'Light-Handed' Disciplines on the Market Power of Network Owners: New Zealand's Pipeline Access Code and Gas Industry Information Disclosure Regulations

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1. Introduction

New Zealand's major utility industries - electricity, gas, telecommunications, water, rail, ports, and potentially the road network - are now several years down the track of so-called "light-handed regulation". A first generation of novel institutional arrangements have been conceived, designed and, in some cases, implemented to fill the void left by the New Zealand Government's decision to walk away from a large part of the regulatory responsibilities traditionally performed by the state in western capitalist economies.

Some preliminary assessment of these institutional innovations is now possible, although it is still very early days and all judgements have to be qualified by the recognition that new economic institutions, and the associated customary practices and implicit understandings among market players, take many years to evolve, so that New Zealand is still far from reaching a settled new equilibrium in the market structure of its key infrastructure sectors.

In this paper I shall be focusing on two specific examples of the new institution-building process. The first is the development of a voluntary (self-regulatory) code of conduct governing the terms of third-party access to gas pipelines, through the agency of an informal coalition of key industry players known as Gas House. The second is the application to the gas industry, from 1997 on, of information disclosure requirements enshrined in the Gas (Information Disclosure) Regulations 1997.

In each of these cases, through my involvement with Simon Terry Associates, I have been directly involved in the process over a period of several years. STA have been the principal consultants to Gas House from its inception at the beginning of 1995[2]; we were closely involved in debates over the drafting of regulatory provisions for disclosure of pipeline capacity[3], and earlier this year we carried out for a group of clients a detailed review and analysis of the information disclosed by gas industry participants pursuant to the 1997 regula-tions.[4]

2. The Pipeline Access Code

Development of a voluntary industry code for access and interconnection to gas pipeline networks began in New Zealand in 1995, following a series of earlier initiatives in Australia.[5] The code passed through a long series of drafts and was exhaustively discussed by various committees of Gas House before being finally released in mid-1998.[6]

The Commerce Act 1986 prevents a dominant firm from "restricting supply of a product or service which cannot be viably duplicated, where this prevents competition with another part of the dominant firm's business".[7] Owners of gas pipelines are generally in a dominant (natural monopoly) position with regard to the transport of gas in their geographic regions. The Commerce Act therefore mandates open third-party access in a general sense and requires that the terms and conditions of access not be such as to block other parties from competing with a pipeline owner's retail affiliate in the downstream market for natural gas.

Neither the Commerce Act nor any other statute or body of regulations, however, specify how this restraint is to be interpreted when pipeline owners come to set the terms and conditions for access to their systems. Would-be users of gas pipelines in New Zealand found themselves presented with access terms on a "take it or leave it" basis, with recourse to the courts their only effective means of counteracting the market power of system owners.

The Gas House organisation arose out of dissatisfaction with this state of affairs. It was formed on the initiative of Enerco, which during 1993 and 1994 had been negotiating unsuccessfully with NGC over issues of capacity allocation and pricing on the transmission pipeline systems serving Auckland, Wellington, Manawatu and Hawkes Bay. In February 1995 Enerco organised a meeting in Auckland attended by several of the other utilities and a number of major gas users, with the declared objective of trying to promote "competition from wellhead to burnertip" by some means other than litigation under the Commerce Act.

Conspicuously absent was the Natural Gas Corporation, which joined Gas House only in the middle of 1995 once the organisation had gained sufficient momentum and credibility to present a potential threat to NGC's market position. Thereafter NGC made a major commitment of resources and time to Gas House, winning thereby the ability to restrict the scope and speed of Gas House's work and to control the content of the eventually-published Access Code.

Maui Development Ltd never joined in its own right, although it maintained a watching brief through Fletcher Challenge Energy Ltd. The Access Code does not represent any significant progress towards open access to the Maui pipeline for parties other than the existing contract holders.[8]

Officials from the Ministry of Commerce were invited to the initial meeting and attended as observers, but made it clear that they had no mandate to play any constructive role in the development of a self-regulatory framework. Thereafter, despite repeated invitations, the Ministry of Commerce distanced itself completely from the process, declining even to send observers to Gas House meetings.

The existence of a pro-competitive industry initiative potentially provided the Government with an opportunity to refine and develop its light-handed regulatory regime on a constructive basis of interaction with the key gas industry players. In practice, however, the existence of Gas House simply provided officials and ministers with an alibi for inaction. Government spokespersons were always happy to refer in complimentary fashion to the progress being made by Gas House, as evidence that no intervention in the industry by Government itself was required. There was, however, no apparent interest in helping the process along, even when major obstacles to effective self-regulation became obvious in Gas House.

The document which eventually emerged at the end of three and a half years carries an "Introduction" and an Appendix entitled "Development of the Access Code and Supporting Information" which between them accurately summarise several of the central problems confronted in the attempt to achieve voluntary self-regulation, in an industry characterised by strong natural monopoly features, and in the absence of a credible commitment by Government to resolve the imbalances of market power that were inevitably reproduced within Gas House. Some extracts follow:

> "... the Code is not in any way a legally binding document... There is no legal compulsion for any person or body in the gas industry to formally support the Code nor to abide by its provisions."[9]
>
> "The Code does not purport to be a comprehensive prescription for the quasi-regulation of pipeline access. The Code is a voluntary document and as such the standards and undertakings represent the furthest extent to which a process of self-regulation could be developed at this time."[10]
>
> "... The compromise reached within the membership of Gas House, was to publish the Code at this stage of its development so that market practice could assist the Code to evolve. Such a view does not imply ... that the Code provides a complete resolution to many of the complex issues involved in market-led reforms for pipeline access. For example, some members consider that to promote industry change and a competitive gas market, provisions in the Code relating to the following issues will need to be expanded upon or fresh concepts developed:
>
> - Tradeability of pipeline capacity
> - Minimum transport services
> - Prices and pricing mechanisms
> - Ring fencing
> - Spot markets for gas and transmission."[11]
>
> "The absence of specific ring fencing requirements reflects the fact that there are currently no legal requirements on owners to separate contestable and non-contestable services and that the Code is a voluntary undertaking. Further, there is no independent party to audit ring-fencing requirements."[12]
>
> "... Access to all comers on neutral terms has been the prime objective. However, no owner was willing to embark on the development of a Code which restrained price levels or the scope for setting pricing methodologies, so this issue was set aside."[13]
>
> "During development of the Code it became apparent that it was unlikely that an owner would voluntarily agree to accept a constraint on prices in an environment where there are no controls over prices except the provisions of the Commerce Act which allow the Minister of Commerce to recommend price control."[14]
>
> "The Code does not restrain owners from treating similar gas consumers differently in respect of negotiated prices."[15]

In discussing the actual content of the Access Code, therefore, it is important to start with very modest expectations. The hard reality is that natural monopolies do not voluntarily surrender market power in the absence of credible threats. The central achievement of Gas House was not to mitigate in any way the market power of network owners, but simply to foster the exercise of that power in a somewhat more civilised way and to develop an industry culture of (relatively) good-humoured agreement to disagree. Gas House also provided an institutional environment where major players could work their way toward shared understandings on a number of operational and contract issues which might otherwise have imposed much greater transaction costs on the evolving gas industry (metering and reconciliation arrangements were the most striking examples).

The exercise certainly enabled participants to evaluate for themselves the very limited legal restraints currently imposed on monopoly power in New Zealand. By the time the Code was moving into its final drafting (roughly the last year) it was clear that it could provide only a charter of those user rights and supplier duties which pipeline owners regarded as legally inescapable. Gas House debates enabled gas industry participants to codify some of those rights and duties without resort to lengthy and expensive litigation, but in no major area was the competition frontier pushed forward in a pro-active manner beyond the restraints contained in the letter of the law. Insofar as the law in its present form embodies sufficient conditions for competition to emerge, the Access Code provides a helpful gloss. Insofar as the law fails to set sufficient conditions for competition to emerge, the Code leaves pipeline owners unrestrained.

Having thus far accentuated the negative, I must be careful not to eliminate the positive. I turn therefore to a summary of the content of the Code. There are twelve sections:

1) Objective, Scope and Definitions.

The stated objective is "to promote development of competitive gas markets by

publishing minimum standards of disclosure and conduct for Owners and by facilitating Neutral and Non-Discriminatory access to Transport Systems by Users".[16]

Key elements of this negotiated wording are the absence of any reference to minimum standards of service as distinct from conduct, and the fact that neutral and non-discriminatory access is only "facilitated", not required. The original intent of those promoting the concept of an access code was that it would be legally binding on signatories up to the point where actual transportation contracts came into force, and that those contracts could not be contrary to the Code. Under those circumstances, words such as "facilitating non-discriminatory access" could have had real teeth. Because the present version of the Code is not legally binding and contains no effective sanctions, the objectives and detailed provisions rest solely on moral suasion for their effectiveness.

2) Behavioural Standards.

Owners of pipelines are to

- provide access to all parties in good financial standing;
- accept for carriage all gas which meets specification;
- act in a non-discriminatory fashion;
- provide service under published terms and conditions;
- facilitate access to developable[17] as well as actually installed capacity; and
- negotiate in good faith.

Users are to act reasonably, negotiate in good faith, and not hoard capacity reservations on any pipeline.[18]

Even though embedded in a non-binding document, some of these provisions effectively outlaw certain negotiating tactics which could easily be used as barriers to entry.

Of special significance is the Code's recognition that the open access obligation is to be interpreted as applying to developable capacity as well as actually installed capacity. This finesses the possibility of a pipeline owner declining access on grounds of capacity constraints, which had been a real concern up to the mid-1990s.

3) Confidentiality and Ring Fencing.

The consultants' recommendations, and early drafts of the Code, contained stringent ring-fencing requirements to apply to vertically-integrated monopolies.[19] The draft proposals were based on those imposed by the Federal Energy Regulatory Commission in the USA, as a means of blocking a vertically-integrated pipeline operator from giving its own retail affiliate a competitive edge relative to other competing users, whether by giving favourable terms for transport, or by passing on commercially sensitive information at the expense of its competitors.

In Gas House, that prescriptive approach was successfully blocked by the pipeline owners, leaving only a brief section in the Code[20] laying down expected standards of conduct by owners in respect of confidential information and access terms, and leaving it the responsibility of each pipeline owner to publish its own, unilaterally designed, arrangements for protecting information and ensuring nondisrimination. Again the original intent of binding obligations was replaced by general moral suasion.

4) Services

This section of the Code sets out four general principles and some minimum requirements for the Information Memorandum which each pipeline owner is to publish containing their access terms and conditions. The principles, in summary, are:

- posted-price services are to be available for all capacity, and arrangements should be made for excess capacity to be accessed by Users[21] on a short-run (day to day) basis
- where capacity entitlements are issued they should be structured to facilitate secondary trading
- services should be unbundled "where reasonable and practicable"
- pipeline owners may negotiate separate prices, terms and conditions with individual users and these may differ from the posted terms and conditions available to all comers.

This section would be the core of a really serious Access Code because the issues addressed are the strategic keys to freedom of entry and exit by users, efficient market allocation of capacity to its highest-valued uses, flexible access to unutilised capacity on a spot or interruptible basis, and non-discrimination among users in terms and conditions. The actual mechanisms by which market power is exercised by pipeline owners in practice are clustered in the areas identified.

The consultants' recommendations, and early Code drafts based on them, contained a substantial amount of prescriptive material designed to identify precisely the sorts of exercise of market power which ought to be treated as abuse, and to prevent such abuse. The final Code is almost completely non-prescriptive in these areas and the principles are framed in vague and general form, leaving to pipeline owners very wide freedom to design the detail of their terms and conditions in ways which protect and exploit their market power.

Two examples will illustrate this. First, the Code gives licence to owners to depart from their posted terms and conditions in offering "Negotiated Price Services" to individual users, subject only to two general checks: the expectation that owners will act in a "neutral and nondiscriminatory" manner[22] which means that no single user should be favoured over others; and the Code requirement for each owner to publish "a policy and criteria for Negotiated Price Services" together with "the material terms of an agreed Negotiated Price Service".[23]

As I shall point out later, the 1997 experience with regulated information disclosure warrants substantial cynicism regarding the ability of system owners to conceal contract information under the cloak of disclosure, simply by exploiting the letter of the law. There is no reason to expect that owners will be more forthcoming in their compliance with the non-binding Code. The concept of "neutral and non-discriminatory behaviour" is similarly vulnerable to semantic manipulation by owners[24] and the Cod provides perilously few and weak safeguards against this.

Second, the terms and conditions under which short-term access to excess capacity is to be made available constitute at present the key line of defence of market power for those pipeline owners operating under contract carriage regimes.[25] On-demand ("spot") transport service is an essential requirement for economic efficiency and competitive flexibility in the utilisation of gas pipelines, but spot markets directly threaten the sustainability of fixed-price contracts on systems with excess capacity.[26]

A key objective successfully pursued by pipeline owners in Gas House was to prevent insertion into the Code of any clear requirement to provide on-demand service on competitive terms. Although the spirit of section 4.1(ii) of the Access Code can be interpreted as favouring such on-demand service, the strict letter of the Code can be met by arrangements such as the overrun provision currently embodied in NGC's standard Transmission Services Agreement. Under this arrangement, would-be pipeline customers are denied access to on-demand service unless they have first entered into a full-blown transmission contract for a term of not less than one year (NGC simply refuses to enter into short-period - weekly or daily - contracts for transmission service). Users are then subject to punitive charges (twenty times the daily reservation fee) for on-demand service in excess of their annual reservation.[27] NGC has thus effectively protected the value of its primary contract instruments against the threat of a spot market, without breaching the letter of the Code.

5) Developable Capacity

This section of the Code confirms that developable capacity is to be available to users if required, and lays down several principles designed to protect the position of pipeline owners: owners have the priority right to choose expansion options and to commission the work; the right to own the resulting installations, and a broad right to refuse to install developable capacity if the owner "cannot identify a Developable Capacity option that is technically and economically feasible".

Conspicuously missing are the counter-vailing rights for pipeline users proposed in the consultants' recommendations.[28] The Code takes a welcome forward step by confirming a general right of access to developable capacity, but gives users no clearly-defined right to participate in the evaluation, design, selection, funding or pricing of capacity increments. Instead, users are to be informed by owners of the reasons for any denial of access, and may then have recourse to the Code's dispute resolution procedures. The resulting balance between owners and users is not entirely one-sided but is significantly weighted in owners' favour.

6) Receipt and Delivery Points

This section is a substitute for earlier proposals that the Code, or a separate document, should deal extensively with the issue of system interconnection. Interconnection pricing issues - the core of the Telecom-Clear dispute - were completely sidestepped by Gas House, ostensibly because of fears that any codified pricing arrangements would be in breach of the Commerce Act.[29] This left only the technical aspects of interconnection, which the Code reduces to the matter of establishing receipt and delivery points for gas.

The Code allows interconnection to be refused outright only on the basis of "Good Industry Practice",[30] but provides for a potentially crucial barrier to entry by allowing the owner of a system to which interconnection is sought to "set standards consistent with Good Industry Practice for the construction and operation of facilities owned by others and connected to the Owner's facilities".[31] This provisio mimics, with no countervailing restriction on abuse by Owners, the familiar non-tariff-barriers which are routinely used around the world to subvert free trade arrangements - the Dairy Board's recent experience with spreadable butter in Europe is an obvious example.

The power to dictate the construction and operating standards to be met by interconnecting competitors is an entirely one-sided weapon in the hands of dominant incumbents, with new entrants given only the right to take the dominant to the disputes procedures. Substantial deadweight costs are the likely result, since efficient interconnected looping around a dominant system's bottleneck will be discouraged and total bypass encouraged.

This provision of the Code would be more defensible if it were restricted to upstream interconnected facilities only, since it is reasonable to argue that undesirable gas quality, pressure fluctuations and so on may originate from them. Extending it to downstream connected facilities has the primary effect of enabling a vertically-integrated pipeline owner to handicap competitors of its downstream affiliate by refusing to connect service pipes, meters, or entire pipeline segments installed by those competitors in order to reach customers.

7) Access Request Process

This section lays down procedural arrangements for making and processing applications for access, and imposes a ten-day deadline for pipeline owners to respond to conforming requests.

8) Measurement and Reconciliation

This section makes sensible arrangements for the protection of information and auditing arrangements. As already noted, metering and reconciliation represented one of the areas of greatest progress since 1995, with the key technical work being coordinated by the Gas Association of New Zealand alongside the ongoing Gas House forum.

9) Pricing

As already noted, Gas House decided not to grasp the pricing nettle on the insistence of pipeline owners, backed by section 29 of the Commerce Act. The single page of the Code dealing with pricing issues is restricted to:

- price disclosure,

- a vague reference to "equity and economic efficiency" in pricing,
- support for unbundling "where reason-able and practicable",

  and two principles of more potential substance: a most-favoured nation requirement that any Service be available to all Users on request,[32] and a rejection of (one interpretation of) the Baumol-Willig Rule in the form of a provision that owners "shall not recover costs, expenses or revenue losses incurred by Affiliates operating in upstream or downstream markets through increased charges for Services".[33]

10) Information Memorandum

This section prescribes the content of the document in which pipeline owners are to publish details of their systems, the services offered, and the terms and conditions for service, including prices and pricing methodologies.

11) Administration

The Code is to be administered by a Committee of six to eight members, of which "at least half" are to be pipeline owners with Information Memoranda in the public domain. This provision is explained on the basis that "a representative balance of owner and user interests on the Code Committee" was sought and that "there is a greater potential for users to outnumber owners than vice versa".[34] This potential exists, however, only so long as users find it worth their while to join and participate in Gas House and the Code administration. If users become disenchanted with Gas House, or do not see value for the money required to participate in the administration, then the committee could consist entirely of owners. Since the Committee must approve any amendments to the Code, and oversee the dispute resolution procedures, it is surprising that the requirement for at least half the committee members to be owners is not counterbalanced by a matching ceiling on owner representation. In effect, the constitutional arrangement guarantees a blocking coalition of owners on the committee, while leaving it entirely up to users to establish a countervailing position for themselves.

12) Dispute Resolution

The dispute procedures are available only to Code signatories, which provides users with an incentive to join to the extent that the procedures seem likely to be more cost-effective than litigation. Here more than anywhere else, the Code can be meaningful only to the extent that parties bring a large measure of good faith to their dealings with one another. Disputes are to go to the Code Committee, which may appoint an independent arbiter. Rulings must be by a 75% vote of the Committee (which gives pipeline owners an automatic group veto power), and the maximum punishment for a party which refuses to accept the Committee's decision is removal from the public register of code signatories.[35]

Summing up on the Access Code exercise, the Code itself has really only symbolic significance as the outward and visible sign that the natural gas industry has spent a substantial amount of time and money on a process of self-analysis and self-education. To the extent that the Gas House forum, and the focusing of minds on detailed code drafting, have helped to move the industry towards a new culture of transparency and competition, and away from the old order of regulated franchised monopoly, there are real gains to record.

Much of the report card on Gas House, however, is fair at best and negative at worst. The industry's dominant players exercised their dominance within Gas House in the same way as they are able to do in the marketplace, and the Code embodies only mild restraints on market power, the effectiveness of which depend to a large extent on the good faith of Code signatories in resolving disputes and abiding by the spirit of the Code in a generous fashion.

In an industry which had nurtured a culture of good citizenship, or in which peer pressure for good behaviour was powerful, a document such as the Code would be especially valuable, and would be expected to evolve over time in a pro-competitive, power-sharing direction. This would be a corporatist solution to the problem of natural monopoly in infrastructure. The gas industry, however, does not (yet?) have such a culture, and the Code is therefore likely to prove largely a dead letter, however valuable the three-year consultation and debating process was.

Real change in the industry is being driven by processes of conflict rather than consensus, and it has become increasingly clear that Government has a preference for these conflict processes and little real interest in the consensual-corporatist alternative. The success of Shell and Todd in regaining control of half the Kapuni reserves by litigation, the actual construction of bypass pipelines such as Kapuni-Hawera and Tawa-Ngauranga, the emergence of new gas sources owned independently of Fletcher Challenge, the capture by new entrant gas sellers of major customers from incumbent suppliers, the downward price pressures resulting from distress sales of take-or-pay gas, and the flow-through from excess capacity in electricity generation, are the forces that are really shaping the landscape of the gas industry.

In the long run, the marketplace may prove an effective (though not conspicuously efficient) slaughterhouse for erstwhile monopolists. Even the natural-monopoly status of pipelines can be diluted and eventually destroyed by bypass and stranding - which, given the small size of the New Zealand market, is the local counterpart of the North American competitive process of duplication, interconnection and hubs. New Zealand's weak competition law and high litigation costs provide strong incentives favouring the wasteful use of scarce resources in bypass investment programmes which add nothing to the nation's total stock of economically-useful capital but simply build up increasing amounts of excess capacity.

It is ironic that one of the arguments originally used to promote the post-1984 industry restructuring policies was the inefficiency of infrastructural investment under a corporatist model (in that case, Think Big and the associated drive towards excess investment in electricity generation). Over-investment in the energy sectors has turned out no less wasteful, and considerably more disruptive to other sectors of the economy, under deregulated market forces.

To sum up, the interventionist argument for pursuing industry reform by regulation (or by consensual self-regulation driven by credible regulatory threats), rather than through a free-for-all Darwinian struggle in the marketplace and the courts, has always been that the market process can be wasteful and distortionary in circumstances where the requirements for perfect competition are not met. The infrastructure of a nation's economy is an arena for strategic long-term decision making under conditions of very imperfect competition. Gas House started from the premise that it was in the interest of the gas industry as a whole to develop its own institutional arrangements to promote efficiency and reduce bloodshed. This view was based on a further premise, that the New Zealand Government expected the gas industry to self-regulate sufficiently to neutralise the market power of natural monopolies, and stood ready to intervene if this outcome was not forthcoming.

The latter premise has, I think, turned out to have been mistaken, and the incentive for industry players to compromise their vested interests in a quest for a reforming consensus is therefore lacking. The Gas Pipelines Access Code reflects the alignment of forces in a conflict model, and is thus a true reflection of actually existing New Zealand capitalism. As NGC notes in its Information Memorandum, "[a] cooperative approach [does not] fit well with a competition-driven regulatory regime".[36]

3. The Information Disclosure Regulations

At the outset it is worth recalling the original reasoning behind the introduction of information disclosure for tele-communications, electricity and gas in New Zealand. The declared aim for gas was to provide a discipline on monopoly power that would be equivalent to price control while avoiding the rigidities allegedly associated with direct regulation:[37]

> "Information disclosure is the alternative to price control which has the least distortionary effect on the use of resources by firms. It provides consumers and competitors with more information about the firm with monopoly power. This information allows customers to bargain more effectively with the monopolist and therefore realise better prices."

Besides empowering customers and competitors to bargain and compete more effectively, information disclosure was intended to place on the public record sufficient information to allow successful prosecution of monopolists under the Commerce Act 1986:[38]

> "If the conditions for access being required by the pipeline operator are too onerous (and are anti-competitive in intent) then an appropriately structured information disclosure regime will provide sufficient information to enable the discriminated party to take action under the Commerce Act."

The 1991 official recommendations were described as "tough and comprehensive",[39] and market participants could reasonably have built up substantial expectations that the future environment in which NGC, in particular, would be operating would be a goldfish bowl with respect to

- cost allocation among the various activities undertaken;
- physical (capacity-related) attributes of the system and the patterns of reservation and use of capacity;
- "contract details, including price, of contracts made on or after 1 August 1990, and modifications made after that date to contracts (for wholesaling and gas conveyance activities and related services)".[40]

It would also have been reasonable for the typical market participant to anticipate that disclosed information would be readily available for consultation and analysis through some central registry or public library, so that the promised process of applying discipline to monopoly power could proceed with minimal transaction costs. Obviously there was a reasonable expectation that the Ministry of Commerce, as the government agency responsible for implementing and enforcing the regulations, would check that companies complied and would maintain some sort of log of what documents had been released.

The Gas (Information Disclosure) Regulations 1997 in their final form required each gas pipeline operator to report

- separate sets of accounts for its lines and energy businesses (Regulations 6 and 7);
- details of transmission and distribution contracts and contracts for related services, plus, in the case of NGC, contracts for wholesale gas supply including price and volume (Regulations 8 - 15);
- various performance indicators covering financial rates of return, efficiency measures, and reliability statistics (Regulations 16 - 19, and Schedule 1 Parts 1 - 4);
- pricing methodologies for setting lines charges and allocating costs amongst various activities (Regulations 20 and 21);
- transactions between "persons in prescribed business relationships" (Regulation 22);
- statistics of installed and (first tranche of) developable capacity, together with peak flows and reservations where relevant (Regulation 23 and Schedule 1 Part 5);
- lines charges under standard and non-standard contracts, and methodologies for calculating these (Regulations 24 - 27).

At first sight this may seem an impressive list, and certainly the sheer volume of paper that was produced by the seven disclosing firms (counting NGC as a single entity) was intimidating, amounting to several hundred pages.[41] Digesting and analysing the information would have constituted a considerable exercise even had it all been made publicly available at a single point.

The regulations were from the outset structured to provide for all disclosed information to be sent to the Secretary of Commerce under section 56(1)(b) of the Gas Act 1992, so the obvious means by which gas industry customers could expect to access the material was the Ministry. Here the first and most revealing disappointment of reasonable expectations set in. The Ministry made no arrangements to provide any public access point:

> "We have carefully considered whether the Ministry of Commerce should set itself up as the central access point for disclosed information, and concluded that distribution of information disclosure is not part of our core function.... [W]hether or not we ought to take on the role of information distributor is an academic point, as we simply do not have the resources to do the job."[42]

To rub salt into this wound the letter quoted above went straight on to insist that anyone seeking information would have the incentive to get it for themselves from the companies concerned, given "the relatively low cost of obtaining the information in the ways provided for in the Regulations". In my role as an analyst with one of the few consultancies which undertook the task of identifying and obtaining a comprehensive set of disclosed material, I am at a loss to know what benchmark Ministry of Commerce officials had in mind when they described the transactions costs as "relatively low". Certainly I cannot imagine many gas customers, even the largest ones, incurring such costs merely on the off-chance that their bargaining position might be strengthened in some unspecified way.

Not only did the Ministry of Commerce wash its hands of any responsibility for facilitating public access to the first round of disclosed gas-industry information; it did not even make arrangements for maintaining a public log of such information - the most basic requirement for the Ministry itself to perform the monitoring function given to it by the relevant legislation. Only after the issue was raised by outside analysts in December 1997 did the Ministry agree to "look into the feasibility of maintaining a log of all disclosures made, for public reference."[43]

As for the capability of the Ministry to effectively monitor disclosed information for compliance with the regulations,

> "We check returns for compliance, but will not necessarily be able to spot whether companies are omitting information they should be disclosing.... We would appreciate any help in identifying omissions."[44]

What, then, did disclosure reveal, relative to the objectives of giving customers real bargaining power and providing the necessary information to enable successful prosecutions to be mounted under the Commerce Act?

It came as no surprise to us that the most useful and useable information to emerge was that relating to pipeline capacity on transmission systems - an issue which the Ministry had put into the too-hard basket back in 1993, and which had been included in the Regulations only after sustained lobbying and independent drafting of suggested provisions. Counter-lobbying by NGC was successful in watering-down capacity disclosure in several key areas - for example by removing requirements for disclosure of annual volumes at individual offtakes, by mixing up non-coincident system peaks and offtake peaks in the reporting requirements, and by removing any ability of users to have specified capacity-modelling runs performed on owners' system-wide computable equilibrium models. Overall, however, the capacity information produced for transmission systems was wide-ranging and useful. A number of competition issues were brought clearly into the open, most notably the wide variation in capacity reservation practices across systems and offtakes, which cast new light on the issues of capacity-rights tradeability[45] and the means by which vertical integration of gas trading and transmission system ownership could be used to gain market advantage over competitors.

In other areas the regulations proved substantially less impressive in practice. Four issues in particular are worth mentioning here.

- The intent behind the requirement on NGC to disclose all its wholesale gas sale contracts since 1990 was clearly to enable customers in general to benchmark their prices against those actually being charged elsewhere in the market by the dominant wholesaler. NGC, however, exploited a loophole in the regulations to restrict its contract disclosure to five bulk sales to retail utilities, including a 24 PJ sale to its own "retail" affiliate, NGC Gas Companies,[46] which was apparently set up for this purpose. The result was that several dozen direct NGC contracts with major gas users were unilaterally classified as non-wholesale, and hence exempt from disclosure. The sole market price benchmark revealed by disclosure was therefore the $2.98/GJ wholesale price of gas sold to utilities. Any serious effort to check the exercise of market power by NGC would have had to force disclosure of the major-user contracts. The regulations in this area did not represent such a serious effort.

- Both transmission and distribution system owners were required to disclose their lines pricing methodologies and posted tariffs, with individual disclosure of all non-standard contracts. However, the regulations were worded too loosely to elicit information of real value for any analyst seeking to test for monopoly profit-taking or price discrimination across customers. While the number of customers in each tariff class, and the tariff rates for that class, were disclosed, there was no requirement for total volume or total revenue data for each class to be released, nor for any disclosure of the ex-post average price of service to each class (a fundamental benchmarking requirement). Furthermore, the regulations provided no clear definition of "a customer" and no requirement for consistent identification of (even anonymous) individual customers, allowing pipeline owners to disclose dozens of pages of unintelligible numbers which satisfied the letter of the regulations while completely frustrating the ostensible intent - that analysts ought to be able to identify evidence of predatory pricing, monopoly profit-taking, cross-subsidy, or price discrimination.[47]

In a nutshell, the regulations (i) do not require non-standard contract customers to be identified, even by location; (ii) permit concealment of contract customer terms and conditions by arbitrary unbundling and inconsistent "reference numbering"; and (iii) do not require key information such as contract-specific volumes, revenues or average revenues. There is simply no way to rank prescribed-agreement customers against standard-agreement customers on the basis of relative prices paid.

- The regulations as they stand do not even begin to place adequate checks on the ability of an incumbent pipeline owner to allocate the common costs of line and energy businesses in a way which loads an undue share of costs onto the non-contestable natural-monopoly element of the business and then charges those costs plus healthy margins against line services provided. There are strong signs in the disclosed information that cases exist of vertically-integrated gas suppliers even taking a loss on gas sales (effectively predatory-pricing out any new retail competitors) and recouping the foregone revenues from their pipeline monopolies - but none of the disclosed information provides the sort of "smoking gun" that would be required to ensure successful Commerce Act prosecution - one of the ostensible purposes of disclosure. (The costs of litigation in New Zealand are such as to deter prosecutions based only on circumstantial evidence of abuse of market power, such as is to be found in the disclosed information.)

- Asset valuations are at the heart of disputes over the pricing of pipeline services but are subject to no public disclosure requirements beyond the publication of aggregated book values in gas industry firms' annual reports. The very rapid and large-scale inflation of those book valuations in recent years has been driven by the implementation of the ODV methodology as that approach has been interpreted in New Zealand. The disclosure regulations recognise the significance of asset revaluations for shareholder returns, by requiring the disclosure by pipeline owners of an "accounting rate of profit" which is to be calculated inclusive of asset revaluations,[48] but provide no public window on the detail of ODV valuations.

Information disclosure remains potentially a valuable element of countervailing power for users against monopoly pipeline owners. As with access issues, however, the drafting, redrafting and monitoring of the regulations requires the active involvement of Government. To date the

Ministry of Commerce has not demonstrated a credible commitment to ensuring that the disclosure discipline bites anywhere near as deep as price control could have done - and the prospect of any actual resort to price control by the present Government or Commerce Commission appears remote.

4. Some Concluding Remarks

Close involvement in these exercises in industry self-regulation has reinforced, rather than mitigated, my early misgivings as an economist about the theoretical basis on which New Zealand's light-handed regulatory regime was constructed. Rather than embarking here on an extensive discussion of theoretical issues, I shall simply note two misconceptions that seem to me to have run through New Zealand official thinking on the issue of disciplining natural monopolies.

- First, while it is relatively easy to construct plausible arguments that the private sector may have advantages over government in carrying out commercial activities efficiently,[49] it is definitely wrong to infer from this that private business will be better than government at designing and implementing regulatory arrangements. Regulation is ultimately part of the core business of the state, in which it ought to have a comparative advantage over the private sector. It has always seemed to me likely that transferring the task of industry regulation from the state to the private sector would reduce the efficiency with which regulatory outcomes were delivered, and thereby impose substantial deadweight costs on the economy. I think that that expectation has been borne out in practice, especially in the area of network access terms and pricing. We shall eventually get essential market disciplines in place, by a form of lowest-common-denominator common consent compelled by brute market forces. But along the way the New Zealand economy will have been loaded with a number of significant competitive disadvantages relative to efficiently regulated overseas competitors, where governments set clear and intelligible parameters within which commercial infrastructure providers must work, and then allow business to get on with its job.

- Second, the reluctance of the New Zealand Government to confront the issue of blatant profit-taking by well entrenched natural monopolies has been nothing short of extraordinary. The oft-repeated threat by ministers and officials to "resort to price control" if industry failed to meet government's objectives had little credibility to begin with, given the political constraints and incentives faced by those same ministers and officials. By now the emptiness of the threat is a standing joke. The absence from the information disclosure regula-tions of provisions that would force disclosure of monopoly profits, and enable individual customers to bench-mark the prices charged to them against competitive standards, may well be attributable to the capture by key vested interests of a weak, under-resourced, and often apparently demoralised state regulatory apparatus.

Both of these points recall a distinction made by the Swedish economist Gunnar Myrdal in his 1968 book Asian Drama, written about South Asia at the time of the East Asian takeoff. Myrdal drew a distinction between "hard states" and "soft states".[50] Hard states were those whic developed and maintained the effective ability and willingness to enforce their policy goals if required. Because such states have effective monitoring mechanisms, it is credible for private sector players to assume they will be caught out if they misbehave, so the incentives to flout policy goals are greatly reduced. At the same time because the state has fully credible capacity to step in and impose outcomes both ruthlessly and efficiently, the need for it actually to do so is dramatically reduced. Light-handed regulation, to be effective, requires a hard state on the sidelines.

Soft states, in contrast, lack the capacity and the will to dictate key outcomes.

> "There is an unwillingness among the rulers to impose obligations on the governed and a corresponding unwillingness on their part to obey rules laid down by democratic procedures".[51]

Soft states do not maintain the analytical capacity to monitor effectively, nor to design surgically-efficient policy interventions. They lack enforcement machinery sufficient to give credibility to their stated aims. It is therefore rational for the private sector to treat them with a degree of contempt and to engage in strategic behaviour which is directly subversive of the declared goals of policy. Light-handed regulation under these conditions is simply non-regulation, punctuated by periodic blundering interventions which tend to do more harm than good.

The New Zealand state has made itself soft in this sense, and this softness has contributed directly to the poor results from the structural reform programme of the past decade, measured in terms of the things that really matter for an economy in the long run: growth, productive investment, sustainability, and the elimination of poverty. Gas industry managements have responded directly to the incentives created by policy design, and their responses have been appropriate in terms of serving faithfully the interests of their share-holders. Our problem is that what is good for gas company balance sheets and shareholders is not necessarily best for New Zealand. If the economy as a whole has lost out as a result of regulatory failure, however, the blame lies squarely with Government, not with the industry. **VEC**

FOOTNOTE:

1 Revised version of paper presented AIC "Gas 98" Conference, Wellington, 21 September 1998. Geoff Bertram is a consultant with Simon Terry Associates and a Senior Lecturer in the School of Economics and Finance, Victoria University of Wellington.

2 See in particular G. Bertram and S. Terry, Pipeline Etiquette: Towards an Access Code, report prepared for Gas House, March 1996.

3 For example, G. Bertram, Gas Pipeline Capacity: Options for Information Disclosure, Simon Terry Associates Limited contract report for Enerco NZ Ltd, March 1995.

4 G. Bertram, J. Grierson and S. Terry, Pipeline Pantology: An Analysis of Disclosed Gas Information, contract report, 2 vols, March 1998. Also G. Bertram and S. Terry,

Supposing Disclosing is Exposing: A Review of the Effectiveness of the Gas (Information Disclosure) Regulations 1997, December, 1998.

[5] Australian regulatory developments up to 1995 are outlined in Pipeline Etiquette, Appendix II.

[6] Gas House, Gas Pipeline Access Code, 14 July 1998.

[7] Commerce Commission, Anti-Competitive Behaviour: What the Commerce Act Prohibits.

[8] The main consultants' report commissioned by Gas House, Pipeline Etiquette, devoted a full chapter (Chapter 10) to substantial proposals for achieving open access to the Maui line, but argued that no progress was possible at that time unless the Crown was willing to vary the Maui Contract and its derivative contracts to which the Crown is a party. To date the Crown has turned down all proposals for such variation and initiated none, thereby effectively protecting NGC's established position in the northern wholesale gas market. Informal arrangements for access to the Maui line are believed to have been made during 1998.

[9] Gas House, Gas Pipeline Access Code, 14 July 1998, p.i.

[10] Ibid.

[11] Ibid.

[12] Gas Pipeline Access Code, p.41.

[13] Gas Pipeline Access Code, p.43.

[14] Gas Pipeline Access Code, p.43.

[15] Gas Pipeline Access Code, p.43.

[16] Gas Pipeline Access Code, p.1.

[17] Developable capacity is the additional capacity that could be made available by incremental expansion of the existing plant and pipeline installations, within the geographic limits of the existing system.

[18] Gas Pipeline Access Code, p.5.

[19] Pipeline Etiquette, pp.41-42.

[20] Gas Pipeline Access Code, pp.7-8.

[21] The capital letter on "Users" signals one of the key barriers to competition enshrined in the Code, namely that no spot market in gas transport is to be available to parties which have not signed a "Service Agreement". This issue is discussed below.

[22] Gas Pipeline Access Code, p.5, s.2.1(i), and definition of "neutral and non-discriminatory" on p.2.

[23] Gas Pipeline Access Code, p.19, s.9.1(vii) and s.9.2(iii). No definition or guidelines are provided as to what is meant by "material".

[24] An example is provided by the presently-effective Information Memorandum issued by NGC, which defines the "principle of non-discrimination" as follows: "in dealings with customers, equals will be treated equally and unequals will be treated differently". Natural Gas Corporation, Transmission Pricing Methodology and Current Issues, p.1. section 1.1.

[25] On the distinction between contract carriage and common carriage see Pipeline Etiquette, Chapter 4, and Australian Industry Commission, Australian Gas Industry and Markets, February 1995, p.57.

[26] There is a large US literature on the "decontracting" phenomenon in the competitive interstate pipeline market. See, e.g., J.J Hocker, "Managing Pipeline Capacity in a Decontracting World: Release, Resale and Beyond", Gas Energy Review 24(2):2-4, February 1996; F. Heintz, "Future Unsubscribed Pipeline Capacity", Gas Energy Review 24(6):6-8, June 1996; F. Heintz, "Studying the Future of Pipeline Capacity", American Gas 78(2):30-31, March 1996; L.A. Burkhardt, "Unsubscribed Capacity: A Growing Problem", Public Utilities Fortnightly 134(6):41, March 15 1996. The issue is discussed in Pipeline Etiquette, Chapter 9.

[27] NGC, Transmission Pricing Methodology and Current Issues, July 1996, section 3, pp. 5-8.

[28] Pipeline Etiquette, Chapter 7.

[29] Section 29 of the Commerce Act 1986 is now routinely cited as placing a general prohibition on any industry-wide self-regulation arrangements regarding price. While there is no Court judgement on this issue, sufficient legal opinions are in circulation to warrant amendment of this section of the statute, if "light-handed regulations" is really intended to encourage self-regulation along the lines of Gas House.

[30] Gas Pipeline Access Code, p.13, s.6.1(ii).

[31] Gas Pipeline Access Code, p.13, s.6.1(iii).

[32] This does not, however, necessarily imply that all users have the right to share the terms and conditions of a negotiated special deal for a particular customer unless the other users are identical in all respects to that customer.

[33] Gas Pipeline Access Code, p.19, s.9.1(iii).

[34] Gas Pipeline Access Code, p.45, Appendix 2 Part II.

[35] Gas Pipeline Access Code, p.31, s.12.3(viii).

[36] NGC, Transmission Pricing Methodology and Current Issues, July 1996, p.5.

[37] Officials Coordinating Committee, Review of the Regulation of the natural Gas Industry, report prepared for Cabinet State Sector Committee, Mary 1991, p.5. para. 16.

[38] Officials Coordinating Committee, Review of the Regulation of the natural Gas Industry, report prepared for Cabinet State Sector Committee, Mary 1991, p.25. para. 73.

[39] Officials Coordinating Committee, Review of the Regulation of the natural Gas Industry, report prepared for Cabinet State Sector Committee, Mary 1991, p.5. para. 15.

[40] Ministry of Commerce, Gas (Information Disclosure) Regulations Newsletter No.1, March 1996, p.1.

[41] The complete set of disclosed information is bound as Volume 2 of Pipeline Pantology.

[42] Letter, 19 December 1997, Mike Lear (Ministry of Commerce) to Simon Terry.

[43] Ibid. p.2.

[44] Ibid. p.2.

[45] Pipeline Pantology, Chapter 2-5.

[46] Pipeline Pantology, p.89, Table 6.3.1.

[47] Pipeline Pantology, Chapter 6.

[48] Two companies (Wanganui Gas and Powerco) disclosed their 1997 accounting rates of profits exclusive of revaluations, notwithstanding the clear wording of the Regulations. This direct rejection of the explicit ARP formula set out in the Regulations was agreed to by the Ministry, without wider consultation, on application by the companies concerned. One other company, Enerco, complied while registering a protest.

[49] I should note here, sotto voce, that it is not in my view generally true that government enterprise is necessarily less efficient than private business, although in some cases this claim has undeniably become self-fulfilling in New Zealand.

[50] G. Myrdal, Asian Drama: An Inquiry into the Poverty of Nations, 3 vols, Penguin, 1968. pp. 66-67, 277, 895-900.

[51] Ibid. p.277.