Submission
to
Queensland Competition Authority
(QCA)

Access Arrangements
for
Queensland Gas Distribution Networks

by
Allgas Energy Ltd.

January 2001

1. INTRODUCTION

This paper is submitted by Allgas Energy Ltd (Allgas) to the Queensland Competition Authority (QCA) in response to its call for submissions and comments on the Issues Paper *Access Arrangements for Queensland Gas Distribution Networks.* The Issues Paper is part of the consultative process for the regulation of third party access to the Queensland gas distribution networks covered under the National Third Party Access Code for Natural Gas Pipeline Systems (the Gas Code).

This paper is to provide clarification on the issue of redundancy of capital in networks, note the relationship between operational and maintenance expenditure and capital expenditure, and highlight some important factors pertaining to the rate of return debate. The information is provided to contribute to an understanding of the access arrangements and the organisational and operational imperatives of the Allgas business.

2. THE INITIAL CAPITAL BASE

The Issues Paper, states the following:

> *The Authority particularly seeks comment on the approaches adopted by other regulators with a view to providing an avenue by which initial asset values may be adjusted in future years to reflect increased utilisation of existing assets.* [Chapter 13, p41);

and later -

> *The Authority also seeks comment on the appropriateness of the use of economic (or negative) depreciation as a means of addressing Queensland's current under utilisation problem.* [Chapter 14, p50]

These issues are raised in the context that unlike the National Electricity Code the Gas Code does not allow for revaluation of the initial capital base except for adjustments for new facilities, depreciation, and redundant capital. The Issues Paper refers to underutilisation of existing network assets and the problem that the Gas Code does not allow for the revaluation of assets when utilisation of networks increase. The paper states:

> *…the restriction on asset revaluations for regulatory purposes potentially creates a significant distortion. The Queensland gas industry is particularly vulnerable to any such distortion due to the market's relative immaturity and the subsequent under-utilisation of its existing assets.*[Chapter 13, p37]

Allgas does not support the statement that the Queensland gas industry is particularly vulnerable to such distortions due to the market's relative immaturity and the subsequent under-utilisation of its existing assets.

Two issues need to be emphasised in this context.

a) When assessing redundant capital, the distinction between utilisation, usage and peak demand should be clarified; and
b) because the Queensland market is a relatively small market, it does not follow there is excess capacity in the Allgas network.

Allgas considers that its network is an optimally designed network that is sized efficiently to meet the peak demand capacity of its market. A confidential report on the valuation of the network has been submitted to the QCA.

2.1 Utilisation

The Issues Paper implies that, because the Queensland market is a smaller market than southern markets, Queensland networks are thus underutilised. Adjusting the capital base in future regulatory reviews due to increasing utilisation of the existing network implies that the current network has material excess capacity. It should be noted that while Queensland's gas usage is low relative to southern markets this does not imply there is underutilisation of network assets.

While customer numbers and gas usage provide some insight into the nature of the market they do not provide an accurate measure of the excess capacity of a network. Networks differ in market penetration and profile of customers but such differences do not imply redundant assets where networks have relatively lower levels of volume. System design is an important factor in this regard. Consideration needs to be given to the nature and type of the capital that is employed in the provision of services to that market.

Average usage is not applicable as a measure of efficiency of capital in network operations as the emphasis is on sizing to meet peak demand rather than volume. The design of networks is to satisfy demand with consideration to the load diversity characteristic of customers in that market. Smaller pipesizes designed specifically for volume would constrain the network's ability to meet this demand. Networks develop incrementally and are sized and designed for expected growth and capacity requirements of particular market segments. Volume and average usage measurements cannot be used as indicators of capital efficiency.

The optimum size of pipes required to deliver the network services is dictated by required pressure as well as peak demand. The standard pipe size or the minimum economic size of services and local mains is required to provide the appropriate pressure to meet the

peak demand. As a significant cost to a network is in the laying of the pipe the standard size represents the most economic and efficient to install.

Usage in Queensland is low compared to southern states. However usage is not an indicator of utilisation which refers to capacity and the efficiency of capital. Networks are sized to provide the appropriate pressure required to satisfy peak demand requirements of the market.

2.2 The Capital Base of the Allgas Network

The revenue requirement for the Allgas network is derived from an Initial Capital Base that has been determined by an independent valuation of the Depreciated Optimised Replacement Cost of the assets. It is not the purpose of this comment to outline the relative advantages of the DORC approach as a method of asset valuation as this was noted in the access arrangement information document, but rather to emphasise that the DORC approach to valuing the capital base for the determination of tariffs includes an optimisation process.

This process sizes the network system for a nominated demand related to current demand plus some forecast growth and eliminates any over capacity that may have been built into any infrastructure system. The resultant DORC value reflects an optimally designed system for current and forecast demand levels.

Allgas considers that its existing network is designed efficiently on the basis of:

(a) capacity to meet demand (rather than volume) requirements;
(b) utilisation of standardised pipe sizes; and
(c) allowances for forecast growth.

The Allgas network has been developed consistent with economic and capital utilisation imperatives and the pricing of access services reflects the value of the network based on an optimally designed system. Increased utilisation of the network can only be accommodated by future capital expenditure for augmentation or expansion of the network as outlined in the access arrangement.

The Allgas network is not an underutilised network. An independent valuation of the Depreciated Optimised Replacement Cost of the network is the basis used for the determination of access prices. This study indicated that the Allgas network has been designed optimally to deliver the required pressure to satisfy the capacity demand of this market.

3. CAPITAL AND NON-CAPITAL EXPENDITURE

In the access arrangements Allgas has forecast operational (non-capital) costs for the five years of the access arrangement. This forecast includes significant operating efficiency savings expected over the period taking into consideration the capital expenditure program forecast over the same period. Allgas emphasises that reviews of the operational and capital expenditure proposals must be considered simultaneously as the non-capital costs (for example, the level of unaccounted for gas) are dependent on the allowed capital expenditure program.

In the event that the QCA alters any of the forecasts for non-capital expenditure and/or capital expenditure Allgas reserves the right to submit revised expenditure forecasts for these and related activities.

The forecasts of non-capital costs in the access arrangement have been developed with consideration to the proposed capital expenditure on the network. Given the interdependency of these programs, Allgas considers that reviews of capital and non-capital expenditure by the QCA should be undertaken simultaneously. In the event that the QCA alters any of the forecast expenditures on these programs Allgas reserves the right to submit revised forecasts.

4. RATE OF RETURN

One of the most significant issues to be addressed by the Regulator is the determination of the allowed rate of return. ENERGEX has previously made a number of submissions to the QCA on this issue in regard to electricity:

- a response to QCA's Issues Paper Electricity Distribution: Asset Valuation, Depreciation and Rate of Return in December 1999; and
- a supplementary submission on WACC for the Draft Determination on electricity distribution prices by the Queensland Competition Authority (QCA)

In response to the WACC issues in this present Issues Paper, Allgas adds the following comments consistent with those outlined in the previous submissions by ENERGEX to the QCA.

4.1 Post tax WACC

A significant issue relating to the rate of return is with respect to the treatment of tax. There are significant concerns about the determination of the tax cash flow to be included in the Revenue Cap allowance.

Allgas submits that it would be completely inappropriate to use actual tax paid.

- Timing differences should not be taken into account, as they are likely to reverse in the short-term and hence will give rise to price shocks.

- Allgas's tax position is affected by:

  - non-regulated activities outside the jurisdiction of the regulatory determination;
  - activities outside South-East Queensland; and
  - previous Group activities.

- Using tax paid rather than statutory tax may also create incentives to restructure to change actual tax liabilities.

While there is a sound argument for taking into account permanent differences, in practice it is difficult to estimate such effects therefore Allgas submits that for simplicity and transparency QCA should use the statutory tax rate applied to modelled earnings after interest and depreciation.

4.2 Pre-tax WACC

Allgas supports the application of a pre-tax WACC and provides the following information in support of this approach.

- Australian and Overseas Precedence - While there has been significant discussion about the application of a post-tax framework as opposed to pre-tax, most final Australian decisions to date have been based on a pre-tax framework. Further, overseas regulators who have been operating in a more mature market have applied a pre-tax framework in decisions to date.

- Simplicity - Pre-tax WACC requires less complicated modelling of cash flows.

- Price Shock - Application of post tax WACC requires an allowance for tax in the revenue cap. If tax allowances are based on estimated actual tax cash flows then consumers may be subject to non-transparent price changes due to the impact of changes in tax cash flows caused by:
  - the reversal of tax and accounting depreciation timing differences; or
  - privatisations and asset sales

- Consistency with an Incentive based Regime - The intrusion of a Regulator into a company's tax affairs is inconsistent with the principle of light-handed regulation and the inclusion of actual tax cash flows minimises the incentive for efficient tax management.

Allgas supports the use of a pre-tax WACC. However, in the event that a post tax WACC is applied, Allgas submits that it would be completely inappropriate to use actual tax paid.

4.3 Measurement of the Risk Free Rate

The QCA states (p59) -

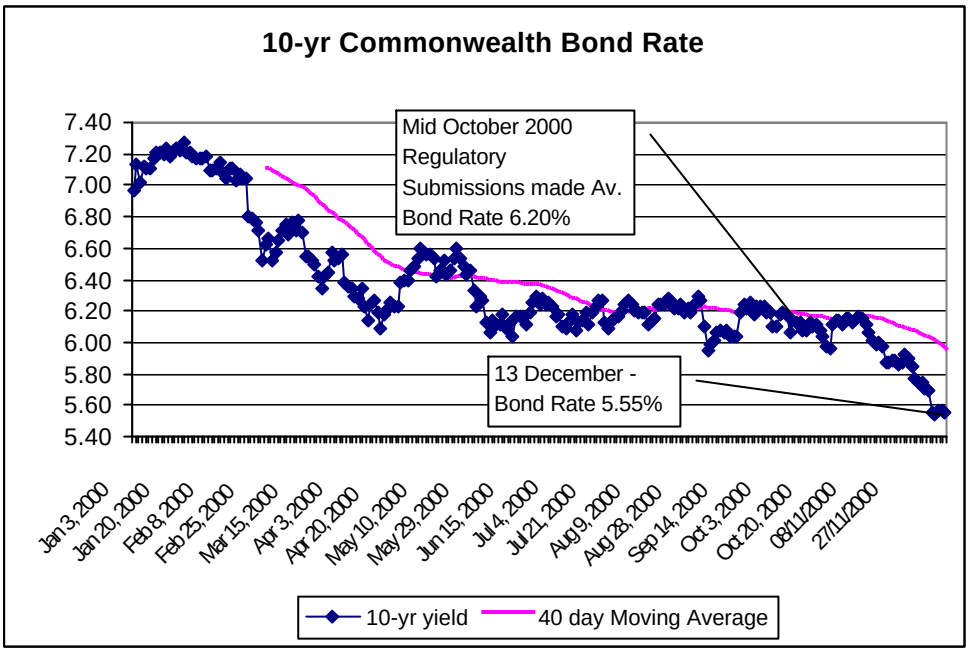
> *In terms of the measurement of the risk free rate, it is possible to use either an 'on the day' rate or an average.*

Allgas considers that the application of an 'on the day' rate is not appropriate as it creates a significant level of risk for regulated network owners.

An averaging approach is proposed on the following basis:

- it removes some of the potential volatility in interest rates (see graph below);
- the adoption of a single spot rate may also lead to investors establishing hedging / re-financing strategies based on the timing of the regulatory reset. This may lead to an excess demand for re-financing at the time of the regulatory reset, which has a potential to drive up re-financing costs. The use of a medium term average may alleviate this pressure to some extent; and
- the use of an average rate produces a smoother price path and removes the potential for price volatility from one regulatory period to the next solely due to random movements in spot interest rates.

The following graph shows the movement in the 10 year Nominal Bond yield between regulatory submissions in mid-October and rates as at 13 December 2000.



Movements in the bond rate as shown in the above graph will have a direct impact on regulated rates of return and benchmark allowances for the cost of debt (ie there would be a direct reduction in rates of more than 50 basis points). Also of note is that while the 40 day average of the bond rate has declined, the movement is clearly not as significant as the movement in the actual bond rate.

Allgas considers that the application of an 'on the day' rate is not appropriate as it creates a significant level of risk for regulated network owners.