Your Ref: ERC0134
Our Ref: D96261
Contact: Richard Begley

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Mr Pierce

Submission on the price and revenue regulation of gas services: Draft Rule Determinations

Thank you for providing the opportunity for the Economic Regulation Authority (**ERA**) to make a submission on the Australian Energy Market Commission's (**AEMC**) proposed Draft Rule Determinations of 23 August 2012 for the Draft National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012.

The proposed rule change will affect the process to determine the rate of return under the National Gas Rules (**NGR**). The ERA has a responsibility to regulate covered gas networks in Western Australia under the NGR.

The ERA has comments on a number of aspects of the proposed rate of return changes, namely:

- the specification of the proposed 'nominal' rate of return framework;
- the removal of the requirement that the rate of return be based on a 'well accepted' financial model, instead introducing estimation based on a 'range of estimation methods, financial models, market data, and other evidence'; and
- the return on debt.

Specification of the proposed rate of return framework

The ERA endorses the AEMC's proposal to develop a consistent rate of return framework for monopoly regulation in Australia, while retaining flexibility for regulators to respond to changing circumstances. The ERA recognises that consistent arrangements are desirable to minimise risks of distortions in capital allocation or investment decisions between the electricity and gas sectors.

However, the ERA considers that uniformity should not be pursued simply for the sake of it. As acknowledged by the AEMC, it is important that the framework be able to account for potential differences in the various industries. Importantly, the ERA considers that the

Economic Regulation Authority 04 Oct 2012

framework should also allow regulators the ability to adopt a rate of return approach which best reflects the efficiency objectives of the National Gas Objective (**NGO**).[1]

The AEMC noted in this context:[2]

> ...there is a need to bring the focus of the rate of return in the rules back to the NEO, the NGO and the RPP. The Commission's proposed rate return framework therefore has an overall objective for the allowed rate of return. In order to meet the NEO and the NGO, this objective reflects the need for the rate of return to correspond to the efficient financing costs of a benchmark efficient entity with similar circumstances and degree of risk as that which applies to the service provider whose rate of return is being determined.

With this in mind, the ERA is pleased that the AEMC has sought to retain, within the rate of return framework, the flexibility that is inherent in the existing NGR.

The ERA has two issues with regards to the proposed NGR rule changes.

The first issue relates to the prescription of a *nominal* post-tax basis for the rate of return.

In its submission on the AEMC's Consultation Paper, the ERA noted that the use of the pre-tax framework over-compensated service providers for their tax liabilities, and that it considered that a nominal post-tax framework could address this concern. The ERA was therefore supportive of the AEMC's consideration of this issue.

For its recent final decision in relation to Western Power's third access arrangement for the South West Interconnected Network, the ERA adopted a 'hybrid' real post-tax revenue model, which calculated tax in nominal terms within an otherwise real revenue model. In choosing to adopt the hybrid post-tax revenue model, the ERA noted:[3]

> There is no clear precedent to guide the choice between a real or nominal post tax modelling approach for the overall revenue requirement... There are advantages and disadvantages associated with each approach, and the issues are complex. The key issues include:
>
> - the alignment or otherwise of the treatment of depreciation in the regulatory accounts and the tax accounts; and
>
> - the best approach to smoothing the change in the real revenue over time.

1 The NGO states 'The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas'.

2 Australian Energy Market Commission 2012, *Draft Rule Determinations: Draft National Electricity Amendment Rule 2012 and Draft National Gas Amendment Rule 2012*, www.aemc.gov.au, p. 46.

3 Economic Regulation Authority 2012, *Final Decision on Proposed Revisions to the Access Arrangement for the Western Power Network*, www.erawa.com.au, p. 308.

The ERA notes that the real approach contrasts with a 'full nominal' post tax revenue model, which estimates all of the building blocks – including depreciation of the RAB and the calculation of the tax liabilities – in nominal terms. The full nominal approach has the following characteristics:

- the depreciation of the regulatory asset base (**RAB**) occurs earlier than if depreciation were to occur in real terms;
- this translates to higher tariffs early, and lower tariffs later;
- leading to higher early profits and dividends for the shareholder; and
- potential problems for the utility later, if retained cash flows are not sufficient to fund replacement of existing assets.[4]

The potential for higher tariffs early also leads to the possibility of tariff shocks in moving from a pre-tax to a post-tax approach. This is a key consideration for the ERA as it has to date adopted a pre-tax modelling approach.

As noted, in its final decision on Western Power's third access arrangement, the ERA applied the hybrid post-tax revenue model. The hybrid model ameliorates many of the problems identified with a full nominal approach, set out above.

The ERA also notes that the AER's 'nominal' post-tax revenue model also ameliorates the problems identified above. It achieves this by adjusting the depreciation of the RAB to remove the component related to annual inflation.

The ERA considers that its 'hybrid' post-tax revenue model is therefore very similar to the nominal post-tax approach utilised by the Australian Economic Regulator (**AER**). Key similarities include:

- application of the post-tax revenue model assuming a benchmark capital structure with regard to the debt and equity proportions that fund the capital assets;
- explicit nominal estimation of the tax liabilities of the service provider, including of tax depreciation;
- real return on and of the RAB, which smoothes the revenue path over time compared to a fully nominal approach.[5]
- adjustment for actual inflation, ex post.

In principle therefore, both approaches should deliver similar revenue outcomes. Modelling by the ERA confirms that this is the case.

---

[4] Where the network is not growing in physical terms, then the service provider may not be able to marshal funds to replace aging assets out of existing cash flows. In this case, there may be a call on the shareholder to inject back equity, which had previously been distributed as dividends. Without recognition of this requirement and prudent management of funds, the network may become rundown. This would detract from achievement of the NGO.

[5] The AER removes inflation on the opening value of the RAB from the forecast nominal value of real depreciation of the RAB. This inflation adjusted depreciation serves to deliver a return on and of the RAB within the model that is equivalent to a real approach.

Economic Regulation Authority 04 Oct 2012

However, there are subtle differences. These may be summarised as follows (note the following compares values on a like-for-like nominal basis, so as to ensure the comparison is consistent):

- as noted above, the combined return on and of the capital in the RAB is identical, such that the revenue requirement is the same in each year for this component;
- however, the return of capital through depreciation in the RAB differs;
  - the return of capital occurs earlier in the ERA's real approach, as compared to the AER's inflation adjusted depreciation approach;
- in consequence, the return on capital in the RAB also differs;
  - the present value of the return on capital is smaller in the real approach, as compared to the AER's inflation adjusted approach;
  - this smaller return on capital in the real approach exactly offsets the earlier return of capital, such that summing the two components leads to the identical return on and of capital between the two approaches;
- the different profiles for return of capital mean that interest costs, which also impact on the tax calculation, are not identical;
  - the earlier return of capital in the real approach leads to an earlier reduction in the opening value of the RAB;
  - this in turn leads to an earlier reduction in the debt requirement given the benchmark for 60 per cent debt;
  - this leads to a lower interest cost, and consequently a smaller debt shield for tax purposes, higher earnings before tax, and higher taxes;
  - the present value of the tax liability building block is thus higher in the ERA's hybrid approach than in the AER's model;
- all other cost building blocks are identical, including for example, the operating expenses allowance.

Illustrative modelling by the ERA, which takes the foregoing tax effect of the debt profile into account, suggests that the ERA's approach delivers:

- more regulatory revenue over the life of assets, as compared to the AER's approach;
- an identical present value of regulatory revenue as the full nominal approach under most circumstances over the life of the assets;[6]
- revenue that is aligned closely with the service providers 'actual' after tax position.[7]

In conclusion, the ERA considers that there is evidence to suggest that the best form of post-tax model remains open to question.

[6] This outcome depends on the treatment of capital contributions.

[7] The service provider's 'actual' after tax position recognises that treatment by the Australian Tax Office under the service provider's statutory tax accounts may differ from the regulatory tax treatment, particularly for example, with regard to capital contributions.

Economic Regulation Authority 04 Oct 2012

For this reason, the ERA considers that it would be a mistake to specify a 'nominal' post-tax rate of return for the NGR. The ERA considers that specification of a 'post-tax rate of return' for the NGR, and for the NER, would be preferable.

Financial model for determination of the rate of return

The second issue of concern with regard to the proposed rule changes relates to the financial model used to determine the rate of return.

The ERA agrees with the Australian Competition Tribunal (**ACT**) when it stated that:[8]

> The measure of prevailing conditions in the market for funds, and of the risks involved in providing reference services - without prescribing finally how that is done - would be fraught and vulnerable to an evolutionary and possibly idiosyncratic series of regulatory decisions. It would provide less certainty. It would expose the process of selection of rate of return on capital to the risk of prolonged debate about the relevant factor, their empirical measurement and their weightings.

On this basis, ERA further agrees with the ACT that the current specification within the NGR at rule 87(2) – for the use of a 'well accepted' financial model – gives guidance as to how the rate of return is to be determined.[9] The ERA considers that this rule is extremely important. The ERA considers that its removal would likely lead to a 'fraught' and 'prolonged debate' through a process of appeal to the ACT.

This is not to say that the ERA does not consider financial models other than the Sharpe Lintner Capital Asset Pricing Model when it determines the rate of return. The Authority's most recent decision on the Dampier to Bunbury Natural Gas Pipeline provides a case in point. There was extensive consideration of alternative models in that decision.[10]

The ERA considers that the ability to refer to guidance – such as that in 87(2)(b) – makes the process of decision making more workable. In particular, it allows for the regulator to inform its decision with reference to the current acceptability or otherwise of competing rate of return approaches within the broad public domain, including within academic and regulatory circles. It also provides for the regulator to add its own supporting judgment as to the acceptability of the various approaches, particularly as to how well these meet the regulatory objectives.

In this context, the ERA is concerned that the AEMC's proposed rule 87 could be interpreted by service providers to allow for weighting to be given to all models and data from the 'range', no matter how extreme or obscure, particularly where the models and data are seen to enhance the prospects for receiving an increased rate of return. The publication of guidelines is unlikely to diminish this effect.

The ERA considers that the specification of a 'well accepted' approach in the current rule 87 is therefore very important, as it does serve to discount models that are generally less well

[8] Australian Competition Tribunal 2012, *Application by WA Gas Networks Pty Ltd (No 3) [2012] ACompT 12*, para. 68;

[9] National Gas Rules, Division 4, Rule 87(2)(b) states that ' ..a well accepted approach that incorporates the cost of equity and debt, such as the Weighted Average Cost of Capital, is to be used; and a well accepted financial model, such as the Capital Asset Pricing Model, is to be used'.

[10] Economic Regulation Authority 2011, *Final Decision on Proposed Revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline*, www.erawa.com.au, pp.43 to 184.

accepted, and to inform the logic of the regulator's decision process with regard to the objective.

The ERA notes that the current rules – under which the ERA has withstood appeal and established a considerable body of precedent – need not be mutually exclusive to the AEMC's desire to emphasise the rate of return objective. Given the substantial legal investment through appeals to date, the ERA considers that the AEMC needs to meet a high hurdle of demonstration if it is to make the case for change, particularly with regard to those key elements of the existing rules on which decisions have hinged. The ERA considers that the AEMC has not made the case with regard to the omission of rule 87(2)(b).

In summary, the ERA is of the view that the proposed rule 87(2), for the *allowed rate of return objective*, should be conditioned by the inclusion of the key words from the existing rule 87(2)(b). This could be achieved by inserting the key words of the existing rule 87(2)(b) into the proposed Rule 87(4). The proposed Rule 87(4) could become:

> (4) In determining the *allowed rate of return*, regard is to be had to:
>
> (a) the desirability of using ~~an~~ **well accepted** approach, that leads to the consistent application of any estimates of financial parameters that are relevant to the estimates of, and that are common to, the return on equity and the return on debt; and
>
> (b) any interrelationships between estimates of financial parameters that are relevant to the estimates of the return on equity and the return on debt.

This would ensure that this important guidance and test was retained.

Return on Debt

With regard to the return on debt, the ERA's main concern has been to ensure that the proposed rule changes do not preclude its bond yield approach. The ERA considers that the bond yield approach would be consistent with the proposed rules.

In this context, the ERA agrees with the AEMC that the regulator is best placed to assess 'the characteristics of a benchmark efficient entity consistent with the overall rate of return objective'.[11] The ERA also notes that stakeholders would have opportunity to provide further input on its bond yield approach as part of the consultation process for the regulatory guidelines.

Yours sincerely

LYNDON ROWE
CHAIRMAN

4/10/2012

Economic Regulation Authority 04 Oct 2012

[11] Australian Energy Market Commission 2012, *Draft Rule Determinations: Draft National Electricity Amendment Rule 2012 and Draft National Gas Amendment Rule 2012*, www.aemc.gov.au, p. 77.