



INCITEC: Submission On Access Arrangements For
Queensland Gas Distribution Networks

January 2001

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Introduction

INCITEC has now completed its review of the AA and AAI documentation provided by Envestra and Allgas, and has examined the Issues Paper prepared by the QCA.

The adequacy of the information disclosed by Envestra and Allgas is questionable and concerning. Major deficiencies are evident which limit the ability of users to be able to derive and assess the reasonableness of their tariffs. For example, the QCA must require the capital base to be split into asset classes and regions and tie regulatory depreciation and operating costs to specific assets. The Code requires this to be done separately for each covered pipeline, and for Reference Services within each covered pipeline.

Moreover, the proposal to price large customers on a standalone basis and small customers on an incremental basis is discriminatory and does not meet the requirements of the Code.

There are also concerns with the ambit claims sought on capital and non-capital costs.

The comments contained in this submission follow the sequence of the issues raised in the QCA's Issues Paper.

Review Date

INCITEC agrees that in general, a regulatory period of five years' duration is appropriate. However, we do have concerns with the delays which have already occurred with the current review, which is to set the terms and conditions for access to the Gas distribution networks for the period from 1 July 2000 to 30 June 2004/05.

The absence of an indicative timetable for the review, for final approval of the access arrangements, and the expected date for the new access arrangement regime to begin operation is also of issue.

Because of uncertainty with the timing for the completion of the access review, the QCA must ensure that gas users are not unfairly penalised by the delays. Tariff

reductions under the new access arrangements must be made retrospective and apply, on a pro rata basis, with effect from 1 July 2000.

The next regulatory review submission date should be at least nine months before the end of the regulatory period. By that time, all information and data deficiencies identified in the present review should be addressed. The Access Arrangement (AA) and Access Arrangement Information (AAI) submitted should be consistent with the approved regulatory chart of accounts format to enable users to be able to understand the derivation of their tariffs.

A trigger mechanism should be adopted, provided the time remaining in the initial regulatory period is not too short as to warrant interim reviews. The following trigger events, including those proposed by Allgas, are considered appropriate:-

- variation in total gas demand and capital expenditures of more than 10 per cent from that forecast; and
- variation in revenue of more than 10 per cent.

INCITEC notes that, in the UK, regulated businesses have consistently underspent on their forecast capital expenditures over the past 10 years. Underspensing on forecast capital expenditures and underestimation of demand forecast are obvious ways in which regulated businesses have 'gamed' regulators and earned excessive revenues, to the disadvantage of users and downstream investments, and importantly in breach of Code requirements. The QCA is urged to be alert to such practices.

Determination Of Total Revenue

INCITEC proposes that the QCA determines total regulated revenue on the basis of the cost of service approach. However, INCITEC strongly recommends that the QCA also applies and publishes 'reality tests' to ensure (and satisfy users) that the total regulated revenues do not embed monopoly rents, are fair and reasonable, and balance the interests of owners and users. These 'tests' would include:-

- ◆ payback periods (e.g. how long does it take full net operating revenue to recover the capital base?);
- ◆ the rate of return on shareholders' funds; and
- ◆ the internal rate of return on cash flows in and out of the business over the last 10 years and projected over the access arrangement period.

The Initial Capital Base

INCITEC's earlier submission to the QCA raised several issues regarding its opposition to the use of the DORC asset value methodology. In addition, the management of the independent valuation study that the QCA would need to commission, especially to ensure that an arms-length review of the regulated assets is undertaken (in view of the information asymmetry problems) has caused some angst.

In the QCA's Issues Paper, it is noted that DORC valuations have been commonly used by other regulatory agencies in Australia as a "starting point" for asset valuations.

Further, a number of regulators have derived the ICB using an approach whereby initial DORC values are established and then subsequently reduced on the basis of a balancing of interests of the asset owner and users.

It should be observed that 'writing down' the initial DORC values would have come about only after the application by regulators of a range of financial or reality tests. In this regard, we reiterate our earlier recommendation that the proposed regulated revenue stream (and the ICB) should be ascertained against a range of "reality tests" and adjustments made accordingly to balance the interests of asset owners and users. We maintain that applying a 100% DORC asset value means embedding monopoly rents in the gas distribution networks (in view of the conceptual and practical deficiencies of the DORC method). The reasons have been pointed out in our arguments against the use of the DORC asset values methodology. The credibility of the access arrangement regime and the regulatory process would be judged on this central issue.

INCITEC strongly objects to Envestra's 'hole in the ground' value proposed. It is clear that asset owners can use maintenance expenditures (which are reimbursed in the total revenue stream) to extend the economic lives of assets, thereby pushing out the length of its (real rate of return earning) investment with no cash input of its own. In Envestra's case, it also pushes up the capital base value through a lower level of depreciation. Should the QCA accept Envestra's proposal, it would be tantamount to regulatory inconsistency, if it were not to also agree to the valuation of fixed assets, (that have market value e.g. buildings, cars, computer systems) on the basis of Net Realisable Values rather than DORC. Otherwise, the regulatory outcome would be seen as selective, and would not have credibility with users.

New Facilities Investments

We note that the QCA has pointed out that Allgas has not made specific reference in its access arrangement to issues such as the treatment of capital expenditure that does not satisfy section 8.16 of the Code, or to the method by which discrepancies between actual and forecast capital expenditures are to be treated. These are important issues and have significant implications for the regulated revenue stream. We expect the QCA will ensure that Allgas complies with the requirement to disclose the appropriate information. Section 8.16 and 8.17 of the Code set out matters to be considered by the regulator in assessing a service provider's forecast capital expenditure.

Under the Code, actual new facilities investment must pass a 'prudent investment' test to be included in the capital base at the beginning of the next Access Arrangement period, viz:-

8.15 The Capital Base for a Covered Pipeline may be increased from the commencement of a new Access Arrangement Period to recognise additional capital costs incurred in constructing New Facilities for the purpose of providing Services.

8.16 The amount by which the Capital Base may be increased is the amount of the actual capital cost incurred (*New Facilities Investment*) provided that:-

(a) that amount does not exceed the amount that would be invested by a prudent Service Provider acting efficiently in accordance with accepted good industry practice, and to achieve the lowest sustainable cost of delivering Services; and

(b) one of the following conditions is satisfied:-

(i) the Anticipated Incremental Revenue generated by the New Facility exceeds the New Facilities Investment; or

(ii) the Service Provider and/or Users satisfy the Relevant Regulator that the New Facility has system-wide benefits that, in the Relevant Regulator's opinion, justify the approval of a higher Reference Tariff for all Users; or

- (iii) the New Facility is necessary to maintain the safety, integrity or Contracted Capacity of Services.

8.17 For the purposes of administering 8.16(a), the Relevant Regulator must consider:

- (a) whether the New Facility exhibits economies of scale or scope and the increments in which Capacity can be added; and
- (b) whether the lowest sustainable cost of delivering Services over a reasonable time frame may require the installation of a New Facility with Capacity sufficient to meet forecast sales of Services over that time frame.

8.18 A Reference Tariff Policy may, at the discretion of the Service Provider, state that the Service Provider will undertake New Facilities Investment that does not satisfy the requirements of section 8.16. If the Service Provider incurs such New Facilities Investment, the Capital Base may be increased by that part of the New Facilities Investment which does satisfy section 8.16 (the Recoverable Portion).

To satisfy the above Code provisions, we expect that the QCA will seek the appropriate information from Envestra and Allgas and review the information specifically:-

- on the major projects undertaken in the past 5 years and over the next 5 years;
- ascertain the adequacy of the 5 year capital expenditure projections (e.g. project evaluation methodology planning criteria, options developed, load forecasts, capacity requirements);
- ascertain the prudence of the investments (e.g. risk assessments, satisfaction of Section 8.16 (b), least cost options, average cost per new connection, and benchmarking against other gas distribution businesses).

Negative, Economic Or Competitive Depreciation

INCITEC prefers the use of the straight line depreciation method proposed by Envestra and Allgas. We have previously provided our concerns with the economic or competitive depreciation method favoured by the ACCC. We believe that this method ensures a long and high tariff stream, provides substantial advantage to asset owners and pro-longs the inflated tariff-effects of DORC. (INCITEC: Submission To The Queensland Competition Authority Electricity Distribution Prices Review, July 2000 – relevant excerpts are attached).

Rate of Return

INCITEC considers that regardless of whether a pre-tax real or post-tax nominal WACC is used, the basic rate of return critical to the regulatory framework is the post-tax nominal cost of equity derived from the CAPM. Comments on the key financial parameters are as follows.

1. The Risk Free Interest Rate

INCITEC would draw the QCA's attention to the ACCC's draft determination on the Moomba to Sydney Pipeline System Access Arrangement (December 2000) in which it states (page 73):-

“Ten year bond rates can be used as a proxy for the risk free rate. However, the commission considers that the term associated with the risk free rate should coincide with the duration of the access arrangement period. Thus, five year bond rates are used in reference to access arrangements with an expected initial access arrangement period of five years. In addition, the five year bond rate has the advantage of a lower built-in premium to compensate for inflation risk. A ten year bond rate is usually higher than the five year rate because, in part, it accommodates a risk premium for inflation uncertainty. As the regulatory framework already compensates the service provider for inflation risk the inclusion of an inflation risk premium in the risk free rate used for determining the cost of capital is inappropriate. Accordingly, the Commission Considers that five year rates are appropriate for this analysis.”

INCITEC points out that the current 40 day moving average 5 year bond rate is around 6.04%, compared with the 6.2% nominated by Envestra and Allgas (which apply on average based on the 10 year bond rate).

2. Debt Margin and Cost Of Debt

Most recent regulatory decisions on the debt risk margin for gas distribution and transmission pipelines in Australia have ranged between 90 and 120 basis points (including 120 points in the December ACCC draft decision, Moomba-Sydney) whilst Envestra has proposed a margin in the range of 140 to 160 basis points. Envestra's reference to the recent discussion of 150 basis points by the Office of the Regulator General in relation to electricity distribution businesses as an appropriate benchmark is in error. The Victorian electricity businesses faced fierce competitive trading conditions, and Envestra's position in Queensland is not comparable.

A debt margin of 1.2% above a proposed risk free rate of 6% results in a nominal cost of debt of 7.2% (not the 7.6% and 7.8% range proposed by Envestra). With an inflation rate of 2.5% (not 2.9% as proposed) the corresponding real costs of debt is 3.8%.

3. Market Risk Premium

INCITEC notes Envestra's AAI refers to studies into the market risk premium which estimate it in range of 3.5% to 7.5%. The ACCC, however, in August 2000 (Draft Decision, Epic Energy, Moomba to Adelaide Pipeline) and in December 2000 (Draft Decision, EAPL, Moomba to Sydney) opted for a market risk premium of 6% (c.f. Envestra's proposed 6% to 7% range).

INCITEC wishes to draw to the QCA's attention that the ACCC considers that the market risk premium may be declining and that a move appropriate value may be 5.5%. It will reconsider its 6% draft decision over time as further empirical work becomes available.

4. Risk and Beta

Section 8.31 of the Code states that the weighted average of the return on funds should be calculated by reference to a financing structure that reflects standard industry structure for a growing concern and best practice. In this regard the NSW IPART in its recent Final Decision on AGLGN adopted an asset beta of 0.4-0.5, a debt beta of 0.06 and an equity beta in the range of 0.9-1.1. This was arrived at by applying a tax rate of 36% (although a 30% rate is now appropriate).

In contrast, Envestra has determined the asset beta in the range 0.4-0.6, a debt beta of 0.17 and an equity beta of 0.98-1.11.

5. Pre-tax WACC

On the basis of the preferred numbers for the financial parameters, INCITEC estimates that a real pre-tax WACC of about 7% (c.f. 7.75% sought by Envestra and Allgas) should be adopted for Envestra and Allgas. INCITEC notes that the QCA's draft decision on electricity distribution adopts a real pre-tax WACC of 7.02% or a post-tax nominal WACC of 8.92%.

Non-Capital Costs

INCITEC notes that, on the surface, the non-capital costs reductions proposed by Envestra are rather modest, especially if the figures are adjusted to make allowance for customer growth and volume growth during the access arrangement period. This would seem to imply very modest productivity and efficiency improvement.

For a more rigorous assessment of non-capital costs, we expect that the QCA would need to adjust the calculation of costs (proposed by Envestra) to account for volume and customer growth (including customer classes viz household and industrial e.g. marketing costs per GJ of growth). This would better assist with accessing prudent operating costs and identifying areas where cost savings can be made.

INCITEC agrees that costs associated with unaccounted-for-gas should be retained in the costs incurred by the networks. This should encourage networks to reduce the costs, as they are controllable costs. However, whilst unaccounted for gas costs are projected to fall significantly during the access period, the levels appear to be quite

high, representing some 30% of Allgas' non-capital cost in 1999/2000 and some 25% in 2004/05. These levels are very high indeed when compared with other Australian gas distribution businesses.

Regulators in other states have tended to reduce the non-capital costs and unaccounted-for-gas, allowed for regulatory purposes below those regulated in access arrangement applications.

Allocation Of Revenue And Costs

INCITEC is very concerned with the proposal by Allgas and Envestra to allocate costs to consumers based on standalone costs for the large customer group. We believe that the QCA cannot approve an Access Arrangement that includes any form of standalone/marginal pricing. The issue is whether the proposed cost allocations comply with the requirements of the Code.

The QCA's attention is drawn to the Code provisions that contain several tests applying to cost allocations. These tests are found in Section 8.1, 8.37, 8.38 and 8.44. It is stressed that the Code only deals with the allocation of target revenue to Reference Tariffs, and does not consider that there is an intermediate step of allocating target revenue to customer classes. In an Access Arrangement that deals with whole of market access, dividing the market into just two customer classes is highly arbitrary.

Section 8.1 sets out the objectives that should be achieved through the design of a Reference Tariff. These include:-

- a. "providing the Service Provider with the opportunity to earn..... Revenue that recovers the efficient costs of delivering the Reference Service over the expected life of the assets.....";
- b. "replicating the outcome of a competitive market";
- c. "not distorting investments decisions in Pipeline transportation systems or in upstream or downstream industries";
- d. "efficiency in the level and structure of the Reference Tariffs".

INCITEC makes the following points in relation to Section 8.1 of the Code:

- ≡ All natural gas Access Arrangement regimes (approved under the Code) have adopted and operate on fully distributed costing for both capital and non-capital costs.
- ≡ It is technically and commercially reasonable to allocate joint costs to Reference Tariffs on a fully distributed basis.
- ≡ Fully distributed costing is fair and reasonable.
- ≡ Section 8.37 is specific that a Reference Tariff may only provide for the recovery of efficient non-capital costs of delivering the Reference Service.
- ≡ Section 8.38 states that a Reference Tariff should, to the maximum extent that is commercially and technically reasonable, be designed to recover the portion of target revenue that includes the costs directly attributable to the Reference Service and a share of joint costs that has been determined in accordance with a methodology that meets the objectives of Section 8.1 and is otherwise fair and reasonable.
- ≡ Section 8.42 further provides that, subject to prudent discounts, a Reference Tariff should to the maximum extent that is technically and commercially reasonable, be designed so that a particular user's contribution to target revenue is consistent with Section 8.38.

Both Envestra and Allgas have not demonstrated how their proposed cost allocation methodologies comply with the requirements of the Code.

If the QCA were to approve the proposals, it would, in effect, be setting a national precedent in approving discriminatory pricing for whole customer classes on gas distribution networks. The QCA, however, must (as a matter of public responsibility) clearly demonstrate that discriminatory pricing based on customer size is clearly compliant with the Code and is in the public interest. The NSW IPART was confronted with a similar issue on standalone pricing and following legal advice, including advice from major users, adopted a fully distributed cost pricing methodology.

Cross Subsidy

Both Envestra and Allgas have not demonstrated whether, and to what extent, there are cross subsidies in the Queensland gas distribution networks. We do not believe, for

example, that it is not sufficient just to show that the price being charged to a user is below average cost and therefore establish that a cross subsidy applies. So long as the user is meeting the marginal costs attributable to his use of the pipeline, there is no cross subsidy. There is also a range of subsidy-free prices between marginal and full standalone costs.

It is also not clear that Envestra's proposed prices for some small customers are not below incremental costs (even if the Reference Tariff covers the incremental costs of tariff customers overall) otherwise it seems odd that it is only proposing annual price adjustments of a tiny CPI minus 0.1% for the duration of the access period (i.e. proposing nominal price increases).

Section 8.43 of the Code allows Service Providers to offer prudent discounts if, and only if the customers would not use the service if it were priced at the nearest Reference Tariff, or if the addition of the User would reduce the Reference Tariff. The Code allows for the difference in revenue between the prudent discount and the nearest Reference Tariff to be recovered from other customers if, and only if, the resultant tariffs are consistent with Sections 8.42 and 8.38 of the Code. It follows that service providers may only offer prices that are below the incremental costs of providing the service in very limited circumstances. Envestra has not provided any information that its proposed tariffs meet Section 8.43 requirements (e.g. are the tariffs economically efficient and in the public interest in having competition in markets).

Information Disclosure

INCITEC formally requests the QCA under Section 2.9(b) of the Code to ascertain whether the AAI's filed by Envestra and Allgas comply in full with Sections 2.6 and 2.7 of the Code.

INCITEC requests that further information to satisfy Attachment A of the Code be made available and provided in amended and consolidated AAI's, including for example:-

❖ Category 1: Information Regarding Access and Pricing Principles

- Incentive structures

- ❖ **Category 2: Information Regarding Capital Costs**
 - Asset values for each pricing zone, services or category of asset
 - Depreciation
 - Accumulated depreciation
 - Description of nature and justification for planned capital investment

- ❖ **Category 3: Information Regarding Operations and Maintenance**
 - Cost allocation between zones, services or categories of asset and between regulated/unregulated
 - Wages and Salaries – by pricing zone, service or category of asset

- ❖ **Category 4: Information Regarding Overheads and Marketing Costs**
 - Total service provider costs at corporate level
 - Allocation of costs between regulated/unregulated segments
 - Allocation of costs between particular zones, services or categories of asset

- ❖ **Category 5: Information Regarding KPI's**
 - Service Provider KPI's for each pricing zone, service or category of asset

We agree that the regulator may allow a level of aggregation (the Service Provider has to prove that aggregation is necessary to ensure that disclosure of the information is not unduly harmful to the legitimate business interests of the Service Provider) and must be satisfied that the objectives of Sections 8 and 8.1 are met, including especially that cost allocation segments have been fairly allocated.

Conclusion and Recommendations

INCITEC has substantial concerns with the access arrangements proposed by Envestra and Allgas, in particular the deficiencies in information disclosure, cost allocations and the level of capital and non-capital costs claimed.

INCITEC makes the following recommendations:-

1. The QCA must require Envestra and Allgas to meet disclosure requirements of the Code, and address the deficiencies including those pointed out in this submission. The QCA is formally requested under Section 2.9(b) of the Code to ascertain whether the AAI's filed comply in full with Section 2.6 and 2.7 of the Code.
2. The QCA must formally modify the regulatory review process so that a further round of submissions can be made once Envestra and Allgas have fully complied with the Code and with the requirements of Attachment A of the Code.
3. The QCA must provide interested parties the opportunity (and the right) to participate in the regulatory review process with sufficient information to understand the derivation of key elements of the proposals, and to establish that tariffs are fair and reasonable.
4. Agree with the regulatory period of five years, with appropriate trigger mechanisms, and with tariff reductions under the new access arrangements made retrospective, on a pro-rata basis, to apply with effect from 1 July 2000.
5. Oppose the adoption of 100% DORC and the 'hole in the ground' proposal by Envestra.
6. Allgas to satisfy Section 8.16 requirements of the Code concerning the treatment of capital expenditure.
7. The QCA to obtain the appropriate information on new investments and review the following:-
 - major projects undertaken in the past 5 years and over the next 5 years;
 - the adequacy and reasonableness of the capital expenditure projections;
 - the prudence of the investmentsaccording to criteria shown in the submission.
8. Adopt the use of straight-line depreciation.
9. Adopt a real pre-tax WACC of about 7%.
10. Assess the reasonableness of non-capital costs by adjusting the calculation of costs proposed to account for volume and customer growth and benchmarked against other distribution businesses.
11. Require Envestra and Allgas to comply with the requirements of the Code in relation to Section 8.1 by adopting a non-discriminatory, fully distributed cost allocation method.

12. If the QCA were to approve standalone/marginal previews, it must demonstrate how the approach complies with requirements of the Code.
13. Require demonstration of whether, and to what extent, the degree of cross subsidies.

1. Alternative to DAVIS Appendix 3-normal straight line depn of initial RAB												
Year	0	1	2	3	4	5	6	7	8	9	10	
RAB	100	90	80	70	60	50	40	30	20	10	0	
Depreciation		10	10	10	10	10	10	10	10	10	10	
Rtn on capital 10.25%		10.25	9.225	8.2	7.175	6.15	5.125	4.1	3.075	2.05	1.025	
Total revenue		20.25	19.225	18.2	17.175	16.15	15.125	14.1	13.075	12.05	11.025	
Real cash flow (time 0 \$s)		19.286	17.438	15.722	14.13	12.654	11.287	10.021	8.85	7.768	6.788	
PV @ 5%		18.367	15.816	13.581	11.625	9.915	8.422	7.121	5.99	5.007	4.155	
Total PV		100										
2.DAVIS zero infn case												
RAB	100	90	80	70	60	50	40	30	20	10	0	
Depreciation		10	10	10	10	10	10	10	10	10	10	
Rtn on capital 5%		5	4.5	4	3.5	3	2.5	2	1.5	1	0.5	
Total revenue		15	14.5	14	13.5	13	12.5	12	11.5	11	10.5	
PV @ 5%		14.286	13.152	12.094	11.106	10.186	9.328	8.528	7.784	7.091	6.446	
Total PV		100										
3. DAVIS 5% infn and 'competition depn'												
RAB	100	94.5	88.2	81	72.9	63.8	53.6	42.2	29.5	15.5	0	
Depreciation		5.5	6.3	7.2	8.1	9.1	10.2	11.4	12.7	14	15.5	
Rtn on capital 10.25%		10.3	9.7	9	8.3	7.5	6.5	5.5	4.3	3	1.6	
Total revenue		15.8	16	16.2	16.4	16.6	16.8	16.9	17	17.1	17.1	
Real cash		15	14.5	14	13.5	13	12.5	12	11.5	11	10.5	
PV @ 5%		14.286	13.152	12.094	11.106	10.186	9.328	8.528	7.784	7.091	6.446	
Total PV		100										

INCITEC supports the use of the depreciation approach based on the useful life of assets adopted by IPART and ORG and in use by Energex and Ergon. We do not support the competition depreciation (or change in economic value) approach proposed by the ACCC.

Attachment A is a spreadsheet which gives some insights into the competition effect on cash flows. Our analysis follows:-

There are 3 tables shown. The 2nd and 3^d tables replicate Davis¹ a proponent of competition depreciation and a consultant to the ACCC on the issue) *Appendix 3* tables. The 1st table shows an alternative to competition depreciation. Assumptions (following Davis) are inflation of 5% per year and real WACC of 5%, giving nominal WACC of $(1.05)(1.05) - 1 = .1025 = 10.25\%$.

Competition depreciation works like this in the following ways. Take year 4 (say) of an asset being depreciated straight-line over 10 years (10% per year). After 4 years, only 60% of the asset remains. But its RC at that time is initial value \$100 (time 0) times (1.05)⁴, that is $100(1.2155) = \$121.55$, assuming that asset costs are rising by 5% per year. So DORC at this point is $121.55(60\%) = \$72.93$ as per Davis' calculations.

Using competition depreciation, Davis gets the cash flows shown in Table 3, which have a PV (when discounted appropriately) of RAB=1.00 as is theoretically necessary.

Using a more normal accounting straight-line depreciation method - that is, simply writing off 10% of RAB=100 each year, we obtain a different set of annual cash flows. These are higher initially but taper off much more quickly. When discounted appropriately, the PV is again equal to RAB=100, so the two methods are to this extent equivalent.

The difference is that competition depreciation has the effect of slowing the decline in the asset base, over time, and hence preserving a greater sum of "money in the pool" earning the WACC (which is 5% real or 10.25% nominal in this example). This means that owners claim the regulated WACC on a larger base (RAB) for longer, which is of course very desirable if the regulated WACC is generous relative to the true WACC. This is to the obvious detriment of the users of the infrastructure.

Another advantage of competition depreciation to asset owners is that initial cash flows are lower allowing more palatable introduction of the whole DORC-WACC regime (i.e. a trojan horse effect).

¹ Kevin Davis. Asset Valuation and The Post-Tax Rate of Return Approach to Regulatory Pricing Models. ACCC Forum. Melbourne June 2000

Finally, there is the ability to re-configure the path of annual flows (although without altering overall PV) by the fact that the depreciation scheme has an additional discretionary input, namely the projected RC path of the asset.

Under competition depreciation, the asset base could actually rise over time. For example if RC was rising fast enough with inflation, 90% of this year's RC could be higher than 100% of last year's, meaning that the asset base for calculating return on capital would have gone up. More likely is that it will hardly go down, thereby ensuring a very long and high tariff stream.

We note also that if regulated WACC exceeds actual WACC, as we believe is generally true, competition depreciation exacerbates excess returns to owners, by slowing the decline in RAB over time and hence prolonging high annual cash flows. Our views are that the competition depreciation model as described by Davis and proposed by the ACCC provides substantial advantage to asset owners and pro-longs the inflated tariff-effects of DORC. And this is in the context of our concern that the DORC asset value methodology already leads to higher prices than are warranted or fair to customers.

