AGL

Tel: 02 9921 2999
Fax: 02 9921 2751

St Leonards
72 Christie Street
St Leonards NSW 2065

The Australian Gas Light Company
ABN 95 052 167 405

Locked Bag 1837
ST LEONARDS NSW 2065
www.agl.com.au

21 March 2005

Dr John Tamblyn
Chairman
Australian Energy Market Commission
PO Box H166
Australia Square NSW 1215

By email to: submissions@aemc.gov.au

Dear Dr Tamblyn

Review of the Electricity Transmission Revenues and Pricing Rules

– Transmission Revenue Rule Proposal Report

AGL is pleased to provide a submission to the AEMC on its Draft Rule Proposal for the regulation of electricity transmission revenue and accompanying Report. While AGL is not an electricity transmission network owner it is as an owner of significant electricity and gas distribution networks and therefore has extensive experience in the operation and regulation of energy assets. AGL observations are therefore made as an owner of electricity and gas distribution networks, the services of which will in future, be subject to rule making by the AEMC and economic regulation by the AER.

If you have any queries please contact David Pringle, Manager Regulatory Affairs Gas Networks on (02) 9921 2405.

Yours sincerely,

Dr Robert Wiles
General Manager Regulation and Policy

AGL submission to the AEMC on its review of the Electricity Transmission Revenues and Pricing Rules – Transmission Revenue Rule Proposal Report

Overview

AGL acknowledges that the proposed Rules offer a very complete and consistent set of principles to guide the Australian Energy Regulator (AER) as regulator, and that this should offer Transmission Network Service Providers (TNSPs) far greater certainty and confidence in the regulatory framework than that which applied under the previous uncertain regime.

However, while the proposal represents a significant improvement on the previous regime for electricity transmission, it falls short of more effective models. These include the existing Gas Access Regime, the improvements to that regime recommended by the Productivity Commission, the recent amendments to the National Access Regime in Part IIIA of the Trade Practices Act[1] and the regime recently introduced for the regulation of electricity distribution in Western Australia.

While the guidance to the AEMC and the AER in the new NEL reduces the uncertainty that exists in the existing electricity transmission pricing regime, the level of detail in the proposed Rules together with the large number of mandatory Guidelines constitute a regime that is overly restrictive on service providers. This restriction will offset the benefits of the increased certainty introduced into the NEL.

While the NEL includes a provision for the AEMC to make Rules that empower the AER to make a guidelines, tests, standards and procedures and that these may be enforced, AGL is concerned about the AEMC's approach to the use of this power in the draft Rules.

AGL's concerns are as follows:

1. The separation of rule making and rule administration is a central feature of the new energy market institutional and governance arrangements established by the MCE in July 2005[2]. AGL submits the power to make guidelines was included as a matter of practical necessity to deal with procedural matters. Accordingly, Rules about setting guidelines should be kept to an essential minimum in order to ensure that the separation of powers is maintained.

2. AGL submits that the matters on which the AEMC proposes to empower the AER to make guidelines are substantive. It is inconsistent with the policy objective of separating rule making and regulation to delegate power to create regulatory obligations to the regulator.

3. The Rules directing the AER in making guidelines already include sufficient detail. AGL therefore believes that no further guidance is required and the guidelines are redundant.

---

[1] Currently being progressed through Parliament

[2] http://www.mce.gov.au/assets/documents/mceinternet/IGA%5FFINAL%5F%2830JUNE2004%29200407131003232004112162849%2Epdf

Scope of Regulation

Classification of Services

AGL supports the proposed classification of transmission services into prescribed, negotiated and non-regulated services and the proposed principles to determine the services falling into each category. This is consistent with the principle that intrusive regulation should only be used where satisfactory market outcomes can not otherwise be achieved.

However, AGL notes that the negotiation process envisaged by the proposed Rules is constrained by the Rules and proposed Guidelines, and submits that a less constrained negotiation model would lead to processes and outcomes that are more consistent with true commercial markets.

Cost Allocation Methodology Approval

AGL supports the principle that a service provider should not be able to recover costs more than once through multiple services. It is inappropriate however to have detailed cost allocations approved in advance by the AER.

In a commercial market, prices are determined by the interplay of a number of factors including the cost of service. In such an environment there are number of valid methodologies that are used to allocate costs to services with the boundaries of reasonable costs being stand alone costs and long run avoidable costs. Shared costs will be allocated to services using a variety of methods that may vary considerably over time as market conditions vary.

Therefore in a regulatory regime attempting to replicate market outcomes, a service provider should have the ability to amend cost allocation between services (and therefore prices) as market conditions change. In an environment of five-year pricing reviews the closest a service provider can get to achieving this outcome is if the service provider has the ability to set its cost allocation methodology at the time of submitting its revenue proposal for approval. The regulator should then be required to accept that proposal providing it complies with basic criteria such as the allocation of costs to services being within the range of stand alone and long-run avoidable costs and providing the proposal does not allow costs to be recovered more than once.

These basic principles for cost allocation should be set out in the Rules, with no further need for a Guideline on this issue.

On a practical level, a large proportion of costs in energy transmission and distribution can not be directly traced to an asset and/or a service. A large portion of costs can only be allocated to assets and/or services based a range of equally valid methodologies. The Rules relating to cost allocation are therefore naïve in the notion that there may be only one valid cost allocation method to set prices. The establishment of a methodology by party independent of the business is unnecessarily restrictive on the asset owner.

Propose-Response Model

AGL welcomes the Commission’s intent to introduce a propose-response model for electricity transmission. AGL however questions whether the proposed model is sufficiently aligned with the propose-response model in existing regimes, given the extent of mandatory rules and guidelines that TNSPs are required to comply with in making a proposal. The proposed regime could be described as a severely constrained propose-response model.

The ability of a TNSP to formulate a proposal is significantly restricted due to the degree of prescription on such matters as:

- The use of a building block approach:
- The use of a mandated post tax revenue model;
- The use of defined WACC parameters and the requirement that the rate of return be determined exclusively by the Capital Asset Pricing Model (CAPM);
- An (AER determined) performance target incentive scheme;
- An (AER determined) efficiency benefit sharing scheme;
- An (AER determined) detailed cost allocation;
- Specification of the method for calculating taxation, including gamma;
- The use of a revenue cap form of regulation;
- Detailed requirements as to the content and format of a revenue proposal.

Irrespective of the desirability or otherwise of this level of prescription, it is misleading to imply that this is be described as any thing more than a significantly constrained propose-response model.

Regulated Revenue

Regulated Asset Base

AGL supports the proposed Rules relating to the treatment of the asset base and capital expenditure and submit that these rules would also be appropriate for electricity and gas distribution. Specific aspects of the rules relating to the asset base that AGL supports include:

- The locking-in of the asset base and the proposed roll-forward approach in determining the asset base for the start of each regulatory period. This proposal would be enhanced however if it were accompanied by a provision that allowed for the reinstatement of assets that had previously been the subject of redundant capital write-down, either during a previous regulatory review (as in section 8.28 of the Gas Code) or in determining the Initial Capital Base.
- An allowance of a return on working capital, accompanied by an appropriate treatment of the timing of cash flows.
- An *ex-ante* approach to the review of capital expenditure.
- The proposed flexibility allowed to a service provider to determine the depreciation schedule.
- The resulting incentive mechanisms that are derived from the proposed Rules.

AGL however does not believe that it is appropriate that a capital investment that it is prudent and efficient at the time when it committed should be subsequently written down. AGL therefore also supports the limitations on the discretion of the AER to reduce the asset base as a result of capital redundancy. This proposal would be enhanced however if it were accompanied by a provision such as section 8.27 of the Gas Code that requires that the risk of capital redundancy must be accompanied by an appropriate allowance for risk in the determination of the rate of return and depreciation rates.

Modelling

AGL agrees that it is reasonable for the AER to establish a model for determining allowable revenue, but the model for each regulatory review should be developed in consultation with the relevant service providers.

Regulated businesses and therefore regulatory models are typically complex and it is AGL's experience that no generic model would be suitable to the range of regulatory reviews. This is particularly the case in electricity and gas distribution with each service provider having a range of assets, services and markets.

If one generic model were to be expanded for each service provider's requirements, then that model would become exponentially more complex as the peculiarities of each regulated business were considered and would soon become unworkable.

One specific aspect of the proposed model that AGL considers inappropriate is the mandated use of a complex post tax modeling methodology. Apart from the complexity and high probability for error resulting from the use of post tax modeling, this methodology negates the policy intent of government tax law.

The major difference in the impact of pretax and post tax modeling is the treatment of accelerated tax depreciation rates. Governments have adopted accelerated tax depreciation rates as a means of encouraging investment and firms have made investment decisions based on the tax depreciation rates available at that time. The use of regulatory modeling based on effective post tax cash flows (as used in the PTRM) negates the intent of those governments as the tax benefits are taken away from the investor through reduced revenues. This is true not only for current and future investments, but also retrospectively for all previous investment decisions.

Rate of Return

AGL Proposal

AGL propose that the Rule in relation to the rate of return would be improved if it comprised the following features:

- The imprecision in determining specific parameters used in the CAPM should be acknowledged and the AER during each revenue review should be asked to consider a reasonable range in which the true WACC is likely to fall.

- Where the CAPM is used to determine the WACC, a panel of experts should be appointed to recommend to the AEMC a reasonable range for each parameter and that range should be re-examined periodically (say 5 yearly).

The following sections discuss aspects of the AGL proposal in more detail.

Review of Parameters

AGL supports the AEMC's approach of locking in cost of capital parameters (or an agreed range for each parameter) for five years and believes this will lead to a more stable regulatory environment facilitating investment. However, AGL is concerned with the proposal for the AER to review values and methodologies for the subsequent five year period. Given the significance of the allowable WACC on investment decisions, AGL believes a panel of experts appointed by the AEMC is a preferable choice to set parameters initially and at reviews.

The review by the panel of experts could also consider whether the continued mandated use of the CAPM was appropriate

Statistical Approach

AGL is concerned that the Draft Rules have failed to acknowledge the imprecision in determining WACC based on point estimates of certain parameters. In the light of the significant statistical uncertainty associated with WACC estimation, AGL considers it necessary to determine a point estimation of WACC that acknowledges the adverse impact that underestimating the cost of capital has on levels of investment.[3]

The Draft Rules have failed to recognise the uncertainty of determining some key parameters of the WACC. The result is a point estimate of WACC that risks underestimating the cost of capital. Responding to the Issues Paper, AGL proposed the Monte Carlo simulation approach as a method of acknowledging each parameter's degree of uncertainty and ensuring that the final result is within a reasonable range and has an acceptable level of risk that costs to the business are underestimated. AGL urges the AEMC to consider the imprecision in determining the cost of capital, the adverse impacts on investment of underestimation and adopt an approach to determining the cost of capital that acknowledges the inherent uncertainty.

WACC Parameters

While AGL agrees that the proposed values of equity beta and the market risk premium as fall within a reasonable range, these parameters are not directly observable from market data and the values ascribed by the AEMC fall short of being precise values of observable parameters. AGL proposes the imprecision involved in estimating these values warrant the use of a statistical approach.

The Draft Rules specify the risk free rate is based on a 5-40 day average (expiring 7 days before the Final Decision) of yields on Commonwealth Government bonds. For the Victorian Electricity Distribution Price Review for 2006-10, the intended observation period for the risk free rate corresponded with a significant and demonstrable market anomaly, causing the ESC to use an earlier sampling period. AGL urges the AEMC to incorporate provisions to accommodate such events in the Rules.

AGL notes that debt raising costs have been omitted from the parameters used to determine the rate of return. Debt raising costs are a true cost incurred by business owners and must be recognised, either in determining the allowable rate of return, or specifically included in operating costs.

Imputation Credits (gamma)

The Draft Rules ascribe a value of 0.5 to gamma. There is a body of research demonstrating that a gamma of 0.5 is unsustainable and that a gamma of 0.0 is more appropriate. Researchers have concluded that:

- Imputation credits are effectively worthless to the marginal investor of large Australian companies with significant foreign ownership;

---

[3] Gray, S.(2004) 'A Framework for Quantifying Estimation Error in Regulatory WACC - Report for AGL in relation to ESC Electricity Distribution Review' Strategic Finance Group, October 2004
http://www.esc.vic.gov.au/apps/page/user/pdf/AppendixL_QuantifyingErrorWACC_SFG_ConsultOct04.pdf

- Professor Gray has demonstrated that a gamma of 0.5 together with a MRP of 6% is inconsistent with the level of historically paid dividend yields and concludes that a gamma of 0 resolves this inconsistency[4];

- Hathaway and Officer have updated their research and demonstrate that calculations historically used by regulators to derive a gamma of 0.5 would now produce a gamma of 0.35[5]; and

- KPMG determined that the standard practice of financial practitioners is to not adjust for the value of imputation credits (ie gamma = 0)[6]. Similarly, analysis by Lonergan demonstrated that of the 6 reports making an adjustment to reflect dividend imputation, 5 attributed little or zero net effect on the value of the company being assessed.[7]

In summary AGL submit that a value of gamma cannot be obtained to any great level of confidence and a statistical approach is more appropriate. There is significant recent evidence that a gamma of 0.5 underestimates the costs of capital to the business and a more appropriate value lies between 0.0 and 0.35.

Reasonable Estimates

AGL supports the requirement of the AER to accept reasonable estimates of capital and operating cost forecasts.

Operating Expenditure

AGL supports setting of operating expenditure based on efficient forecasts on a firm-specific basis. AGL also support the use of an efficiency benefit sharing scheme with the proviso that such a scheme must not be used as a means to introduce intrusive and costly information gathering requirements.

For such a scheme to be effective, service providers need only provide to the AER the total operating cost for each year of the previous regulatory period at the submission of its next regulatory proposal.

Cost Pass-Through / Re-openers

AGL largely supports the cost pass-through mechanisms and re-openers in the proposed Rules. AGL therefore also supports the notion that that in the vast majority of instances, cost variations should be absorbed in the general incentive provisions.

AGL submit that there should be three provisions for the inclusion of unforseen costs. All three provisions are allowed for in the Gas Code:

- The ability to allow cost pass-throughs as proposed by the AEMC but extended to allow for other occurrences at the discretion of the AER. This flexibility allowed IPART to include both the operating and capital the cost of introducing Full Retail Contestability as a cost pass through in AGL Gas Networks Access Arrangement for 2000-2004.

---

[4] SFG Consulting, (2005) "The Relationship Between Franking Credits and the Market Risk Premium"

[5] Hathaway , N and Officer, R.R. (2004) "The Valuation of Imputation Tax Credits: Update 2004", Capital Research Pty Ltd

[6] KPMG (2005) Cost of Capital – Market Practice in Relation to Imputation Credits – A Report for the Victorian Electricity Distribution Price Review 2006-10 http://www.esc.vic.gov.au/apps/page/user/pdf/AppendixL_AGLE_Response_to_EDPR_Draft_Decision.pdf

[7] Lonergan, W. (2001) "The Disappearing Returns", JASSA Issue 1 Autumn 2001

- The ability to consider major capital expenditure projects, similar to that proposed by the AEMC. AGL however consider that this provision could be made less restrictive than the minimum 5% of the asset base as proposed by the AEMC which would require a project of over $100m for a network the size of the AGL Gas Distribution Network.

- The ability to re-open the pricing review should there be a material change in circumstances. This is allowed under the Gas Code, but it is not a step that a service provider would take lightly.

Regulatory Procedures

AGL supports the proposed minimum five year regulatory periods and also believe the proposed 13 month Review timetable appears adequate.

Although AGL maintain that the over-riding objective should be to obtain the appropriate regulatory decisions rather than timing of those decisions, AGL now believes that a 13 month review period allows sufficient time for a review provided that it is accompanied by one optional two-month extension allowed to the AER. Such an option was proposed by the Productivity Commission in its review of the National Gas Access Regime.[8]

While AGL concurs with the 13 month review period however, it does not believe that the detailed timetable set out in the Rule Proposal Report is workable, particularly if a similar timetable is to be adopted for electricity and gas distribution. It is AGL's experience that a minimum of ten weeks is required between a Final Decision and a Revisions Commencement Date. While this is two weeks longer than that allowed in the Draft Rules, there would appear ample scope to allow this by bringing forward the Draft Decision by two weeks.

Appropriateness of Consistency Across Regulatory Regimes

While it is understood that the Draft Rules are only intended for electricity transmission, AGL is cognisant that this is the first proposal by the AEMC in relation to energy infrastructure pricing. Once the electricity transmission Rules are established there is likely to be a tendency to align the pricing regulatory regimes for all infrastructure subject to the regulatory processes of the AEMC and the AER.

While there are obvious administrative advantages in certain aspects of the Rules for the various aspects of the energy industry being consistent, there are a number of significant differences between electricity and gas and between transmission and distribution that dictate that what may be appropriate for one sector of the energy industry may not be appropriate for all.

The following is an outline of some of the significant differences between energy sectors which preclude a uniform set of rules being developed:

- *The nature of capital expenditure – transmission vs distribution*

The Transmission Network Service Providers (TNSPs) point out quite correctly that the vast majority of capital expenditure by the TNSPs is not discretionary investment. Capital expenditure requirements are driven by factors outside the control of the TNSPs. In contrast Gas Distribution Service Providers' (GDSPs) capital programs are developed around discretionary market expansion projects[9] that will not be carried out unless each project is expected to generate a rate of return in excess rate of return required by investors in the GDSPs. TNSPs are obliged to incur expenditure to provide an essential service whereas GDSPs seek out

[8] PC Inquiry Report: Recommendation 11.1

[9] In the 2000 to 2004 Regulatory period 75% of AGL Gas Networks capital expenditure was on discretionary market expansion projects. (AGLGN December 2003 AAI table 5.4)

commercial opportunities to generate economic benefits. This is a significant factor in determining the appropriate regulatory regime for these diverse sectors of the energy industry.

- *Environmental incentives – electricity vs gas*

Electricity production and consumption is a major source of greenhouse gas emissions whereas gas usage frequently substitutes for less environmentally desirable fuel sources. Increased substitution of gas for these other energy sources is a goal of the MCE. Therefore while reduced usage of electricity through demand management and other initiatives is seen as beneficial, there are proven environmental benefits through the promotion of increased gas usage. This needs to be recognised in the regulatory design mechanisms to be developed for the relevant industry sectors.

- *Revenue cap or price cap – transmission vs distribution*

There appears to be general acceptance by industry participants that a revenue cap is the appropriate form of regulation for electricity transmission. In distribution, however, there is a much stronger interrelationship between volumes transported and the required levels of capital and operating expenditure. New South Wales electricity networks service providers (ENSPs) were previously subject to a revenue cap regime and were penalised by the regulatory regime following an unpredicted period of market growth, as they were unable to recover any of the resulting increased cost. The regime has since been altered to a price cap regime.

In the gas industry, GNSPs proactively encourage economically efficient market growth and are rewarded through the price cap regime which generates additional revenue where those projects are efficiently carried out. This generates both economic and environmental benefits. The introduction of a revenue cap for gas would eliminate the incentive for GNSPs to seek out opportunities which promote significant economic and environmental benefits.

- *Market or contract carriage – transmission vs distribution*

Electricity transmission operates in a market carriage environment whereas the gas industry operates in an environment of contract carriage with commercial negotiation commonplace between Service Providers and Users, even for the provision of Prescribed (Reference) Services. This must be considered in determining the appropriate regulatory design for the various industry sectors.

- *Service standard regimes – electricity vs gas*

The physical differences between the gas and electricity industries are such that the gas industry is able to operate with much higher levels of reliability and customer satisfaction than is possible in the electricity industry. Similarly the trade-off between reliability and cost and the trade-off between capital expenditure and operating expenditure, which are significant factors in the electricity industry are much less relevant for the gas industry. It would therefore be inappropriate if a service standard regime and the linkages between allowable revenue and service standards were consistent across the electricity and gas industries.