networks which connect wellheads to processing plants;
- gas processing facilities;
- high-pressure transmission networks running from the outlet flange at processing plants to gate stations adjacent to major load centres;
- distribution networks moving gas at lower pressure from the gate station to the customer meter;
- the final leg, downstream of the customer meter within the customer premises, where various gas-using equipment is connected.

The majority of gas-gathering systems in New Zealand (and overseas) remain private, as do customer-premises installations. At transmission level until recently the Maui pipeline remained a private system for the delivery of gas from a single field, and

[8] Obviously, unregulated private status does not preclude a network owner from offering access to third parties on terms and conditions determined by the facility owner; this was in essence the strategy adopted by NGC for most of the 1990s.

neither the Maui line nor the Vector system have yet made a full transition to providing open access on neutral arms-length terms and conditions.[9]

At distribution level, similar diversity is found. The 2006 Allen Report found the networks owned by Vector and GasNet to be fully open-access in the sense of having published standard contracts on their websites, whereas Powerco and Nova Gas did not.[10] Powerco, however, operates as an open-access transporter, leaving Nova Gas as the main "industry-participant" operator of private distribution networks. Most of the Nova networks are in bypass markets, but its Flatbush system is a classic merchant pipeline combining transportation and retail on a private system.

Thus although merchant natural-monopoly networks have been largely eliminated from gas distribution and transmission, there is nothing to prevent their re-emergence as gas reticulation is extended to new areas, and a range of private and open access distribution arrangements continue to co-exist in the New Zealand gas industry. Some of the private systems will appropriately be exempted from a wide range of regulatory requirements on the basis that no exploitation of market power at the expense of acquirers is in prospect, and no issues of competitive neutrality are at stake; this is the case with customer-owned distribution facilities. Others (merchant pipelines) will in principle be legitimately subject to industry-wide governance rules, but with due account taken of the extent to which a degree of competition in the relevant markets may remove certain regulatory concerns - for example with regard to the promotion of productive and dynamic efficiency (downward pressures on costs and prices of gas delivery over time).

Of most direct interest in the context of this report is the position of supplier-owned private networks operating in bypass markets, since it is in this context that applications for exemption from industry rules have arisen in the past and can be anticipated under the new regime.

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9 Allen Consulting Group, *The New Zealand Gas Industry in 2006: Review of its State and Performance*, Final Report to the Gas Industry Company, 15 November 2006, Chapter 4, especially pp.58-63.

10 Allen Consulting Group, *The New Zealand Gas Industry in 2006: Review of its State and Performance*, Final Report to the Gas Industry Company, 15 November 2006 pp.70-71.

6. Bypass Markets and Regulatory Exemptions

6.1 Experience to date

In 1997 when the Gas (Information Disclosure) Regulations were gazetted, the original Nova Gas landfill distribution networks were exempted by the then Ministry of Commerce[11] on the basis that these networks were not open, nor expected to become open, to third parties. Since at that time the aim of information disclosure was to secure non-discriminatory access terms and conditions for third parties using open-access transmission and distribution systems, disclosure of Nova's information for its dedicated landfill systems was considered unnecessary. Between 1997 and 2003 Nova proceeded to construct bypass networks in Wellington, Auckland and Hastings, for which information has never been disclosed, notwithstanding that these systems are subject to the regulations.

In 1999 the Ministry of Economic Development announced its intention to extend Nova's exemption to include the bypass systems[12]:

> 98. We are aware of a view in the industry that Nova Gas should be subject to information disclosure. The key judgment is whether Nova Gas's activities have any natural monopoly characteristics, or market dominance. If they do not there is no regulatory justification for Nova Gas to be subject to the Regulations.
>
> 99. Nova Gas's pipelines can (with minor exceptions) be categorised as providing bypass competition to other pipeline networks (and therefore are not natural monopolies). Its other activities are also contestable (gas collection and production, and gas retailing). The Ministry therefore considers that Nova Gas does not have market dominance, and that it should not be subject to the Regulations.

The proposed amendment was never officially gazetted[13], but the Ministry has not required Nova to comply with the information disclosure regulations.

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11 *Gas (Information Disclosure) Regulations 1997* Schedule 2, http://legislation.knowledge-basket.co.nz/gpregs/text/1997/127/127_43.html.

12 Ministry of Economic Development, *Proposals for Amending the Gas (Information Disclosure) Regulations 1997*, http://www.med.govt.nz/templates/MultipageDocumentTOC____10144.aspx, section 10.2.

13 Energy Markets Policy Group, *Amendments to the Gas (Information Disclosure) Regulations 1997*, http://www.med.govt.nz/templates/MultipageDocumentPage____10113.aspx#P71_8777, paragraph 16, indicated an intention to change the regulations to exempt Nova, but to date there has been no formal change made.

From the standpoint of the regulatory regime of 2009, the aims of information disclosure and other regulatory instruments have widened from the specifics of access terms and conditions, and achievement of competitive neutrality on open-access systems, to wider considerations such as industry-wide safety, reliability, efficiency, fairness, environmental sustainability, performance monitoring, and correct signalling of costs. The grounds originally canvassed in 1997 and 1999 for exemption of Nova Gas from information disclosure do not suffice in this new environment.

A further exemption from regulation for the Nova networks was granted by the Commerce Commission in its 2004 inquiry into whether to price-regulate gas transmission and distribution networks. The Commission found that entry of the Nova Gas bypass networks had driven down prices to gas consumers in the bypass zones, and had further induced incumbent distribution networks to reduce their prices in other market segments considered vulnerable to bypass. In its discussion of market definition the Commission dealt with the bypass issue as follows[14]:

> "[T]he immediate areas where a bypass operator is competing with the incumbent have been placed in a discrete market. In these markets the Commission considers that there is strong evidence of vigorous competition for industrial and commercial customers." (para 13.11).

The Commission conceded that (para 13.10)

> "bypass opportunities tend to be limited to where there is a concentration of medium to large consumers who are close to an offtake point on the transmission pipeline, where an existing bypass network can expand its scope or where there is an alternative source of gas (e.g. landfill gas)";

and that (para 13.12)

> "this threat (and impact) exists in only small pockets of the area covered by the incumbent's network. This competitive threat in these pockets is mainly limited to

[14] *Gas Control Inquiry – Final Report* November 2004 http://www.comcom.govt.nz//RegulatoryControl/GasPipelines/ContentFiles/Documents/Public%20Version%20Final%20Report%2029%20November%202004.pdf paragraphs 13.10-13.12. Paragraphs 13.7 – 13.28 discussed at length various competitive disciplines on the industry flowing from bypass, which had been put forward in submissions by CRA in defence of the position that control was not warranted.

> the supply to industrial and commercial customers, albeit these customers are the largest users of distribution services in the pockets."

However because Nova had created, and therefore faced, vigorous effective competition in the bypass market as defined by the Commission, the legal tests of the Commerce Act 1986 s.52 were not met, and Nova was not subject to control under Part IV of the Act[15]:

> "the [Commerce] Commission considers that Nova Gas faces workable or effective competition in the market where it provides gas services. That is, competition is not limited in this market. The requirement in s 52(a) of the Commerce Act is therefore not satisfied."

To reach this position the Commission had to define a new market, "commercial and industrial consumers within the vicinity of bypass networks (the bypass market)"[16] for the purposes of its competition analysis. The newly defined market did not extend to areas merely threatened with bypass[17]:

> The Commission recognises that the threat of bypass can provide a constraint similar to that provided by actual competition. Consideration was given to separately analysing areas where the threat of bypass is strong. However, there are difficulties in identifying the areas of bypass threat in a satisfactory way… Accordingly, the Commission has not attempted to isolate those areas where bypass is a realistic threat. Rather it has regarded the threat of bypass as being an important constraint on the exercise of market power in respect of a small proportion of total customers on NGCD's networks.

The Commission's favourable attitude towards Nova Gas as a "maverick" which had shaken up the industry and placed competitive pressures on the incumbents has obvious force, but does not provide a sound general basis for regulatory exemptions in principle, for reasons discussed in the next section.

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15 *Gas Control Inquiry – Final Report* paragraph 18.23.

16 Commerce Commission, *Gas Control Inquiry – Final Report* November 2004 paragraph 18.14.

17 Commerce Commission, *Gas Control Inquiry – Final Report* November 2004, paras 13.20-13.21.

6.2 Three Problems

The proposition that a latecomer bypass network ought to be entitled to private status with exemption from regulation, while the previous-incumbent network is obliged to be open-access and is regulated accordingly, raises three difficult issues of principle:

- The "essential facilities doctrine" outlined earlier loses its clarity in any setting where more than one physical network coexist. The Commerce Commission's proposition that competition is "not limited" in a market served by only two networks can be valid only so long as at least one of the two competing facilities remains subject to regulated open access, meaning that the essential facilities doctrine has no literal application to the second. The longer-run sustainability of this asymmetric market structure is not assured on either efficiency or fairness grounds.

- Bypass itself is apt to be economically inefficient from the point of view of the wise use of society's scarce resources. In an infrastructure industry where economies of scale and scope point to monopoly as the efficient industry structure, a second supplier can operate only by some wastage of scarce resources. If effective regulation of an incumbent natural monopolist to achieve competition-like outcomes is a reasonably practicable alternative to bypass, then it would generally be ranked as potentially superior from the point of view of achieving the regulatory outcomes set out earlier. Bypass may generate dynamic pressures to lower costs, but before granting regulatory exemptions to a bypass network on this basis it is necessary first to assess whether similar outcomes could have been secured by timely regulatory intervention without the need for scarce resources to be committed to installation of duplicate facilities.[18]

[18] In industries that are undergoing rapid technological progress, there is evidence that "facilities-based competition" can dynamically out-perform open-access on an incumbent network; see, for example, Jan Bouckaert, Theon van Dijk and Frank Verboven *How does access regulation affect broadband penetration*?, http://www.voxeu.org/index.php?q=node/2715, December 2008, on broadband penetration rates in European telecommunications. Gas distribution is a mature industry in which this consideration does not apply.

- The fact that bypass entry is usually confined to the cherry-picking of large customers in restricted locations means that there are apt to be negative spillover effects from bypass onto gas customers elsewhere. The Commerce Commission's acceptance of a separation between bypass-served customers and the rest in its competition analysis left untouched the interaction between the existence of pockets of bypass and the overall regulatory pricing scheme for gas distribution, in particular the allocation of common costs across network customers. The aggregated regulatory revenue allowed for a distribution network under the Commission's prevailing thresholds methodology is calculated from the Optimised Deprival Valuation, and common overhead costs, of the complete set of assets in the network, and is not disaggregated to enable separate treatment of bypass markets and the remainder of the network. If the incumbent distributor introduces locally-low prices to meet the competitive threat in the bypass market while maintaining its total revenue by shifting the burden of its common costs onto customers in non-threatened network segments, the outcome is legitimately subject to regulatory oversight under the Gas Act and Government Policy Statement, which requires that gas delivery to customers take place in a manner that is "fair" as well as simply "safe, efficient, and reliable"[19], even if such oversight is not required under s.52 of the Commerce Act. The issue is one of tax policy, given that industry common costs must be recovered in some fashion.

6.3 Rethinking the Essential Facilities Doctrine in the Context of Bypass Entry

Contestability theory has long emphasised the importance of the discipline imposed upon an incumbent monopolist infrastructure provider by the potential for new entry to occur. Regulatory requirements which raise the costs of a new entrant clearly belong among the barriers to entry that weaken the strength of contestability forces in the market. (The most important such barrier is the high sunk cost associated with entry into an activity requiring the installation of large fixed assets subject to economies of scale).

[19] *Government Policy Statement on Gas Governance* April 2008, paragraph 9.

At the moment when a second infrastructure facility actually enters, the clarity of Hilmer criterion I above becomes problematic. For third-party gas owners without networks of their own to be able to transport gas to their retail customers, at least one of the two systems in a "bypass market" will have to be open access, but which of the two is the "essential" facility is not clear in principle.

In a duopoly distribution market neither network is strictly essential on its own, given the existence of an alternative; but the basic idea that the achievement of competitive retail supply requires mandatory access to transportation service remains valid. The pragmatic New Zealand response to date has been to leave the open-access burden on the previous incumbent while allowing private status to the new entrant, but this does not provide a sound principled basis for the longer run. In the long term, the interests of gas users and economic efficiency are best served by consumers being able to secure delivery of gas by the lowest-cost means, and this raises the possibility that the bypass operator might be required also to become open access eventually, insofar as successful entry amounts to *prima facie* evidence of lower cost.

The wider the scope and larger the scale of bypass, the more the incumbent and the challenger are on the same footing, and hence candidates for the same regulatory treatment. In addition, the longer the bypass has been in place, the stronger the case for regarding it as cost-competitive, and the greater its chance to pay down its initial capital costs of entry. Both geographical extent and time elapsed since entry are relevant matters to be taken into account in deciding whether to extend regulatory provisions to include a bypass network.

If the market attracts sufficient competing distribution facilities to achieve full facilities-based competition, then private status for all networks will be appropriate, but so long as competition remains limited to a single bypass the essential facilities doctrine arguably implies a joint regulatory obligation on both network owners, whether original-incumbent or bypass-entrant, to ensure that transportation service is available to third-party gas suppliers without networks of their own. It is difficult to advance a principled case for allowing the bypass entrant to enjoy a perpetual right to free-ride.

Certainly it is understandable that the Commerce Commission has wished to provide active encouragement and incentives for "mavericks", given the prevailing state of competition in the New Zealand gas industry. The 2006 Allen report concluded that "the state of the New Zealand gas industry is concentrated and … there are substantial opportunities to enable better levels of competition and, by implication, better level of industry efficiency"[20]. In an ideal world, fully-informed access price regulation would hold the price of network services down to the threshold level at which bypass entry is unprofitable[21], but in the real world of asymmetric information and (especially in New Zealand) a culture of aversion to regulatory control, a regulator has good reason to welcome bypass entry as a check on the incumbent's conduct.

A bypass entrant incurs substantial fixed costs to enter the market, and such entry will be profitable only if it is able to attract sufficient customers away from the incumbent, and hold those customers' allegiance for long enough, to enable those fixed costs to be covered plus some return on the investment. If the access pricing regime of the open-access incumbent has previously held prices above the competitive level, the entry of a bypass network can contribute significantly to the "sustained downward pressure" on delivered gas costs and prices sought by paragraph 11(4) of the Government Policy Statement. If the new entrant were required to provide open-access gas transportation for other retailers from the outset, its incentives to enter and create such downward pressure would be greatly reduced and possibly eliminated, which may deprive society of the benefits of additional competitive pressure in the market.

This suggests that a regulator aiming to maximise competitive pressures in the market could allow a new-entrant bypass owner some period of undisturbed operation as a private merchant network, with exemption from open-access obligations and the associated burdens of reconciliation and dispute resolution, in order to enable the new entrant to recoup its fixed costs of entry and earn some surplus from its competitive initiative, presuming always that the terms and conditions which it offers to customers

[20] Allen Consulting Group, *The New Zealand Gas Industry in 2006: Review of its State and Performance – Final Report to the Gas Industry Company*, November 2006, p.xv.

[21] More strictly, the level at which a potential bypass entrant is indifferent between entering or not entering.

are competitively attractive compared with those available from the incumbent operator (the previous natural monopolist). This case for exemption is, however, time-limited.

6.4 Bypass and Economic Efficiency

The rationale for unbundling gas supply from transportation, and mandating open access to essential infrastructure, is to harness market forces to drive down the cost of delivering gas to final users. The April 2008 Government Policy Statement refers at paragraph 12(1) to the efficient use of resources used to deliver gas to customers. In a situation where a natural monopoly has been replaced by a pipeline duopoly, the long-run interests of acquirers are best served by having gas transported on the lower-cost system, regardless of whether this is the original incumbent or the new entrant. This suggests that in the long run, neither pipeline ought to be able to exclude third parties as a matter of principle. In principle, in the long run, the responsibility for open access should fall wherever it can be most efficiently performed.

This outcome could be achieved by various means. The open-access role might be alternated between two networks at regular intervals, or might be put out to tender (with the successful bidder reimbursed for any resulting additional costs out of a levy on customers of both networks), or might be assigned randomly by a lottery. The outcome of any of these procedures could well be to see the private and the open-access roles switched between the networks. There is no principled case for allowing a bypass entrant to enjoy a perpetual right to free-ride simply because of its bypass status. As noted above, the more limited is the capacity of the bypass network and the more restricted its geographical extent, the less likely it is to be the credible contender for the open-access role; but this does not mean it can be simply exempted from the reporting requirements and cost-sharing that are required to sustain open-access distribution service in the relevant market.

Any such arrangement would have to confront the problem that whichever network is designated as the open-access provider would have to be physically connected to all customers wishing to secure supply from third party retailers relying on the open

system for gas delivery. In the event of a formerly-private network in a bypass market becoming the open-access provider, it might have to be required (pursuant to s.43G(f) of the Gas Act 1992) to provide physical connection for any customer already connected to the other network in the market, either by running a new service pipe to the existing customer meter or by installing a new meter connected to the open network. Whether the costs of enforcing such universal connection for established gas users would be significant relative to the benefits of allocating the open access role to a previously private network is a matter that would require further analysis and is not addressed here.

On purely pragmatic grounds, there may be a case for leaving the status quo in place, with open-access assigned to the original incumbent networks with their greater geographical extent and wider customer base, and the more limited bypass networks with their focus on clusters of large customers in restricted areas[22] able to continue to operate as private merchant systems, at least in the short- to medium-term. Beyond some time after entry, however, the bypass and the previous incumbent ought to be treated jointly as an essential facility for regulatory purposes, with the open access obligation allocated on the basis of

- economic efficiency
- the relative scope and market penetration of the two networks, and
- a forward-looking appraisal of the bypass operator's contribution to competitive tension in the market.

Any resulting decision to exempt a well-established bypass network from open-access obligations would not serve as precedent for exemption from any other regulatory requirements.

In any methodology for screening applications for exemption, a first step would be to identify the reasons for allowing the network to retain its private status in the first place. One central test to be met by any application for exemption would then be whether the exemption will strengthen or weaken the benefits which flow to gas users and/or the wider economy from the private status of the network.

[22] Allen Consulting 2006 pp.71-72.

6.5 Bypass and "Fairness"

One function of the Gas (Downstream Reconciliation) Rules 2008 is to provide the basis for allocation of common costs across network users, and in particular the costs of securing competitively neutral access to customers for competing gas retailers. Common-cost recovery is inherently arbitrary, and is feasible only where at least some customers are unable to avoid what is in effect a lump-sum tax imposed as part of the cost of service. A bypass network that is run as a merchant operation does not need to incur some of these costs because it is relieved of the need to reconcile quantities across multiple retailers. Its very presence in the market, however, reduces the ability of the open-access network to recover its common costs from customers in the bypass market, because of their ability to switch to the bypass supplier.

Insofar as both networks in a duopoly market are ultimately jointly accountable for the provision of open access transportation service, there is an argument that they should both contribute towards meeting the common costs arising from open access. Taken on its own, this argument would imply a regulatory requirement for the merchant network to subject its customers to a levy matching that applying on the open-access network, because absence of such a requirement could imply some distortion in the price signals reaching customers, in that prices would not fully and fairly be reflective of industry-wide efficient costs.

7. Some Principles for Screening Exemption Applications

7.1 Areas of Regulation under the Gas Act 1992

As a first step towards setting out principles for screening exemption applications, Table 2 below lists the areas that are set out in Part 4A of the Gas Act as potentially subject to regulations and rules recommended by the Gas Industry Company and applicable to distribution networks. In terms of this first pass, two conclusions stand out:

- There are more differences between merchant and customer-owned private systems in terms of applicability of the listed issues, than between open-access and merchant networks;

- Of the 33 issues listed, 28 are clearly applicable to open-access networks, 29 to merchant distributors, and only nine to customer-owned private systems. Open-access networks, once regulated to provide competitively-neutral transportation service for gas providers, are not accountable for the contract terms and tariff offers given to retail customers by those providers. Merchant distributors, in contrast, would be directly subject to regulations controlling the terms and conditions of retail supply, particularly those aiming to protect the positions of low-income customers. They do not fall under regulations regarding third-party retailer access to pipes and meters, nor are procedures for resolving disputes amongst industry participants relevant to them insofar as the reference is to disputes amongst multiple participants on a given network. If the issue involves disputes between a merchant distributor and other industry participants operating on another system, the number of issues that are ruled out as a matter of general principle for merchant distributors falls to just two – third-party access terms for pipeline assets and customer meters.

Table 2 .

Gas Act section	Issue	Applicability "in principle" to:		
		open-access distrib-ution networks	private networks	
			merchant distrib-utors	customer-owned systems
43F(2)(c)	prescribing reasonable terms and conditions for access to transmission or distribution pipelines	yes	no, unless private status being ended	no.
43G(2)(a)	providing for the establishment of, or participation by gas distributors and gas retailers in, a complaints resolution system (that may include codes of practice) for the purpose of addressing complaints by all or any of small consumers (including potential small consumers), or owners and occupiers of land into, through, or against which pipelines have been laid down or placed, relating to gas retailers and gas distributors, or setting out minimum requirements in relation to that system, including— (i) provision for compensation up to a maximum of $20,000 to be awarded, and other actions to be taken, by the complaints resolution agency in relation to those complaints: (ii) provision for rights of review, or rights of appeal on a question of law only, in relation to decisions relating to those complaints:	yes	yes	only w.r.t. land-owners
43G(2)(b)	requiring gas retailers to offer prepayment meters to domestic consumers at a reasonable cost, and prescribing conditions on which those meters must be offered, with the objective of ensuring that all domestic consumers who wish to pay for gas in advance have the option to do so at reasonable cost	yes	yes	no
43G(2)(c)	providing for arrangements to enable consumers to switch gas retailers:	yes	yes	no
43G(2)(d)	providing a system of transition arrangements for consumers in the event of a gas retailer becoming insolvent, and requiring industry participants to comply with that system, with the objective of protecting consumers or managing the liabilities of other gas retailers	yes	yes	?
43G(2)(e)	providing for the disclosure of information by gas transmitters, distributors, and retailers on tariff and other charges	yes	yes	no

43G(2) (f)	providing for terms and conditions of access to gas meters by gas retailers	yes	no	no
43G(2)(g)	providing for information on customer accounts	yes	yes	no
43G(2)(h)	providing for minimum terms and conditions in contracts between domestic consumers and gas distributors or gas retailers	yes	yes	no
43G(2)(i)	providing procedures for resolving disputes between industry participants	yes	?	?
43G(2)(j)	providing for the operation and facilitation of those dispute resolution procedures by a person, and the powers and procedures of that person	yes	?	?
43G(2)(k)	providing for compliance with gas governance regulations and rules to be monitored and enforced by the industry body or the Commission or any other person or court, and the powers and procedure of that person or court	yes	yes	yes, w.r.t safety
43G(2) (l)	providing for processes for settling particular issues within the gas industry that may result in recommendations for gas governance regulations or rules, and requiring compliance by industry participants, the industry body, and the Commission with those processes, including compliance with requirements to produce documents as part of those processes	yes	yes	?
43H(3)(a)	requiring gas providers to make available to domestic consumers 1 or more tariff options that include a fixed charge for delivered gas to dwellinghouses at not more than a specified amount	no – not a network function	yes	no
43H(3)(b)	regulating the variable (cents per kilowatt hour) charges in those required tariff options to ensure that low-use domestic consumers would pay a lower total charge on the required tariff option than on any similar alternative tariff option available from that gas provider	no – not a network function	yes	no
43H(3)(c)	regulating other charges and other terms and conditions of the contracts to which the low fixed charge tariff options in paragraph (a) relate, to ensure that they are not, in the opinion of the Minister, unreasonably detrimental to the interests of low-use consumers	no – not a network function	yes	no
43H(3)(d)	setting rules as to the offering, supply, advertisement, promotion, availability, and unbundling of regulated charging options	no – not a network function	yes	no
43H(3)(e)	specifying criteria for the Minister to exempt gas providers, or gas providers in relation to particular areas, from the application of the regulations if, in the opinion of the Minister, the gas providers materially comply with the objective of this section	yes	yes	?
43H(6)	if the components that make up the delivered gas are unbundled, regulations for each component, or group of components, of delivered gas to ensure that the objective of a	yes	yes	no

	low fixed-charge tariff option is achieved for the aggregate of all the components.			
43H(9)(a)	regulating all or any charges charged by gas distributors to ensure that they are not, in the opinion of the Minister, unreasonably detrimental to the interests of low-use consumers	yes	yes	no
43H(9)(b)	regulating the terms and conditions under which gas distributors supply their services in relation to domestic consumers to ensure that they are not, in the opinion of the Minister, unreasonably detrimental to the interests of low-use consumers	yes	yes	?
43H(9)(c)	setting rules as to the offering, availability, supply, and unbundling of gas distributors' services	yes	yes	no
43H(10)(a)	providing for the supply and collection of information from gas providers and gas distributors about contracts, offers, advertising, or promotion relating to the supply of delivered gas, or components of delivered gas, to domestic consumers	?	yes	?
43H(10)(b)	providing for the supply and collection from gas providers and gas distributors of information that is necessary for the purposes of calculating the total charge for the low-use domestic consumer	yes	yes	no
43S(1)(a)	providing for 1 or more persons or bodies or groups of persons to carry out functions in relation to regulations or rules, and for matters concerning their establishment, constitution, functions, members (including their appointment, removal, duties, and protection from liability), procedures, employees, administration and operation, funding by industry participants, and reporting requirements	yes	yes	?
43S(1)(b)	providing for systems, processes, and procedures (including dispute resolution procedures), and the keeping, supply, and disclosure of information, in relation to any of the matters specified in this subpart	yes	yes	?
43S(1)(c)	prescribing the form and manner in which information is to be disclosed	yes	yes	?
43S(1)(d)	requiring disclosed information, or information from which disclosed information is derived (in whole or in part), to be certified, in the prescribed form and manner, by persons belonging to any specified class of persons	yes	yes	yes, insofar as disclosure required
43S(1)(e)	prescribing when and for how long information must be disclosed	yes	yes	yes
43S(1)(f)	exempting or providing for exemptions (including provide for the revocation of exemptions), on any terms and conditions, of any person or class of persons from all or any of the requirements in regulations or rules made under this subpart	yes	yes	yes
43S(1)(g)	providing for the supply of information for the purpose of administration and enforcement of	yes	yes	yes

	this Act, and regulations and rules made under this Act			
43S(1)(h)	providing for transitional provisions	yes	yes	yes
43S(1)(i)	providing for any other matters contemplated by this Act or necessary for its administration or necessary for giving it full effect	yes	yes	yes

Table 3 undertakes a similar scoping exercise, this time working with a more aggregated list of areas in which exemptions might be sought, and with six cases from the taxonomy in Table 1.

Table 3

Bases for in-principle exemption or non-exemption from regulation

	Direct-supply customer (distribut-ion function internalised by the gas-user)	**Consumer cooperative network sharing customer-owned connection to upstream point of connection**	**Competing merchant pipelines (full or workable facilities-based compet-ition)**	**Merchant distributor with local monopoly**	**Merchant distrib-utor in a bypass duopoly market**	**Open access network or networks**
Issue:	**Subject to regulation?**					
Gas safety regulations	Yes	Yes	Yes	Yes	Yes	Yes
Reconciliation amongst multiple retailers	No	No	No	No	No	Yes
Gas balancing and accounting for UFG to central industry body or regulator	No	No	Unclear	Yes	Yes	Yes
Information disclosure aimed to empower customers (overcome information asymmetries)	No	No	No	Yes	Yes	Yes

Information disclosure and recording for purposes of monitoring of overall market	Unclear – depends on nature of information required	Yes	Yes	Yes	Yes	Yes
Detailed metering records of individual customers provided (or available) to central registry to facilitate switching and reconciliation	No	Probably not, but would need regular review	No	No, unless competition is likely in future	Yes	Yes
Standard contract terms and conditions to be posted and subject to regulatory control of anti-competitive restraint provisions	No	Probably not necessary	Probably not necessary	Yes	Yes	Yes

In Table 3, a general case for exemption applies, or may apply, to the shaded cells. Working from right to left across the columns, of the seven issue areas no generalised in-principle prospect of exemption is shown for open access networks, one for merchant distributors in bypass markets, and two for a merchant network that has been allowed a monopoly in its local market. Merchant distributors under facilities-based competition, and consumer cooperatives, each secure three areas of clear exemption plus two possibles. Direct-supply customers get five or possibly six. There are several borderline calls, reflecting areas where the specific circumstances would determine the outcome, but the overall pattern remains clear: in-principle exemption from broad areas of regulation is appropriate mainly for customer-owned distribution facilities, not merchant distributors, except in the unlikely case of full competition amongst the latter.

At the high level of abstraction of Tables 2 and 3, thus, the absence of any *a priori* distinction between private networks and open-access ones in the Gas Act and Government Policy Statement appears appropriate.

Obviously the absence of a general case for exemption in any category does not rule out the possibility that exemption might be justified on pragmatic, case-specific grounds at the discretion of the regulator.

7.2 General Principles in Relation to Bypass Networks

Moving down to a more practical, detailed level, this section focuses more tightly on the class of private networks that is of greatest relevance to this enquiry because of its success to date in securing regulatory exemptions – merchant distributors in bypass markets. An explicit listing of key characteristics of such systems provides a checklist against which particular requests for exemption can be evaluated. Ten key features are set out below:

i Bypass systems typically raise the level of competitive market discipline embodied in prices and other conditions available to retail customers within the bypass zone. Taken in isolation, this is a positive contribution towards several of the key objectives set out in section 2 above, and hence potentially deserves some reward in the form of a share in any economic surplus created by competition, bearing in mind that negative spillovers on customers outside the bypass zone have to be deducted in calculating that surplus. Some degree of exemption from sharing in the common costs of regulation across the wider market may be an appropriate form of such a reward.

ii Because bypass operators succeed and survive on their price-competitiveness, the costs of price-cap regulation will generally not need to be incurred with respect to those systems so long as they remain the "underdogs" in their competition with the local open-access system. Applications for exemption from such regulation ought to be treated sympathetically.

iii A bypass merchant distributor will typically offer its customers a bundled product, targeted to undercut the terms and conditions available from

competing suppliers using the parallel open-access system. Given its competitive incentive to price its bundled service keenly in order to gain and hold market share, the bypass supplier generally need not be subjected to detailed regulation of the structure of its retail tariff. This applies in particular to exemption from rules requiring customer charges to be unbundled between gas and transportation

iv A bypass distributor will usually target large high-value customers and may seek to avoid serving small, low-value customers even when their premises lie on the line of the bypass network. Such selective refusal-to-deal can restrict enjoyment of the full benefits of enhanced competition to a favoured group of customers with the power to play off competing suppliers. In the event that regulations requiring some degree of universal service obligation for distribution networks are recommended, exemption of merchant distributors would have to be justified by exceptionally strong arguments and evidence, with non-exemption the default option. At a wider level of analysis, the strategic nature of bypass entry can be characterised not so much as a game played between the bypass entrant and the incumbent network with which it is notionally competing, as one which pits a coalition of the bypass operator and its select group of customer clients, on the one hand, against the remaining market participants and customers on the other. If relieved of having to bear any part of the common costs of maintaining universal supply across the whole market, the bypass entrant and its customers can achieve a redistribution of wealth to themselves from those other parties. This is an incentive to engage in rent-seeking behaviour, which can be corrosive of overall market efficiency and fairness and of the integrity of the industry governance framework itself. (Note that this discussion cuts across principle (i) above, indicating a tradeoff facing the regulator.)

v A bypass distributor typically enters initially on the basis of long-term contracts with customers, and will have strong incentives to bind those customers to itself for as long as possible as a means of underwriting its fixed costs. While regulation of the detailed pricing of such contracts during their term is generally unnecessary, and the signing of long-term contracts with customers of a bypass supplier is legitimate in general terms, there is a strong

principled case for ensuring that those customers are fully free to switch supplier at the termination of each contract, and are not trapped into contract renewal by anti-competitive provisions such as automatic roll-over of contracts or an automatic right to block switching if the supplier matches any competing offer made to its customers as their contracts expire. (At present, the standard terms and conditions posted by Nova Gas include such provisions[23], notwithstanding assurances to the contrary accepted by the Commerce Commission in 2004[24].) The private network's interests are protected by the term of the initial contract, and countervailing protection for the customer should generally be provided by complete freedom to exit that contract at expiry, with the customer thereafter able to select freely amongst competing offers without restraint. Rules and regulations which require the posting of standard contract terms and conditions, including clear exit rights for customers, are especially relevant to bypass systems because of their strong incentive to obstruct switching. In general no exemptions from such rules ought to be available.

vi In the long run, allowing perennial private-network status to bypass operators may not be sustainable or desirable, and the option of a future transition to open-access status should always be kept open. This means that in principle, any exemption from rules and regulations prescribing access terms and conditions for third parties should be for a limited time only, and subject to revocation with due notice.

vii Individual customers of merchant distributors have as strong an interest in accurate metering as customers on any other distribution system. An important competitive incentive in favour of accurate metering arises on open-access systems through the process of reconciliation and allocation of common costs, including the cost of unaccounted-for-gas (UFG). A merchant distributor offering bundled service, and with no need to undertake

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23 Nova Gas, *Commercial Gas Supply Terms and Conditions*, http://www.novagas.co.nz/apply-now/commercial-terms.php , sections 5, 9, 10 and 11(b).

24 Commerce Commission, *Gas Control Inquiry – Final Report* November 2004 http://www.comcom.govt.nz//RegulatoryControl/GasPipelines/ContentFiles/Documents/Public%20Version%20Final%20Report%2029%20November%202004.pdf, paragraph 18.1: "Typically a gas user on Nova Gas's network has a fixed term contract for delivered gas. Once the contract has expired, these customers are able to switch to an alternative gas retailer and gas distributor, should they wish."

reconciliation across competing retailers on its system with access to dispute resolution procedures, faces less stringent incentives to ensure accurate metering of its customer loads. Rules which require the calculation and disclosure of UFG on private as well as open-access networks can have important efficiency and customer-protection roles, and exemption from such rules should in general not be available for merchant systems.

viii Customers of a merchant distributor wishing to switch to a competing retailer must as a matter of simple logic change their physical connection, from one network to another. A disincentive to switch will exist if onerous terms and conditions are applied to customer connection, disconnection and reconnection. A merchant pipeline facing a competing system has a clear incentive to use penal disconnection charges as a means of inhibiting switching. Again, this is an area in which rules and regulations are likely to be more relevant on bypass systems than on open-access ones, since in the latter case no physical disconnection from the system is required as the customer switches from one retailer to another (subject to all retailers having appropriately-regulated access to the customer meter). Again, exemptions from such rules and regulations are likely to be undesirable as a matter of principle.

ix Availability of each customer's meter history is potentially important in ensuring efficient switching of customers between competing networks. To ensure that customers switching onto an open-access network from a private network are seamlessly absorbed into the regulatory regime governing the former, the meter history needs to come with the customer. Merchant systems should be denied exemption from any regulatory requirements to maintain detailed customer consumption records, and should be required to make those records instantly available at the time any customer makes a switch.

x Bypass operators are full industry participants and are an integral part of the overall industry. Effective regulatory oversight, and reduction of information asymmetries facing customers, require a substantial degree of transparency to prevail. Private bypass networks are as prone as any other business to desire confidentiality of information that might be described as "commercially sensitive", but in the context of an infrastructure industry where competitive

conditions are secured by structural regulations backed by mandatory information disclosure, the general principle should be that all industry participants participate in providing the information that enables the central registry to compile accurate industry-wide statistics and monitor the efficient operation of the gas supply chain. There should be no presumption that "private network" status confers any privileged right to confidentiality of information required by the industry body or its agents to achieve their objectives.

7.3 General Principles for the Regulatory Regime as a Whole

A further set of principles that are relevant to possible regulatory exemptions involve the integrity and effectiveness of the regulatory regime itself:

i Ideally, any regulatory regime should be as simple, transparent and uniform as possible. Exemptions are in general undesirable because the broad purposes of regulation can easily become subverted by a rent-seeking quest for exemptions by market participants. Exemptions which run "with the grain" of the regulatory regime are more readily to be granted than those which run across the grain and have the effect primarily of giving strategic advantage to one market participant at the expense of others.

ii Information asymmetries which disadvantage customers, especially small ones, in their attempt to search out the best deals, are a hindrance to the operation of market forces which applies as much to customers of private networks as to those on open-access ones. The extent of information disclosure required of each industry participant should be determined by the needs of the regulator, and exemption for a private network should be allowed only when the absence of the particular information does not materially affect the integrity of the market oversight, allocation, reconciliation, or switching procedures which the regulator is required to establish and maintain on open-access networks with which the private network is in competition or coexistence.

iii Differential treatment of private and open access systems opens the prospect that the regulatory arrangements themselves may be "gamed" for private advantage. For example, the integrity and workability of the customer-switching rules could be compromised if retail customers connected to private merchant systems are not listed as ICPs in the registry, or if merchant distributors are able to avoid being classed as "responsible retailers".

8. Application to Particular Areas of Regulation

8.1 Reconciliation and Allocation

A gas distribution network is a large storage vessel made up from the component pipes, within which a stock of gas is contained at a pressure sufficient to ensure that, after allowance for restrictions due to pipe diameter and distance, the pressure gradient to the furthest parts of the system is consistent with delivery to all connected customers. Gas is injected at one or more intake points ("gates") and taken off at consumer-installation ICPs. Because the pool or stock of gas in the system is common to all users, some methodology is required to allocate the costs of maintaining reliable supply across multiple users, for whom a large part of those costs fall as common costs. In a private or merchant pipeline system, these costs fall directly on the system owner and operator, which passes them through to customers via its pricing practices, subject to any prevailing regulatory requirements.

In an open-access system with multiple retailers using the network to deliver gas to customers, there is a strong case for having some independent agency keep track of (i) the injections of gas to the system attributable to each retailer, (ii) the offtakes of gas from the system attributable to each retailer, and (iii) the fair and reasonable allocation across retailers of the cost of gas lost from the system for unidentifiable reasons (unaccounted for gas, "UFG").

In the absence of such an agent, the system owner or operator would be left to undertake this task, which gives rise to a high probability of disputes, especially where the system owner is also a competing retailer in the downstream market. To ensure neutrality in the allocation and reconciliation processes, the Government has promulgated, on the advice of the Gas Industry Company, the Gas (Downstream Reconciliation) Rules 2008[25] which require the provision of detailed data relating to the status of, and gas consumption at, each ICP on each distribution system.

[25] Online at http://www.gasindustrycompany.co.nz/Downstream_Reconciliation.php .

The need for this information to be provided at a high level of accuracy and detail follows logically from the conflicts of interest that are inescapable among multiple retailers using a single delivery system for whose common costs they are required to pay. The purpose of the Rules is "to establish a set of uniform processes that will enable the fair, efficient, and reliable downstream allocation and reconciliation of downstream gas quantities". These processes include mandatory information disclosure, and a requirement to bear a share of the costs of operating the allocation and reconciliation system.

The operational need for independent reconciliation and allocation disappears as soon as the relevant network is utilised by only a sole gas retailer rather than several competitors. On private networks there are no competing retailers sharing the facilities, and hence no problem of allocating and reconciling across multiple parties. At first sight, therefore, the cost of employing an independent agent to undertake a task which can be performed perfectly adequately in-house by the private network owner-operator looks hard to justify.

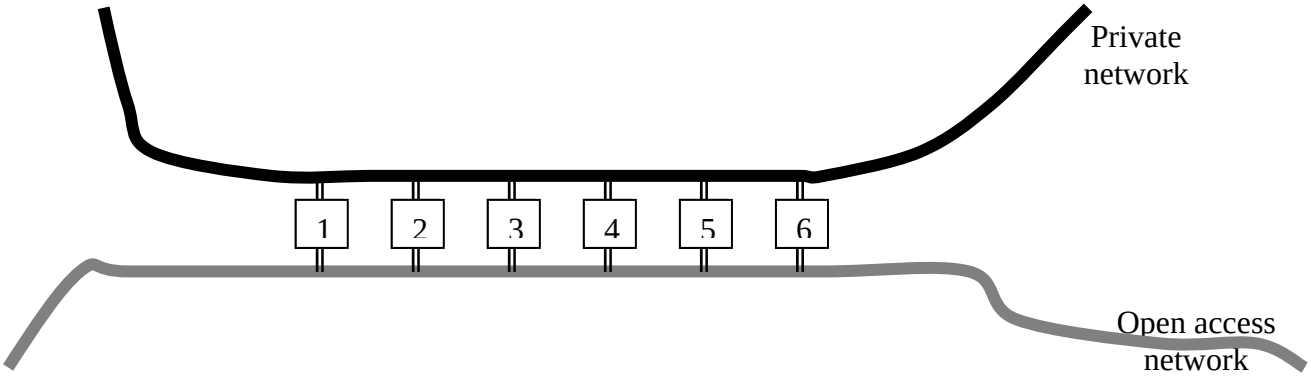
Provided that there are no external effects from the operation of private networks on the ability of other industry participants to carry out allocation and reconciliation processes efficiently and fairly, and provided that there are no other grounds for making private networks subject to the reconciliation rules, there would not be a case for applying this aspect of the governance arrangements to private networks. (See Table 2 first row, and Table 3 second row.)

The provisos, however, are crucial. The policy goal of an efficient, fair, and reliable market environment in which all players can compete on their merits must be paramount in The Gas Industry Company's consideration of the reconciliation and allocation issue. It is worthwhile, therefore, to work through some possible problems that could arise from the exemption of private distribution networks. As previously, the discussion focuses on bypass merchant distributors. (The two provisos above are likely to apply to customer-owned facilities, and the reconciliation issue can be expected to resolve itself without intervention under full facilities-based competition, so exemptions in those cases are generally appropriate.)

The case against exemption of bypass operators from allocation and reconciliation regulations or rules rests to a large extent on the likelihood of spillover effects across networks, and in particular between private and open-access systems.

(1) Direct interconnection. Spillovers would be highly likely to arise if the two networks are physically interconnected in which case, unless extremely tightly-policed and accurate metering prevails at the interconnection point, a strong case will exist for having an allocation and reconciliation process that is common to both systems. The act of interconnecting a private network with an open-access one would generally constitute grounds for bringing the private network under the governance arrangements prevailing on the open-access system. Such interconnection has not been common in New Zealand to date, but there may well arise situations in which it is economically efficient from an economy-wide or acquirer standpoint for such interconnection to occur.

(2) Switching. Consider the situation sketched below, where a private network runs parallel to an open-access network and individual gas users are connected to both systems, switching between them regularly on the basis of short-term offers made by competing retailers. Suppose initially customers 1, 2 and 3 are taking supply from the private network and that this network is not a registry participant in the reconciliation process; while customers 4, 5 and 6 are connected to the open-access network and the relevant IC)P data is being recorded in the registry and provided to the allocation agent.



"Deemed profiles" will be available for the second group but not for the first, and these profiles in combination with the metered flow data from the open-access network will be relevant to the costs payable by all retailers using the open-access system. Customers 1, 2 and 3 would probably be, from the point of view of the registry, classified as "inactive-transitional" (INACT) or "active-vacant" (ACTV) ICPs on the open-access system under Switching Rule 59.7[26]. Suppose that now these three customers switch to a retailer on the open-access system. At this point a new set of loads with their own distinct demand profiles suddenly appear at this location on the open-access system, and the registry operator and allocation agent must go through the process of recalculating loads across the entire open-access network to accommodate the change. This process will be trivial if none of the customers involved is large relative to the system as a whole, but the potential clearly exists for a gas user (or group of users) of significant size to make the switch, possibly more than once, in a situation where it disappears from the registry's database every time it switches to the private supplier, and reappears when it switches back to the open-access system. The more frequently switching takes place, the more potentially disruptive it becomes for the registry and the reconciliation/allocation process[27], especially if the private network has not been required to provide to the central registry the detailed meter data for all of its customers to enable the registry to build a complete and accurate profile of the total gas consumption at each consumer installation. This is reinforced by the potential for some users to "game" the system by strategically shifting their metered loads in and out of the open-access system in ways designed to shield their actual pattern of gas usage from disclosure. This type of spillover seems at first sight a powerful argument for requiring private networks to be required to provide ICP and meter information to the registry and allocation

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26 Switching Rule 82.2 provides that "The **registry participants** directly involved in effecting any bypass must process the bypass as either the creation of a new **ICP** or the re-commissioning of an **ICP**..." http://www.med.govt.nz/upload/55533/Gas_Switching_Arrangements_Rules2008.pdf.

27 The Gas (Switching Arrangements) Rules 2008 have the stated purpose (s.3) of establishing switching and registry arrangements "that will enable customers to choose, and alternate, efficiently and satisfactorily, between competing retailers" [emphasis added]. This is not hedged about with any Commerce Act provisos about the degree of competition in the relevant market; it is an absolute goal of maximising customer freedom, in a market where the existence of working competition is presumed.

agent as a necessary part of maintaining the efficiency and integrity of the allocation and reconciliation processes.

(3) Notional gates and UFG. Calculation of UFG presents difficulties even on a simple dendritic network where each ICP has an unambiguous upstream linkage to a single gate station. It becomes substantially more difficult on lattice networks where multiple gate stations supply gas into the network and multiple ICPs draw gas derived from these multiple sources. In a lattice network, pipes are interconnected at multiple locations so that the flow of gas to an ICP can be from more than one direction. Under the Switching Rules, this issue is dealt with in an ad-hoc way by defining a "parent gas gate" as "the gas gate immediately upstream of the ICP … where upstream means in the direction towards a transmission system" (section 5.2); and by providing for "notional delivery points" - based on a procedure of averaging across multiple gate stations - to be used for reconciliation purposes in Great Auckland, Greater Hamilton, Greater Kihikihi, Greater Mt Maunganui, Greater Tauranga, Greater Waitangirua, and Greater Waitoki.[28] Where customers on a lattice network are free to switch at will between the open-access system and an adjacent private bypass competitor, the difficulties – hence costs and potential for disputes – of calculating and allocating common costs under the notional-gates model could well rise sharply.

(4) Strategic behaviour by retailers. A potential opportunity for gaming behaviour arises where a retail customer has contracts for supply with a retailer which is supplying gas to the same premises over both the open-access system and its own private network simultaneously. Thus customer 1 in the earlier diagram might be simultaneously taking supply from the owner of the bypass network at both its meters. This could enable the bypass operator to use the open-access system for balancing purposes in order to reduce its costs on its parallel private network, or in various other ways to play the two meters off in ways designed to shift costs or raise the costs of its rival network. One way to pre-empt such behaviour would be to provide that no retailer which

[28] *Determinations by the Industry Body (Gas Industry Company) under the Gas (Switching Arrangements) Rules 2008*, p. A1-6.

owns its own private distribution network in an area is permitted to supply any of its customers using the open-access facility. Such a prohibition would, however, be both inefficient in some situations (for example, if the private network has to be taken out of service for maintenance), and would invite a gaming response (the private system owner could coordinate with an affiliate or parent company – which would then have to be dealt with by ring-fencing or divestment requirements). This appears to be a powerful argument in favour of requiring both private and open-access systems to be subject to a single set of overarching governance arrangements.

The above discussion of allocation and reconciliation leads initially to the conclusion that although a private network which does not interact in any way with the physical flows on a neighbouring open-access network could reasonably be exempt in general from participating in the detailed registration, metering and reporting requirements of the governance arrangements for the latter, this is unlikely to apply to a bypass network. In any situation where there are potential spillovers between networks, the preferred default is a uniform set of arrangements imposed across the entire distribution sector, open-access and private. The burden of proof lies on the private network to make the case for any exemption.

There could be merit in an arrangement that made exemption conditional upon a set of conditions designed to eliminate spillover effects between networks. A merchant network owner in a bypass market might be allowed to opt out of the governance arrangements in return for satisfying conditions such as the following (taken together):

- An undertaking that neither the merchant network owner, nor any associated person, would retail gas over the competing open-access system;

- An undertaking that the private network would serve only customers who opted not to be physically connected at the same time with the open access

system, and that the private network would physically disconnect any customer that connected to the open-access network;

- An undertaking to supply on demand to the open-system allocation agent the complete detailed metering data for any customer opting to switch from the private system to the open system;

- A clear understanding by customers that in signing up to be supplied by the private network they would be foregoing the pro-competitive regulatory protections available to them under the governance arrangements on the open access system.

Minimum conditions along these lines might have the effect of making it incentive-compatible for most merchant network operators to participate voluntarily in the governance arrangements. There would then be nothing preventing a single customer from having two ICPs, each with its own parent gas gate, in a situation where a bypass network runs adjacent to a distribution network and the customer is connected to both. The registry would have on record the fact that the two separate ICPs relate to a single gas consumer, and would hold a full record of the customer's purchases from both networks.

The underlying idea would be to make exemption itself more costly and unattractive than voluntary participation in the uniform set of reconciliation rules and regulations.

8.2 Customer Switching

An efficient, reliable and fair customer switching process requires that customers be well informed about competing offers and that their contracts contain no anti-competitive terms and conditions that might inhibit switching at the expiry of the contract term. The best way to ensure these outcomes is the imposition, on all suppliers with potential market power, of a mandatory disclosure regime with respect to their standard terms and conditions, and specification of model contracts under s.43G(h) of the Gas Act 1992.

An example of the sort of information that is relevant to reducing information asymmetries and facilitating customer choice is found in the Commerce Commission's 2004 description of the Nova Gas operation.[29] The Commission reported that on the information provided to it,

> 18.9 ….At the Conference on the Draft Report, Nova Gas stated that it has typically been able to offer customers savings of 50% on the distribution component of prices.

A mandatory disclosure regime would enable both customers and the Gas Industry Company to confirm the claimed savings on distribution costs (a strongly pro-competitive element of pressure on the open-access network's charges) and to ensure that contracts contain no hidden provisions that might enable the private system owner to block desired switches - whether by issuing a "gas switching withdrawal notice" under Switching Rule 69.1.3, with the customer forced to withdraw from the planned switch under its "statutory or contractual rights" (Switching Rule 75.1.2), or by remaining outside the registry and governance arrangements in the first place, and hence not being listed as a "responsible retailer" obliged to respond to a gas switching notice.[30]

Switching Rule 67.2.2 provides for 12 months of readings from "the metering equipment at the consumer installation" to be available to the new retailer following a switch, and Rule 67.4.1 states that the old and new retailer "must agree as to how the register readings shall be provided". This leaves unclear the issue of what happens in terms of registry information when, under Switching Rule 82, a customer switches from a private merchant network which is not registered as a "responsible retailer" to a retailer on an open-access network, changing meters in the process. The readings from the private network's meter would be required if the private network owner is a "responsible retailer" under the Rules, but this is certain to be the case only if all ICPs

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29 Commerce Commission, *Gas Control Inquiry – Final Report* November 2004 http://www.comcom.govt.nz//RegulatoryControl/GasPipelines/ContentFiles/Documents/Public%20Version%20Final%20Report%2029%20November%202004.pdf, section 18.

30 *Determinations by the Industry Body (Gas Industry Company) under the Gas (Switching Arrangements) Rules 2008*, p.15 paragraph 16.3 provides a list of registry codes which includes under "gas switching withdrawal notice" the code "UA: unathorised switch".

on the private network are required to be included in the central register and the private network owner is thereby registered both as a "responsible distributor" and a "responsible retailer" under the Rules (section 5.2).

If a merchant network were allowed to opt out of the registry, its customers which also had meters connected to the open-access system would apparently have to be classed as "inactive-transitional" (INACT) or "active-vacant" (ACTV) under Switching Rule 59.7 for the purposes of the registry, and would then become ACTIVE-CONTRACTED with no previous metered history at the time of a switch from the private to the open-access system. The integrity of the registry information would inevitably be compromised by such an arrangement.

Any governance regime aiming to maximise the degree of competition at retail level will have to engage with these issues. Bundling of gas and distribution charges immediately makes it more difficult for customers to compare prices across competing retail suppliers, and the process of switching from a merchant distributor to an alternative retailer must necessarily entail also the transaction costs of changing the customer's connection to a physically-separate distribution network. Making this process seamless and effortless will be a central issue for the future switching regime.

8.3 Information

The Government Policy Statement of April 2008 unequivocally lays upon the Gas Industry Company the task of ensuring that "good information is publicly available on the performance and present state of the gas sector". This leaves no wriggle-room for exemption of private distribution networks from mandatory information disclosure.

Similarly the Gas (Switching Arrangements) Rules 2008 have the stated purpose of establishing switching and registry arrangements "that will enable customers to choose, and alternate, efficiently and satisfactorily, between competing retailers" (s.3). This is not hedged about with any of the Commerce Act issues around the extent of competition in the relevant market; it is an absolute goal of maximising customer freedom, in a market where the existence of competition is presumed.

9. Conclusions

1. The analysis in this paper has identified only one or two individual areas of the governance arrangements where exemption for merchant distributors could be granted as a matter of general principle. In the great bulk of cases, the benefits of exemption would be secured at the expense of some degree of effectiveness in the overall regulatory framework and/or of market efficiency. This suggests that sweeping exemptions ought not to be available to "industry participants" so long as the gas distribution sector remains an arena of limited competition. A merchant distributor in a bypass or monopoly situation ought not to be granted a general exemption from the switching or reconciliation rules.

2. The key distinction in the legislation is not between "private" and "not private", but between gas network operators which are "industry participants" and those which are not. The latter lie, by default, outside the regulatory framework established under the Gas Act. In general, customer-owned distribution facilities (including the distribution function implicitly internalised by direct-supply gas users) lie outside the regulatory boundary, while all facilities owned and/or used by gas suppliers selling at retail lie within the boundary.

3. Downstream competition and fair-trading issues arise primarily with those networks where ownership and control lies with a party other than the final customer. Customer-owned distribution facilities dedicated to the use of the customer or consortium of customers that owns the facility can in principle be exempted from regulation other than for safety. Merchant pipelines, broadly, can not.

4. Reconciliation arrangements come closest to meeting the criteria for generalised exemption of merchant networks, given the absence of an immediate need for physical reconciliation on a network with only one user. Even there, however, any case for exemption faces strong provisos. Having reconciliation provisions and procedures in place makes it feasible for a private network to be switched seamlessly to open access; a merchant network might exploit an exemption from

reconciliation rules to construct obstacles to being declared open-access at a later date. The compliance costs to the private network owner of sustaining a redundant reconciliation apparatus would represent a deadweight burden from a static economic point of view, but from a longer-run perspective could be a legitimate share of the cost of constructing and maintaining a uniform industry-wide regime. Measurement and recording of UFG makes sense across all distribution systems other than those owned by customers.

5. Customer-owned systems, and merchant distributors disciplined by full facilities-based competition (which is not realistically likely to emerge), could be granted some general exemptions from regulatory oversight without prejudice to the current objectives of government policy and industry governance. The absence in s.43D(1) of the Gas Act of final consumers from the definition of "industry participants" subject to rules and regulations made under the Act is thus appropriate. Direct-supply customers are included as industry participants in s43D(1)(f) but the discussion in this report indicates that in general they would merit exemption from rules and regulations directed at distribution systems. The essence of direct supply is internalisation within the gas user's operation of the distribution function – a decision to make rather than buy this service.

6. Bypass networks have been allowed private status to date, and have secured exemption from regulation on the basis that they are a pro-competitive force in the industry. This provides time-limited grounds for exemption from some regulations while the new entrant establishes its market share and recovers its entry costs, but does not warrant perpetual exemptions.

7. Of 33 areas identified in Section 43 of the Gas Act 1992 where rules and/or regulations may be made, 28 apply to open-access distribution networks and 29 to merchant pipelines, with 24 areas applying to both. There is no dramatic distinction between the two such as might provide *a priori* grounds for granting exemptions to bypass operators. Customer-owned facilities are legitimately exempted from virtually all of the identified areas, but could be made subject to

information disclosure if this contributed to achieving the aims of the legislation and of Government policy.

8. Bypass markets are a duopoly, not a monopoly, situation. They require a re-thinking of the "essential facilities doctrine" that underpinned the move to open access in the 1990s. Under duopoly conditions, at least one of the two networks must be open-access to achieve the Government's policy objectives; but neither pipeline is 'essential' on its own. Simply allowing a new-entrant network to free-ride on a general regulatory exemption is not generally wise beyond the time-limited post-entry regulatory holiday noted in the previous paragraph, both because of incentives to inefficiently constraint the scale and/or scope of the bypass network simply to game the regulatory boundary, and because once natural monopoly has been ended the open-access obligation falls collectively on the network operators serving each market.

9. Special exemptions for particular categories of market participants inevitably set up incentives for gaming behaviour, including manipulation of regulatory boundaries, which will usually be detrimental rather than beneficial for acquirers of the final service and to the efficient functioning of the market as a whole. Given the benefits of ensuring that, for example, the central registry holds comprehensive industry-wide data (rather than just data from open access networks); that customers enjoy protection in respect of key provisions in their contracts, especially relating to freedom to switch at expiry of each contract term; that detailed metering information be the property of the customers on both types of network and available to the central registry in order to facilitate switching; that UFG information disclosure be required of all types of networks to facilitate benchmarking and underpin competitive incentives for accurate metering of final customers; and that basic protection against unfair trade practices is available to all retail customers regardless of the status of their supplier, the onus of proof must lie firmly with the applicant for any exemption.

10. The first test in deciding whether to impose regulatory requirements on a private network or grant exemptions is to ask how that network's private status has arisen,

and for what reasons it is to be retained. To some extent the right to operate as a merchant network is a privilege in an industry in which other competing distributors have been subjected to structural reform in pursuit of competition objectives.

11. The mere fact that a private network is bringing competitive pressure to bear in a restricted market segment conveys no presumption of a right to be exempted from regulations or rules directed to wider purposes at the level of the gas market as a whole.

12. Any exemptions granted ought to be able to be revoked if at any time evidence emerged of strategic behaviour, or of changed circumstances which render the exemption(s) counter-productive from the standpoint of the objectives set out in the Government Policy Statement and the Gas Industry Company strategic plan. Perennial exemptions which convert to *de facto* property rights are not advisable.

13. The industry-wide monitoring of performance that is required of the Gas Industry Company requires inclusion of all industry-participant networks in the information disclosure procedures as a general principle. Information disclosure should report, for all networks whether open-access or private, the general operating parameters (capacity, pipeline length, number of customers, etc), and data on throughput volumes and UFG.

14. Individual customer meter data for the preceding twelve-month period will be required by the registry for any customer switching from a private to an open-access supplier. If not supplied in real time by the private network owner to the registry as part of information disclosure, this data will have to be automatically available at the time any customer makes such a switch. Commercial confidentiality for the private network is overridden by the need for the registry and the Switching Rules to operate seamlessly. Customer meter data should be regarded as property of the customer, not the supplier, and should move with the customer.

Summary of Main Points of Principle

General

Any regulatory regime should be as simple, transparent and uniform as possible. The broad purposes of regulation can easily become subverted by a rent-seeking quest for exemptions by market participants. Differential treatment of networks opens the prospect that the regulatory arrangements themselves may be "gamed" for private advantage. Exemptions for particular categories of industry participants inevitably set up incentives for gaming behaviour, including manipulation of regulatory boundaries, which will usually be detrimental to the efficient functioning of the market as a whole.

Since the 1990s the aims of regulation have widened from terms and conditions of network access for competing gas suppliers, and achievement of competitive neutrality, to wider considerations such as reliability, efficiency, fairness, environmental sustainability, performance monitoring, and correct signalling of costs. Exemptions of certain private networks from information disclosure in 1997 and from price control in 2004 do not provide helpful precedents for future recommendations on exemptions from the switching and reconciliation rules and other future rules and regulations.

What is a private network?

A "private network" is here defined as a pipeline system owned and operated by, and for the exclusive benefit of, a party or consortium which owns all gas transported on the system. The exclusion of third parties from use of the facility is central to its characterisation as private

A range of private distribution arrangements will continue to exist in the New Zealand gas industry. Customer-owned private systems will appropriately be exempted from a wide range of regulatory requirements on the basis that no exploitation of market power at the expense of acquirers is in prospect, and no issues of competitive neutrality are at stake. In the Gas Act 1992, these systems are not defined as "industry participants" and hence lie outside the governance arrangements set up under the Act.

Merchant distributors – private network owners which are gas retailers – are industry participants under the Act and so subject to regulations and rules under the industry governance framework. There is no general principle justifying exemption of merchant pipelines *per se* from rules and regulations made for the gas industry as a whole. Merchant network ought not, therefore, to be granted any blanket exemption from, say, the Switching or Reconciliation Rules.

No distinction between "private networks" and others appears in the Gas Act, nor in the April 2008 Government Policy Statement on gas industry governance.

Reconciliation

The clearest case for pragmatic exemption of a merchant network from regulatory oversight relates to reconciliation, because the operational need for independent reconciliation disappears when a network is utilised by only a sole gas retailer rather than several competitors. Merchant pipelines can be provisionally exempted from regulations regarding retailer access to pipes and meters, and procedures for resolving disputes amongst third-party users of pipelines. Other aspects of the reconciliation rules, however, are best applied industry-wide without exemptions which discriminate in favour of merchant operators.

Bypass and the Competitive Process

The contribution of a bypass network to bringing competitive pressure to bear on incumbent(s) is a relevant matter to be taken into consideration in deciding whether to recommend an exemption from particular rules or regulations. A regulator aiming to maximise competitive pressures in the market may allow a new-entrant bypass owner some period of undisturbed operation as a private merchant network in order to enable the new entrant to recoup its fixed costs of entry and earn some surplus from its competitive initiative. This case for exemption is, however, time-limited. Any exemption should be for a limited time only, and subject to revocation with due notice. Perennial exemptions which convert to *de facto* property rights are not advisable.

The mere fact that a private network is bringing competitive pressure to bear in a restricted market segment conveys no presumption of a right to be exempted from regulations or rules directed to wider purposes at the level of the gas market as a whole.

The "essential facilities doctrine" needs rethinking in markets where a bypass network has entered, creating a pipeline duopoly. In the long run, the bypass network and the previous incumbent ought to be treated jointly as an essential facility for regulatory purposes with the open access obligation allocated on the basis of economic efficiency, having regard to the relative scope and market penetration of the two networks.

Contract Terms and Conditions

Private merchant distributors should not be exempt from regulations specifying standard terms and conditions for retail supply contracts, particularly provisions aiming to protect the positions of low-income customers, and/or to ensure that customers are fully free to switch supplier at the termination of each contract and are not trapped into contract renewal by automatic roll-over of contracts or any supplier's contractual right of first refusal.

The same applies to charges and procedures applicable at the time of customer connection to, disconnection from, and reconnection to, a distribution network. A bypass network facing a competing system has a clear incentive to use penal disconnection charges as a means of inhibiting switching. Seamless switching

between retailers when they are using different distribution networks to deliver gas requires painless connection and disconnection arrangements enforced at industry-wide level.

Given the competitive incentive for a bypass network operator to price its bundled service keenly in order to gain and hold market share, bypass networks generally need not be subjected to detailed regulation of the structure of their retail tariffs. The same is not true of monopoly merchant networks which will tend to re-emerge as gas reticulation extends into new areas.

Price control

Because bypass operators succeed and survive on their price-competitiveness, the costs of price-cap regulation will generally not need to be incurred with respect to those systems so long as they remain the "underdogs" in their competition with the local open-access system. The Commerce Commission's 2004 exemption of Nova Gas from control under s.52 of the Commerce Act 1986 is the relevant precedent here. The Commission's control regime, however, has not addressed adequately the price spillovers from bypass markets to the wider population of gas customers. These negative externalities need to be taken more fully into account in future regulatory proceedings.

Information Disclosure

All industry participants, private or otherwise, should have to participate in providing information necessary to enable the central registry to compile accurate industry-wide statistics and to monitor the efficient operation of the gas supply chain. There is no presumption that "private network" status confers a privileged right to confidentiality of information required by the industry body or its agents to achieve their objectives. The Government Policy Statement of April 2008 unequivocally lays upon the Gas Industry Company the task of ensuring that "good information is publicly available on the performance and present state of the gas sector". This leaves no wriggle-room for exemption of private distribution networks from mandatory information disclosure.

Switching

An efficient, reliable and fair customer switching process requires that customers be well informed about competing offers and that their contracts contain no anti-competitive terms and conditions that might inhibit switching at the expiry of the contract term. One way to ensure these outcomes is the imposition, on all suppliers with potential market power, of a mandatory disclosure regime with respect to their standard terms and conditions, and specification of model contracts under s.43G(h) of the Gas Act 1992.

Private industry participants should be covered by regulatory requirements to maintain detailed customer meter records in a format compatible with that used by the industry body's central registry, and should be required to make those records instantly available at the time any customer makes a switch to a competing supplier.

The more frequently switching takes place, the more potentially disruptive it becomes for the registry and the reconciliation/allocation process, especially if the private network has not been required to provide to the central registry the detailed meter data for all of its customers to enable the registry to build a complete and accurate profile of the total gas consumption at each consumer installation.

Where customers are free to switch at will between an open-access system and an adjacent private bypass competitor, the difficulties – hence costs and potential for disputes – of calculating and allocating common costs under the notional-gates model rises sharply. The common costs of operating the Switching Rules should ideally be borne by industry participants as a whole. This means that the allocation process would encompass bypass networks. There is no principled case for allowing a bypass entrant to enjoy a perpetual right to free-ride on the industry's structure simply because of its bypass status.

UFG

Rules relating to the calculation and disclosure of unaccounted-for gas (UFG) can have important efficiency and customer-protection roles quite apart from any need for reconciliation. Exemption from reporting UFG should in general not be available for merchant pipelines, notwithstanding the absence of multiple system users.