Access to gas pipelines

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Abstract

Access to gas pipelines by third party retailers is now routinely available in New Zealand for medium and large customers. There are still some reconciliation issues being resolved for small commercial and domestic customers.

In general, the value of the gas energy is a smaller portion of a consumer's gas costs than the delivery cost. The ratio is worse for small users than for large users.

Energy competition on its own can therefore only offer modest percentage savings. Much greater savings can be made by reducing the delivery cost as well as the energy cost. The savings in delivery cost arise when the line or network owner is forced into a competitive situation through bypass or the threat of bypass.

Nova Gas has used a combination of actual bypass and threatened bypass to achieve significant cost savings for a range of industrial and commercial customers. The experience of being bypassed and the ongoing threat has made the distribution companies more aware of their customers (the retailers) and has assisted in opening access up to third parties. A number of companies have now split the ownership of the networks from the retailing arm.

Bypass is not realistically possible for the national transmission system other than in a few special cases, e.g. south Taranaki. The cooperation of the national transmission company, NGC Transmission, is necessary to enable bypass of the distribution systems to occur and to enable competition to flourish. The recent merging of the commercial management of NGC's distribution systems with the transmission system is therefore a cause for concern.

Present situation

Transmission services

The standard Transmission Services Agreement (TSA) with NGC Transmission is in widespread use, with third party access having been available for a number of years. The agreement and methodologies are evolving. In particular the issues of retrospective trading of capacity and overrun penalties are under review. The transmission system is a true monopoly and fundamental to the ability to trade gas around the North Island. There is a difficulty in forecasting long-term prices and some areas have experienced steep increases in recent years. There is also some difficulty in obtaining timely information about daily quantities at shared delivery points.

Direct access to the high-pressure pipeline has enabled bypass lines to be constructed in a number of areas. This was achieved with a minimum of fuss and within a reasonable time frame. It is of some concern that the commercial management of the transmission system and the AGL and NGC distribution systems has recently been merged. It is difficult to imagine transmission system management being quite so forthcoming about allowing bypass to proceed if some of the assets for which they are responsible would be adversely affected.

Distribution services

Progress on access to local distribution networks has generally lagged behind the transmission system. It is really only in the last year or so that any significant quantities of gas have been transported for third party retailers. The ownership separation of lines from energy retailing has helped in some areas (Orion, TransAlta, Powerco). This is about to be partially reversed in Lower Hutt and Porirua. Aside from Nova Gas Ltd's bypass lines, all distribution networks in the North Island are able to be accessed by third parties. This does not necessarily mean that significant competition has developed in all areas.

All distribution services agreements contain various clauses which would ordinarily be considered onerous. These can create significant risk for third-party retailers but the risk does not exist for retailers associated with the network owner. The level of penetration on networks with combined ownership is typically lower than where there has been a split of line and energy ownership. Ring-fencing provisions and "Chinese walls" are perceived to be unable to cope with any significant pressure.

A number of distribution networks have now been bypassed by Nova Gas Ltd. This has resulted in some significant cost savings for customers and some windfall profits for other retailers. There has been an improvement in the way the bypassed network owners now treat their customers, the retailers.

Progress on reconciliation and customer transfer is now being made. The current situation is a little ad hoc but mostly works. There is a temptation on the part of incumbent retailers and network owners associated with them to drag the chain on progress. Certainly there are abuses of process. The main leverage available is to bypass the network owner. Otherwise time is always on the side of the incumbent.

Potential savings from competition in energy

Principles

At standard published network prices, the cost of the energy component of a customer's total gas costs is typically smaller than the cost of delivery. For small customers the delivery costs per unit are higher so the proportion of energy costs will be quite modest. The savings available from energy competition, both as a proportion and total sum, reduce with the size of gas usage. Even for large customers, where the quantum of the saving is significant, the proportion saved is still low.

The following examples are based on three different customer sizes, assumed to be located on Orion's network in Wellington. They are illustrative of the principles. The numbers used are based on the real figures but are rounded for simplicity.

Small customer – 200 GJ/ann

Gas Energy	$ 3.00/GJ
Transmission (approx)	$ 2.00/GJ
Distribution (CG1 Tariff)	$11.00/GJ
Selling Price	$16.00/GJ.

The energy component comprises only 19% of the total. A 10% reduction in the energy rate would result in a saving of 30cents/GJ, a total of $60/year or 1.9%. For most customers this is insignificant. Bear in mind that the new retailer needs to be able to make a profit and may have higher transaction costs than the incumbent. Typically this size of customer is not going to be fought over by retailers but provides a healthy return to the network.

Medium customer – 2,000 GJ/ann

Gas Energy	$ 3.00/GJ
Transmission (approx)	$ 2.00/GJ
Distribution (CG3 Tariff)	$ 6.50/GJ
Selling Price	$11.50/GJ.

The energy component has increased to 26% of the total. A 10% reduction in the energy rate would result in a saving of 30cents/GJ, a total of $600/year or 2.6%. Possibly enough to gain the customer's attention but still not compelling.

Large customer – 100,000 GJ/ann

Gas Energy	$ 3.00/GJ
Transmission (approx)	$ 2.00/GJ
Distribution (CG3 Tariff)	$ 3.30/GJ
Selling Price	$ 8.30/GJ.

The energy component is now 36% of the total. A 10% reduction in the energy rate would result in a saving of 30cents/GJ, a total of $30,000/year or 3.6%. Savings at that level are worthwhile and hence competition does exist for those larger customers. Note that the annual distribution tariff however is still $330,000/ann at the standard published rate and that there are no longer any customers in Wellington on that rate.

Potential savings from competition in delivery

Principles

A network company is only going to offer prices below the standard published rates when threatened with competition. Until recently network owners did not take the threat of competition very seriously, assuming that any retailer would prefer to negotiate a lower line charge for individual customers rather than invest in a separate delivery capability. The construction of a number of bypasses by Nova Gas has changed that view and now one sees pricing behaviour that would normally be regarded as irrational. The ability and real intent to bypass is therefore fundamental to achieving competitive pricing in local delivery charges.

A successful bypass typically requires either at least a large customer or a group of medium sized customers to achieve a critical mass. Smaller customers will only benefit if the bypass route happens to be close to their premises. Assuming the network owner is at least awake to the possibility of a bypass, a large customer reasonably close to the point of supply would expect to achieve a reduction from the standard distribution charge. The network owner can justify this by continuing to charge all of the other small and medium customers the standard rates. Typically a large user, being unaware of the possibility of a bypass, would be seduced into signing a long term contract in return for a modest saving. There are numerous examples of this.

For the new retailer, gaining agreement from a large number of customers simultaneously is not easy, particularly as many of them may already be on term contracts. However the network owners' attachment to accustomed monopoly profits generally means that there will be a groundswell of dissatisfaction among the gas users and a number of users still on high tariffs.

Once the critical mass for a bypass is achieved the changes can be rapid and significant. There may also be an interim phase during which the network owner attempts to prevent the bypass from being established by offering dramatically reduced charges to strategic users. Savings in the local delivery costs can be anywhere from 10% to 95% of the standard published rates.

Example – Wellington Hospital

Using the published rates, the distribution tariff for Wellington Hospital, assuming an annual quantity of 150,000 GJ would be $483,000. The currently disclosed contract distribution rate for the site, which includes a large number of smaller meters as well, is around 25 cents/GJ or $37,500/yr. The savings resulting from the reduction in local delivery costs is therefore a staggering $446,000/ann. This compares with the savings resulting from a 10% reduction in energy cost of $45,000/ann.

The combined saving for Capital Coast Health is therefore nearly $0.5 million, the great majority achieved because of the perceived threat of bypass from Nova Gas (the site is still supplied by Orion). It is worth noting that this site is approximately 20 km from the nearest point of supply at Tawa.

Customer perspective

Customers always want cheaper gas. Sometimes they understand the strategic benefits of having a bypass, sometimes they just want a quiet life. Because the conditions required to achieve a bypass are not always going to be available, it is in the customer's interest to support a bypass when it is offered in order to be assured of long term competition for delivery. In some cases the incumbent may offer a cheaper initial price to compete, but generally in the hope that the competitive threat will disappear.

New retailer's perspective

Obviously the new retailer needs to be profitable to survive. Its focus will be primarily on its customers and on achieving a competitive advantage. It is not in that retailer's interests for prices to be driven to an unsustainable level nor for other retailers to reap the benefits of reduced line charges. That is the reality of competition.

Bypass

Economic theory

There are people (usually monopoly network owners) who use economic theory to argue that physical bypass should not occur, that it is an inefficient use of resources. We are used to having only one delivery system for electricity, water and gas. Yet having two pipeline systems competing is little different than having two domestic airlines, two petrol stations in the same street or two trucking companies in the same town. Each could be capable of handling the full capacity requirements of the market. However, we accept that life as a consumer improves dramatically with some competition.

The actual cost of a bypass is often tiny in comparison to the effect it has in the market. Each kilometre of bypass pipe comes with significant leverage. Economic value for the customers is increased. Hopefully for the new retailer will make some gains. The incumbent network owner has a writedown in value. Reduced infrastructure costs will make marginal processes economic and allow for expansion of production. On balance there is more likely to be a nett overall increase in economic value.

Practical issues

Nova Gas has had no desire to engage in theoretical debates with line owners about the fairness of pricing. Inevitably ongoing delays work against the customer and the retailer. Most customers are not interested in a lengthy process with an uncertain outcome. The approach therefore must be to understand the customer base well, achieve the critical mass of customers as quickly as possible. Obviously the customer contracts need to be of a reasonable time frame.

Having achieved that the retailer has the choice of either negotiating with the incumbent network owner or proceeding to construct the bypass. In making that choice the following factors will be taken into consideration:

- the potential for future expansion;
- the number of customers contracted;
- the time frame for amortisation;
- the capital cost assumptions;
- the wishes of the key customers;
- the availability of resource consents and land access, easements and the like; and
- the ability to access the transmission system.

Obviously the odds are stacked in favour of the incumbent, particularly if the network owner and retailer are part of the same company. It is unlikely that a major corporate would have been able to execute the strategy in the way that Nova Gas did.

The difference is that Nova Gas has not been interested in publicity for its own sake and has remained focussed on the needs and wishes of its customers. It has also endeavoured to act with integrity, which has often been in direct contrast with the opportunistic behaviour of the incumbent monopolies.

In some cases this has dictated the construction of bypasses where the reduced rates on offer from the incumbent network owner may have been more attractive for Nova Gas. Past abuses by the network companies have dictated that the bypasses be constructed in reality, not just in theory.

Where to from here?

The potential for continuing to develop bypass scenarios as in Wellington, Petone or Wiri is largely diminished. The network companies have moved to modify their pricing and endeavoured to sign key customers on to long-term contracts. Many of the incumbents have had to reinvent themselves. Hence the flurry of activity in separation of ownership and selling and merging of various assets. The reinvention and separation has to a large extent enabled the present companies to distance themselves from the past abuses.

Nova Gas is still continuing to complete some bypass lines but has adopted a model of having some strategic bypass lines in place and negotiating reduced charges for those customers not actually serviced by the bypass line but within the zone of influence (the leverage effect).

I would expect monopolies to always exhibit monopoly behaviour unless controlled by either the threat of economic pain or regulation.

In being critical of monopolies we should remind ourselves that a monopoly is always a bad thing, unless you own it.

Author

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Nova Gas has grown from a small company involved in the utilisation of landfill gas to become a respected participant in the gas industry with bypass pipelines in Wellington, Auckland, Hawke's Bay and Taranaki and gas supply contracts in most areas of the North Island.