AGL GAS COMPANY (ACT) LIMITED
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and

AGL GAS NETWORKS LIMITED
ACN 003 004 322

SUBMISSION IN RESPONSE TO THE DRAFT DECISION OF THE INDEPENDENT PRICING AND REGULATORY COMMISSION OF ACT

IN RELATION TO

AGL(ACT)'s PROPOSED ACCESS ARRANGEMENT FOR ITS NATURAL GAS SYSTEM IN ACT, QUEANBEYAN, AND YARROWLUMLA

April, 2000

SUBMISSION BY AGL(ACT)

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SECTION A:
Summary of Key Issues

A1. Rate of Return

AGL(ACT) believes the table below shows an appropriate recalculation of the WACC

Variable	**Draft Decision Range**[1]	**AGL(ACT) Current view**
Debt / Equity	60/40	60/40
Inflation	3.6%	2.85%
Tax Rate	36%	36%
Imputation Credit Utilisation Rate (Gamma)	30% – 50%	30% – 50%
10 Year Bond Rate	7.13%	6.50%
Debt Premium	0.9% – 1.1%	1.2%– 1.4%
Cost of Debt	8.03% - 8.23%	7.70% – 7.90%
Market Risk Premium	5% – 6%	6.% – 7%
Asset Beta	0.4 – 0.5	0.5 – 0.6
Equity Beta	0.9 – 1.14	1.14 – 1.39
Cost Of Equity	11.62% – 13.98%	13.36% – 16.22%
Post Tax Nominal WACC	7.20% – 7.95%	7.13% – 8.59%
Pre Tax Nominal WACC	10.29% – 12.41%	11.14% – 13.41%
Post Tax Real WACC	3.49% – 4.20%	4.16% – 5.58%
Pre Tax Real WACC (tax then inflation adjustment)	6.47% – 8.52%	8.06% – 10.27%
Pre Tax Real WACC (inflation then tax adjustment)	4.98% – 6.57%	6.50% – 8.71%

The Pre Tax Real WACCs give a mid point Pre Tax Real WACC 6.5% to 10.3%.

The cost of capital should be set in the upper half of the estimated range of the cost of capital. This would imply a pre-tax real WACC of above 8.40%.

AGL(ACT) submits that the pre-tax real WACC of 8% in its proposed Access Arrangement is appropriate, and should be used in the Final Decision.

A2. Initial Capital Base

The Draft Decision suggests that:

- there is uncertainty in the value of the DORC proposed by AGL(ACT);
- there is uncertainty in the value of the ODV proposed by AGL(ACT); and
- the values attributed by AGL(ACT) to DIHC and to CCA WDV are overstated.

[1] Page 53, Page 2.41

As a consequence, the ICB proposed by AGL(ACT) was marked down in the Draft decision from $240.6m to $170m. AGL(ACT) has reviewed the basis upon which the Draft Decision has arrived at its conclusions, and has found that the feasible range for the ICB is higher and more certain than that suggested in the Draft Decision as summarised in the following Table:

Valuation Methodology	Draft Decision	AGL(ACT) Conclusion
DAC	$90m accepted for capital assets.	Accepted.
DORC	AGL(ACT)'s proposed value of $252m (system assets) accepted, but suggests unresolved down-side uncertainty on the basis of "incumbent owner" valuation and other factors.	"incumbent owner" is not a DORC. PPK/Kinhill has produced a robust valuation which removes uncertainty.
ODV	Draft Decision concludes $242-245m appears to be high on the basis of uncertainty in DORC. Other factors contribute to uncertainty.	Uncertainty in DORC has been addressed by the work of PPK/Kinhill and the elimination of the "incumbent owner" concept. ODV is essentially equal to DORC, irrespective of other factors. Correction of an error in the AGL(ACT) submission leads to ODV in the range $252–$255m.
DIHC	Draft Decision suggests a range of $130-$148m.	The lower end of the range is unsubstantiated
CCA WDV	Draft Decision proposes a range of $140-190m	Minimum value is $184m when inconsistencies are corrected

In addition the Draft Decision appears to have drawn conclusions as to the expectations of persons under the prior regulatory regime by reference to the profit control regime which applied in the ACT prior to 1992 rather than the regime which applied from 1992; a regime in which there was no profit control and price controls applied only to the tariff market. This, and other relevant considerations, leads to a conclusion that the ICB should be set at a higher point in the feasible range than is proposed in the Draft Decision.

In this context, AGL(ACT)'s proposed Initial Capital Base of $240.6m (capital assets) is both appropriate and reasonable and we recommend that this value be accepted by the Commission in its Final Decision.

A3. Growth Related Capital Expenditure

The capital expenditure incorporated into the Draft Decision is insufficient when compared with the level of growth required by Amendment 16. AGL(ACT) submits that, should the level of growth required by the Draft Decision be incorporated in the Final Decision, then the Capital Expenditure must also be revised in the manner set out below, to support such growth.

AGL(ACT) Capital Expenditure at IPARC Forecast Growth Rates (real 1999/2000 $m)					
	2000	**2001**	**2002**	**2003**	**2004**
Load growth					
Residential (%)	8.0%	8.0%	8.0%	8.0%	8.0%
Business Tariff(%)	2.0%	2.0%	2.0%	2.0%	2.0%
Capital expenditure					
Renewal/replacement/Other	1.4	1.3	1.2	1.8	1.6
Growth related	7.0	7.4	7.9	8.3	9.0
System Reinforcement	0.2	3.9	3.9	3.9	3.9
EGP	3.6	8.7	0.0	0.0	0.0
Total	12.2	21.3	13.0	14.0	14.5

A4. Operating Costs (Non-Capital Costs)

AGL(ACT) submits, in regard to controllable operating costs, that:

- The partial performance indicator analysis used to assess the performance of AGL(ACT) relative to other Australian and US gas distributors does not support a view the AGL(ACT)'s operating costs are inefficient when KPIs unrelated to efficiency are removed,
- The IPART DEA study used to assess AGL(ACT)'s operating costs is deficient and does not provide a sound basis for assessment of efficiency,
- The analysis which supports the proposed reduction in marketing costs is not sustainable when matters relating to marketing costs including gas market maturity, the 'natural' level of growth, impact of price reductions and competition, are properly considered,

and accordingly a reduction in operating costs of 30% is inappropriate given that the basis on which this reduction was determined is flawed.

AGL(ACT) submits, in regard to incremental operating costs for growth, that:

- The level of incremental operating costs proposed in the Draft Decision is inconsistent with the growth forecast in the Draft Decision,
- The allowed level of operating costs must be consistent with the level of growth to be decided in the Final Decision.

A5. CPI Indexation

AGL(ACT) does not believe that the proposed treatment of CPI(ex-GST) is appropriate because it is not likely to result in total revenue that will allow recovery of the costs of service as required by the Code.

A6. Demand Forecasts

AGL(ACT) submits that the demand forecasts required by the Draft Decision cannot be achieved.

In the residential tariff segment, the achievable growth is limited by

- the number of new homes which are likely to use natural gas, the forecast of which is based on new home growth as forecast by BIS Shrapnel,
- line of main connections, which are slowing as saturation is approached, and
- the opportunity to increase usage by existing customers, which is limited in large measure by the number of electrical appliances which are due for replacement.

These factors together suggest that 8 per cent growth is not achievable.

In the business tariff segment, the major determinants of forecast growth are net increases in customer numbers (largely a function of new connections) and changes in average consumption per customer. To achieve the required two per cent per annum load growth would necessitate an immediate stabilisation of the longer term decline in additions to customer numbers and a reversal of the decline in average consumption. AGL(ACT) submits that there is no evidence to suggest such a turnaround will occur.

In the contract segment, AGL(ACT) has been advised that the urban bus fleet will not convert to NGV during the Access Arrangement period.

A7. General

AGL(ACT) notes that the Draft Decision has in many instances accepted the proposals contained in the proposed AGL(ACT) Access Arrangement, and no further comment is made on those issues.

Where the Draft Decision has sought further information, AGL(ACT) will provide such information. AGL(ACT) will submit an Access Arrangement and information supporting that Access Arrangement in response to the Final Decision of the Commission ("the Response Access Arrangement").

Some issues have been addressed in several places in the Draft Decision, and for simplicity, AGL(ACT) has responded only at the main discussion of that issue. While this submission addresses only the key issues in the Draft Decision, the absence of comment on other issues should not be taken as agreement with the position expressed in the Draft Decision.

SECTION B:
Summary Response to List of Proposed Amendments

B1. Requirement 1 – Capital Expenditure

AGL(ACT) is required to provide further information and explanation concerning:

(a) the downward revision in the capital expenditure forecasts submitted in August, prior to the new proposal on the Eastern Gas Pipeline connection, compared to the April submission

(b) whether the capital expenditure per connection includes or excludes mains costs.

AGL(ACT) Response

AGL(ACT) will provide such information and explanations.

B2. Requirement 2 – Services Policy

AGL(ACT) is required to present information on the appropriateness of:

(a) a partial use of assets reference service

(b) a summer tranche reference service

(c) a short term requirements reference service for small and medium users.

AGL(ACT) Response

These matters are discussed in section C8.

B3. Requirement 3 – Demand Forecasts

AGL(ACT) is required to:

(a) provide an adequate explanation of factors driving the contract market forecasts, and revise its methodology for the contract market to reflect factors in the ACT

(b) provide a satisfactory outline of its forecasting methodology in the Access Arrangement Information.

AGL(ACT) Response

AGL(ACT) will provide the explanation required by (a) separately from this submission, and the outline required by (b) in the documents to be submitted with the Response Access Arrangement[2].

[2] Response Access Arrangement means the Access Arrangement and supporting information to be submitted by AGL(ACT) in response to the Final Decision.

B4. Amendment 1 – Access Arrangement Information

AGL(ACT) is required to amend the Access Arrangement Information so that it includes the following:

(a) consolidation of the information in its original AAI submitted to the Commission on 5 January 1999, its RAAI on 15 February 1999 and its SAAI on 22 April 1999, consistent with this draft decision

(b) amendments required by this draft decision

(c) actual results in 1998/99 including capital costs, non-capital costs, system capacity, sales volume, MDQ, and key performance indicators

(d) cost allocation information consistent with the revisions required by the draft decision.

AGL(ACT) Response

AGL(ACT) will provide appropriate information in the documents to be submitted with the Response Access Arrangement for approval.

B5. Amendment 2 – Funds employed and net working capital

AGL(ACT) is required to amend:

(a) its funds employed approach by separating the regulatory capital assets (system and non-system assets) from net working capital when the rate of return component is calculated. A real rate of return will be applied to the regulatory capital assets (ie system assets and non system assets). A nominal return is to be applied on net working capital

(b) its level of net working capital to exclude taxation assets and liabilities (ie taxation provisions, deferred income tax liabilities and future income tax benefits)

(c) its net working capital forecast with disclosure on the assumptions and parameters underlying such forecasts.

AGL(ACT) Response

AGL(ACT) will incorporate the proposed amendment in the Response Access Arrangement.

B6. Amendment 3 – Rate of return

The rate of return used in the proposed cost of service methodology for calculating total revenue must not exceed 7.75 per cent in real, pre tax terms. This is consistent with a nominal post tax return on equity of approximately 12-13 per cent.

AGL(ACT) Response

AGL(ACT) does not agree with this proposed amendment. This matter is addressed in section C1 of this submission.

B7. Amendment 4 – Initial capital base as at 1 July 1999

AGL(ACT) is required to set the initial capital base for its covered pipelines at 1 July 1999 (including ACT, Queanbeyan and Yarrowlumla) at a value no higher than $170m.

AGL(ACT) Response

AGLGN does not agree with the proposed amendment to the Initial Capital Base. This matter is addressed in section C2 of this submission.

B8. Amendment 5 – Rolling forward the regulatory capital base

For the purpose of calculating reference tariffs during the Access Arrangement period, AGL(ACT) is required to roll forward the regulatory capital base by:

(a) including forecast capital expenditure which meets the prudency test for the period 1999/2000 to 2003/04

(b) deducting forecast regulatory depreciation

(c) indexing the regulatory capital base annually from 1 July 1999 using CPI defined as the All Groups Consumer Price Index (weighted average of eight Australian capital cities) as published by the Australian Bureau of Statistics.

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement and the documents submitted with it, subject to resolution of questions concerning the time at which prudence is to be determined, and the impact of the New Tax System on the CPI. These issues are discussed in sections C3.1 and C3.2 respectively.

B9. Amendment 6 – Depreciation

AGL(ACT) is required to amend depreciation so that:

(a) the depreciation component is calculated on the regulatory capital base only, thus reflecting the Initial Capital Base at 1 July 1999 as determined by the Commission

(b) depreciation must be calculated using a straight line method based on economic lives by asset category:

Asset category	Economic life
Mains:	
- cast iron	50
- steel	80
- polyethylene/nylon	50
Inset services	50
Meters	15
District regulators	50
City gate	50
SCADA systems	5-10
Plant and equipment	5-20

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement and associated information documents (subject to comments on ICB).

B10. Amendment 7 – Non capital costs

AGL(ACT) is required to amend its non capital cost (operating cost) forecast to:

(a) allow for a cost reduction of 30 per cent in controllable costs, phased in over the five year course of the Access Arrangement (ie 1999/2000 to 2003/04). Controllable non capital costs are: operation and maintenance, marketing and overheads, and exclude government levies, unaccounted for gas, and costs associated with retail contestability
(b) allow for growth with an equal 50 per cent weighting applied to both volume load growth and customer growth
(c) the allowed controllable costs and the Commission's provisional allowance for non controllable costs (ie government levies and new costs associated with retail contestability) plus UAG are:

Forecast non capital costs - real 1999/2000 $m

	2000	2001	2002	2003	2004
Controllable costs	9.1	8.7	8.4	8.0	7.6
Other	1.9	2.0	2.0	2.0	2.0
Total	11.0	10.7	10.4	10.0	9.6

AGL(ACT) Response

AGL(ACT) does not agree with this proposed amendment. This matter is addressed in section C6 of this submission.

B11. Amendment 8 – Price and revenue caps

(a) AGL(ACT) is required to submit reference tariffs which, if applied over the whole year 1999/2000 and subsequent years to 2003/04, must be consistent with total revenue as follows:

Revenue path in real 1999/2000 $m

	1999/2000	2000/01	2001/02	2002/03	2003/04
Contract revenue	2.2	2.1	2.0	1.8	1.7
Tariff revenue	30.3	29.4	28.4	27.4	26.3
Total	32.5	31.4	30.3	29.2	28.1

(b) Within this revenue cap, AGL(ACT) is required to establish reference tariffs in each of the years, 1999/2000 to 2003/04, expressed in real 1999/2000 dollars. The reference tariffs will be adjusted by the change in CPI (EX-GST) over the year to March quarter immediately preceding the start of the relevant financial year. CPI (EX-GST) is defined as follows:

"CPI (EX-GST)" means the consumer price index, All Groups index number weighted average of eight capital cities (a classification employed and published by the Australian Bureau of Statistics), exclusive of the net effect across those eight capital cities of:

(a) the 'GST' (as that expression is defined in A New Tax System (Goods and Services Tax) Act 1999); and
(b) changes to any other Commonwealth, State or Territory taxes or charges, consequent upon the introduction of the GST,

(the "Index")
as calculated and published by the Australian Bureau of Statistics from time to time, or if the Australian Bureau of Statistics does not, or ceases to calculate and publish the Index then CPI (EX-GST) will mean:

(c) an index published by Commonwealth Treasury which is its best estimate of the Index; or
(d) if the Commonwealth Treasury does not, or ceases to publish an index then an index published by the Reserve Bank of Australia which is its best estimate of the Index; or
(e) If the Reserve Bank of Australia does not, or ceases to publish an index, then at the Relevant Regulator's discretion, either:
    (i) an index published by a person appointed by the Relevant Regulator which is that persons best estimate of the Index; or
    (ii) an index published by the Relevant Regulator that is its best estimate of the Index.
(f) reference prices must apply from 1 July 2004 or two weeks after the final approval of AGL(ACT)'s revised Access Arrangement, whichever is the latter.

AGL(ACT) Response

AGL(ACT) does not agree with this proposed amendment. This matter is addressed in section C7.1 of this submission.

B12. Amendment 9 – Reference tariff policy

AGL(ACT) is required to amend its reference tariff policy (section 4 of the Access Arrangement) by:

(a) modifying the policy to reflect the draft decision on revenues (Amendment 8) and cost allocation (Amendment 10)
(b) removing policy statements regarding treatment of new facilities investments.

AGL(ACT) Response

AGL(ACT) does not agree with the proposed amendment. This matter is addressed in section C9 of this submission.

B13. Amendment 10 – Cost allocation between contract and tariff markets

AGL(ACT) is required to apply a non discriminatory cost allocation methodology to the contract and tariff markets.

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement

B14. Amendment 11 – Contract market reference tariffs

AGL(ACT) is required to recalculate its contract reference tariffs on the basis of non discriminatory cost allocation between contract and tariff markets, and revised contract demand forecasts.

AGL(ACT) Response

AGL(ACT) does not agree with the proposed amendment in so far as it relates to the calculation of total revenue and contract demand forecasts. This matter is addressed in section C7.2 of this submission.

B15. Amendment 12 – Contract charges: price constraints

AGL(ACT) is required to ensure that no existing customer will face a real increase in transportation charges over the Access Arrangement period from the current prices as at 30 June 1999.

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement.

B16. Amendment 13 – Overrun charges

AGL(ACT) is required to state that overruns of MHQ are not counted for the purposes of overrun payments. A statement to this effect should be placed in schedule 2B, of the Access Arrangement, in the overrun section on pages 45 and 46.

AGL(ACT) Response

AGL(ACT) will include the statement in the Response Access Arrangement.

B17. Amendment 14 – Pricing in the tariff market

AGL(ACT) is required to recalculate its reference tariffs for the tariff service on the basis of non discriminatory cost allocation between contract and tariff markets and revised demand forecast as stipulated by the Commission in amendment 16.

AGL(ACT) Response

AGL(ACT) does not agree with the proposed amendment in so far as it relates to the calculation of total revenue and Tariff demand forecasts. This matter is addressed in section C7.2 of this submission.

B18. Amendment 15 – Variations in reference tariffs

AGL(ACT) is required to amend Section 3 of the proposed Access Arrangement, 'Impost and other statutory charges', to include statements to the following effect:

AGL(ACT) may vary the reference tariffs from time to time, arising from any change in the level of any government charges or statutory fee or tax, and/or the introduction of new charges (eg the Goods and Services Tax). The statement must indicate that:

(i) AGL(ACT) is required to make application to the Commission proposing a revision to the Access Arrangement to reflect the change
(ii) the Commission has the discretion to appoint an independent auditor to ascertain the impact on reference tariffs. The approval of a change in reference tariffs will be based on the Commission's review of the independent auditor's advice
(iii) any burden or benefit of any adjustment to the reference tariffs to which AGL(ACT) is entitled will be allocated on the same basis as AGL(ACT) allocated the relevant costs or similar costs to develop the reference tariff or in the manner prescribed by law.

AGL(ACT) Response

AGL(ACT) does not agree with the proposed amendment. This matter is addressed in section C10.2 of this submission.

B19. Amendment 16 – Demand forecasts

AGL(ACT) is required to amend its Access Arrangements and AAI to:

(a) revise its contract market forecasts based on the actual 1998/99 figure and load associated with the ACT urban bus fleet
(b) revise upwards its business tariff market forecasts consistent with the following figures:

Business tariff market forecasts (TJ)

1999	2000	2001	2002	2003	2004
1,430	1,459	1,488	1,518	1,548	1,579

(c) revise upwards its residential tariff market forecasts consistent with the following figures:

Residential tariff market forecasts (TJ)

1999	**2000**	**2001**	**2002**	**2003**	**2004**
3,581	3,867	4,177	4,511	4,872	5,262

AGL(ACT) Response

AGL(ACT) does not agree with the proposed amendment. This matter is addressed in section C11of this submission.

B20. Amendment 17 – Gas balancing

AGL(ACT) is required to amend Schedule 2A, Part 2, Gas Balancing and Schedule 2C, Clauses 14-20 by:

- redrafting the provisions to indicate clearly that sites can be aggregated for the purpose of balancing on the network
- redrafting the provisions to separate the allocation/apportionment, operating gas balancing and participant gas balancing processes
- changing the gas balancing procedures so that the following criteria are met:
- the level of incentives is sufficient to ensure safe and reliable operation of the AGL(ACT) system
- all users irrespective of size are treated equitably
- no artificial barriers to entry
- risks can be managed and/or can be allocated appropriately
- procedures can be clearly understood and cost of administration to the network and the user is appropriate
- market solutions are fostered to the greatest possible extent
- adopting a transitional approach with reduced balancing incentive charges for the first 12 months of the new Access Arrangement Period. The level of reduction will depend on the complexity of the new gas balancing procedures to be proposed by AGL(ACT)
- developing load profiling/reconciliation systems for tariff customers which take into account the development of these systems in NSW.

AGL(ACT) Response

AGL(ACT) will amend the gas balancing arrangements in the Response Access Arrangement. This matter is addressed in section C12.1 of this submission.

B21. Amendment 18 – Metering services

AGL(ACT) is required to amend metering services by:

- making the provision of metering services transparent by separating the costs of metering services (both capital and operating) from services forming components of the reference services
- amending Schedule 2A, Terms and conditions applying to all reference services, clause 10, "Metering", to communicate in more general terms that the release of end use customer usage information is subject to the relevant Code provisions, and by providing details of the format in which information will be released to users.

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement.

B22. Amendment 19 – Gas specifications

AGL(ACT) is required to amend Schedule 3, 'Gas Quality Specifications' by:

adding a statement at the beginning of the schedule to the effect that gas delivered to a receipt point by a user must comply with the specifications prescribed by any law that extends to that gas. If there are no such laws, the gas must comply with specifications determined by AGL(ACT) from time to time. Failing such a determination, the table set out in Schedule 3 (the 'default specification') will apply.

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement.

B23. Amendment 20 – Unaccounted for gas

AGL(ACT) is required to reduce the UAG figure from 2.5 per cent to 0.7 per cent for the period of the Access Arrangement.

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement.

B24. Amendment 21 – Trading Policy

AGL(ACT) is required to amend its trading policy to include response times for granting/refusing trading requests which are not bare transfers.

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement.

B25. Amendment 22 – Reference tariffs after 30 June 2004

AGL(ACT) is required to amend the clause on reference tariffs after 30 June 2004 which appears on pages 32 and 33 of the proposed Access Arrangement by:

- relating the clause to all terms and conditions of reference services, not just prices
- deleting the proposed CPI adjustment to the 2004 reference tariffs

AGL(ACT) Response

AGL(ACT) will incorporate this proposed amendment into the Response Access Arrangement.

B26. Amendment 23 – Commencement and review of Access Arrangement

AGL(ACT) is required to set the revisions submission date at or before 30 June 2003. The revisions commencement date will be 1 July 2004 or two weeks after final approval of AGL(ACT)'s revised Access Arrangement, whichever is the latter.

AGL(ACT) Response

AGL(ACT) does not agree with the proposed amendment. This matter is addressed in section C12.3.1 of this submission.

SECTION C:
Detailed Response

C1. RATE OF RETURN [3]

C1.1 Draft Decision

The Draft Decision uses the CAPM and WACC approaches to derive a pre tax real weighted average cost of capital (WACC) measure, but arrives at a rate of return of 7.75% compared to AGL(ACT)'s proposal of 8.0%. AGL(ACT) believes that its proposed rate of return is appropriate in the light of its recent analysis and changes in the market place.

C1.2 Variables Used in the WACC Calculation

The variable inputs used in the Draft Decision in calculating the pre tax real weighted average cost of capital are discussed individually below.

Gearing

The Draft Decision accepts the use a gearing of 40% equity to 60% debt proposed by AGL(ACT) in the Access Arrangement Information.

Inflation

The Draft Decision uses an expected inflation figure of 3.6%. This is outside the range of 2 - 3% for inflation proposed by AGL(ACT) in the Access Arrangement Information.

AGL(ACT) assumes that the Commission will use an updated measure of expected inflation in the Final Decision; however, given the Reserve Bank has an inflation target of 2% – 3% any expected inflation figure above 3% or below 2% would be, in AGL(ACT)'s view, inappropriate.

C1.2.1 Variables Used in Calculating Cost of Debt

Risk Free

The Draft Decision uses a 20 day average of the ten year Commonwealth bond rates as a proxy for the risk free rate. AGL(ACT) assumes that an updated measure of ten year bonds will be used in the Final Decision.

[3] Chapter 5

AGL(ACT)'s current estimate of real and nominal ten year bond rates and the inflation implicit in these rates is shown below. These figures are different to those used in the Draft Decision as they are based on a different time frame. AGL (ACT) has no major issue with the approach used in the Draft Decision.

The figures below are used in later calculations.

	Nominal Bond Rate	2010 CPI Linked Bond Rate	Implicit Inflation
AGL(ACT) Short Term Average	6.50%	3.55%	2.85%

Cost of Debt Premium

In calculating the debt premium over the risk free rate the following should be considered:

- the ten year bond swap spread;
- the credit margin on debt funding; and
- borrowing costs, for example the fees required to raise fixed rate finance or the cost of hedging floating rate finance.

The Draft Decision proposes a cost of debt premium of 0.9 to 1.1%. AGL(ACT) believes this debt premium is too low.

AGL(ACT) notes that a ten year bond swap spread of 40 – 60 basis points could be expected.

In recent months there has been a view that the debt market remains "patchy"[4]. Recent press articles note that:

- March 2000[5] – reports discussing the domestic debt funding of ETSA Utilities note the debt program has been guaranteed by a credit wrap, enabling a AAA rating. At this AAA rating seven year debt was priced at 50 basis points above swap rates and ten year debt is priced at 57 basis points above swap rates. In addition to these margins ETSA Utilities would be required to pay a premium to the guarantor for the credit support provided, generally in the region of 30 basis points per annum. (AGL (ACT) understands ETSA Utilities rating is A-, this rating is more typical of an energy utility).
- February 2000[6] - reports discussing the debt funding of Victorian electricity generators note that the cost of debt for such projects has increased by 40-50 basis points as banks "become more risk averse". Such an increase may broadly indicate some lending institutions current sentiment towards energy infrastructure assets.
- November 1999[7] and October 1999 - a $250 million 2004 note issue by a company involved in the Australian gas industry was priced at "73 basis points over swap"[8];

4 Australian Financial Review (11 October 1999) "Duke Energy's Note Issue Divides Market Observers" p46
5 INSTO: Australian and Asian Financial Markets Newsletter (31 March 2000) "ETSA Utilities Finance Breaks Domestic Volume Record" p2
6 I. Ries (2000) "US power giant pulls out of Victoria" Australian Financial Review, February 16 2000 p1
7 Australian Financial Review (1999) "BankAmerica wins Duke Deal" Australian Financial Review 1 November 1999 p62
8 Australian Financial Review (1999) "Duke Energy's note issue divides market observers" Australian Financial Review 11 October 1999 p46

- July 1999 – a $100 million 2002 note issue by a company involved in the Australian gas industry was priced at "59 basis points above the bank bill swap rate"[9]
- May 1999 – a $150 million debt raising by a company involved in the Australian gas industry was priced at "66 basis points over the bank bill swap rate"[10]

It should be noted that the above articles refer to institutional debt. Such debt may be up to 30 basis points cheaper than equivalent bank facilities.

The credit margin on debt funding could be expected to be at least 60 – 80 basis points.

Borrowing costs for fees on fixed loans or hedging on floating loans could be expected to be 10 – 20 basis points.

Based on the above figures for swap margins, credit margin and borrowing costs, a debt premium of 1.1% to 1.6% is possible. AGL(ACT) believes a debt premium of 1.2% to 1.4% is reasonable.

C1.2.2 Variables Used in calculating Cost of Equity

Market Risk Premium

The Draft Decision assumes a market risk premium of 5% to 6%. While acknowledging that estimation of the market risk premium is problematic, AGL(ACT) believes that this market risk premium is too low.

In estimating the market risk premium the long-term expected market risk premium should be used. A useful proxy for the expected long-term market risk premium can be found in estimates of the long-term arithmetic mean of the historically observed market risk premium.

Studies[11] of the long-term arithmetic means of the historically observed market risk premium by recognised Australian authorities that may be considered include:

Estimates of Market Risk Premium Based on the Difference Between Market Returns and Ten Year Bond Returns		
Study	**Period of Measurement**	**Arithmetic Mean**
Officer (1989) updated	1900 - 1996	7.1%
Hathaway (1996)	1882 - 1991	7.7%
Hathaway (1996)	1947 - 1991	6.6%
Centre for Research in Finance, AGSM	1974 - 1998	4.8%

In 1999 Neville Hathaway, who authored several of the studies in the table above, has stated that he has no reason to believe the market risk premium has changed since these studies[12].

9 Australian Financial Review (1999) "Boral to raise $500m offshore" Australian Financial Review 2 July 1999 p70

10 Australian Financial Review (1999) "Boral bonds bear brunt of sentiment" Australian Financial Review 28 May 1999 p68

11 Table based on ABN AMRO (1999) Submission to the Office of the Regulator General Victoria Regarding 2001 Electricity Distribution Price Review; the Cost of Capital Financing (Consultation Paper No. 4) p12

In 1999 the Centre for Research Economics, which authored one of the studies in the table above, has stated that the figure of 4.8% (as shown in the table above) included the effects of October 1987. When this month is excluded from the data set a figure for the market risk premium of approximately 6% is derived[13]. Given that an expected market risk premium is required, rather than a historic market risk premium, 6% may be a better estimate than 4.8%.

The long-term arithmetic mean of the historically observed market risk premium appears to be above 6%. Overall a market risk premium of 6% to 7% is more in line with long term expectations of the market risk premium than 5% to 6%.

Based on the above, a market risk premium of 6% to 7% is reasonable.

Asset Beta

The Draft Decision proposes an asset beta of 0.4 to 0.5. AGL(ACT) acknowledges the difficulty of estimating asset betas, however this asset beta is considered to be too low.

The range for asset beta recently prescribed by Regulators in final decisions for other established gas infrastructure assets in Eastern Australia are shown below:

Decision	**Date**	**Status**	**High**	**Low**
ORG Victorian Gas Networks	Oct 1998	Final	0.6	0.45
ACCC Victorian Gas Transmission	Oct 1998	Final	0.55	0.55
IPART GSN Gas Networks	March 1999	Final	0.5	0.4
IPART Albury Gas Network	December 1999	Final	0.5	0.4

These indicate that regulator prescribed asset betas for established gas infrastructure in established markets lie between 0.4 and 0.6.

In addition to risk associated with development of the ACT market to maturity, AGL(ACT) is exposed to particular risks resulting from market concentration and competition. AGL(ACT) does not believe these risks have been fully taken into account in the Draft Decision. Taking these risks into account would result in an asset beta towards the upper end of the above range.

This has not been a consideration in the risk assessment of most other regulated utilities.

Based on the above discussion an asset beta of 0.5 to 0.6 is reasonable. This range is used in later calculations.

Further comments on asymmetric risk and self insured risk are contained in section C1.4 below.

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12 N. Hathaway (1999) Cost of Capital: Imputation Credits and Other Issues: Melbourne Business School Seminar 15 September 1999

13 Telephone conversation with Centre for Research in Finance 7 October 1999

Tax Adjustments

Imputation Credit Utilisation Rate (Gamma)

The Draft Decision assumed an imputation credit utilisation rate of 30% to 50%, the same as the rate proposed by AGL(ACT) in its AAI.

The proposed changes to the corporate and personal tax system will affect the imputation credit utilisation rate (gamma). This effect will not be readily observable for several years, but it is reasonable to assume that as the tax credits obtained from shares will fall these credits will be worth less to investors – hence gamma will fall. Any future consideration by regulators of a fall in the corporate tax rate should also adjust the imputation credit utilisation rate (gamma).

Tax Rate Used

The Draft Decision used a tax rate of 36%, which is the same as the rate proposed by AGL(ACT) in the AAI.

The Draft Decision also notes that:

"As a consequence of the Ralph Business Tax Review, there will be a reduction in the corporate statutory tax rate from 36 to 34 per cent and then 30 per cent in two steps. The effect of this on the value of imputation credits is yet to be assessed. These will be changes to accelerate depreciation for tax purposes. All else being equal, adopting a tax rate assumption of 34 or 30 per cent will have marginal impact on the WACC. However, changes which affect the value of imputation credits are likely to have a more substantial impact on the WACC. The exact magnitude is difficult to quantify at this stage. For these reasons, the Commission has calculated the WACC at both the existing and proposed statutory tax rates, and had regard to the impact on a range for WACC.

The Commission agrees with IPART, ORG and the ACCC that the post tax return may be higher if the long term effective tax rate is below the current statutory rate of 36 per cent. The treatment of taxation will be examined prior to the final decision."[14]

AGL(ACT) agrees that the impact of changes to tax rates is likely to be minimal.

C1.3 Conversion Methodology

Once the variables outlined in section C1.2 are determined, the calculation of the pre tax real WACC requires several steps.

Firstly a post tax nominal WACC is calculated. AGL(ACT) notes there is uncertainty inherent in the CAPM and WACC approach. Thus the post tax nominal WACC is commonly expressed as a range.

Following the calculation of a range for the post tax nominal WACC this figure is converted into a pre tax real WACC.

[14] Page 48-49

In this conversion process two methodologies have previously been used by regulators:

- adjusting for statutory tax rate and then adjusting for inflation; and
- adjusting for inflation and then adjusting for statutory tax rate.

These approaches give a range of results. Using the range of results regulators have generally selected a figure from the higher end of the range.

The Draft Decision selected the pre tax real WACC from the upper end of the range produced. Selection from the upper end of the range is appropriate as any move towards the bottom end of the range for WACC:

- skews relativities between the WACCs of regulated infrastructure that have already been set and the WACCs of regulated infrastructure that are yet to be finalised;
- discourages innovation and expansion;
- does not account for asymmetric risk and self insured risk (discussed below); and
- may effect network reliability in the longer term.

C1.4 Asymmetric and Self Insured Risk

The Draft Decision[15] notes that risks not adequately allowed for under CAPM are factored into the cost of capital by considering a rate towards the upper end of the cost of capital range.

While the risks not adequately allowed for under CAPM are difficult to quantify, these risks are important. Two of these risks are asymmetric risk and self insured risk.

Asymmetric Risk: In CAPM it is assumed that risks are symmetrical. The effect of this symmetry can be described as the upside risk equalling the downside risk. In reality not all risks effecting a company are symmetrically distributed. AGL(ACT) believes that the most readily identifiable asymmetric risks are regulatory risks. One paper puts the impact of asymmetric regulatory risk on the cost of equity at 1.3%[16].

Self-insured Risk: Firms, including regulated firms, take out insurance for reasons of risk minimisation. The cost of insurance is included in the operating expenditure of regulated firms.

Where some types of risk are not easy to insure a company may self insure. In this situation, the costs of self insurance should be allowed for either in the cost of capital or as a notional cost in the cash flows. In the latter case the costs would be treated as self insurance costs for asymmetric risk and other risks. Such an approach would treat these risks in a manner identical to other insured risks.

15 Page 55-56
16 This report is by Conine and Tamarkin and is cited in the Australian Pipeline Industry Association July 1998 Submission to the ORG and ACCC concerning the Proposed access Arrangements for various Victorian gas assets.

Asymmetric risk and self insured risk are difficult to quantify; however investors require higher returns to compensate for these risks. To ignore these risks is to ignore actual factors that drive risk and return relationships.

Given the difficulties in quantifying the value of asymmetric and self insured risk, AGL(ACT) believes these risks could be compensated for by moving to the top end of the range for WACC.

C1.5 Final Case

AGL(ACT) believes the following should apply to the calculation of WACC:

- updated bond and inflation rates;
- market risk premium of 6.0 to 7.0;
- asset beta of 0.5 to 0.6; and
- cost of debt of 1.2% to 1.4% at the present time.

The table below shows a recalculation of the WACC based on the above figures. The column headed "AGL(ACT) Range" shows a reasonable range for cost of capital calculation inputs and outcomes. The Draft Decision range is shown for comparative purposes.

Variable	**Draft Decision Range**[17]	**AGL(ACT) Current view**
Debt / Equity	60 /40	60 /40
Inflation	3.6%	2.85%
Tax Rate	36%	36%
Imputation Credit Utilisation Rate (Gamma)	30% – 50%	30% – 50%
10 Year Bond Rate	7.13%	6.50%
Debt Premium	0.9% – 1.1%	1.2%– 1.4%
Cost of Debt	8.03% - 8.23%	7.70% – 7.90%
Market Risk Premium	5% – 6%	6.% – 7%
Asset Beta	0.4 – 0.5	0.5 – 0.6
Equity Beta	0.9 – 1.14	1.14 – 1.39
Cost Of Equity	11.62% – 13.98%	13.36% – 16.22%
Post Tax Nominal WACC	7.20% – 7.95%	7.13% – 8.59%
Pre Tax Nominal WACC	10.29% – 12.41%	11.14% – 13.41%
Post Tax Real WACC	3.49% – 4.20%	4.16% – 5.58%
Pre Tax Real WACC (tax then inflation adjustment)	6.47% – 8.52%	8.06% – 10.27%
Pre Tax Real WACC (inflation then tax adjustment)	4.98% – 6.57%	6.50% – 8.71%

The pre tax real WACCs shown in the rows titled "Pre Tax Real WACC (tax then inflation adjustment)" and "Pre Tax Real WACC (inflation then tax adjustment)" give a pre tax real WACC in the range 6.5% to 10.3%.

For reasons outlined above, ideally the cost of capital should be set in the upper half of the estimated range of the cost of capital. This would imply a pre-tax real WACC of above 8.40%.

[17] Page 53,

Accordingly, AGL(ACT) submits that the pre-tax real WACC of 8% sought by AGL(ACT) in its proposed Access Arrangement is moderate and conservative, and should be used in the Final Decision.

C2. DETERMINATION OF THE 1999 INITIAL CAPITAL BASE (ICB)[18]

In a section that is over 40 pages long, including relevant Attachments, the Draft Decision ranges over a wide variety of matters which may be relevant to the determination of the Initial Capital Base. In order to provide focus, this response will not attempt to address all matters but only those which are pivotal in the evaluation of the ICB.

The Draft Decision suggests that a number of aspects of AGL(ACT)'s proposal either overstate the position or are unreliable because of uncertainty. This is particularly the case in relation to Depreciated Optimised Replacement Cost (DORC), Optimised Deprival Value (ODV), and Current Cost Accounting Written Down Value (CCA WDV) analysis.
This section will analyse and respond to the positions taken in the Draft Decision on:

(i) DORC (section C2.1)
(ii) ODV (section C2.2 with details in Attachment D1),
(iii) Depreciated Inflation Adjusted Historic Cost (DIHC) (section C2.3), and
(iv) analyses of past performance including CCA WDV (section C2.4)

This analysis leads to a more certain range from which the ICB is to be determined and raises the ‘feasible range for the Initial Capital Base’ within the overall range.

Material will then be presented in relation to:

(v) the reasonable expectations of persons under the prior regulatory regime – section C2.6 with details in Attachment D2;
(vi) the impact on the economically efficient utilisation of gas resources – section C2.7
(vii) the comparability with the cost structure of new pipelines that may compete with the pipeline in question – section C2.8; and
(viii) the advantages and disadvantages of the various valuation methodologies – section C2.9 with details in Attachment D3

which, when compared with the material presented in the Draft Decision, would cause the Commission to decide on a value for the ICB which is higher in the ‘feasible range’ than is evident in the Draft Decision.

Finally this section will:

(ix) summarise the decisions with respect to the Initial Capital Base made by other Regulators under the Code – section C2.10.

The overall effect of this section will be to demonstrate that the ICB proposed by AGL(ACT) in its Access Arrangement Information is reasonable having regard to the matters that the Commission is required to take into account, and having regard to decisions made by other Regulators under the Code. On this basis, AGL(ACT) submits that the Commission should

18 Chapter 6

accept AGL(ACT)'s proposed value of $240.6m for the Initial Capital Base in its Final Decision.

C2.1 Depreciated Optimised Replacement Cost (DORC)

C2.1.1 Findings of PPK/Kinhill DORC study

The Commission retained Ewbank Preece ("EP") to conduct an independent assessment of AGL(ACT)'s proposed DORC valuation for the network. At the time of writing this response, EP's report on its review was still in draft form. In its draft report, EP has concluded that "AGL(ACT) has not provided a robust DORC valuation" and suggested that further work be performed in a number of areas[19]. EP has not been directed to undertake that work, so AGL(ACT) engaged PPK Environment and Infrastructure Pty Limited (PPK) and Kinhill Pty Limited (Kinhill) to prepare a DORC valuation.

The key components of a DORC valuation, recognised by EP and other experts, are replacement costs, optimisation and depreciation. EP believed that more work was required in the first two of these areas to produce a robust DORC valuation. In respect of the DORC proposed by AGL(ACT), EP felt that:

(i) replacement cost was not robust due to uncertainties in determining an average "unit rate"; and
(ii) the range of optimisation methodologies considered was not sufficiently broad.

The DORC valuation determined by PPK/Kinhill was reached after a comprehensive assessment of the elements of a DORC valuation. In particular:

(i) PPK/Kinhill undertook a comprehensive review of the unit rates developed by AGL(ACT), comparing these rates with their own in-house costing databases and experience of similar work, prices from leading utilities and industry, published cost data, the JP Kenny report prepared in relation to the AGLGN 1996 Access Undertaking for NSW, and reports on other Australian gas networks;
(ii) PPK/Kinhill prepared optimised designs for the ACT, and Queanbeyan/Yarrowlumla networks;
(iii) the asset lives provided by AGL(ACT) were reviewed and compared with asset lives used in previous valuations, and depreciation was calculated for the optimised network designs using the existing system age profile.

The result of PPK/Kinhill's analysis was that the DORC valuation in 1999 prices was estimated to be $251m with a sensitivity analysis resulting in a possible range between $234 and $270m (network assets only).

C2.1.2 Incumbent Owner Valuation

New entrant and incumbent owner valuations have been debated during the review by IPART of AGLGN's proposed Access Arrangement for NSW[20]. The Draft Decision canvasses the

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[19] EP Draft Report, page 4

[20] IPART Draft Decision on the Access Arrangement for AGL Gas Networks Limited Natural Gas System in NSW, October 1999, section 6.6.2

issues raised in that debate and refers to the fact that EP's comment has been sought on the issue for the ACT network.

However, as explained below, an incumbent owner valuation is not a DORC valuation under the Code and cannot be taken into account in the assessment of the ICB.

The factors to be considered in establishing the Initial Capital Base are set out in section 8.10 of the Code. One of those factors is the DORC valuation of the gas network (section 8.10(b)).

It is clear from section 8.10(c) that the DORC valuation referred to in section 8.10(b) is a ‘well-recognised’ asset valuation methodology.

Consideration of “incumbent-owner DORC” in the Draft Decision, supposedly pursuant to section 8.10(b) of the Code on the basis that DORC as used in the Code is capable of two interpretations, is in error because:

(i) DORC cannot be ambulatory. An expression used in legislation must have one meaning, and not be open to interpretation by choice when being applied to particular circumstances; and
(ii) “incumbent-owner DORC” is not a well-recognised valuation methodology.

The Draft Decision does not endeavour to establish that “incumbent-owner DORC” is a well-recognised valuation methodology. On the contrary, valuation experts Worley International, Sinclair Knight Merz Pty Limited, Gutteridge Haskin & Davey Pty Limited and Arthur Andersen confirm that “incumbent-owner DORC” is not a well-recognised valuation methodology. In fact, none of those experts has knowledge of that ‘methodology’ being applied anywhere in New Zealand or Australia at any time.[21]

These valuation experts all described “new-entrant DORC” simply as ‘DORC’. They were unanimous in their view that it is a ‘well-recognised’ valuation methodology. AGL(ACT) submits that it is this valuation methodology and no other, which is referred to in section 8.10(b) of the Code.

The Draft Decision suggests that use of “incumbent-owner DORC” may be appropriate by criticising what it describes as “new-entrant DORC”; that is, the cost for a new entrant of replacing the ACT gas network. This criticism – ‘it is questionable why the cost of replicating the entire network with new assets should be used as the base for calculating compensation of the incumbent owner’ (section 6.6.2) – reveals a mistaken view of the role of DORC. DORC provides the normal upper limit for the Initial Capital Base of a gas network. It is the figure above which the Initial Capital Base, except in exceptional circumstances, should not be valued. This is stated in section 8.11 of the Code. The Draft Decision’s examination of DORC from an economic perspective discloses the good sense of this. As the Draft Decision notes ‘from an economic perspective, a new entrant DORC [that is, DORC] would be appropriate for determining the maximum value for the [Initial Capital Base]’.

21 Documents containing this information has been provided previously to the Commission

It should be noted that the valuation methodology used to determine DORC in all Access Arrangements submitted under the Code is the new entrant DORC.

Summary/Impact on decision

An “incumbent owner” valuation is not a DORC valuation and cannot be taken into account under the Code. Accordingly there is no basis for ascribing any down-side uncertainty in the estimation of DORC to this interpretation.

The further work by PPK/Kinhill, and the exclusion of the ‘incumbent owner’ valuation, has removed much of the uncertainty and variability ascribed qualitatively to DORC in the Draft Decision. Therefore any discount applied to the ICB valuation as a consequence of uncertainty and variability of DORC should be removed in the Final Decision.

C2.2 Optimised Deprival Value (ODV)

There are a number of issues raised in the assessment of ODV in the Draft Decision all of which would, if implemented, lead to a reduction in the value put forward by AGL(ACT) although, as noted in the Draft Decision[22], the characteristics of the ACT markets and network are such that "any asset write down[23] (under certain circumstances) is unlikely to change substantially the ODV result for the whole system". That is, the ODV for the ACT will always be essentially equal to DORC. The issues are:

A. Uncertainty in DORC
B. Cost Allocation
C. Price/revenue level to be taken into account
D. EBIT/DORC and EBIT/DAC ratios
E. Treatment of SIB Capex

All but the first of these relate to the assessment of the Economic Value (EV) which is then compared with the DORC value. ODV is the lesser of the two. Given that the Draft Decision accepts that ODV will not vary materially from DORC, we deal only with the uncertainty in DORC at this point. The other issues are dealt with in detail in Attachment D1.

C2.2.1 Uncertainty in DORC

The Code requires that DORC be determined, quite independently of any assessment of ODV, and the Commission has done that: the value of DORC proposed by AGL(ACT) i.e. $252m for system assets, has been accepted. Any uncertainty in DORC has been resolved by the work of PPK/Kinhill and by excluding 'incumbent owner' valuation from consideration.

C2.2.2 Correction to AGL(ACT) Submission

The value for ODV of $239m (capital assets) contained in Draft Decision Tables 6.6 and 6.8 appears in the AGL(ACT) submission made in September 1999. That value is incorrect.

22 Page 78
23 i.e. a write down in ODV due to EV being less than DORC

In the AGL(ACT) RAAI, page 10, the "capital assets" DORC was given as $255m. After allowance for working capital of $(10)m, the corresponding "funds employed" value was $245m which in turn set the upper limit for ODV.

In the process leading to AGL(ACT)'s September 1999 submission, deferred income tax liabilities were excluded at the request of the Commission, with the result that working capital changed from $(10)m to $6m. The funds employed DORC value increased to $261m as a consequence. However, it is now apparent that this higher DORC value was not carried through to the ODV calculation. The correct range for ODV on a "Total Capital Assets" basis is $252 – $255m (i.e. $261m minus $6m), not [$236 -] $239m (i.e. $245m minus $6m).

C2.3 Depreciated Inflation Adjusted Historic Cost (DIHC) analysis

DIHC is assessed in section 6.5 of the Draft Decision. A number of issues are raised in the assessment all of which, if implemented, would lead to a reduction in the value presented by AGL(ACT). In particular:

- The value to be attributed to Queanbeyan, which is necessarily a matter of judgement, has been reduced from 10% to 8% – a reduction of 20% which is characterised by the Draft Decision as "a slightly lower figure" (Table 6.3).

- The Draft Decision refers to sensitivities which result in a "lower bound" for DIHC of $130m without stating what particular combination of assumptions produces that value, or any assessment of the likelihood of that combination occurring.

Summary/Impact on decision

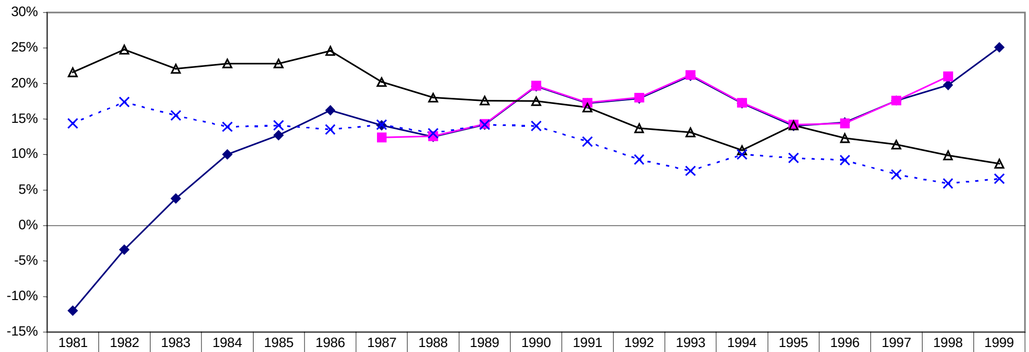
In the absence of supporting information, the Draft Decision's lower bound of $130m cannot be given any weight.

C2.4 Analysis of Past Performance

C2.4.1 Returns and Depreciation

A graph comparing AGL(ACT)'s historical returns with an "alternative WACC" and the Bond Rate is presented in Figure A5.1 of the Draft Decision and is reproduced here.

Figure A5.1 EBIT/fixed assets

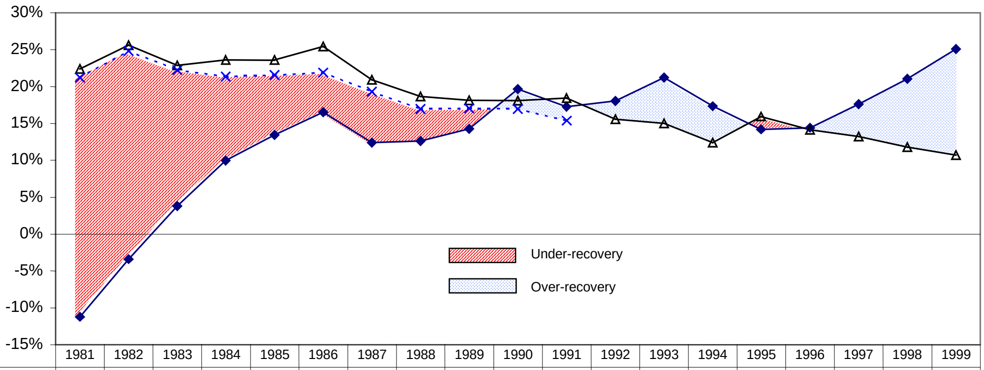


	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
IPARC Assessment	-12.0%	-3.4%	3.8%	10.0%	12.7%	16.2%	14.1%	12.5%	14.2%	19.6%	17.2%	17.9%	21.1%	17.2%	14.0%	14.5%	17.6%	19.8%	25.1%
AGL(ACT)							12.4%	12.6%	14.3%	19.7%	17.3%	18.0%	21.2%	17.3%	14.2%	14.4%	17.6%	21.0%	
WACC	21.6%	24.8%	22.1%	22.8%	22.8%	24.6%	20.2%	18.0%	17.6%	17.5%	16.6%	13.7%	13.1%	10.6%	14.1%	12.3%	11.4%	9.9%	8.7%
Bond Rate	14.4%	17.4%	15.5%	13.9%	14.1%	13.5%	14.2%	13.0%	14.2%	14.0%	11.8%	9.3%	7.7%	10.0%	9.5%	9.2%	7.2%	5.9%	6.6%

The Draft Decision does not comment on which, if either, of the two reference lines (Bond Rate and [alternative] WACC) it regards as the datum against which under- and over-recoveries should be measured.

The graph is inaccurate in at least two respects. These inaccuracies have been corrected in the graph which follows and are described below.

Actual EBIT/Fixed Assets and Points of Comparison



	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
AGL(ACT)	-11.2%	-3.4%	3.8%	9.9%	13.5%	16.5%	12.4%	12.6%	14.3%	19.7%	17.3%	18.0%	21.2%	17.3%	14.2%	14.4%	17.6%	21.0%	25.1%
WACC	22.4%	25.6%	22.9%	23.6%	23.6%	25.4%	20.9%	18.7%	18.2%	18.1%	18.4%	15.5%	15.0%	12.4%	15.9%	14.1%	13.2%	11.8%	10.7%
WACC: equity at T Corp + 3%	21.2%	24.8%	22.2%	21.4%	21.5%	21.9%	19.3%	16.9%	17.1%	16.9%	15.3%								

Inaccuracies in Draft Decision Figure A5.1

- The Bond Rate has no relevance as a basis for comparison in the analysis. The regulated rate of return on equity in the years prior to 1992 was the semi-government bond rate + 3%, and a WACC based on this rate is the correct datum for those years.

- The basis for estimating AGL(ACT)'s historic WACC plotted in Figure A5.1 in the Draft Decision is inconsistent with that adopted in other places in the Draft Decision including the discount rate in the forward-looking Economic Value (EV) calculation for determining ODV.

If the alternative WACC basis adopted here were used also for the calculation of EVs in the ODV calculation then the EVs (and ODV) would increase. Alternatively, when the basis for WACC used in the EV calculations is used here and in the analysis of historic returns which follows, then the view of past returns is more balanced, and the present value of past under-recoveries is higher than presented in the Draft Decision.

By including the Bond Rate and reduced WACC as reference rates, the Draft Decision gives an incorrect impression that there was a relatively short initial period of inadequate returns followed by a period of satisfactory returns, if not over-recoveries, which has extended to the present. This view is dispelled when the comparison is drawn on an appropriate basis.

C2.4.2 CCA WDV Analysis

The historical returns and depreciation analysis presented by AGL(ACT) is important and relevant for two reasons:

- it provides a view of past performance on return on capital and return of capital in a single analysis; a perspective which is not provided by other analyses which consider returns and depreciation separately; and
- it addresses concern raised by certain market participants, that transferring from nominal returns and historic cost depreciation, to real returns and an indexed asset base part way through the life of the assets, may deliver a windfall gain to AGL(ACT).

The AGL(ACT) analysis covers the period from 1981 when AGL(ACT) began construction of the network.. Actual returns and depreciation were compared with the returns and depreciation that would have been permissible if the regulatory regime had provided for real rates of return and an indexed asset base throughout the period. Shortfalls/surpluses relative to the “permissible” level were brought forward to 1998 and added to the written down value of the indexed asset base as at that date.

The Draft Decision discounts AGL(ACT)'s analysis on a number of grounds. Most significantly:

- the Draft Decision argues that the WACC applicable to the early years of the analysis (1981 to 1991) should reflect the regulatory regime for that period where return on equity was controlled at the semi-government bond rate + 3%, rather than some assessment of AGL(ACT)'s true cost of capital. Test 3 in Table A5.3 is then defined on a basis which assumes that the semi-government bond rate + 3% limit applied beyond 1991 when, quite clearly, it did not. Test 3 is therefore not a valid case.

- As in the assessment of AGL(ACT)'s historical returns, the Draft Decision has postulated an alternative basis for WACC which uses "the mid value of the parameters adopted in this draft decision." As discussed in C2.4.1, the alternative basis for WACC is inconsistent with the WACC adopted elsewhere in the Draft Decision. If that WACC is applied, Test 2 and 5 in Table A5.3 have no place in this analysis.

The result of correcting these factors is to eliminate Tests 2, 3, and 5 from Table A5.3 of the Draft Decision so that the proper minimum value for the CCA WDV analysis is of the order of $184m – Test 4 in Table A5.3.

C2.5 Summary to this point

As to DORC, the Draft Decision accepts AGL(ACT)'s proposal of $252m (system assets) as the value for DORC. Uncertainty in DORC has been addressed by the work of PPK/Kinhill, and by the elimination of the "incumbent owner" concept as an alternative.

AGL(ACT) also believes, on the basis of its analysis, that the feasible range for the Initial Capital Base is narrower, more certain and higher than proposed in the Draft Decision.

The position is summarised in the following Table:

Valuation Methodology	Draft Decision	AGL(ACT) Conclusion
DAC	$90m accepted for capital assets	Accepted
DORC	AGL(ACT)'s proposed value of $252m (system assets) accepted, but suggests unresolved down-side uncertainty on the basis of "incumbent owner" valuation and other factors.	"incumbent owner" is not a DORC. PPK/Kinhill has produced a robust valuation which removes uncertainty.
ODV	Draft Decision concludes $242-245m appears to be high on the basis of uncertainty in DORC. Other factors contribute to uncertainty.	Uncertainty in DORC has been addressed by the work of PPK/Kinhill and the elimination of the "incumbent owner" concept. ODV is essentially equal to DORC, irrespective of other factors. Correction of an error in the AGL(ACT) submission leads to ODV in the range $252–$255m.
DIHC	Draft Decision suggests a range of $130-$148m.	The lower end of the range is unsubstantiated.
CCA WDV	Draft Decision proposes a range of $140-190m.	Minimum value is $184m when inconsistencies are corrected.

C2.6 Reasonable Expectations under prior regime

The Draft Decision concludes, apparently by reference to the regulatory regime which applied in the ACT between 1981 and 1991, that AGL(ACT) is unlikely to have had any expectation that past under recovery for the network business would be compensated by future regulation, and that Users would expect to pay a fair share of asset costs associated with AGL(ACT)'s investments.

The Code (section 8.3(g)) requires that consideration be given to "the reasonable expectations of persons under the regulatory regime that applied to the Pipeline prior to the commencement of the Code". The relevant regime is that which applied from 1992; any expectations that persons may have had under the 1981 to 1991 regime cannot be relevant since they must have been modified by the later regime.

The history, development and characteristics of the regime which applied from 1992 are described in detail in D2. Given the nature of that regime, in which there was no profit control in which price control applied only to the tariff market and in which AGL(ACT) was encouraged to achieve higher returns, it is difficult to conceive how participants could have held the expectations attributed to them in the Draft Decision. On the contrary, AGL(ACT) had a reasonable expectation that it could increase profits and shareholder wealth through improvements in efficiency and growth of the market. In particular, AGL(ACT) had reasonable expectations that:

- it would be able to operate with freedom and autonomy and achieve higher returns by improving efficiency, and
- its profits would not be regulated.

Prices to tariff consumers were determined by the [NSW] price control formula, and prices to the contract market were not subject to regulation. It follows that:

- Tariff consumers could reasonably have expected price stability, improved levels of service and increased availability of gas supply through expansion of the network; and
- Contract customers could reasonably have expected prices would not be reduced.

It is reasonable to conclude that these expectations were reinforced by the outcome of the review of the NSW price control system conducted in 1994.

C2.7 Impact on the economically efficient utilisation of gas resources

In section 6.10.4 of the Draft Decision it is suggested that "the price set for existing assets may influence the expectation of investors about the regulator's future treatment of investment." This is at odds with the Code which is quite specific as to how new/future investment is to be treated.

Table 6.9 of the Draft Decision cites DORC/GJ and DORC/Customer as in some way being relevant to an assessment of the economically efficient utilisation of gas resources. DORC is, by definition, the value of an optimised system so differences in DORC/GJ and DORC/Customer between systems say nothing about their relative utilisations. More generally, given the nature of the indicators in Table 6.9, it is unclear how they could "be useful as a reasonable check against a DORC valuation and implications for pricing". We note the cautionary comment that "the comparison in Table 6.9 must be interpreted carefully".

The Draft Decision suggests, apparently in the context of an assessment of Table 6.9, but without substantiation, that "lower network charges are more likely to encourage growth and new connections". All available evidence points to demand for gas being relatively price inelastic.[24]

C2.8 Comparability with the cost structure of new pipelines that may compete with the pipeline in question

Section 6.10.5 of the Draft Decision alludes to the possibility that the existence of bypass opportunities or potential for users to choose alternatives to gas, may indicate that the asset valuation is too high. AGL(ACT) is not aware of any bypass threats.

The potential for bypass should not be taken into account in setting the Initial Capital Base because to do so would be to double count the effect of bypass. Tariffs would be generally lower to be consistent with the reduced capital base – the first count – and yet discounts would still be required, despite the lower tariffs, to retain certain customers which had bypass opportunities or other alternatives – the second count.

In other words, the market will demand discounts to avoid physical bypass and to enable gas to compete with alternatives, and it is inappropriate to adjust the Initial Capital Base on account of potential bypass.

To the extent that potential bypass has influenced the Draft Decision on Initial Capital Base, it should be eliminated from consideration in the Final Decision.

C2.9 Evaluation of Asset Valuation Methodologies

The Code in section 8.10(c) requires that in establishing the Initial Capital Base the advantages and disadvantages of valuation methodologies be considered.

AGL(ACT)'s assessment of the advantages and disadvantages of the valuation methodologies considered, which include:

- depreciated actual replacement cost (DAC),
- depreciated optimised replacement cost (DORC),
- optimised deprival value (ODV), and
- depreciated inflation adjusted historical cost (DIHC).

This is set out in Attachment D3.

[24] See AGL(ACT) Submission to the Commission 16 September 1999 which included the Analysis of ABARE/AGA report on gas price elasticities

C2.10 Decisions by Other Regulators under the Code

AGL(ACT) has proposed an ICB of $240.6m (capital assets), equivalent to 94 percent of the value for DORC. This can be compared with decisions already made by other Regulators under the Code.

Asset/Location	Regulator	Date	ICB as % of DORC
TPA (Vic)	ACCC	Oct 1998	95.6
Multinet (Vic)	ORG	Dec 1998	100.0
Westar (Vic)	ORG	Dec 1998	92.1
Stratus (Vic)	ORG	Dec 1998	96.2
GSN (NSW)	IPART	March 1999	85.6[25]
Albury Gas (NSW)	IPART	June 1999	91.0[26]

Given the above precedents, and taking account of the matters raised in this submission, the Initial Capital Base proposed by AGL(ACT) of $240.6m, is reasonable.

C2.11 Overall Summary/Impact on decision

In summary, this submission provides sound evidence that:

- The work of PPK/Kinhill, in determining a robust DORC valuation, has addressed the issues raised by the Commission's consultant and removed uncertainty from the DORC valuation, as has exclusion of the "incumbent owner" concept from consideration;
- With a value of DORC which is certain, there can be little if any uncertainty in the ODV;
- When properly viewed, other considerations raise the lower bound of the feasible range for the ICB and remove grounds for discounting the ICB within that range;
- Precedents in other decisions under the Code, persons' reasonable expectations under the prior regime and other relevant factors, support a higher ICB.

In this context, AGL(ACT)'s proposed Initial Capital Base of $240.6m (capital assets) is both appropriate and reasonable and we recommend that this value be accepted by the Commission in its Final Decision.

[25] Based on Kinhill DORC valuation for IPART of $32.7m including non-network assets
[26] Based on IPART DORC valuation of $24.2m including non-network assets.

C3. ROLLING FORWARD THE CAPITAL BASE [27]

C3.1 Issues in rolling forward the value of regulatory capital assets

AGL(ACT) notes that the Code does not require the regulator, at the time of approving the forecast New Facilities Investment, to determine that the Investment does meet the requirements of section 8.16. Rather, the issue is whether the Investment is "reasonably expected to pass" the requirements at the time the Investment is expected to occur. However, the Draft Decision indicates that the Commission is of the view that it must be satisfied at this time of the prudency of that investment[28]. Accordingly, AGL(ACT) submits that the review of the prudency of AGL(ACT)'s forecast capital expenditure currently being undertaken by the Commission's consultants[29] must consider whether, at this time, it is reasonable to expect that the Investment will meet the requirement in section 8.16 at the time the Investment is undertaken, rather than requiring the consultant to determine at this time that the expenditure *will* pass the test of section 8.16.

C3.2 Profile of AGL(ACT)'s regulatory capital value 1996-2004

Indexation of regulatory capital value[30]

AGL(ACT) does not object to the application of the national CPI.

For the purpose of indexing the capital base, the Draft Decision proposes that the applicable CPI is inclusive of the Goods and Services Tax (GST).

AGL(ACT) is of the view that this approach is required by the Code to maintain the rate of Return on and of Capital when a real rate of return is used. Any adjustment to the index would reduce the returns below those required under the Code.

C3.3 Eastern Gas Pipeline

The Commission has sought comments on whether AGL(ACT)'s proposal for the inclusion of capital expenditure to extend the network to the EGP is consistent with Section 8.16 of the Code. AGL(ACT) has already provided substantial information to the Commission including an assessment by an independent consultant.

A similar matter has been under consideration by the ACCC in relation to the Victorian-NSW Interconnect to the Victorian Primary Transmission System(PTS). GPUGasnet has submitted revisions to the ACCC to allow inclusion of the Interconnect Assets in the Capital Base for its Access Arrangement. A significant component of the basis for the inclusion was the system-wide benefits associated with the Interconnect to the users of the PTS. The system-wide benefits identified are the same as those identified by AGL(ACT) for its Access Arrangement, namely:

[27] Chapter 7
[28] Section 7.4.2
[29] Ibid
[30] Section 7.5.1

- enhanced system security, and
- increased competition.

The ACCC has concluded in its Draft Decision that the proposed investment does have system-wide benefits that warrant its inclusion in the Capital Base. The analysis used by the ACCC provides insight into how these matters can be appropriately considered. AGL(ACT) submits that the ACCC Draft Decision should be taken into account in the Commission's assessment of the capital expenditure for the extension to the EGP.

System-wide benefits are not a significant component of the basis of AGL(ACT)'s proposal for inclusion of the extension to the EGP in the AGL(ACT) Capital Base. However, the system-wide benefits identified for the ACT Network would appear to be as significant as those identified for the Victorian Transmission system and may be sufficient justification on their own, for inclusion in the ACT Capital Base of the capital expenditure for the extension of the Network to the EGP.

C4. DEPRECIATION [31]

C4.1 Method of Calculating Regulatory Depreciation

AGL(ACT) has been unable to replicate the calculation in the Draft Decision of Regulatory Depreciation and suspects the variance represents the allocation of the ICB to asset classes.

Non-Network assets largely comprise motor vehicles, computer hardware and software, furniture and other similar assets with relatively short economic lives but relatively high levels of depreciation in any given year. For this reason AGL(ACT) proposed that these assets be included in both the DORC and the ICB at their DAC value.

It appears to AGL(ACT) that in allocating the ICB to each asset class the Draft Decision has scaled down the DORC for each asset class to ICB on a pro rata basis. As the non-network assets have been valued in the DORC at DAC it would seem more appropriate that these assets not be scaled to a value less than DAC, but be kept at their DAC value and scale only the network assets to obtain the Draft Decision's ICB value.

The following calculations set out what AGL(ACT) understands the method for scaling the DORC to the ICB and what it believes is appropriate:

	Draft Decision		**AGL(ACT)'s View**	
	DORC ($m)	**ICB** ($m)	**DORC** ($m)	**ICB** ($m)
Network Assets	252	168	252	167
Non-Network Assets	3	2	3	3
Total	255	170	255	170

AGL(ACT) requests clarification of the Draft Decision's approach to allocation of ICB to asset classes and depreciation of non-network assets.

31 Chapter 8

C5. CAPITAL EXPENDITURE [32]

C5.1 Growth Related Capital Expenditure

The Draft Decision provisionally accepts AGL(ACT)'s capital expenditure, subject to review by Ewbank Preece ("EP"), to calculate the target revenue.

However, the Draft Decision has also required that the demand forecasts be amended to reflect an 8% average growth in the residential tariff market and a 2% average growth in the business tariff market over the Access Arrangement Period. As the Draft Decision states, "*forecast capital expenditure should depend on the characteristics of the network, growth forecasts and the need for refurbishment and replacement.*"[33] Accordingly, the proposed capital expenditure must be revised to reflect that increased load growth.

Two components of the capital expenditure must be reviewed:

- Shallow Capital Expenditure (i.e. Growth related capital expenditure) represents expenditure per customer on meters, services and mains extensions. EP state that AGL(ACT)'s unit rates for future customer connections "*…appear reasonable…*"[34] and mains costs "*…do pass a broad reality check.*"[35]. The Draft Decision also notes that shallow capex is based on the level of forecast growth. Therefore, the shallow capex proposed by AGL(ACT) should be amended to reflect the additional growth required by the Draft Decision, using the unit rates and mains costs found by EP to be reasonable.

- Deep Capital Expenditure (i.e. System reinforcement capital expenditure) represents the augmentation and reinforcement of the Network to accommodate additional loads from growth in the Network. Similarly, deep capex must be amended to reflect the additional growth.

AGL(ACT)'s forecast capital expenditure submitted in the April SAAI, which has provisional acceptance in the Draft Decision, was determined on the basis of these components (together with renewal/replacement capital expenditure). The deep and shallow capital expenditure was based on AGL(ACT)'s proposed market growth.

The following table presents the projected capital expenditure contained in AGL(ACT)'s SAAI, plus the proposed capital expenditure for the EGP contained in a later submission by AGL(ACT), and the levels of growth on which it was based.

[32] Chapter 9
[33] Page 111
[34] Page 110
[35] Ibid

AGL(ACT) Capital Expenditure at AGL(ACT) Forecast Growth Rates (real 1999/2000 $m)					
	2000	2001	2002	2003	2004
Load growth					
Residential (%)	5.8%	5.1%	4.5%	3.9%	3.2%
Business Tariff(%)	-2.3%	-2.6%	-2.1%	-1.5%	-0.8%
Capital expenditure					
Renewal/replacement/Other	1.4	1.3	1.2	1.8	1.6
Growth related	4.3	4.1	3.9	3.5	3.0
System Reinforcement	0.4	1.3	0.0	0.0	0.4
EGP	3.6	8.7	0.0	0.0	0.0
Total	9.7	15.4	5.1	5.3	5.0

The Draft Decision recognises the existence of a relationship between capital expenditure and market expansion/system reinforcement and states that "*…market expansion/system reinforcement represents…96 per cent of total capital expenditure on the network in…1998/99…*"[36]. The effect of such a relationship is that a change to customer numbers would result in a change to shallow capex, which in turn would result in a change to deep capex.

AGL(ACT) has estimated capital expenditure amounts that correspond to the Draft Decision levels of load growth in the following table:

AGL(ACT) Capital Expenditure at IPARC Forecast Growth Rates (real 1999/2000 $m)					
	2000	2001	2002	2003	2004
Load growth					
Residential (%)	8.0%	8.0%	8.0%	8.0%	8.0%
Business Tariff(%)	2.0%	2.0%	2.0%	2.0%	2.0%
Capital expenditure					
Renewal/replacement/Other	1.4	1.3	1.2	1.8	1.6
Growth related	7.0	7.4	7.9	8.3	9.0
System Reinforcement	0.2	3.9	3.9	3.9	3.9
EGP	3.6	8.7	0.0	0.0	0.0
Total	12.2	21.3	13.0	14.0	14.5

The capital expenditure incorporated into the Draft Decision is insufficient when compared with the level of growth required by Amendment 16. AGL(ACT) submits that, should the level of growth required by the Draft Decision be incorporated in the final Decision, then the Capital Expenditure must also be revised in the manner outlined to support such growth.

C5.2 Renewal/Replacement Capital Expenditure

The Draft Decision seeks further justification to determine whether the proposed amounts of capital expenditure are to be allowed in the final decision. In this context, the Draft Decision

[36] Page 112

notes a fall in the ratio of market expansion/system reinforcement to total capital expenditure from 96 per cent in 1998/99 to 63 per cent in 1999/2000.

There are two points which need to be considered in relation to the ratio of market expansion/system reinforcement to total capital expenditure:

1. The ratio referred to in the Draft Decision is incorrect. The market expansion/system reinforcement to total capital expenditure over the access arrangement period represents 73 per cent of total capital expenditures, not 63 per cent. AGL(ACT) analysis suggests that the 63% ratio is market expansion to total capital expenditure (i.e. does not include system reinforcement).

2. If this ratio is to be considered as evidence of a trend, then the basis for the change in ratio must be understood.

   - The historical capital expenditure does not incorporate significant levels of meter replacement capital expenditure that will be required from this Access Arrangement period onwards given:

     - the age of the Network at 1 July 1999 is approximately 18 years,
     - few residential customers were connected in the first three years of the network, and
     - meter replacement is required every 15years.

     Therefore, the ratio of market expansion/system reinforcement to total capital expenditure has decreased from prior years.

   - There is no capital expenditure for contestability in the 1998/99 capital expenditure, where such expenditure is included in total capital expenditure for the Access Arrangement period.

If these elements are removed for consistency of comparison, the ratios are 96 per cent in 1998/99 to 84 percent in 2003/04. This adjusted comparison reflects the changing level of capital expenditure associated with a reducing level of growth.

C6. OPERATING COSTS (NON CAPITAL COSTS) [37]

The Draft Decision[38] proposes that the derivation of reference tariffs be based on a reduction of controllable costs to a level 30 percent below AGL(ACT)'s current controllable operating costs.

The basis for this cost reduction target[39] is:

- *cost reduction targets being pursued by other (relatively efficient) operators;*
- *AGL(ACT)'s performance relative to other Australian and US operators; and*
- *the scope for reductions in marketing expenditure.*

C6.1 Cost reduction targets being pursued by other (relatively efficient) operators

The reference to cost reduction targets being pursued by other operators in the Draft Decision states[40]:

> *"The Victorian distributors, which currently appear relatively efficient, are pursuing efficiency gains in the order of 25 per cent over the course of the Access Arrangements."*

Cost reduction targets for the Victorian distributors were set by the Victorian Government's agents as part of the Victorian Government's asset sale program. It is AGL(ACT)'s firm opinion that these operating cost targets were established with a view to maximising sale proceeds and may have little relationship with actual or achievable operating costs.

C6.2 AGL(ACT)'s performance relative to other Australian and US operators

AGL(ACT) notes that the Draft Decision has considered the benchmarking study[41] undertaken by IPART that uses, amongst other techniques, partial performance indicator analysis and data envelopment analysis (DEA).

C6.2.1 Partial Performance Indicator Analysis

The Draft Decision includes an analysis of partial indicators in order to assess the efficiency of operating costs proposed by AGL(ACT).

The analysis considers deliveries per kilometre of main, and customers per kilometre as KPIs relevant to efficiency of operating costs[42]. While these KPIs may be of assistance in

37 Chapter 10
38 Page 133
39 Page 132
40 Page 122
41 IPART, Benchmarking the Efficiency of Australian Gas Distributors, Research Paper, December 1999
42 The information presented suggests that AGL(ACT)'s performance is relatively poor in terms of O&M costs per customer (although there is a marked improvement in 1998/99), deliveries per kilometre of main, and customers per kilometre of main. Hence, an important element in improving the performance of the network

understanding the characteristics of the network, they provide little, if any, insight into the efficiency of operating costs.

- Deliveries per kilometre of main may indicate the paucity of large users on a network, but do not measure the efficiency of O&M costs.
- Customers per kilometre of main reflect customer density and use of dual mains but not the efficiency of O&M costs. In the case of AGL(ACT), unlike a majority of older networks, mains have been laid on both sides of the street with short services to customers. Older networks tend to have a single main in a street with long and short services connecting customers. The use of dual mains reflects the economics of efficiently connecting customers under certain conditions (eg wide streets, unpaved foot ways, new estates where mains are laid prior to paving).

The elimination of these two KPIs leaves O&M per customer and O&M per kilometre as measures of O&M efficiency. While the relatively high figure for O&M cost per customer for the ACT has been highlighted in the Draft Decision, this is well counterbalanced by the performance with respect to O&M per kilometre of main. The conclusion that is strongly suggested is that AGL(ACT)'s O&M costs are well within the range of companies that the IPART Benchmarking study considers efficient.

Further analysis within the Draft Decision includes KPIs of O&M/delivery, Network Marketing costs as a proportion of O&M costs, UAG, and Asset life expired[43]. All of these variables provide indications of the characteristics of a network, but provide no effective information about its cost efficiency.

Further analysis compares AGL(ACT) to US distributors[44]. When the inappropriate indicators of the analysis of deliveries per kilometre of main and O&M per delivery and UAG percentage (which is itself a KPI which reflects the characteristics of a network) are removed from the analysis, AGL(ACT)'s ranks 21st on O&M per customer and 6th on O&M per kilometre of main against 51 US distributors. This would place AGL(ACT) in the top quartile for O&M per kilometre and better than 60% of US distributors for O&M/customer. This result is significant, as these two measures are the partial indicators which reflect the main cost drivers for O&M.

The Draft Decision also notes that "on the whole, the indicators point to low utilisation of AGL(ACT)'s network". Even if this statement were correct, the level of utilisation is not a relevant KPI to efficiency of costs. However, the AGL(ACT) network is fully utilised, a fact noted by Ewbank Preece in their draft report on DORC and Capex for the Commission. It would be correct to say that the AGL(ACT) network has a lower level of residential customer penetration than other utilities in Australia and the United States, which AGL(ACT) has itself noted affects the two key partial indicators (Operating cost per customer and Operating Cost per km). However, this fact has no bearing on the efficiency of operating costs.

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may be AGL(ACT)'s ability to increase the volume of gas it transports. (AGL(ACT) is relatively efficient according to the O&M costs per kilometre of main." Page 121

[43] Page 122

[44] Page 123

Once those KPIs included in the IPART Benchmarking Study which bear no relationship to the efficiency of costs are removed from the analysis, AGL(ACT)'s O&M Costs are clearly in the range where O&M costs for the leading Australian and US distributors are to be found.

C6.2.2 IPART Benchmarking Study

AGLGN commissioned the economic consultancy OXERA to provide comment on the section of the IPART Benchmarking Report addressing DEA. The comment from OXERA is Attachment D5 to this submission.

The OXERA comment concludes that:

The…discussion suggests significant shortcomings in each of the consultant's analyses. In summary:

- *there is not an appropriate output measure to reflect the input of marketing expenditure;*
- *it appears that the finding that O&M costs are not affected by climate has been used to infer that efficiency measures are not affected by climate, even when those measures include deliveries as an output, which contradictorily are acknowledged to be affected by climate; and*
- *the proposed DEA approach does not satisfy the requirement that the inputs, outputs, and variables provide for appropriate trade-offs. Therefore, it is unlikely to result in robust efficiency comparisons.*

Given the above, it is highly questionable whether the Consultant's findings represent a robust estimate of AGLGN's efficiency.

Much of OXERA's comment is also relevant to the issues raised in the discussion in the Draft Decision of partial performance indicator analysis. For example AGL(ACT) notes that:

- the partial performance indicator analysis in the Draft Decision has not been adjusted to account for different operating environments (such as climate)[45]; and
- the removal of network marketing costs for partial performance indicator comparative purposes is not favoured in the Draft Decision[46].

The OXERA comments relating to the treatment of climate and marketing costs are relevant to these points.

AGL(ACT) notes that the Draft Decision has acknowledged some of the problems in the DEA work, and stated:

> *Generally, such factors may place limits on the applicability of DEA"*[47].

45 Page 125
46 Ibid
47 Page 124

AGL(ACT) submits that DEA and partial performance indicator analysis assessing performance relative to other Australian and US gas distributors should not be relied upon in the Final Decision.

C6.3 Marketing Costs [48]

There are many issues raised in the Draft Decision in relation to the nature and level of AGL(ACT)'s network marketing activity. AGL(ACT) has provided a significant amount of information to the Commission which it believes provides strong support for its marketing strategy and the associated costs. This submission will focus only on the key issues.

C6.3.1 Impact of Market Maturity and Gas Culture

In considering the level of marketing costs the Draft Decision addresses AGL(ACT)'s explanation of the particular characteristics of the ACT energy market that affect the efficient level of marketing costs. The Draft Decision says "*The Commission notes that natural gas was introduced to Albury and Wagga Wagga at a similar time as for the ACT, 1977 and 1981 respectively to 1982 in the ACT*". This statement appears to suggest that the maturity issues for the ACT market were similar to those of Albury and Wagga. Such a suggestion would be incorrect. While Albury and Wagga may have had natural gas introduced at a similar timeframe to the ACT, these cities had a well established towns gas markets and a culture of gas usage. It would therefore not be appropriate to discount the issue of market maturity and gas culture in the assessment of AGL(ACT)'s proposed marketing expenditure.

C6.3.2 "Natural Growth"

The Draft Decision has discussed a concern that AGL(ACT) has not quantified the level of growth that would occur without any marketing expenditure. It is not possible to know with any degree of certainty the level of 'natural' market growth in the absence of marketing activity. However, there are sound bases for assuming that, at best, the level of growth would be low:

- Gas is a discretionary fuel whereas electricity is available in every household.
- Builders of 'speculative' housing (accounting for around 86 per cent of new homes at the present time) will not install gas appliances without some form of incentive or subsidy.
- Appliance fuel choice is not a major consideration for new home purchasers.
- Gas appliances are more expensive to buy/install/connect than electric appliances. The added cost acts as a barrier to connection.
- Gas heating faces increased competition from electric reverse cycle air conditioning which requires no additional service connection, nor the cost and effort required to get a gas connection.
- Water heating is the main application that provides a good year-round load, yet there is little differentiation between gas and electric products. The electricity industry is also providing incentives to installers to influence the installation of electric water heating systems.
- The market is generally favourably disposed towards gas and gas appliances, and gas is generally perceived to be cheaper to use than electricity. However, the strength of these favourable perceptions is often not enough to overcome the perceived barriers to connection.

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[48] Section 10.4.4

If AGL(ACT) believed that there was "natural growth" in the market which would justify the elimination of significant marketing expenditure, then it would have ceased such expenditure under the CPI-X regulation and kept that amount as profit. The fact that marketing expenditure was continued under that regime illustrates the long term view which AGL(ACT) has taken that marketing expenditure is essential to grow the market.

C6.3.3 Alternative Marketing Strategies

The Draft Decision suggests that:

- the assumptions used in demonstrating that the retailer rebate marketing strategy proposed by AGL(ACT) is least cost are arbitrary, and
- AGL(ACT) should have considered other marketing strategies and evaluated their economic benefits.

AGL(ACT) submits that:

- The Commission has been provided with extensive explanation of the inherent efficiencies in the retailer rebate scheme, which has been presented to the retail market and already adopted by some retailers in NSW.
- AGL(ACT) has evaluated two alternative strategies which it has reasonably demonstrated are less efficient than the strategy it proposes:
  - A low price strategy which it demonstrated would not provide any meaningful level of growth with long term disadvantages to the gas market
  - A strategy where AGL(ACT) undertakes its own marketing activity directly. In its analysis of this strategy AGL(ACT) has provided a sound basis for concluding that this strategy would have a measurably higher cost. This strategy is an appropriate alternative to consider, as it is presently adopted by other Australian distributors including those in Victoria.

C6.3.4 Impact of Retail Competition on Gas Market Growth

The Draft Decision states that:

> *"Increasing competition and the Eastern Gas Pipeline will fundamentally change the market and provide powerful drivers for growth. Indeed, this may well overwhelm the effects of network marketing. Analysis based on past trends which does not take this information into account is inadequate.*[49]*"*

The Draft Decision has not provided any analysis to support this view. AGL(ACT) believes that the following matters suggest competition and new supplies of gas are not likely to contribute greatly to growth of the domestic market, being the major market to which the marketing strategy is directed:

- There have been a number of public statements that indicate that the main purpose of retailers in the competitive market will be to maximise their market shares through customer transfer. This is not surprising when some of the key retailers are electricity

[49] Page 130

suppliers who will seek to obtain the most from existing customer relationships particularly where those customers are already users of gas.

- Whilst competition and the Eastern Gas Pipeline (EGP) may affect the price of gas, it is clear from the analysis presented to the Commission by AGL(ACT) in various submissions that the price of gas at present is perceived as relatively low, and that the barriers to connection, being the costs of connection and appliances, will not be overcome by a price reduction in the supply of gas.
- AGL(ACT) and Andersen Consulting[50] in the report on Marketing Expenditure have clearly demonstrated that the margins of retailers are such that any marketing effort designed to attract new customers to gas would be uneconomic resulting in little or no motivation to seek to add new customers to the market.

C6.3.5 Historic Expenditure as a Benchmark

The Draft Decision has assessed the efficiency of AGL(ACT)'s marketing expenditure by comparison with a number of benchmarks. One benchmark that appears not to have been considered in the Draft Decision is the benchmark of AGL(ACT)'s historic marketing expenditure. Expenditure in prior years is the basis on which the market has been maintained and grown. Due to the efficiency of the proposed model of the Retailer Rebate Scheme, AGL(ACT) has proposed a considerable reduction of its total marketing expenditure from its position during the mid 1990s while achieving growth at levels at that can be sustained in a maturing market. Given that the efficient level of marketing expenditure is a function of different environments, including climate and market maturity, there are difficulties in making comparisons of marketing expenditure between markets. Accordingly the comparison against the past is both relevant and significant in determining what is an efficient level. The proposed level of marketing costs in 1999/2000 is $3.8m down from $5.1m in 1997/98, which was the general level employed by AGL(ACT) to achieve market development until that time.

C6.4 Corporate Overheads [51]

The Draft Decision notes that as a proportion of operating costs AGL(ACT)’s corporate overheads are much lower than those of other operators.

AGL(ACT) concurs generally with these conclusions about the level of AGL(ACT)’s overhead costs. However, it is important to note that comparisons of all operating costs have a considerable degree of uncertainty as discussed in AGL(ACT)'s submission of 16 September 1999. This is particularly true of overhead costs as the classification of operating (ie non-capital) costs into the categories of O&M, overhead and marketing will vary from organisation to organisation.

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50 AGL(ACT) and Andersen Consulting, *Network Marketing Expenditure for AGL(ACT),* September 1999

51 Section 10.4.5

C6.5 Scope for Cost Reduction [Incremental Costs of Growth] [52]

C6.5.1 Incremental Cost of Growth and Demand Forecasts

Amendment 16 of the Draft Decision requires AGL(ACT) to revise its Demand forecasts to reflect:

- Contract demand including the load associated with addition of the ACT urban bus fleet as an NGV user
- 2% pa growth in business Tariff demand for the duration of the Access Arrangement
- 8% pa growth in residential Tariff demand for the duration of the Access Arrangement

In Section C11 of this submission AGL(ACT) provides evidence that growth at the levels proposed is not achievable. However, regardless of whether this level of growth is achievable the Draft Decision does not provide for sufficient operating costs associated with this required higher level of growth.

The Draft Decision[53] requires that AGL(ACT) *"allow growth in operating costs with an equal 50 per cent weighting to be applied to both volume load growth and customer load growth"*. In applying this requirement the Draft Decision uses the levels of growth proposed by AGL(ACT)[54]. This is set out in the Draft Decision in Table 10.12, which is below.

Draft Decision Operating Costs (1999/2000 $m)

	1999	2000	2001	2002	2003	2004
AGL(ACT) forecast growth						
Load growth (%)		2.8	2.5	2.3	2.1	1.9
Customer growth (%)		4.7	4.3	3.8	3.1	2.5
Draft Decision Assumptions						
Load Growth (%)		0.6	2.5	2.3	2.1	1.9
Customer Growth (%)		4.6	4.3	3.8	3.1	2.5
Operating Costs						
Load Growth (%)		0.3	1.3	1.2	1.1	1.0
Customer Growth (%)		2.3	2.2	1.9	1.6	1.3
Controllable Unit Target (%)		-6.9	-6.9	-6.9	-6.9	-6.9
Real Controllable opex ($m)	**9.5**	**9.1**	**8.7**	**8.3**	**7.9**	**7.5**
Real Uncontrollable opex ($m)	**1.2**	**1.9**	**2.0**	**2.0**	**2.0**	**2.0**
Allowed opex ($m)	**10.7**	**11.0**	**10.7**	**10.4**	**10.0**	**9.6**

However, this level of operating costs is based on the level of growth proposed by AGL(ACT), not that in Amendment 16 of the Draft Decision. In order for the operating costs to be appropriate for the level of growth proposed by the Draft Decision, they would have to be recalculated using the Draft Decision's approach to incremental growth for opex. The resultant opex requirement is as set out in the table below.

52 Section 10.4.7
53 Page 134
54 Table 10.12 of the Draft Decision (amended for 1998/99 actuals)

Corrected Draft Decision Operating Costs (1999/2000 $m)

	1999	2000	2001	2002	2003	2004
Corrected Draft Decision Assumptions						
Load Growth (%)		6.3	5.9	5.3	5.4	5.5
Customer Growth (%)		6.6	6.6	6.6	6.6	6.6
Operating Costs						
Load Growth (%)		3.1	3.0	2.7	2.7	2.8
Customer Growth (%)		3.2	3.3	3.3	3.3	3.3
Controllable Unit Target (%)		-6.9	-6.9	-6.9	-6.9	-6.9
Real Controllable opex ($m)	**9.5**	**9.4**	**9.4**	**9.3**	**9.2**	**9.1**
Real Uncontrollable opex ($m)	**1.2**	**1.9**	**2.0**	**2.0**	**2.0**	**2.0**
Allowed opex ($m)	**10.7**	**11.3**	**11.4**	**11.3**	**11.2**	**11.1**

AGL(ACT) submits that the Operating Costs allowed in the Access Arrangement must be properly calculated on the basis of the level of growth that is in the Access Arrangement.

C6.6 Conclusion

AGL(ACT) submits, in regard to controllable operating costs, that:

- The partial performance indicator analysis used to assess the performance of AGL(ACT) relative to other Australian and US gas distributors does not support a view the AGL(ACT)'s operating costs are inefficient when KPIs unrelated to efficiency are removed,
- The IPART DEA study used to assess AGL(ACT)'s operating costs is deficient and does not provide a sound basis for assessment of efficiency,
- The analysis which supports the proposed reduction in marketing costs is not sustainable when matters relating to marketing costs including gas market maturity, the 'natural' level of growth, impact of price reductions and competition, are properly considered,

and accordingly a reduction in operating costs of 30% is inappropriate given that the basis on which this reduction was determined is flawed.

AGL(ACT) submits, in regard to incremental operating costs for growth, that:

- The level of incremental operating costs proposed in the Draft Decision is inconsistent with the growth forecast in the Draft Decision,
- The allowed level of operating costs must be consistent with the level of growth to be decided in the Final Decision.

C7. FORM OF REGULATION AND TOTAL REVENUE[55]

C7.1 CPI indexation

The Draft Decision proposes that reference tariffs should be adjusted by CPI exclusive of the Goods and Services Tax (GST)[56]. The Commission proposes a definition of CPI (ex-GST) as follows:

"CPI (EX-GST)" means the consumer price index, All Groups index number weighted average of eight capital cities (a classification employed and published by the Australian Bureau of Statistics), exclusive of the net effect across those eight capital cities of:

(a) the 'GST' (as that expression is defined in A New Tax System (Goods and Services Tax) Act 1999); and

(b) changes to any other Commonwealth, State or Territory taxes or charges, consequent upon the introduction of the GST,

(the "Index")
as calculated and published by the Australian Bureau of Statistics from time to time, or if the Australian Bureau of Statistics does not, or ceases to calculate and publish the Index then CPI (EX-GST) will mean:

(c) an index published by Commonwealth Treasury which is its best estimate of the Index; or

(d) if the Commonwealth Treasury does not, or ceases to publish an index then an index published by the Reserve Bank of Australia which is its best estimate of the Index; or

(e) If the Reserve Bank of Australia does not, or ceases to publish an index, then at the Relevant Regulator's discretion, either:

(i) an index published by a person appointed by the Relevant Regulator which is that persons best estimate of the Index; or

(ii) an index published by the Relevant Regulator that is its best estimate of the Index.

C7.1.1 Code Compliance of CPI(Ex-GST)

The Draft Decision notes that the Commission has adopted a cost of service approach to determine Total Revenue, the results of which are expressed in a price cap in the form of CPI-X[57]. If the proposed definition of CPI were adopted for adjusting the price cap, it appears unlikely to AGL(ACT) that a cost of service approach would be maintained.

The Code requires a Regulator under a cost of service model, to determine a total revenue equal to the cost of providing all services, including a rate of return. In practical application, this has frequently involved the use of pre-set price paths such that the net present value of regulated revenues equals the net present value of costs of service. AGL(ACT) has specified a real rate of return in conjunction with a (real) escalated capital base.

The Draft Decision proposes to make a one-off adjustment to prices for the impact of GST, then escalate prices based on the CPI adjusted for the effects of the GST. There appears to be no certainty that the subsequent price path will result in the present values of revenues and costs being restored to equality – as they are required to be under a cost of service approach.

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[55] Chapter 11
[56] Page 139
[57] Page 138

AGL(ACT) contends that unless escalated revenues after excluding the effects of GST from CPI maintain the same NPV profile as existed before the adjustment, then the cost of service approach cannot be met.

The appropriate mechanism for deriving the price path under GST must ensure that the NPV of revenues is equal to the NPV of the cost of service.

C7.1.2 Calculation of CPI(Ex-GST)

In addition, there is the question of the validity of the basis on which an estimate of CPI excluding GST will be made.

At this time it appears that there is no intention on the part of the Australian Bureau of Statistics (ABS) or the Reserve Bank to calculate or publish a CPI exclusive of the GST. There is also no evidence of any intention on the part of the Commonwealth Treasury to do so.

The impact of the GST on the CPI is one of general concern throughout Australia – it is not specific to gas, nor to infrastructure, nor to regulated entities. Many commercial contractual arrangements provide for prices to adjust in accordance with movements in the CPI. It is therefore inappropriate to suggest that the determination of the impact of the GST on the CPI will be resolved by the Relevant Regulator or a person appointed by the regulator in the context of a determination under the Code.

Because of its economy-wide significance, the estimation of the GST effects on the CPI should be undertaken on a national basis by a person or persons of acknowledged standing and expertise in the area, and not on a piecemeal basis by individual regulators. AGL(ACT) contends that the Commission should not undertake this estimation. Rather, if a CPI(Ex-GST) is required at all the Commission should attempt to persuade any or all of the authorities noted above of the need for a universally available measure of the CPI excluding the effects if GST.

C7.2 Commission's assessment of AGL(ACT)'s proposed revenue and price paths

The Draft Decision sets price paths for the Contract and Tariff segments at:

- excluding the EGP connection: CPI-11 for 1999/00 and CPI-6 thereafter
- including the EGP connection: CPI-10 for 1999/00 and CPI-5 thereafter

AGL(ACT) submits that the price paths should be revised to take into account adjustments in the following matters identified by AGL(ACT):

- ICB set at $240.6m
- Rate of Return set at 8.0%
- Operating costs revised to account for
  - an appropriate level of controllable operating costs
  - incremental costs of growth to reflect the achievable level of forecast load growth
- Capital Expenditure revised to reflect the achievable level of forecast load growth
- Forecast demand levels that are achievable.

C7.2.1 Benefit Sharing Mechanisms

The Draft Decision indicates that consideration will be given to the use of benefit sharing mechanism in its Final Decision. Benefit sharing already exists in the current form of price cap regulation. The Service Provider retains the benefit from efficiency created during the regulatory period. The future benefit of those efficiencies is transferred to users at the following regulatory reset. Therefore the Draft Decision is referring to additional benefit sharing.

It is AGL(ACT)'s view that only under certain exceptional circumstances are additional benefit sharing mechanisms appropriate. That is, where there is significant uncertainty about demand forecasts at the time of deciding an Access Arrangement. In those circumstances the additional benefit sharing mechanism should only be brought into effect when demand exceeds a threshold significantly greater than forecast. For example, a benefit sharing mechanism would apply when the actual demand exceeded forecast by more than 25%. Inappropriate use of an additional benefit sharing mechanism acts to weaken the incentive mechanism built into a price path and should only be applied in the exceptional circumstances noted above.

C8. SERVICES POLICY [58]

C8.1 Partial Use of Assets Reference Service [59]

In Requirement 2, the Draft Decision seeks further information on the appropriateness of a partial use of assets reference service.

The Draft Decision suggests that a Partial Use of Assets Service would facilitate a bypass of the Network. AGL(AC)T submits that there is no need to offer this Service in the ACT, and that such a concept cannot coexist with the single zone price structure that is proposed. AGL(ACT) does not consider that there are any bypass opportunities in the ACT Network, and the Draft Decision states that "the Commission has received no submissions stating that bypass opportunities are currently being considered."[60]. If a situation arose such that a bypass opportunity was demonstrated to be viable then AGL(ACT) would negotiate with the relevant party to avoid construction of the bypass. In the unlikely event that a bypass did occur it is most likely that it would be for:

1. A complete bypass of the network ie to a customer site, or
2. For strategic reasons rather than because the bypass is economic.

Further if a new Receipt Point is established, then under third party access on the pipeline, that would be available to the whole market. If AGL(ACT) agrees to transport gas from that Receipt Point at a price other than the zone price, then the pricing structure has effectively changed from a single zone price structure to a multiple zone price structure. It would not be possible to determine how such a rezoning might be performed without prior knowledge of the location and flow requirements.

C8.2 Summer Tranche Reference Service [61]

The Draft Decision seeks information from AGL(ACT) on the need for a summer tranche service.

AGL(ACT) has reviewed all available MDQ data for the contract market in the ACT and have come to the conclusion that existing customers with current usage patterns do not have a need for a summer tranche service. However, to encourage any opportunities for use of capacity in off peak periods, AGL(ACT) would be willing to offer a Summer Tranche capacity option to all Users of the Capacity Reservation Service, wherein a User may increase the MDQ for periods of one or more whole months between 1 October and 30 April inclusive. There is no need for such a capacity option on other services as they are not subject to overrun charges.

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[58] Chapter 12
[59] Section 12.4.1
[60] Page 159
[61] Section 12.4.2

C8.3 Short Term Reference Service for Small and Medium Users [62]

The Draft Decision seeks further information on the need for a short term capacity service in the ACT. There are two matters which should be taken into account in considering this issue:

The basis on which prices have been set

The core reference service is the Capacity Reservation Service. The industry standard for such a service is a 12 month reservation of capacity. This is appropriate as it is cost reflective, provides the lowest prices to the end customers with the best load factor and gives all end customers an incentive to improve their load factor.

The reference tariffs represent a revenue allocation between Users - any significant change to the 12 month minimum will benefit some customers (especially those with poor load factors) but other customers (with better load factors) will have to pay more. Such a change would reduce cost reflectivity.

If an unconstrained short term capacity option is available, Users will not reserve capacity for a 12 month period sufficient to meet their needs, and will rely on the availability of short term capacity to meet peak requirements and additional production needs. This will both compromise the basis on which pricing has been established, and reward those customers with poor load profiles, at the expense of good load factor customers.

The options available to users

The argument for a short term capacity service is based on a perceived lack of flexibility in the services offered, but consideration of the range of services shows adequate flexibility to meet the needs of users. The services offered in addition to the capacity reservation service are:

- The Managed Capacity Service was specifically designed for customers that have uncertain production schedules. This service allows customers to use gas for a 12 month period without restrictions on MDQ, whilst ensuring that the pricing basis of 12 month reservation remains valid.
- The Throughput Service allows for customers who wish to use gas without restriction to MDQ or regard to historical MDQ.

In addition, the Summer Tranche option which AGL(ACT) has agreed to offer will allow more flexibility for all customers for use of extra capacity in the warmer months.

[62] Section 12.4.3

C9. REFERENCE TARIFF POLICY

The Draft Decision sets out the following assessment of AGL(ACT)'s reference tariff policy[63]:

AGL(ACT)'s proposed policy (section 4 of Access Arrangement)	IPARC assessment	Proposed amendments
1. Description of principles.	As a result of this Draft Decision, AGL(ACT)'s current description of principles is no longer applicable.	Modified to reflect the Draft Decision
2. AGL(ACT) may undertake new facilities investment which does not satisfy the requirements of the National Code for inclusion in the capital base.	Inconsistent with objectives in section 8.1 (recovery of efficient cost). The Commission considers that new facilities investments should be added to the capital base subject to the requirements in sections 8.16 and 8.17 of the Code in regard to "prudency test" (see Chapters 7 and 9).	This policy statement must be removed.
3. Treatment of recoverable portion of the new facilities investment.	This relates to speculative investment. AGL(ACT) capital expenditure forecast does not include any speculative investment. As such, this policy is irrelevant.	This policy statement must be removed.
4. New facilities investment will be included at actual costs at the commencement of next review.	Only prudent and efficient actual capital expenditure should be allowed.	This policy statement must be removed.
5. Redundant capital will be removed from the capital base.	This is consistent with section 8.14. In reaching its decision o the rate of return, the Commission has considered the implications for risks.	Accepted.
6. Incentive mechanism in that reference tariffs will apply regardless of the actual outcomes of forecasts.	This is consistent with sections 8.44, 8.45 and 8.46 of the Code.	Accepted.

C9.1 New Facilities Investment – Recoverable Portion

The Draft Decision requires removal of the statement that AGL(ACT) may undertake New Facilities Investment that does not satisfy the requirements of section 8.16. This requirement is based on a decision that the statement is inconsistent with the objectives of the Code, and that New Facilities Investment should only be included in the Capital Base if it meets the requirements of sections 8.16 and 8.17.

63 Table 13 page 174

AGL(ACT) agrees with the Draft Decision in its conclusion that any New Facilities Investment, to be included in the Capital Base, must pass the prudency tests. However, under the Code, unless a Service Provider exercises the discretion to include a statement in the Reference Tariff Policy that it will undertake New Facilities Investment that does not satisfy the Code, it may lose the right to include the Recoverable Portion in the Capital Base. The purpose of including this statement in the Reference Tariff Policy is to preserve that right.

Accordingly, the exercise of the discretion given to AGL(ACT) by the inclusion of the statement in the Reference Tariff Policy is not intended to be inconsistent with the Code, but rather to preserve the right of AGL(ACT) to incur such New Facilities Investment and to include the Recoverable Portion in the Capital Base. For this purpose, AGL(ACT) suggests that the statement be retained, and expanded to refer to the inclusion of the Recoverable Portion in the Capital Base as follows:

> *"AGL(ACT) may undertake New Facilities Investment that does not satisfy the requirements of the section 8.16 for inclusion in the Capital Base. If AGL(ACT) incurs such New Facilities Investment, the Capital Base may be increased by the Recoverable Portion."*

C9.2 New Facilities Investment - Actual Cost

The Draft Decision requires the removal of the statement that, for the purposes of calculating the Capital Base at the commencement of the subsequent Access Arrangement Period, where the actual cost of New Facilities differs from the forecast New Facilities Investment on which the Capital Base was determined, the New Facilities Investment will be included at actual cost. This view is based on the decision that only prudent and efficient actual capital expenditure should be allowed.

AGL(ACT) has discussed the tests relating to New Facilities Investment in section C3.1 of this submission. However, the purpose of the statement in the Reference Tariff Policy was to signal that AGL(ACT) does not intend to take the risk on the difference between forecast and actual costs on New Facilities Investment. AGL(ACT) does not intend this statement to apply so as to exclude the application of the prudency tests, but merely to ensure that those tests are applied to the actual rather than the forecast expenditure.

AGL(ACT) suggests that the statement be retained as follows, adding a proviso that the amount to be included in the Capital Base will be those costs which comply with the provisions of sections 8.16 of the Code:

> *"For the purposes of calculating the Capital Base at the commencement of the subsequent Access Arrangement Period, where the actual cost of New Facilities differs from the forecast New Facilities Investment on which the Capital Base was determined, the New Facilities Investment will be included at the amount of the actual cost which meets the criteria set out in section 8.16 of the Code."*

C10. PRICING [64]

C10.1 Price structure – Tariff Prices

The Draft Decision sought comment on the basis of the multiple block structure for the throughput tariff service. AGL(ACT) submits that the structure is appropriate, for the following reasons:

- The tariff structures were developed by AGL Gas Companies as a bundled utility. Currently there are four separate tariffs applicable and a knowledge of the customer appliances and usage profile is required to determine the best tariff for each customer. This is now the role of the retailer, rather than the Network Service Provider. The new structure ensures that from a network perspective all users are on the appropriate tariff regardless of appliances used.
- The number of blocks and the block sizes have been designed to keep price variations to individual segments to a minimum while ensuring that natural gas remains a viable choice. It should be noted that Tariff Prices have been designed to cover a very large range of customers ie from a residential user consuming as little as 5GJ to a large industrial tariff user consuming 9,900 GJ.

C10.2 Variation in reference tariffs[65]

The Draft Decision requires that variations in Reference Tariffs to reflect any change in the level of any government charges or statutory fee or tax and the introduction of new charges (eg the Goods and Services Tax) must be subject to:

- AGL(ACT) making an application to the Commission proposing a revision to the Access Arrangement to reflect the change; and
- the Commission having the discretion to appoint an independent auditor to ascertain the impact on reference tariffs. The approval of a change in Reference Tariffs will be based on the Commission’s review of the independent auditors advice. Any burden or benefit of any adjustment to the Reference Tariffs to which AGL(ACT) is entitled will be allocated on the same basis that AGL(ACT) allocated the relevant costs or similar costs to develop the Reference Tariff or in the manner prescribed by law.

AGL(ACT) submits that it is inappropriate to require a revision of the Access Arrangement to deal with such changes, as it opens the Access Arrangement within months of the Final Decision. Rather than a revision to the Access Arrangement, AGL(ACT) suggests that this variation to the Reference Tariff should be an automatic adjustment to Reference Tariffs, subject to the conditions specified in the Draft Decision.

Should it be considered appropriate to pass through such charges through revisions to the Access Arrangement, then those revisions can only be carried out under section 2 of the Code. The conditions which the Draft Decision has sought to impose on the process are inconsistent with the revision process specified in section 2 of the Code.

[64] Chapter 15
[65] Section 15.4

In addition, AGL(ACT) submits that:

- the provision should incorporate time frames for the decisions by the auditor and the regulator; and
- the provision should allow AGL(ACT) to apply for further adjustments should it be determined in practice that the amount being passed through to consumers is incorrect.

C10.3 Proposed Power Station

The Draft Decision refers to the power station proposed to be constructed as part of the joint venture arrangements being proposed by AGL and ACTEW. The proposed power station is subject to the finalisation of the joint venture. The siting of the power station is still to be determined; however it will be necessary to site the power station where it has access to a very high pressure gas supply ie at pressures greater than available in AGL(ACT)'s secondary mains system. This limits the possible location of the power station to places where it has access to the Eastern Gas Pipeline, the EAPL pipeline or the relatively limited sections of the AGL(ACT) Primary Main system (including the extension to the EGP).

It is only if the power station is connected to the ACT Primary Main that any contribution is made to the Network. This contribution will be limited to cover costs for that part of the asset used. Since it will at best use only part of the Primary Main, and since the Primary Main represents a minor part of the overall Network, there seems no justification for a benefit sharing mechanism in respect of it.

C11. DEMAND FORECASTS[66]

C11.1 Residential

Under the Draft Decision, AGL(ACT) is required to amend its Access Arrangement consistent with annual average growth of 8 per cent for the residential market.

The Draft Decision states:

> *"For the five years to 1999, annual average growth was 8.1 per cent. For the five years to 1994, annual average growth was 23.0 per cent. In contrast, AGL(ACT) has forecast growth for the five years to 2003/04 to range from 3.2 to 5.8 per cent. This translates into an annual average growth rate of only 3.9 per cent…"*

The Draft Decision draws its conclusions about the appropriateness of AGL(ACT)'s proposed load growth on the basis of a broad consideration of demand growth expressed as a percentage of the previous year's total demand. However, the analysis fails to recognise that the pattern of ongoing decline in growth from 23% in 1989/94 to 8.1% in 1994/99 should be expected to continue into the future.

C11.1.1 Analysis of Residential growth components

The following analysis will consider each of the components of residential growth.

Under any prevailing market conditions there are 'natural' limits to growth applying to each of the segment's components. In the residential market, the potential load is constrained by the key factors for each component:

Growth Component	Key Factor limiting growth
New connections • New homes • Existing non-gas homes	 • the number of new homes built • the number of existing homes that can feasibly be connected
Increased average consumption	the number and type of appliances that can be installed

To test the feasibility of the proposed level of growth AGL(ACT) has considered a mix of the growth components of the residential segment to model the way in which growth would have to occur in order achieve the required level of load growth of 8%pa.

[66] Chapter 16

Number of new homes built

In the new homes segment, the proportion of homes connecting to gas is already high at an average of 86 per cent of new homes built in 1997/98 and 1998/99. Similarly, the penetration of gas appliances is high with current appliance penetrations of new homes as follows:

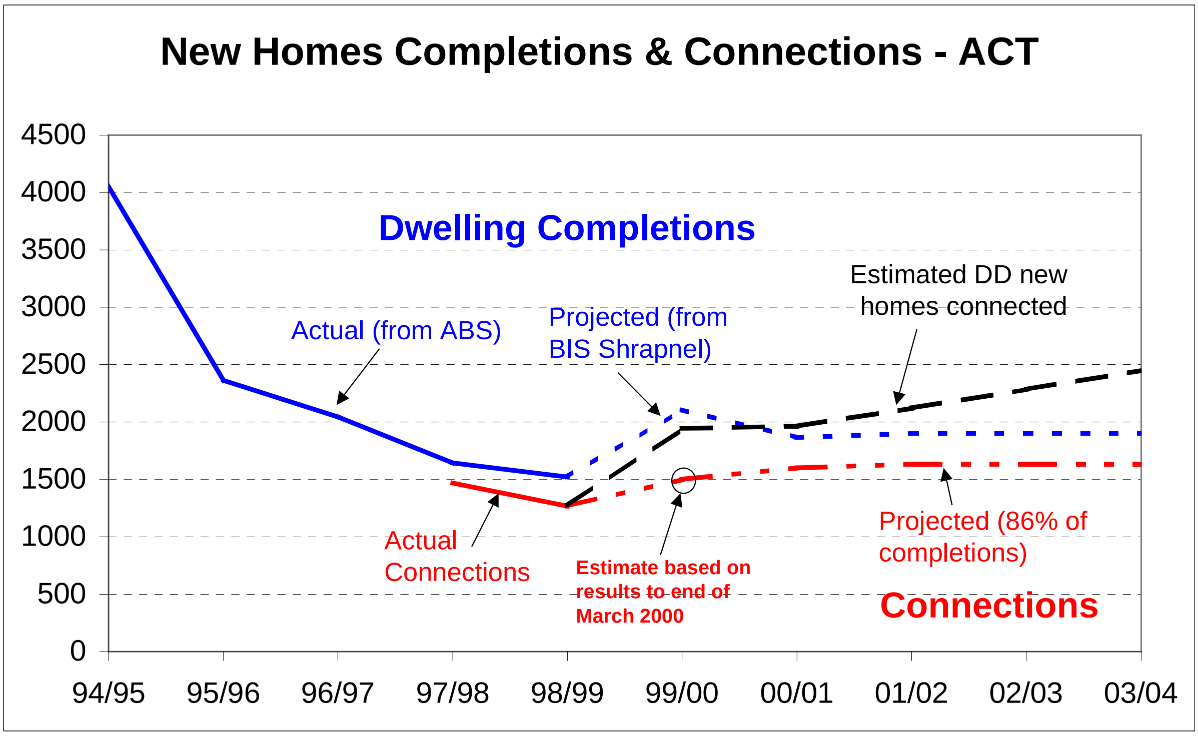
- Heating: 94 per cent
- Hot water: 82 per cent
- Cooking: 84 per cent

The resultant average usage for new homes is approximately 50 GJ pa subject to variations resulting from the depth and breadth of winter temperatures from year to year.

A continuation of these trends is assumed in the forecasts. Given this, the remaining determinant of connections and resultant load is the number of new homes built.

AGL(ACT) based its forecast of new home connections on the underlying demand for new ACT dwellings projected by BIS Shrapnel. This projection is expressed as an annual average for the five-year projection period, and AGL(ACT) has not attempted to forecast annual variations. The only modification made is to include an allowance for Queanbeyan (not separately forecast by BIS Shrapnel).

The number of dwellings completed in the ACT over the last five years has averaged 2325 per annum. This compares to BIS Shrapnel's forecast of underlying demand for new dwellings of 1900 per annum from 2000/01 to 2004/05. The following graph shows:



- the historic homes construction in the ACT from 1994/95 to 1998/99
- the historic number of gas connections to those new homes for the years 1997/98 and 1998/99,

- the forecast number of new homes built as projected by BIS Shrapnel,
- AGL(ACT)'s projected gas connections based on 86 per cent of the BIS Shrapnel projection (1999/00 has been adjusted for connections to date), and
- the level of new homes with gas that AGL(ACT) estimates would have to be built to satisfy the Draft Decision growth requirements.

It is clear that the number of new homes with gas connected required to meet the Draft Decision demand forecasts significantly exceeds the number of new homes projected to be built. Unless new homes construction substantially exceeds that predicted by BIS Shrapnel, this is not achievable.

Number of existing homes that can be connected

The second component of growth is the number of existing non-gas homes on line of main which connect to gas over the Access Arrangement period.

Approximately 82 percent of homes in the ACT have a gas main running past them. Of these homes approximately 65 per cent are already connected to a gas main. Of the remaining 35 per cent, at least half are unlikely to connect. This assertion is based on AGLACT survey results that show that:

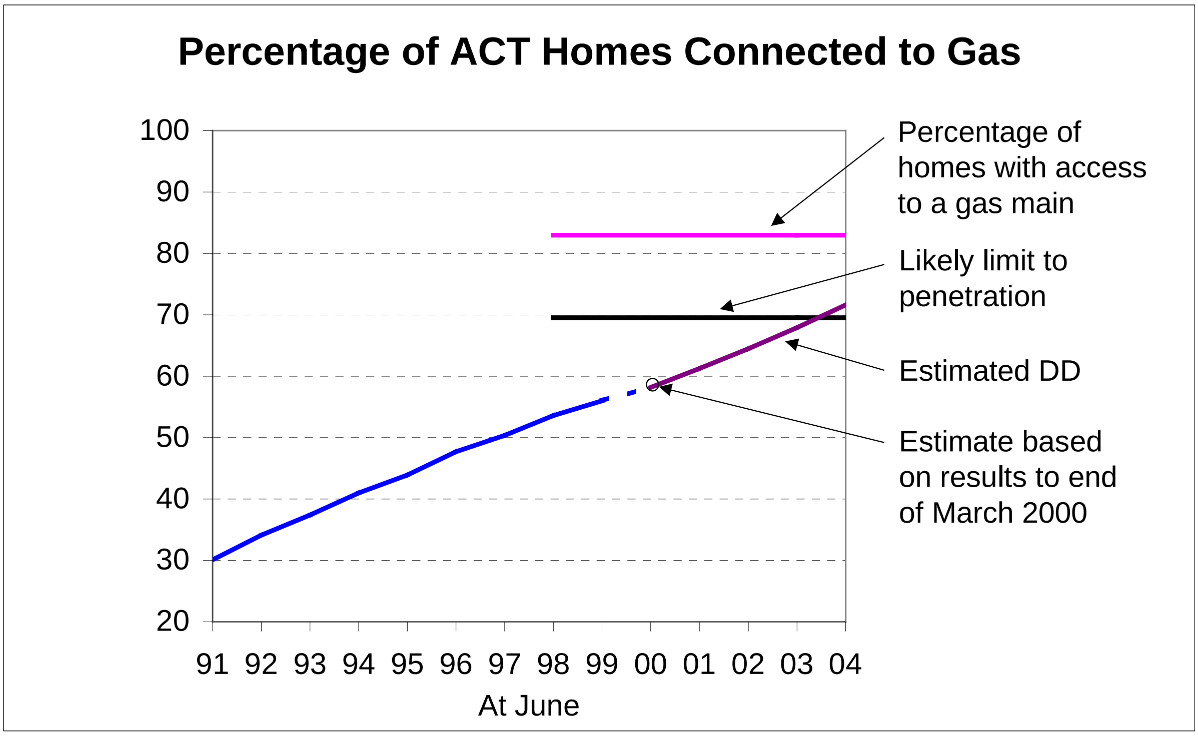
- around 40 per cent of non-users on line-of-main occupy
    - rental properties where decisions are made by owners with little incentive to convert and/or
    - medium density dwellings where medium density dwellings tend to be prohibitively expensive to retrofit, and
- 60 per cent of non-users on line-of-main are not interested, or are unsure of their interest, in connecting).

This leaves a potential for around 17 per cent (half of 35 per cent) of existing homes on line-of-main to connect - approximately 19,000 dwellings.

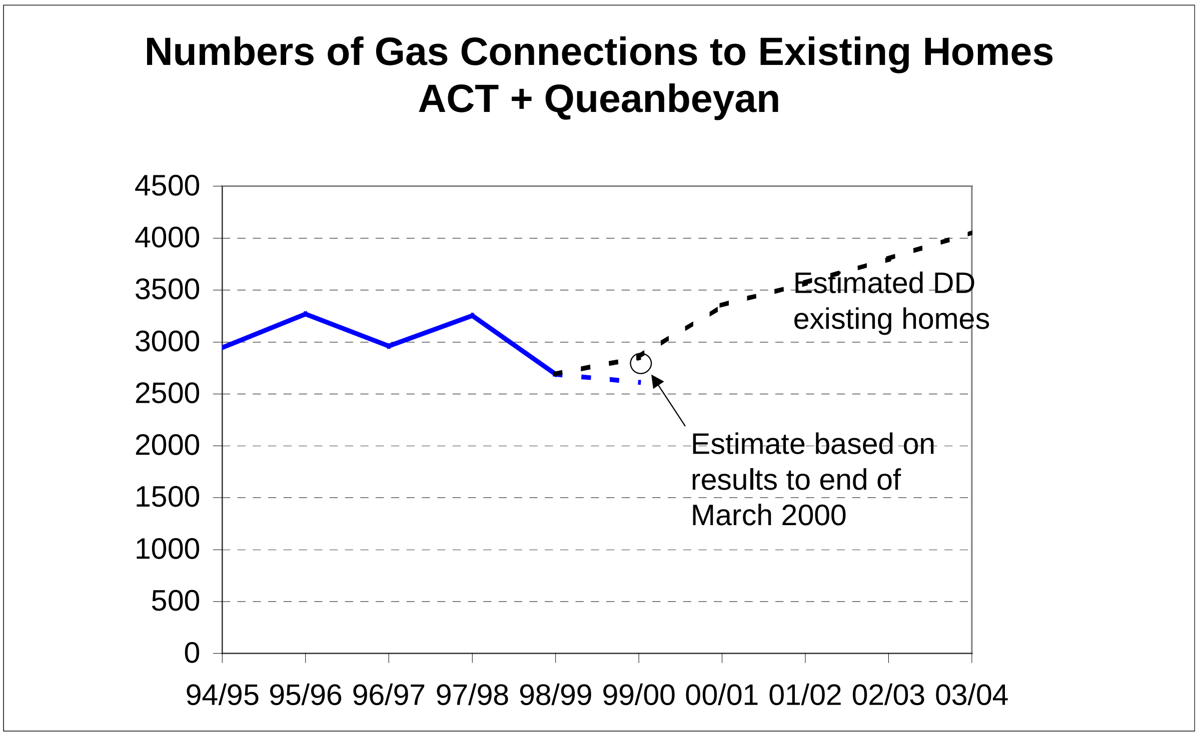
If connections were to continue at the same rate as in the mid-nineties, this potential market would be connected in less than six years. However, a well accepted and empirically verified phenomenon is that demand will progressively slow as ‘saturation’ is approached[67]. A slowing has already been observed in the ACT market with existing non-gas home connections in 1998/99 down 17.3 per cent on 1997/98 and connections in the financial-year-to-March down 1.4 per cent on 1998/99.

The graph which follows indicates the level of growth in connections for existing homes on "line-of-main" that would have to be achieved during the Access Arrangement period to achieve the required level of 8 percent residential load growth. On the basis of this graph, the rate and extent of growth proposed in the Draft Decision would appear to be unachievable.

[67] Diffusions of Innovation by E.M. Rogers, 1962



The graph below further illustrates the implications of the level of growth proposed by the Draft Decision. It shows the historic level of gas connections to homes on "line-of-main", providing an indication of the trend of gradual reduction in the number of connections. Compared with this is the estimated number of connections that would be required to achieve those proposed in the Draft Decision.



The conclusion that is indicated by these graphs is that the level of growth proposed in the Draft Decision is not achievable.

Number and type of appliances that can be installed and used in previously connected homes

The third component of growth is new load in homes which are already connected to gas. Additional demand from existing gas users is constrained by the potential to install additional gas appliances.

- Hot water is presently the 'least owned' of the three major gas applications in the ACT with 46 per cent of gas homes using gas hot water. However, experience has shown that potential users are most reluctant to replace existing systems while they are still working. This is to be expected because of the significant cost of installing a new appliance when the existing one is still functioning adequately. There is therefore limited potential to accelerate the rate of installation of gas systems much beyond current levels, which appear from AGL(ACT) surveys to be already high.
- Ownership of gas heating is already quite high in the ACT at 93 per cent of gas homes, and there is little room to increase penetration.
- While there is also scope to increase the penetration of gas cooking, the relatively low loads of these appliances would have little impact on the overall forecast.

AGL(ACT) has already factored in a significant increase in average usage from 47.2GJ pa in 1999 to 51.2GJ pa in 2004. It would be unreasonable to expect to achieve higher growth from the installation of additional gas appliances by existing gas users than that already forecast and this has been assumed in the modelling used to estimate growth in the components to the 8 per cent proposed in the Draft Decision.

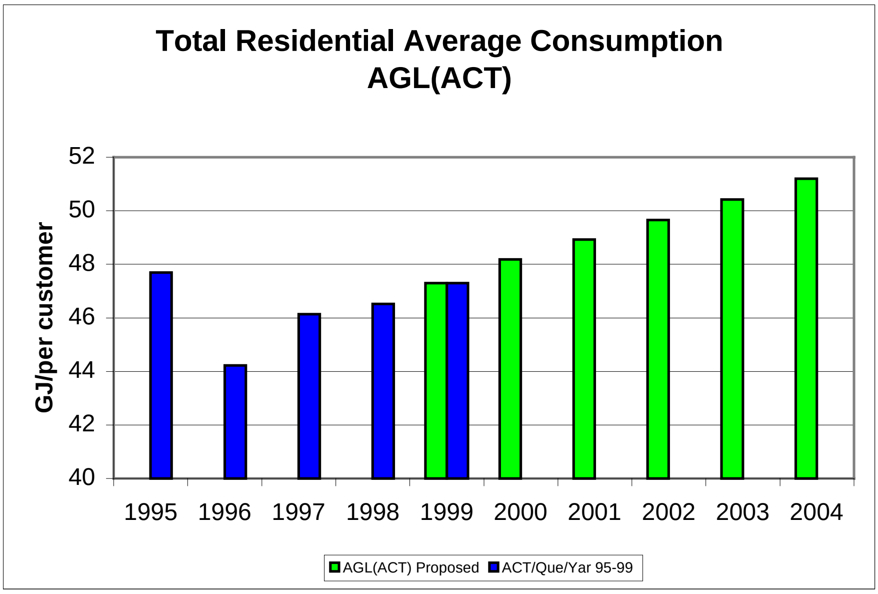
Summary

On the basis of the examination of the components of residential segment growth and the key factors which provide natural limits to that growth, (ie new home growth forecast by BIS Shrapnel, the slowing in line of existing home connections as saturation is approached, and opportunity for increased load from existing customer), AGL(ACT) submits that the numerical increases necessary to achieve 8 per cent pa growth through the Access Arrangement period are not achievable.

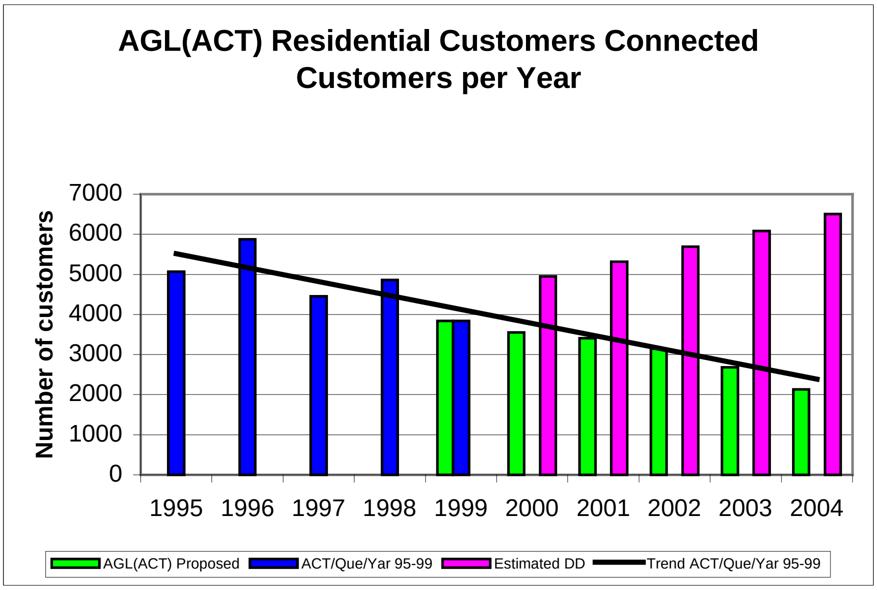
C11.1.2 An Overview of Residential Growth

An overview of the combination of the components of growth provides further insight into the achievability of the growth proposed by the Draft Decision. This can be seen in the following two graphs which show the historic trend against AGL(ACT)'s proposal and modelling of the Draft Decision requirements.

The graph below shows the actual average consumption for residential customers to 1999 and AGL(ACT)'s forecast. The graph illustrates the high level of growth consumption growth assumed in the forecast.



The next graph show the historic growth in new residential connections and the forecast used by AGL(ACT) compared to that proposed in the Draft Decision. While AGL(ACT)'s proposed forecast follows the historic trend and reflects the anticipated approach to market saturation in the next five to ten years, the Draft Decision proposes a substantial shift from the historic trend with its underlying drivers.



AGL(ACT) submits that the required eight per cent per annum growth in the residential market exceeds the growth which can be achieved within the 'natural' limits in the ACT market. To achieve such growth would require greater numeric (as opposed to percentage) growth than that achieved per annum over the last five years. The growth proposed by AGL(ACT) more reasonably reflects the drivers of growth.

C11.2 Business Tariff

Under the Draft Decision, AGL(ACT) is required to amend its Access Arrangement consistent with average annual growth of 2 per cent for the Business Tariff market.

The Draft Decision states:

> *"For the four years leading up to the Access Arrangement (ie up to 1998/99) the business tariff market grew at an annual average rate of 1.3 per cent. Within this period, annual growth rates ranged from –0.2 per cent to 6.2 per cent. Importantly, the highest annual growth rate of 6.2 per cent over this period was experienced in 1998/99. For the five years to 1994, an annual average growth rate of 7.8 per cent was achieved.*

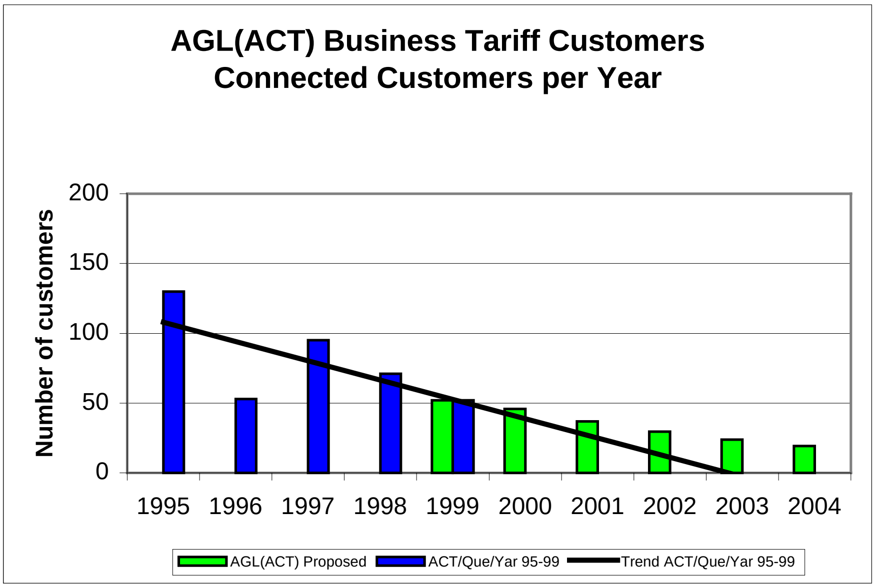
The Draft Decision observes the volatility in gas demand for the Business Tariff segment[68]. Further analysis shows that the load growth in the Business Tariff segment for the 5 years to 1998 was in fact -2.6%. This further illustrates historic volatility makes analysis of past growth difficult.

However by analysis of the major determinants of the forecast growth in the Business Tariff a clearer view on growth can be gained. As for the Residential segment, the major determinants of the forecast load growth are net increases in customer numbers (largely a function of new connections) and changes in average consumption per customer. To achieve the required two per cent per annum load growth would necessitate an immediate stabilisation of the longer term decline in additions to customer numbers and a slowing in the rate of decline in average consumption

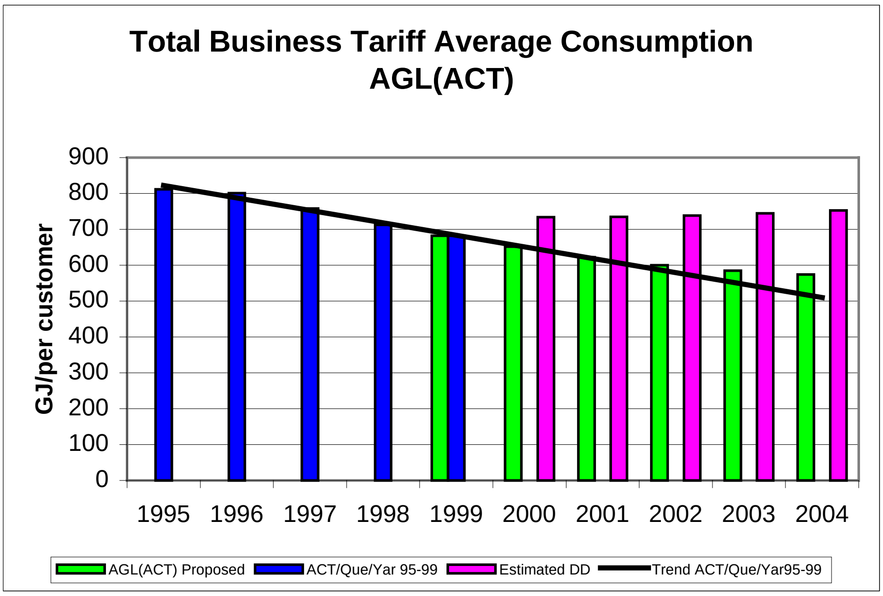
Historical Data

The longer term decline in business load growth is apparent in the analysis in the Draft Decision (Figures 16.3, 16.4). As pointed out in the Draft Decision, *"the rate of growth in this market segment has trended downwards of the past few years, with negative growth rates experienced in 1997 and 1998."*[69] AGL(ACT) does not have any evidence to suggest a stabilisation in the longer term trend in decline of net additions to customer numbers. The graph below shows the historic trend of new business customers to 1999. Given that customer numbers have increased by only 6 for the year to date as at 31 March, 2000 this trend is reinforced and the proposed level of growth in new business connections proposed by AGL(ACT) now appears optimistic.

68 Page 201
69 Page 200



The following graph shows the historic pattern of average Business Tariff usage. The previous trend is so consistent as to suggest that it will continue in 1999/00. This is supported by a reduction in average consumption to date as at 31 March, 2000 of 4 per cent.



The level of usage proposed by the Draft Decision goes against this trend.

It should also be noted that the decline in growth in connections has continued despite the ACT Business Incentive Scheme, which has now been operating for a number of years, and therefore it is unlikely that this policy will reverse this trend.

In summary, AGL(ACT) submits that the stabilisation of the longer term decline in additions to customer numbers and the slowing in the rate of decline in average consumption necessary to achieve a 2 per cent growth during the Access Arrangement period is not supported by the evidence available on the Business Tariff market.

C11.3 Business Contract

The Draft Decision requires that AGL(ACT) should revise its contract market forecasts to take account of gas load associated with the ACT urban bus fleet.

ACTION Buses have advised AGL(ACT) that they do not intend to power their buses with NGV within a five year period. The reasons given for this are:

- they will not retrofit NGV conversions because of reliability concerns; and
- buses will not be replaced within that five year period.

Accordingly, AGL(ACT) submits that there should be no change to the forecast in respect of the urban bus fleet.

C11.4 Market environment

Price Decreases

Energy market competition resulting in lower prices is also unlikely to result in increased consumption by existing users.

AGL(ACT) has provided its analysis of the 1996 study by ABARE for AGA[70]. This analysis shows that the residential demand for gas is inelastic and that the impact of price decreases on demand will be small and one-off. Similarly for businesses, whether large contract customers or smaller Tariff customers, no measurable increase in consumption should be expected simply because gas becomes cheaper – a fact borne out by an analysis provided to IPART of the relationship between gas price changes and usage in the contract market (*Supporting Information for Draft Decision Prices, Services, Terms and Conditions Document*, February 2000, Section A1.5 - Attachment D6). This analysis supports the findings of a study of price elasticity of demand for gas undertaken by ABARE for AGA in 1996[71] which found that the demand for industrial users is very inelastic (own price elasticity -0.30) while for commercial users it was almost totally inelastic to gas price. Any expectation of other than minimal demand increases which result from reductions in prices is not supported by any analysis of which AGL(ACT) is aware.

Impact of Competition

In Section C6.3.4 AGL(ACT) has submitted that there is support for its assertion that increasing competition and any resulting lowering of prices will have minimal impact on growth. AGL(ACT) surveys have consistently shown that gas is already perceived to be cheap and that electricity is perceived to be expensive. Such surveys confirm that it is the connection cost (including natural gas connection, appliances and appliance installation) that is the barrier to connection, not the gas price. Gas price is particularly irrelevant to the speculative building component of the new homes market (includes all medium density and a

[70] Submission to the Commission of 16 September 1999
[71] Price Elasticities of Australian Energy Demand, ABARE report prepared for AGA, June 1996

significant share of single houses). Existing users are also unlikely to increase usage simply because gas becomes cheaper.

Impact of reduced Marketing Expenditure

It is important to point out that the growth forecasts which are the basis of AGL(ACT)'s Access Arrangement are themselves based on the expectation of the proposed level of marketing expenditure being available. AGL(ACT) believes that the levels of growth included in the Access Arrangement will be very difficult to achieve at a lower level of marketing expenditure. In addition to the analysis above which illustrates the reasons why the high levels of growth proposed by the Draft Decision cannot be achieved, the substantial reduction of marketing expenditure adds a further factor militating against achievement of the Draft Decision's forecast growth.

C11.5 Conclusion

AGL(ACT) submits that the forecast growth proposed in the Draft Decision is not achievable for the following reasons:

- The 'natural' limits on the components of Residential Tariff segment growth prevent achievement of the proposed 8 per cent pa growth level.
- The trends in business customer usage and new customer connection do not support such a level of growth.
- ACTION buses has advised AGL(ACT) that it will not be using NGV to operate its bus fleet in the next five years.
- The reduction of marketing costs proposed in the Draft Decision will militate against increased levels of growth
- Suggestions that reduced gas prices and introduction of competition will result in increased demand are unsupported.

On this basis the forecasts proposed in the Draft Decision should be revised downwards to the levels of growth proposed by AGL(ACT).

C12. NON-PRICING ISSUES[72]

C12.1 Gas balancing [73]

The Draft Decision requires that Schedule 2A, Part 2, Gas Balancing of the proposed revisions and Schedule 2C, Clauses 14-20 be amended as follows:

- the provisions must be redrafted to indicate clearly that sites can be aggregated for the purpose of balancing on the network.
- the provisions must be redrafted to separate the allocation and reconciliation processes.
- the gas balancing procedures must be changed so that the following criteria are met:
  - a sufficient level of incentives to ensure safe and reliable operation of the AGL(ACT) system
  - equitable treatment of all users (irrespective of size)
  - no artificial barriers to entry
  - risks can be managed and/or can be allocated appropriately
  - procedures can be clearly understood and cost of administration to the network and the user is appropriate
  - market solutions are fostered to the greatest possible extent.
- a transitional approach with reduced balancing incentive charges must be adopted for the first 12 months of the new Access Arrangement Period. The level of reduction will depend on the complexity of the new gas balancing procedures to be proposed by AGL(ACT).
- the load profiling/reconciliation systems for tariff customers must be developed in accordance with the recommendations being developed by the Ministry of Energy and Utility (MoEU) Gas Retail Project. If these recommendations are not forthcoming, a commitment must be made in the Access Arrangement to adopt these recommendations when made by the MoEU Gas Retail Project.

AGL(ACT) agrees to redraft the provisions in regard to Aggregation of sites and Separation of allocation and reconciliation processes.

In respect of the requirement to redraft the gas balancing provisions to meet the specified criteria, there has been significant work undertaken over the last year in relation to the preferred gas balancing arrangements for the NSW network, including extensive industry participation in the NSW Ministry of Energy and Utilities Balancing and Load Profiling Working Group. One of the key issues which has arisen has been a requirement to separate the elements of Participant and Operational Balancing.

AGLGN in New South Wales presented a new model for Gas Balancing in the Prices Services Terms & Conditions document prepared for IPART, based on a proposal presented to the Balancing Working Group on 16 September 1999, with the enhancement of a simpler allocation mechanism for receipt points shared by two or more users.

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[72] Section 18
[73] Section 18.1

AGL(ACT) proposes that the same model be adopted in the ACT, adapted to apply to the particular circumstances in the ACT,, the components of which are operational balancing and participant balancing.

Operational Balancing

Operational balancing relates to the matching of inputs and withdrawals. At present, the Moomba-Canberra Pipeline ("MCP") pressure controls deliveries to the Network at Watson. Deliveries from the EGP will be flow controlled into the Network so as to deliver the requirements nominated by Users of that Receipt Point. Should the Users of either the EGP or the MCP take a greater quantity of gas than their nomination, the gas will have been delivered by the MCP. This physical arrangement supports the operational integrity of the Network.

The proposed gas balancing arrangement provides that where the MCP delivers more than its Users have nominated on a Day, AGL(ACT) will purchase gas by competitive tender from the MCP to supply those Users who have taken a quantity greater than their Nomination, and sell that gas at a 25% premium to those Users. The revenue derived from the premium will be distributed to all Users.

This operational balancing scheme will operate unless there is an Operational Balancing Agreement in place for the MCP, the EGP and the Network. At that time, the Operational Balancing Agreement will determine the balancing arrangements and provisions will be included in the Access Arrangement to facilitate the operation of that agreement.

Participant Balancing

Participant balancing relates to the matching by a User of its physical input (determined directly by metering or by allocation) and withdrawals. The Ministry for Energy and Utilities in New South Wales through its Retail Steering Committee process has proposed a participant balancing mechanism which would be established and provided by a Market Entity, managed by market participants. It is anticipated that this mechanism would also be adopted in the ACT. The proposed gas balancing arrangement will set out an interim participant balancing mechanism to apply until an industry accepted scheme is adopted in the ACT.

Transitional Approach

- Although the Draft Decision requires a transitional approach with reduced balancing incentives for the first twelve months of the Access Arrangement, the proposed model has not adopted a transitional incentive. While AGL(ACT) acknowledges that the requirement to balance and the associated "learning curve" may be an issue for new entrants into the gas market there are some more fundamental matters of concern for the effective functioning of the gas market in relation to gas balancing. Regardless of the objective of introduction of effective competition it would be an undesirable outcome if the gas market was damaged as a result of insufficient incentive for users to maintain balance.

The essential reasons for balancing requirements remain, namely:

- If one user's input to the network falls short, and one or more other users are not prepared, or able, through their contractual relationships, to increase inputs to compensate for the shortfall, an operational imbalance will occur resulting in the need to shed load.

- User imbalances (which are really un-sanctioned borrows and loans between users) can occur at any time and besides being undesirable for operational reasons, are also undesirable from a commercial point of view as between users. Users must be encouraged to be in balance at all times.
- The introduction of a new source of supply (ie the Eastern Gas Pipeline) is likely to bring with it a new level of complexity that will increase the requirement for discipline of gas suppliers in ensuring that the daily as well as the intra day supply balance is maintained. AGL(ACT) would be concerned if the drivers for that discipline were weakened at a time when they were more likely to be needed.

AGL(ACT) acknowledges that, where there is a shared receipt point and users' inputs are determined by an allocation algorithm, the relationship between a user's actions and the user's imbalance is potentially complex. Thus it is undesirable to base incentive charges directly on the user's imbalance because the basis for the charge is not within the user's control. Under the current AGL(ACT) proposal, the user's incentive charge is a function of the user's forecasting error (a proxy for the user's imbalance[74]) which is within the user's control. That being so, the case for a reduction in charges for an initial period, a reduction which would be arbitrary in any event, falls away.

C12.2 Metering services [75]

The Draft Decision states that it may be appropriate for AGL(ACT) to outline how it proposes to provide daily usage data to users. For example, does AGL(ACT) propose to give only aggregate usage data for users' delivery points, or will this figure be broken down for each delivery point?

AGL(ACT) provides information for each Delivery Point for each User. AGL(ACT) will provide such information in accordance with the Code and any amendment to it.

C12.3 Other Issues [76]

C12.3.1 Commencement and review of Access Arrangement[77]

The Draft Decision proposes to require AGL(ACT) to lodge proposed revisions to the Access Arrangement 12 months before the expiry of the Access Arrangement period[78].

AGL(ACT) believes that this date is unduly early:

(a) the Code assumes a review process should take approximately six months. While experience to date has been that a period in excess of six months has been required, these decisions have involved establishment of the Initial Capital Base.

(b) In particular, this would give an effective Access Arrangement period of only three and a half years, notwithstanding the general acceptance that an incentive structure needs a period of four to five years to be effective.

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74 If all users' forecasting errors on a day are zero, then all users' imbalances will be zero for that day.
75 Section 18.2
76 Section 18.7
77 Section 18.7.5
78 Page 231

(c) This would require work on the new Access Arrangement to be commenced in late 2002, meaning it would be necessary to derive new tariffs some two years after commencement of this Access Arrangement.

AGL(ACT) submits that the proper date for submission of the revisions is 10 December, 2003 as proposed in the Access Arrangement.

C12.3.2 Retail contestability

The Draft Decision states that the need for any changes to the proposed Access Arrangement which may result from the introduction of retail competition will be assessed as part of the Final Decision.

The NSW Ministry of Energy and Utilities has issued a Policy Framework to Support Full Retail Competition in Gas. AGL(ACT) supports the proposed division of activities between the network operator under an Access Arrangement and competitive service providers engaged by the governance body outlined in that Policy.

Although the amounts included in the Access Arrangement for contestability costs were determined on certain assumption, it is AGL(ACT)'s view that those amounts will be necessary to meet the costs of interim solutions and interfacing with the mechanisms and bodies to be established to support full retail contestability. Assuming that similar procedures will be adopted in the ACT as those in NSW, AGL(ACT) requests that the Commission take into account the submission of AGLGN to the Ministry of Energy and Utilities (a copy of which is attached to this submission as Attachment D7), and the comments regarding the implications for the Access Arrangement. In particular, AGL(ACT) believes that it is in the interests of gas industry participants to avoid a trigger mechanism in the AGL(ACT) Access Arrangement to implement the policy necessary for retail contestability.

Attachment D1

D1. Optimised Deprival Value (ODV)

There are a number of issues raised in the Draft Decision's assessment of ODV:

A. Uncertainty in DORC
B. Cost Allocation
C. Price/revenue level to be taken into account
D. EBIT/DORC and EBIT/DAC ratios
E. Treatment of SIB Capex

The first of these is addressed in the body of this submission (section C2.2.1). The remainder are dealt with in this Attachment.

B. Cost Allocation

The Draft Decision suggests[79] that there is uncertainty about how costs should be allocated when analysing a particular segment of the business for ODV purposes. Alternatives, including an FDC allocation, are considered (Draft Decision Attachment 4).

There is no uncertainty. The NZ Manual[80] specifies the approach to be taken:

> *3.60 Historical accounting information on operating costs may need to be referred to in order to estimate future operating costs of the segment. Historical information on average network operating costs is likely to include elements of fixed operating costs that are unavoidable by the core network, even if the network segment under study were to close. Any such fixed costs, if material, should be deducted from average costs to estimate operating costs for the segment.*
>
> and
>
> *3.72 An economic planning exercise will be required for the network segment to estimate the forward FCF [Free Cash Flow]. If such an exercise is to be based on historical accounting information, care is needed in converting normal accounting items in to FCF. In particular it should be noted that only system fixed costs that can be avoided as the result of closing the network segment should be attributed to the segment in an FCF analysis. Other adjustments, such as are normally made in converting income statement and balance sheet information into a cash flow analysis, are also required.*

79 Pages 74 and 76
80 The Commission cites and apparently accepts the Handbook for Optimised Deprival Valuation of Electricity Line Businesses, NZ Ministry of Commerce, April 1999, as being an authoritative source on the subject of ODV calculation.

The use of avoidable costs is consonant with the concept of deprival value i.e. the value that the enterprise would forego if it were deprived of the particular segment. FDC allocation is not relevant to the calculation of ODV.

The NZ Manual also resolves the other area of potential uncertainty in a two segment analysis, namely, which segment should be allocated its avoidable costs and which its stand-alone costs. In AGL(ACT)'s analysis, stand-alone costs have been allocated to the Contract Market which is the same in effect as viewing the Tariff Market on an avoidable basis. In fact, of the two segments, it is the Contract Market which is least likely to be able to support its DORC. Thus, the more correct approach would have been to analyse the Contract Market assuming an allocation of avoidable costs.

If the analysis were to be performed assuming an allocation of avoidable costs to the Contract Market, the Contract Market NPV would increase somewhat and probably exceed Contract Market DORC, even at current prices. The ODV would increase accordingly.

C. **Price level to be assumed for purposes of the ODV analysis**:

The Draft Decision suggests[81] that the sustainable price path to be assumed in the ODV analysis should in some way be modified to reflect possible future regulatory decisions.

The task is to establish a value (the ICB) which will become one of the foundations for future regulatory decisions on price. ODV, properly calculated, provides guidance as to what the ICB should be and cannot be a function of prices to be determined in the future: if it were, then the analysis would become completely circular.

The prices to be assumed for purposes of the ODV calculation are maximum bearable prices. This view is supported by the NZ Manual which is unambiguous on the subject.[82] Current gas prices in the ACT are demonstrably bearable at present. AGL(ACT) has assumed, for the purposes of the ODV calculation, that the Tariff Market can sustain current prices and that the Contract Market is capable of sustaining prices as high as stand-alone DORC costs.

The Draft Decision suggests that the ODV is uncertain because future prices will be a function of possible/future regulatory decisions. There is no such uncertainty: maximum bearable prices are to be used. This is supported by the NZ Manual.

D. Consideration of EBIT/DORC and EBIT/DAC

In accordance with the NZ Manual, AGL(ACT) has adopted the free cash flow analysis approach to establishing the EV for a segment under analysis and whether the EV or DORC value should apply in the valuation of the segment. This is equivalent in principle to assessing the relationship between EBIT/DORC and WACC (also offered as a basis in the NZ Manual).[83]

[81] Page 74 and Table 6.7
[82] NZ Manual, sections 3.56 and 3.57
[83] NZ Manual, sections 3.68 and 3.69

The analysis of EBIT/DORC in the Draft Decision confirms that it is the contract market which is least likely to be able to support its DORC and, therefore, that it is that market which should be assessed in the first instance – but on an incremental/deprival basis (see B. above).

The Draft Decision then analyses EBIT/DAC ratios and goes on to make observations about the implications of that ratio for the value of DORC (pages 76, 78 and 79). As the Draft Decision rightly notes, the analysis has no relevance to ODV.

E. Treatment of SIB Capex

The Draft Decision suggests that SIB Capex should be included in the NPV calculation[84]. The purpose of the ODV analysis in the current context, is to value the ACT Network assets, not the business, existing at a particular time. If SIB Capex is included then additional future assets are being brought into the valuation. It follows that, in the current context, SIB Capex will be evaluated properly only if it gives rise to zero net change in NPV. The preferred option is to perform the analysis without including SIB Capex, in which case there are two alternative approaches. Either:

1. each asset or asset group can be treated in the analysis as a separate stream and as each reaches the end of its life, it is not replaced. Thus, as each asset or group reaches the end of its life it must be assumed that there will be some reduction in the productive capacity of the network as a whole which must in turn be compensated for in the analysis by a reduction in revenue and costs from that date forward. The analysis would extend to cover the life of the longest-lived asset as at the datum for the analysis – potentially 80 years; or

2. the network can be regarded as a single asset with life equal to the weighted average remaining life of all network assets. The analysis covers a period equal to the weighted average life, and the single "asset" remains fully productive throughout that period.

In either case it is a fundamental assumption that a properly maintained asset remains fully productive throughout its economic life, so that only at the end of its life is there a need to consider SIB Capex.

AGL(ACT) has adopted the latter approach on the basis that it involves fewer arbitrary assumptions, is simpler, and requires a shorter analysis period[85].

If SIB Capex were to be included then, as noted previously, it must be done in such a way as to have zero net effect on the NPV, otherwise part of the calculated value is attributable to those future assets. This means that there must be proper provision for a residual value at the end of the analysis period, whenever that is, since there may still be "existing" assets which have not reached the ends of their lives (depending on the length of the analysis period) and there will always be partially depreciated SIB assets, some only a year old.

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84 pages 77 and 78

85 Even if the first option were adopted, some degree of asset aggregation (involving the principles of the second option) would be necessary to make the analysis manageable.

Summary/Impact on decision

The effect of including SIB Capex in the manner proposed in the Draft Decision is to depress the assessed economic value e.g. the full cost of SIB capex expended in year 49 will be brought to account in the analysis, but it will be offset by only one year's revenue, despite the fact that at least part of the expenditure can be expected to have an economic life of 80 years. Furthermore, truncation of the analysis at 50 years without provision for a residual value means that some of the value of existing (1999) assets is also denied.

The approach adopted by AGL(ACT) enables the existing assets to be evaluated properly without the need to consider SIB Capex.

Other aspects of the Draft Decision in relation to ODV

Efficient Operating Costs

The Draft Decision proposes a substantial reduction in operating expenditure. There appears to be no suggestion that this be mirrored in the operating cost profile used for the ODV calculation. If the lower profile were used it would result in a significant increase in the NPVs to be taken into account in estimating the ODV.

Discount Rate for Future Cash Flows

AGL(ACT)'s historical returns are assessed in Attachment 5 of the Draft Decision. The "alternative WACC" used in that assessment is determined using "the mid value of the parameters adopted in this draft decision." If this same basis were applied into the future, for purposes of the ODV calculation, the result would be a further significant increase in the NPVs to be taken into account in estimating the ODV. This issue is discussed further in section C2.4.

Inclusion of Working Capital Movements

The Draft Decision suggests[86] that it is incorrect to include working capital movements in the NPV analysis for ODV. In any NPV analysis, the timing of projected cash flows is critical. The movements in working capital included in AGL(ACT)'s NPV calculations are included properly as a refinement to the forecast of cash flow timing and do not relate to the working capital requirements of the business as at 1 July 1999.

The Draft Decision in relation to ODV: overall Summary/Impact

The Draft Decision criticises the AGL(ACT) ODV submission of a range of $242m to $245m (total) for ODV, on a number of grounds however, it does not attempt to quantify the effects of these criticisms. It simply concludes that "AGL(ACT)'s ODV appears to be high given the questions surrounding its DORC valuation".

The question of uncertainty in the DORC value has been resolved. AGL(ACT) has correctly applied the methodology set out in the New Zealand Manual in estimating ODV except for

[86] Table 6.6

analysing the tariff market instead of the contract market on the margin, correction of which would increase the ODV.

The other issues raised in the Draft Decision which would tend to cast doubt on or detract from the ODV value proposed by AGL(ACT) are irrelevant and/or ill-founded. Any justifiable change to the calculation will increase the economic value, increasing the certainty that ODV is close to or equal to DORC. When the correct value of working capital is carried through to the ODV calculation (see section C2.2.2), that value is $255m (capital assets). As noted in the Draft Decision, "any asset write down (under certain circumstances) is unlikely to change substantially the ODV result for the whole system".

Attachment D2

D2. The post-1991 Regulatory Regime and Reasonable Expectations under that Regime

The regulatory regime to be considered by the regulator under section 8.10(f) of the Code is the regime applying from 1992 under the Gas Act 1992 (ACT). This attachment describes the history and development of the regime, and its characteristics. Inferences are then drawn as to the reasonable expectations of persons under the regime.

The Determination of Conditions for Reticulation of Gas (No 184 of 1992) made under the Gas Act 1992 provided for prices charged to tariff customers in the ACT to be linked to those applying in New South Wales. Those prices were in turn established under an incentive based price control regime and it is that regime, and the expectations of persons under it, which are relevant. The regime had the following features:

- maximum average prices to tariff customers were set through the use of a CPI – X formula rather than through regulation of profit or by reference to the value of the assets;
- prices for contract customers were set by negotiation; and
- there were no restrictions on returns or profits.

Whilst the Determination provided for Price Control Reviews to be conducted subject to a provision that:

> *"The goal of any new mechanism shall be to maintain as far as practicable consistency with gas prices of AGL Sydney Limited and City of Goulburn Gas and Coke Company Limited in the City of Queanbeyan."*

no such review was undertaken.

In considering the nature of the 1992 ACT regime, and the expectations of persons under that regime, it is necessary to understand the New South Wales regime and its rationale. In September 1988, the Minister for Minerals and Energy established a Ministerial Working Party on Gas Regulation to "report on the present regulatory system and potential alternative systems which may be adopted to give benefit to gas users and the Gas Industry". The Working Party handed down its report in July 1988, recommending that a price control formula replace the existing profit control system:

- Rate of return and profit control regulatory regimes were criticised as being *"intrusive and costly and provide little incentive for efficient operation and innovation, even when efficiency assessment is included in the scheme"*.
- On the other hand, a price control formula would allow *"gas distributors to operate with freedom and autonomy and achieve higher returns by improving efficiency"*.
- A price control regime was regarded as *"significantly better than a profit constraint scheme in that it acts directly on the matters of most concern to users, the price they pay. Its particular advantage is the incentive it provides to reduce costs and improve efficiency through good management and innovation."*

Following the handing down of the Working Party's report, the Government removed profit control and replaced it with a price control formula for tariff customers. Prices for contract customers were set by negotiation. The new regime was introduced by way of amendments to the Gas Act (through the Gas (Amendment) Act 1990 (NSW)).

In 1994, the NSW Gas Council undertook a review of the price control system. In its public discussion paper for the review, the Council said *"it is not the NSW Government's intention in implementing the price control formula to limit AGLGC's total revenue, or rate of return, but rather to ensure that there is a financially viable gas distributor supplying NSW customers."* Moreover, the Council also said in the discussion paper that *"ultimately it must be borne in mind that the objectives of the four year review of the PCF do not depend on accurate assessment of asset values and determination of returns on those assets"*.

During the review, the Council's advisers (KPMG) also described the system as working as evidenced by significantly increased profits, containment of prices to customers and improved customer service[87]. There was no suggestion that the increased profits being received by AGL Gas Company should be contained or that the incentive system should be altered, and the only result of that price review was that the value of "X" moved from 2 to 1.5.

Reasonable expectations arise from the legislative framework of the regulatory regime and the approach taken by regulatory bodies in administering that regime. While it may not be possible to prove the actual expectations of persons under the regime, it is possible to identify the general sorts of expectations which a person could reasonably have held under the regime, and to identify whether particular expectations could reasonably have been held under that regime.

AGL(ACT) had a reasonable expectation that it could increase profits and shareholder wealth through improvements in efficiency and growth of the market. In particular, AGL(ACT) had reasonable expectations that:

- it would be able to operate with freedom and autonomy and achieve higher returns by improving efficiency; and
- its profits would not be regulated, and those unregulated profits would underpin a valuation well above DAC.

These expectations were reinforced by the fact that the incentive based regime had replaced a profit-control regime and by the response of the ACT regulatory authority to the NSW 1994 price review in continuing to pass through NSW prices and not conducting a price control review of its own. Tariff users could reasonably have expected price stability, improved levels of service and increased availability of gas supply through expansion of the network. Contract customers could reasonably have expected prices would not be reduced. It is reasonable to conclude that these expectations were reinforced by the outcome of the 1994 NSW review.

[87] The report (see summary pp. 3-4) listed a number of benefits of the operation of the price control formula, including that tariff customers enjoyed real average tariff reductions of close to 5%; the customer base grew by nearly 14%; sales volume grew by approx. 2.5%; controllable operating costs per customer declined by nearly 17%; customer satisfaction increased; AGL Gas Company after tax profits almost doubled.

Attachment D3

D3. Evaluation of Asset Valuation Methodologies

D3.1.1 Depreciated Actual Replacement Cost (DAC) and Depreciated Optimised Replacement Cost (DORC)

AGL(ACT) supports the joint submission made to IPART by APIA and AGA on 4 August, 1999, in connection with IPART's review of the Albury Gas Company's proposed Access Arrangement. A copy of that submission, which dealt only with advantages and disadvantages of DAC and DORC, is attached to this submission (D4).

D3.1.2 Optimised Deprival Value (ODV)

Advantages of ODV

AGL(ACT) believes the following advantages of ODV should be noted:

- ODV allows for the impact of inflation;
- ODV allows for issues of market sustainability;
- ODV allows for optimisation for current markets, and technology;
- ODV estimates the assets at current value and hence attempts to provide a consistent valuation between new and existing assets;
- ODV reflects the economic cost of providing the service in the price – price shocks are unlikely to result if assets are replaced or augmented; and
- Overall, ODV is likely to reflect an economic valuation as it is based on an NPV framework.

As ODV is a market based valuation method it is consistent with the use of other market-based variables (such as WACC) in the regulatory system. A focus on market based outcomes and correct price signals support the use of market based valuation methods such as ODV.

D3.1.3 Depreciated Inflation Adjusted Historic Cost (DIHC)

Advantages of DIHC

AGL(ACT) believes the following advantages of DIHC should be noted:

- DIHC allows for the impact of inflation; and
- DIHC may make some allowance for changes in costs and hence provide more accurate price signals than other historical cost based valuation methods – resulting in smaller price shocks if assets are replaced or augmented.

Disadvantages of DIHC

AGL(ACT) believes the following disadvantages of DIHC should be noted:

- To the extent that DAC is subjective, then so will be DIHC;

- DIHC does not allow for optimisation for current markets and technology; and
- DIHC bears little relationship to the economic value of the assets as it bears little relationship to the value of assets in normal future use.

Overall DIHC is based on historical costs and is similar to DAC. As such it is a backward looking valuation with little relationship to present or future values and economically efficient market out

Attachment D4

D4. Joint AGA/APIA submission to IPART: Draft Decision on Albury Gas Company Access Arrangement, August 1999.

Attachment D5

D5. Benchmarking the Efficiency of Australian Gas Distributors, OXERA, January 31st, 2000 – a report by OXERA on IPART's benchmarking study.

Attachment D6

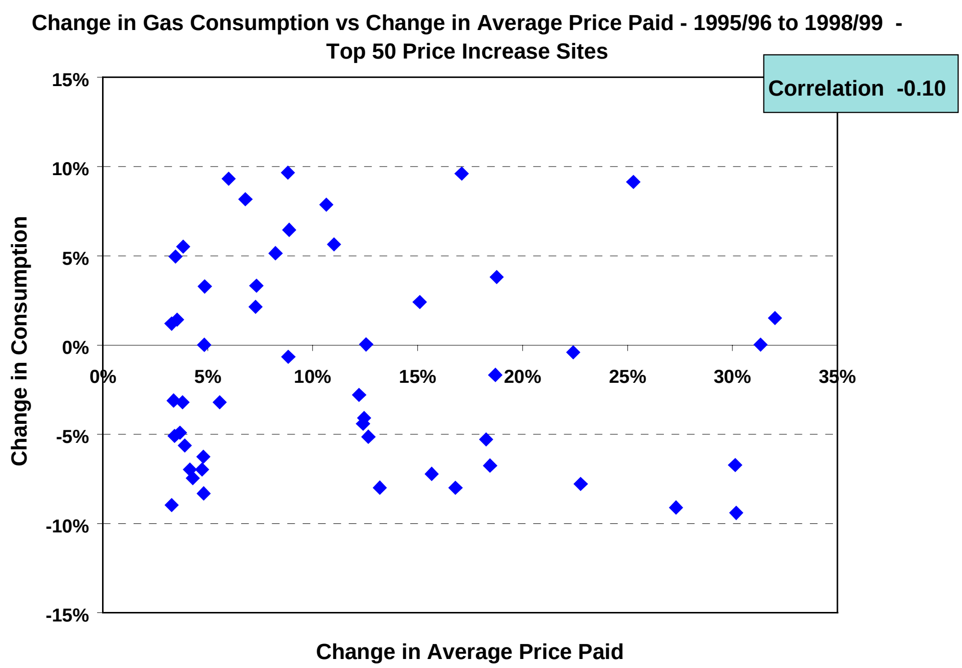
D6. Excerpt from Supporting Information to AGL Gas Networks' Pricing, Services and Terms and Conditions Document, submitted to IPART, February, 2000.

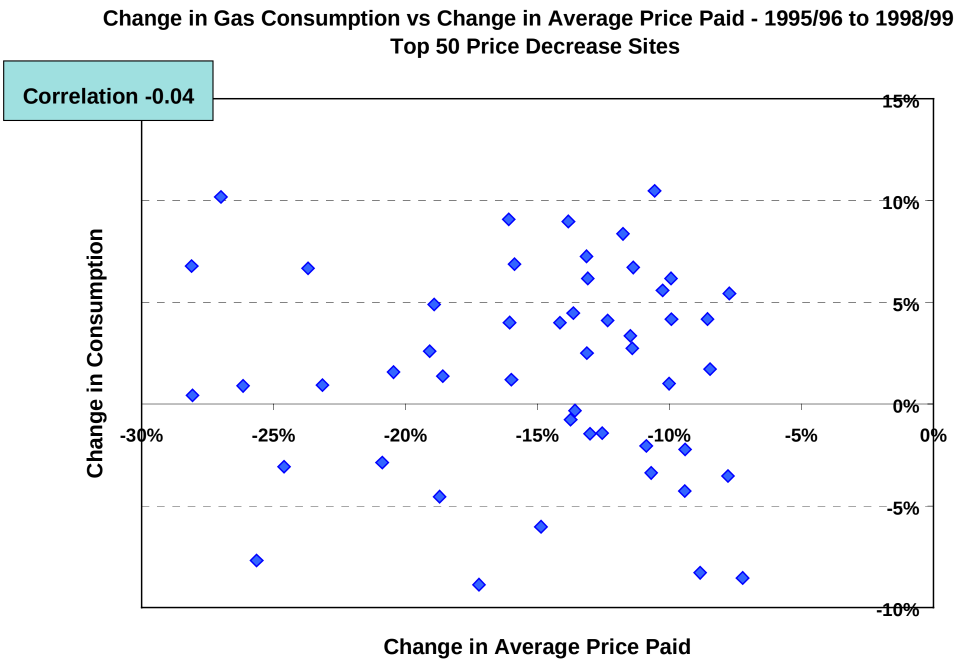
Relationship Between ACQ and Gas Price

A commonly cited view is that a reduction in gas price will lead to an increase in demand for gas. That is, that gas demand is own-price elastic.

This does not reflect studies of gas price elasticity on a broad industry scale and has not been AGLGN's experience in its areas of operation. To test this hypothesis, historical information on gas price changes and gas demand was analysed. Data for changes in annual gas consumption and changes in gas price from 1995/96 to 1998/99 for the fifty [NSW Contract customer] sites facing the greatest price increases and the fifty facing the greatest price decreases was considered.

The results are summarised visually in the two following graphs. The analysis shows no relationship between changes in gas price and consumption. This could be explained by the fact that, for most gas users, the cost of gas is only a relatively minor component of total production costs. Changes in production are more likely to be related to external market forces. The assumed link between gas price and demand is perhaps even more tenuous with pricing moving to an MDQ basis.




Change in Gas Consumption vs Change in Average Price Paid - 1995/96 to 1998/99 - Top 50 Price Decrease Sites
Correlation -0.04
Change in Consumption
Change in Average Price Paid
15%
10%
5%
0%
-5%
-10%
-30%
-25%
-20%
-15%
-10%
-5%
0%

Attachment D7

D7. **AGL Gas Networks Limited Submission on the New South Wales Policy Framework to Support Full Retail Competition in Gas**
13 March, 2000

AGL GAS NETWORKS LIMITED

SUBMISSION ON THE NEW SOUTH WALES POLICY FRAMEWORK TO SUPPORT FULL RETAIL COMPETITION IN GAS

PREPARED FOR THE MINISTRY OF ENERGY AND UTILITIES

13 MARCH 2000

AGL Gas Networks Limited (AGLGN) welcomes the opportunity to comment on the Policy Framework to Support Full Retail Competition in Gas distributed by the Ministry of Energy and Utilities (the Ministry).

AGLGN supports and commends the Ministry on the concept of a light handed, outcomes based regulatory approach which allows the gas industry to develop and implement rules and structures to support contestability in the gas retail market.

In order to achieve this outcome, AGLGN believes that the following matters require further consideration.

1. Funding

AGLGN supports the objective stated in the Policy that competition benefits to customers must be higher than the costs of creating the competitive market. It is in the interests of all market participants that the cost of gas be maintained at a level which is competitive with substitutable fuels.

The Policy does not deal with the analysis of costs and benefits. However, AGLGN believes that to ensure that the objective is delivered in the most appropriate manner, the measures used to confirm the success of this object must be clarified within the Policy. AGLGN recognises that these measures are not easily identified, and may not necessarily be quantifiable in cost terms. However, identification will focus market participants onto the critical areas that must be addressed and are crucial to determining whether the Policy objectives have been met.

In relation to funding, this objective makes it clear that the project will only proceed in the manner proposed if there is a cost benefit to consumers. Logically then, since it is consumers who will benefit from the project, they should either directly or indirectly fund the implementation of the project.

2. Governance Body

The Policy states:

> "The prime responsibility for making decisions on the nature, form and content of the market rules, their administration, and the purchase of specialist market services, rests with market participants….The establishment of a gas industry structure with the ability to make effective decisions in the interest of the market will be critical to the success of retail competition. This structure will enable retailers and network operators to cooperatively manage the retail gas market by enabling the gas industry to:
>
> (1) decide the nature of procedures within Gas Retail Market Code, in accordance with the Government's policy objectives; and
>
> (2) engage and administer contractors from within or outside the industry, to provide retail market services."[88]

The focus of this policy is the relationship between retailers in a competitive market. The involvement of network operators will be limited to:-

- Determination of a Network Code and other network issues where the governance body would represent the interests of retailers;
- provision of monopoly services to the governance body and/or retailers where the recovery of costs will be governed under separate regulation such as the Access Arrangement;
- if appropriate, tendering to the governance body as a potential service provider for competitive services; and
- provision of interfaces with the governance body or other service providers to enable them to provide competitive services. Where these costs are not recovered through an Access Arrangement, any additional costs to the Network Operator would be recovered through a mechanism agreed between the Network Operator and the Governance Body. An example of such costs may be diversification of meter collection, where the network operator could incur additional costs in order to accept various data formats from a range of service providers.

[88] Section 3.6

Under these circumstances and provided that the governance body is limited to the role anticipated by the Policy and does not encroach on network issues, it would be appropriate for the network operator to take an advisory role in the determination of these matters through consultation with the governance body.

3. Access Arrangements

AGLGN supports the proposed division of activities between the network operator under an Access Arrangement and competitive service providers engaged by the governance body.

The Policy assumes in various places a trigger mechanism in the AGLGN Access Arrangement to achieve that interaction. Assuming that the Independent Pricing and Regulatory Tribunal (IPART) agree with the proposed division of activities between competitive service providers and the Access Arrangement, AGLGN submits that it is not in the interests of the gas industry participants for a trigger mechanism to be included in the AGLGN Access Arrangement. A trigger mechanism has the undesirable consequences of:-

(i) re-opening the Access Arrangement in all of its conditions almost immediately after the Final Decision has provided certainty to market participants
(ii) requiring a public consultation process on the implementation of the competition rules determined pursuant to this Policy with no certainty that IPART will at the end of that process agree to the rules proposed (in this regard, it is clearly not possible for IPART to pre-empt the process by agreeing to those rules in advance)
(iii) creating an overlap of services pending amendment of the Access Arrangement – that is, the network operator will be required under the Access Arrangement to provide certain services as part of their reference services at the same time as the governance body has contracted for those services to be provided through another mechanism, leading to inefficiencies in the provision of those services. The period of this overlap will be at least the time taken for preparation of proposed amendments to the Access Arrangement once the trigger mechanism takes effect, the draft and final decisions of the IPART after public consultation at both steps, and the preparation of a final Access Arrangement as a result
(iv) limiting the flexibility of the Network Code if it is to form part of the Access Arrangement (see discussion in section 4 of this submission.)

Accordingly, AGLGN submits that the AGLGN Access Arrangement be modified to avoid the necessity for a trigger mechanism and facilitate an automatic changeover to the rules devised pursuant to the Policy. In order to achieve this, AGLGN suggests that the three areas in which the Policy suggests the market entity control service provision be dealt with in the Access Arrangement as follows:

(a) Delivery Point Registration – this largely relates to the transfer of customers between retailers and there is no explicit provision to deal with this in the Access Arrangement. Accordingly, there is no change necessary to the Access Arrangement provided that IPART accepts the provision of this service through the market entity.

(b) Collecting and processing of metering data – defined in the Policy to include provision and maintenance of facilities for the collection and communication of data. At present, these services form part of the Reference Services offered under the AGLGN Access

Arrangement, although the cost of providing them is separately identified. AGLGN suggests that the Reference Services be defined to include these elements unless and until the market entity enters into agreements for an alternative method of providing the services. At that point, those elements which are identified in the Gas Retail Market Code cease to form part of the Reference Service. AGLGN may continue to offer such services in accordance with the rules adopted by the governance body in the Gas Retail Market Code as a competitive service provider.

(c) *Load profiling, participant balancing and reconciliation*: AGLGN has suggested a gas balancing procedure for the Access Arrangement which separates participant balancing from operational balancing and offers participant balancing as a "fall back" procedure, taking effect only in the absence of a decision by the Gas Retail Steering Committee (or the governance body to be established). AGLGN also notes that in Victoria (electricity), profiling has been determined as a network operator issue and the cost benefit analysis and outcomes of the consultant's report may take the same view. If IPART accepts the proposed balancing provision, there is no need to include a trigger mechanism for gas balancing whatever the outcome of these reports.

AGLGN has included costs in the Access Arrangement in relation to contestability which were determined based on certain assumptions about the nature of the services necessary to support contestability. Although all of those services may not now be provided by the network operator under the Access Arrangement, it is our best estimate that those amounts will be necessary to provide the interim arrangements contemplated by the Policy and to meet AGLGN's costs in meeting contestability requirements, including the interaction necessary for AGLGN to deal with the service providers and the market entity. If in fact those full amounts are not spent, an adjustment would be made by IPART at the commencement of the next Access Arrangement Period.

If this method of dealing with the introduction of contestability is adopted for the AGLGN Access Arrangement, the Ministry's objective of a smooth transition to the competitive retail market with governance arrangements which can respond to changing market dynamics, will be met.

4. Network Code

The Policy states:

> "Procedures, standards of services and recovery of costs for associated network services could continue to be documented in the Network Code. The Network Code could become an adjunct to network operators' Access Arrangements and subject to IPART's determination, should IPART and the network operators deem this appropriate….
>
> For the current arrangements to extend beyond 1 July 2000 a change to the Network Code must be proposed and approved so that the Network Code applies to all customers and until a later date."

As it is presently drafted, the Network Code is not appropriate to apply to below 1 TJ customers. If the Network Code is to apply to all customers, then all provisions of the Network Code must be reviewed so that they are appropriate for those below 1 TJ customers.

Service level agreements entered into pursuant to the Network Code must then be amended, with appropriate approvals from IPART. There is no process in the Policy for this review to occur, and it is not included in the timeline for completion of the project although it is crucial to the outcome.

AGLGN suggests that the Network Code is not an appropriate document to form part of the Access Arrangement. The Network Code should retain its current status whereby it is determined by network operators in consultation with industry participants and mandated through Authorisation provisions. Network operators can be required to consult with market participants and the new market entity would provide an obvious mechanism for this to occur over time. Ministerial overview and control can be maintained in the same manner as presently imposed through the Authorisation conditions. AGLGN submits that this proposal allows greater flexibility for the Network Code than the Access Arrangement process, particularly during a time of such constant and fundamental change to the nature of the industry.

5. Gas Retail Market Code and Provision of Services

There is no objective in this Policy of maintaining the service to users. Both the Gas Retail Market Code and any system which is introduced for provision of services must ensure that:

(a) End customers receive as a basic right the present level of service,
(b) Any variation to the present level of service must be presented as a cost/benefit option to customers
(c) the network operator is able to ensure the safety and security of its systems and is entitled to require that reasonable requirements and standards are met.

6. Interim Arrangements

Under the Gas Pipelines Access Law, the National Third Party Access Code and the Gas Pipelines Access (New South Wales) (Savings And Transitional) Regulation 1999, AGLGN is required from 1 July 2000 to offer third party access to its network to all users.

It would appear from the Policy that third party access will be offered on terms to be contained in the Network Code, including requirements that customers wishing to transfer must have daily metering facilities.

AGLGN submits that interim arrangements should be subject to a cost benefit analysis to meet the objectives of the Policy.

The imposition of such terms by AGLGN unilaterally would not have the force of law and may be considered to be conduct for the purpose of preventing or hindering the access of another person to a service provided by means of the Code pipeline in contravention of section 13 of the Gas Pipelines Access (New South Wales) Act 1998. Therefore, in order to ensure that AGLGN is able to comply with its regulatory requirements, AGLGN submits that:-

(a) the Network Code and service level agreements must be amended to deal with the below 1 TJ market
(b) these amendments must be given the force of law through the Authorisations

(c) both of these matters must be complete prior to 1st July 2000.

The alternative suggestion in the Policy of annexing the Network Code to the Access Arrangement is not feasible within this time frame as IPART would not have sufficient time in which to seek public consultation on its terms, particularly as those terms as they apply to the below 1 TJ market are not yet determined.

If this timetable cannot be met, then AGLGN submits that the obligation to provide third party access under the Gas Pipelines Law must be amended by regulation to enable AGLGN to comply.

7. Existing Contracts

Both AGLGN and the retailers will have entered into contracts for the transportation and supply of gas prior to the implementation of this Policy which extend after that implementation. There should be a consideration of how pre-existing contracts will be dealt with in the implementation of this Policy.

8. Inter-jurisdictional Issues

AGLGN submits that in considering the implementation of the Policy, there must be formal and detailed consideration of the manner in which the rules for contestability in New South Wales can be made consistent with the rules in other jurisdictions. Although this is largely a retail issue, it may also impact on network operators who, under the regimes established in the National Third Party Access Code, may seek to reticulate gas in other jurisdictions.

9. Timeline

AGLGN submits that, based on the content of the Policy, the timeline should be amended to incorporate the following matters:

- Process to implement the regulatory response to any gas industry request for implementation support on decisions (section 5.1)
- Process to implement changes to the Gas Retail Market Code should they be required by the governance body when it is established (section 7)
- Process for the gas industry to decide upon whether a gas industry decision-making structure should be established and if so, the type of market structure (section 8.2)
- Process to allow network operators to build interfaces with service provider systems
- A further period for preparation of IT functional description - the period allowed in the timeline is in our opinion inadequate
- Process to determine a budget for the financing arrangements
- Process for review of Network Code for application to customers below 1 TJ for interim arrangements (section 12.5)
- Amendment of authorisations and service level agreements to revised Network Code for interim arrangements (section 12.3-4)
- Period for IPART approval of amended associated service level agreements
- Process to implement load profiling solution (section 12.5) (whilst we note that the timetable states implementation of load profiling approach for 1-10tj market, the process

will only be identified in that timeline, and a further period for implementation must be included)

- Process for review of Network Code for application to customers below 1 TJ for final arrangements
- Amendment of authorisations and service level agreements to revised Network Code for final arrangements
- Period for IPART approval of amended associated service level agreements for final Network Code[89]
- Process for the design and implementation of the transitional elements that are required from 1 July (if at all).

AGLGN wishes to reiterate its commitment to assisting in the development of appropriate processes to support the implementation of competition in the retail market in New South Wales.

[89] Page 1