ECG

energy consulting group

Review of AGLGN Response to the Draft Decision

For

Independent Pricing and Regulatory Tribunal

20 April 2005

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1. INTRODUCTION

1.1 BACKGROUND

In December 2004, the Independent Pricing and Regulatory Tribunal (the Tribunal) issued its Draft Decision on the revised Access Arrangement for AGL Gas Networks (AGLGN). In February 2005, AGLGN submitted its response to the Draft Decision. ECG's report dated 30 August 2004 and its supplementary report dated 26 October 2004 assisted the Tribunal in making the Draft Decision.

AGLGN submission identifies reasons why it believes that fourteen amendments proposed by the Tribunal require revision. Four of these amendments are:

- The inclusion of additional capital and operating costs required to meet the changes to the AGLGN demand forecast.
- The inclusion of an allowance for information technology (IT) capital expenditure incurred during the period 2000 to 2004, which was omitted from the Revised Access Arrangement.
- The removal from the cost of service of depreciation of land.
- Supervision costs identified in ECG's Supplementary Report.

AGLGN is seeking $30.5m for additional new facilities investment in the expected five and half years regulatory period mostly resulting from the higher demand forecasts required by the Tribunal and partly from additional supervision costs that have been already been assessed by ECG as not meeting the requirements of the Gas Code (Code). AGLGN is also requesting recovery for $24.9 m IT expenditure inadvertently omitted from the December 2003 Access Arrangement Information.

AGLGN is seeking an additional $6.7m for non capital expenditure for the period 2005/06 to 2009/10.

As ECG has carried out the Total Cost Study, the Tribunal engaged ECG to advise on these issues and in particular whether the additional new facilities investment and non capital expenditure meets the Gas Code requirements. This report is supplementary to ECG's earlier reports. In assessing the additional information presented by AGLGN, ECG has applied the same methodology used for the Total Cost Study.

ECG took into consideration the specific requirements of section 8.16 and 8.37 of the Code that costs must not exceed the amount that would be invested by a prudent Service Provider acting efficiently in accordance with accepted good industry practice and to achieve the lowest sustainable cost of delivering the Services.

To gain an understanding of AGLGN underlying assumptions and reasons for seeking the additional expenditure, ECG sought clarification from AGLGN pertaining to its requests. In support of its additional claims, AGLGN provided various spreadsheets of both its capital and operating expenditure. ECG then considered whether the additional expenditure meets the Code's requirement.

This report details ECG's findings and recommendations and is divided into the following sections:

- Section 2 covers the review on the additional capital expenditure and also the issue of supervision.
- Section 3 covers the review on the additional IT expenditure.
- Section 4 covers the review of the additional non capital expenditure.

2. ADDITIONAL MARKET EXPANSION EXPENDITURE

2.1 BACKGROUND

The market expansion expenditure is a function of the forecast customer number multiplied by the unit cost. In its response to the Draft Decision, AGLGN has indicated that the Cost of Service in the Draft Decision is based on the customer numbers that AGLGN has provided in its 2003 December submission and not the higher customer numbers in the Draft Decision. Therefore to meet the higher customer numbers, AGLGN submits that the market expansion capital expenditure will need to be adjusted accordingly.

In December 2003, AGLGN provided a forecast of the customer numbers in its revised Access Arrangement. To determine the forecast customer numbers, AGLGN had divided its non-major customer base into various customer classes and had determined the growth of each class using historical trends. Following the recommendations of an independent review of the forecast commissioned by the Tribunal, AGLGN has resubmitted its demand forecast using the same underlying methodology but refined to reflect some of the recommendations from the review.

The Tribunal has decided that these customer numbers are to be adopted in the Revised Access Arrangement.

This review is based on the February 2005 customer numbers which are the same as the June 2004 revised submission for tariff customer numbers. These customer numbers, as mentioned above were accepted by the Tribunal in its Draft Decision.

Table 2-1 shows AGLGN customer numbers from its December 2003 submission, Draft Decision 2004 and the February 2005 submission.

Table 2-1 Forecast Customer Numbers

As at 30 June	2005/06	2006/07	2007/08	2008/09	2009/10
Customer site numbers Dec 2003 original submission[1].	986,956	1,018,489	1,049,886	1,081,102	1,112,210
Customer site numbers Feb 2005 revised submission[2].	998,495	1,035,158	1,072,166	1,109,476	1,147,155
Increased Customer Numbers over Dec 2003 original submission	11,539	16,669	22,280	28,373	34,945
Customer site numbers Draft Decision[3] Dec 2004.	998,495	1,035,158	1,072,166	1,109,475	1,147,155

Note: These customer numbers are net of disconnections

The revised market expansion expenditure submitted by AGLGN and the market expansion expenditure in the Draft Decision are shown in Table 2-2 and Table 2-3 respectively.

[1] Table 6.1 Draft Decision on the Revised Access Arrangement.
[2] AGLGN Spreadsheet Market Expansion Capital – Draft Decision 2.
[3] Table 6.2 Draft Decision on the Revised Access Arrangement.

Table 2-2 Market Expansion Capital (AGLGN Submission Feb 2005)[4]
($m real 04/05)

	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	Total 05/06-09/10	Total 03/04-04/05
Mains	10.1	10.4	12.9	12.2	10.8	10.8	10.8	57.5	20.5
Services	23.8	24.4	25.5	25.2	25.4	25.5	25.6	127.2	48.2
Meters	17.5	15.4	16.5	16.6	16.8	17.0	17.3	84.2	32.9
Total	**51.3**	**50.3**	**55.0**	**54.0**	**53.0**	**53.3**	**53.7**	**268.9**	**101.6**

Table 2-3 Market Expansion Capital (Draft Decision Dec 2004)
($m real 04/05)

	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	Total 05/06-09/10	Total 03/04-04/05
Mains	9.6	9.6	11.7	10.9	9.3	9.2	9.1	50.2	19.2
Services	23.8	23.4	23.8	23.2	23.1	23.0	22.9	116.0	47.2
Meters	15.1	14.4	14.5	14.4	14.4	14.4	14.5	72.2	29.5
Total	**48.5**	**47.4**	**50.0**	**48.5**	**46.8**	**46.6**	**46.5**	**238.4**	**95.9**

The additional market expansion capital sought by AGLGN (difference between expenditures shown in Table 2-2 and Table 2-3) is shown in Table 2-4.

Table 2-4 Additional Expenditure Sought by AGLGN (Difference between AGLGN Feb Submission and Tribunal's Draft Decision)
($m real 04/05)

	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	Total 05/06-09/10	Total 03/04-04/05
Mains	0.5	0.8	1.2	1.3	1.5	1.6	1.7	7.3	1.3
Services	0.0	1.0	1.7	2.0	2.3	2.5	2.7	11.2	1.1
Meters	2.4	1.0	2.0	2.2	2.4	2.6	2.8	12.0	3.4
Total	**2.8**	**2.9**	**5.0**	**5.5**	**6.2**	**6.7**	**7.2**	**30.5**	**5.7**

Note: The rows and columns may not add up exactly due to rounding errors

2.2 ECG'S REVIEW OF THE ADDITIONAL CAPITAL EXPENDITURE

To support its claim for additional expenditure, AGLGN provided ECG with a spreadsheet showing its underlying assumptions and its calculations. The market expansion capital has been calculated by multiplying the unit costs by the number of customers in each class.

AGLGN has divided its non-contract customer base into the following classes:

- E – G (Electricity to Gas)
- New Homes - Built Up
- New Homes - New Estates
- Medium/High Density
- I&C (Industrial and Commercial)

ECG has carried out the following steps to identify the factors that have contributed to the cost increase and then to ensure that the factors meet the Tribunal and Code requirements:

[4] AGLGN Spreadsheet Market Expansion Capital – Draft Decision 2.

- Compare the above spreadsheet with the information provided by AGLGN during the Total Cost Study.
- Identify the factors that have contributed to the cost increases.

ECG is able to confirm that the additional expenditure compared to that allowed in the Draft Decision is due to the increased customer numbers and an increase in the supervision cost. The supervision cost is for the construction of gas mains for customers forecast to convert from electricity to gas and forecast new homes customers in existing built up areas.

AGLGN has adopted all other unit costs allowed in the Draft Decision.

A report on the increased customer numbers and a review of supervision cost are detailed in sections 2.3 and 2.4 below.

2.3 INCREASED CUSTOMER NUMBERS

ECG has compared the revised customer numbers in the spreadsheet with the customer numbers accepted by the Tribunal as shown in Table 2-1. ECG confirms that the customer numbers used to calculate the additional capital expenditure are consistent with the forecast customer numbers in the Draft Decision.

Table 2-5 is the additional customer numbers from the December 2003 to the February 2005 submissions.

Table 2-5 Increased Customer Numbers from December 2003 to February 2005 Submissions

[CONFIDENTIAL INFORMATION REMOVED FROM THIS TABLE]

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Opening increase in customer numbers							
E to G							
New Homes built up							
New Homes estate							
Medium Density							
I & C							
Subtotal							
Difference in customer losses							
Cumulative customer increase							

The additional customers as a percentage increase from the 2003 submission are shown in Table 2-6.

Table 2-6 Percentage Increase in Customer Numbers compared to 2003 Original Submission

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Forecast Additional Customer Dec 2003 submission	33,655	35,338	36,090	35,437	35,404	35,326	35,317
Increased customer Feb 2005 submission	4,194	2,666	4,623	5,111	5,602	6,094	6,585
Percentage Increase	12	8	13	14	16	17	19

2.4 SUPERVISION COSTS

AGLGN agrees with all of the amendments to capital and operating expenditure required by the Tribunal in the Draft Decision with the exception of supervision costs associated with constructing mains in built up areas.

2.4.1 Background

As discussed in Sections 7.4.1 and 8.3.1 of its report "Review of AGLGN Gas Access Arrangement for Independent Pricing and Regulatory Tribunal" dated 30 August 2004, ECG considered that AGLGN unit rate for laying mains in established areas (E-G and New Homes – Built Up) was high. ECG recognized that the cost of laying mains in established areas exceeds that for new areas but considered, based on its industry knowledge that the unit rate should not be more than twice. AGLGN unit rate is more than two and a half times.

ECG considered that AGLGN unit rate of $38 per metre for laying mains in new areas (New Homes – New Estates) was consistent with Section 8.16 of the Code and a unit cost of $76 (twice that for new areas) was recommended for established areas.

In its response to ECG's August 2004 report, AGLGN advised:

- Its average cost of connecting new customers is at the lower end of comparable Australian gas distributors, particularly those in Victoria.
- It has sourced virtually all of its capital requirements through external contractors in a competitive environment. AGLGN dispute that any unit rates determined in this manner should be considered inefficient.
- Application of the rule of thumb ignores the fact that the weighted average cost of laying mains in build-up-areas comprises mains of varying diameters, pressures and regional locations.
- The recommendation has not taken into consideration conditions that apply to NSW and in particular the area of the footpath in which AGLGN is required to lay its gas mains coincides with the area of the footpath under which concrete footpaths are typically constructed.

AGLGN subsequently provided more information and at the Tribunal's request this was reviewed by ECG and a Supplementary Report was provided to the Tribunal in October 2004. AGLGN advised that direct costs were established through a tendering process and the supervision/overhead rate for main laying in established and new areas was 22%. Given that direct costs were established by a tendering process ECG considered these rates to be efficient in accordance with the Code.

ECG acknowledged that construction activity in established areas is more complex than new estates but considered that the level of supervision/overhead in established areas should be proportionate to that in new areas. AGLGN supervision/overhead costs attributed to established areas are approximately 2.7 times that for new estates. ECG considered this to be high and recommended that an efficient rate should not be more than double. This equates to $16.52 per metre for supervision/overheads and $96.04 total cost per metre compared to AGLGN $102 per metre.

The Tribunal in its Draft Decision accepted ECG's recommendation of $96.04 per metre for main laying in established areas. In Section 4.4 of its response AGLGN suggests there is a basic error in ECG's Supplementary Report concerning the cost of supervising mains construction in built up areas.

AGLGN further advised in its response that in preparing the forecast capital costs and in recording actual capital costs, it determined the total supervision costs for all minor capital works and then allocated them to cost categories in proportion to base level costs for each category. Consequently the efficient level of base cost of laying mains in built up areas is more than double the cost of laying mains in new estates, and the supervision cost allocated to built up areas is more than double the level of supervision cost allocated to new estates.

AGLGN correctly states that ECG concurs that the proposed base or direct cost of laying mains in both built up areas and new estates is prudent and efficient and also that the direct cost in built up areas is more than double the cost in new estates.

AGLGN believes that ECG's recommendation that the supervision cost of constructing mains in built up areas should not be more than double the supervision cost of constructing mains in new estates is inconsistent with its acceptance of direct cost relativities. AGLGN states that at face value this recommendation appears reasonable but given AGLGN costing procedures it is invalidly applied by ECG to AGLGN analysis.

AGLGN considers the phenomenon identified by ECG is not a consequence of an inefficient level of cost, but merely a product of AGLGN costing procedures. Furthermore if ECG's recommendation is to be adopted, then the cost of all other minor capital works must be increased to exactly offset the reduction to the cost of constructing mains in built up areas.

2.4.2 ECG's Response and Recommendation

ECG does not dispute AGLGN methodology for allocating total supervision costs for all minor capital works in proportion to base level or direct costs for each category, but this does not obviate ECG's view that the unit total cost (base level or direct cost plus supervision/overhead cost) for laying mains in established areas is high compared to new estates. It is also equal to AGLGN rate for laying I&C mains and ECG considers it should be less because generally the size mains would be smaller and material costs lower.

As stated by AGLGN, at face value ECG's recommendation appears reasonable but is one that cannot be validly applied by ECG to AGLGN's analysis due to AGLGN costing procedures.

ECG has reviewed the recommendation made in its Supplementary Report including the underlying factors. AGLGN response to the Tribunal's Draft Decision has also been carefully considered. Irrespective of the method utilised for allocating total supervision/overhead costs ECG maintains on balance that AGLGN main laying unit cost in established areas is high relative to new areas and I&C and that the supervision/overhead component for established areas does not meet the requirements of section 8.16 of the Code.

In summary, ECG reaffirms the recommendation made in its Supplementary Report.

2.5 REVISED CAPITAL EXPENDITURE SUMMARY

A summary of the revised costs is provided in the tables below. Table 2-7 is the market expansion capital expenditure agreed to by the Tribunal in the Draft Decision.

Table 2-7 Market Expansion Capital Expenditure (Dec 2003 Customer Forecast) ($ m 2004/05)

	2003/ 04	**2004/ 05**	**2005/ 06**	**2006/ 07**	**2007/ 08**	**2008/ 09**	**2009/ 10**	**Total 05/06–09/10**	**Total 03/04-04/05**
Draft Decision[5]	48.5	47.4	50.0	48.5	46.8	46.6	46.5	238.4	95.9

Table 2-8 is the market expansion capital using the same unit rates as in the Draft Decision but with the revised customer numbers. ECG considers that this expenditure meets the requirements of the Code.

Table 2-8 Market Expansion Capital Expansion (June 2004 Customer Forecast) ($ m 2004/05)

	2003/ 04	**2004/ 05**	**2005/ 06**	**2006/ 07**	**2007/ 08**	**2008/ 09**	**2009/ 10**	**Total 05/06 - 09/10**	**Total 03/04-04/05**
Mains	9.9	10.2	12.7	11.9	10.5	10.5	10.5	56.1	20.1
Services	23.8	24.4	25.5	25.2	25.4	25.5	25.6	127.2	48.2
Meters	17.5	15.4	16.5	16.6	16.8	17.0	17.3	84.2	32.9
Total	**51.2**	**50.1**	**54.8**	**53.8**	**52.7**	**53.0**	**53.4**	267.7	101.3

Note: The rows and columns may not add up exactly due to rounding errors.

Table 2-9 expenditure is based on the unit costs sought by AGLGN (except for 2003/04 meters) and the revised customer numbers and is provided for comparison with Table 2-9 (capital expenditure that ECG considers meets the requirements of the Code).

Table 2-9 Market Expansion Capital Expansion (June 2004 Customer Forecast and Supervision) ($ m 2004/05)

	2003/ 04	**2004/ 05**	**2005/ 06**	**2006/ 07**	**2007/ 08**	**2008/ 09**	**2009/ 10**	**Total 05/06-09/10**	**Total 03/04-04/05**
Mains	10.1	10.4	12.9	12.2	10.8	10.8	10.8	57.5	20.5
Services	23.8	24.4	25.5	25.2	25.4	25.5	25.6	127.2	48.2
Meters	17.5	15.4	16.5	16.6	16.8	17.0	17.3	84.2	32.9
Total	51.4	**50.3**	**55.0**	**54.0**	**53.0**	**53.3**	**53.7**	**268.9**	**101.7**

Note: The rows and columns may not add up exactly due to rounding errors.

[5] Table 7.4 and Table 7.7 Draft Decision. Expenditure in 2004/05 in Table 7.6 is shown as half year has been converted to full year. Also the expenditure in 2003/04 of $47.4 m in Table 7.4 has been converted from nominal to 2004/05 dollars.

The difference between the recommended market expansion expenditure in Table 2-8 to the expenditure in the Draft Decision (Table 2-3) is shown in Table 2-10.

Table 2-10Difference between Recommended Market Expansion and Draft Decision ($m 2004/05)

	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	Total 05/06-09/10	Total 03/04-04/05
Mains	0.3	0.6	1.0	1.0	1.2	1.3	1.4	5.9	0.9
Services	0.0	1.0	1.7	2.0	2.3	2.5	2.7	11.2	1.0
Meters	1.4	1.0	2.0	2.2	2.4	2.6	2.8	12.0	2.0
Total	**1.7**	**2.6**	**4.8**	**5.2**	**5.9**	**6.4**	**6.9**	**29.3**	**4.3**

Note: The rows and columns may not add up exactly due to rounding errors.

The percentage increase in expansion capital expenditure as compared to that in the Draft Decision is shown in Table 2-11.

Table 2-11Percentage Difference between Recommended Market Expansion and Draft Decision

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
% capital increase from Draft Decision	3.5	5.5	9.6	10.7	12.6	13.7	14.8
% customer increase	12	8	13	14	16	17	19

Note: The percentage customer increase is comparing the additional customer numbers to the AGLGN 2003 submission as shown in Table 2-6.

As shown in Table 2-11 the percentage customer increase from the AGLGN original December 2003 submission to the Draft Decision ranges from 8 to 19% whilst cost increase varies from 3.5 to 14.8%. The cost is not directly proportional to the increase in customer numbers due to variations in the product mix of customer classes and corresponding unit costs.

3. ADDITIONAL IT EXPENDITURE

In its response to the Draft Decision, AGLGN is seeking to include the costs of the IT expenditure that was omitted from the 2003-revised Access Arrangement submission.

During the Total Cost Review, AGLGN identified this additional IT capital expenditure incurred during the period 2000 to 2004. ECG in its final report considered that $24.9m of this expenditure was consistent with what would be expected of a prudent service provider acting efficiently in accordance with good industry practice. In the response to the Draft Decision, AGLGN indicated that the $24.9m expenditure was made up of annual amounts of $6.8m, $4.8m, $4.0m, $5.6m and $3.7m for the period 1999/00 to 2003/04.

In response to ECG's request, AGLGN provided a spreadsheet showing the list of projects for the $24.9 million referred to in its response. ECG has reviewed the list and confirms that the $24.9 million is for the same items already reviewed by ECG in the Total Cost Study.

In addition, AGLGN in its response to the Draft Decision indicated that the capital expenditure was incurred by AGL Corporate Services Ltd on behalf of AGLGN. As such, the capital should not be rolled into the Regulatory Capital Base for AGLGN.

AGLGN has therefore proposed that a non-capital cost be included in the Cost of Service as an "IT Utilisation Fee" to be incurred by AGLGN through the new Regulatory Period. AGLGN presented calculations of the charge, which give a return of capital and a return on capital having the same effect on the Cost of Service as if the expenditure had been included in the Regulatory Capital Base. These calculations assume no depreciation prior to 2004-05 with the total expenditure of $24.9m depreciated in a straight-line basis from 2004-05 to 2008-09. The annual fee calculated by AGLGN in nominal dollars is $6.478m, $6.256m, $6.018m and $5.765m for the period 2005-06 to 2008-09.

The AGLGN methodology will result in an Utilisation Fee giving the same effect on the Cost of Service as if the capital expenditure had been included in the Regulatory Asset Base at the beginning of 2004-05. ECG believes this treatment means that the return of capital through depreciation will be significantly higher than if the expenditure was treated as incurred in the years actually spent. However, the Tribunal has indicated that AGLGN's treatment of the timing of the investment is consistent with the Tribunal's method of rolling forward the capital base, where actual capital expenditure and the depreciation that was forecast for the current determination period (adjusted for inflation) is used.

The Tribunal has reviewed the AGLGN calculations and has adjusted the depreciation and return on capital figures to reflect mid points of the year rather than end of year figures. This results in a moderate increase in the Utilisation Fee.

4. NON CAPITAL EXPENDITURE

4.1 BACKGROUND

In its Draft Decision, the Tribunal concluded that the AGLGN proposed Access Arrangement must be amended so that the non capital costs for the 5 year period of 2005/06 to 2009/10, used to determine the total revenue and reference tariff, complies with the expenditure in Table 4-1.

Table 4-1 Draft Decision Non –Capital Costs[6]
($m real 2004/05)

	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	Total 05/06-09/10
Operations & maintenance	61.5	62.2	62.5	62.9	63.2	312.3
Admin & Overheads	18.4	18.6	18.7	18.7	18.8	93.2
Market operations	3.5	3.5	3.5	3.5	3.5	17.5
Marketing	16.5	16.5	16.5	16.5	16.5	82.5
Controllable costs	99.9	100.8	101.2	101.6	102.0	505.5
Govt Levies	3.2	3.2	3.2	3.2	3.2	16.0
Retail Contestability	3.9	3.9	3.9	3.9	3.9	19.5
UAG	9.1	8.9	9.0	9.0	9.1	45.1
Total Non Capital	**116.1**	**116.8**	**117.3**	**117.7**	**118.2**	**586.1**

In its response to the Draft Decision, AGLGN submitted that the non capital costs for the next regulatory period must be recalculated to incorporate the revised customer growth and demand forecast. In support of its claim, AGLGN provided ECG with a spreadsheet[7] showing its calculations of the revised controllable costs, which is the only component of the non-capital costs that is adjusted for growth and demand.

AGLGN has based its calculations on the customer numbers and volume growth as shown in Table 4-2.

Table 4-2 AGLGN Revised Customer Number and Additional Load Forecast.[8]

	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10
Customers Numbers	961,554	998,495	1,035,158	1,072,166	1,109,475	1,147,155
% Growth	4%	4%	4%	4%	3%	3%
Volume Growth						
Tariff (TJ)	33,013	34,058	35,111	36,165	37,275	38,406
Contract (TJ)	65,656	65,000	66,238	66,230	66,369	66,608
Total (TJ)	**98,669**	**99,058**	**101,349**	**102,395**	**103,644**	**105,014**

Note: The Tariff (TJ) is based on the additional information provided by AGLGN in February 2005 and is different to that shown in the Draft Decision.

6 Table 9.3 Draft Decision on the Proposed Access Arrangement.
7 AGLGN email dated 10 March 2005.
8 AGLGN email dated 10 March 2005

AGLGN's revised estimate for the controllable costs is shown in Table 4-3.

Table 4-3 AGLGN Revised Controllable Cost Estimate[9]
($m 2004/05)

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Total 05/06-09/10
Operations & maintenance	61.4	61.7	62.6	63.1	63.6	64.1	315.2
Admin & Overheads	18.3	18.4	18.7	18.8	19.0	19.1	94.0
Market operations	3.5	3.5	3.6	3.6	3.6	3.7	18.0
Marketing	16.5	16.6	16.9	17.0	17.2	17.3	85.0
Controllable costs	**99.7**	**100.3**	**101.7**	**102.5**	**103.4**	**104.2**	**512.2**

In Table 4-1, the Draft Decision's total controllable costs for the period 2005/06 to 2009/10 is $505.5m as compared to AGLGN's revised estimate of $512.2m (difference of $6.7m).

4.2 REVIEW OF THE ADDITIONAL CONTROLLABLE COSTS

In the 2000 Access Arrangement Decision, the Tribunal accepted that growth in customer numbers and gas demand have an impact on the controllable components of the non capital costs. To determine the controllable expenditure components, the Tribunal used an approach that allowed for 50% of the increase in customer growth and gas demand and adjusted for the efficiency factor.

During the total cost study, ECG has reviewed AGLGN non capital costs and in reaching a recommendation on the efficient expenditure that meets the Code has also adopted an approach that recognises the increase in customer numbers and gas demand, adjusted for an efficiency factor. The Tribunal has then used this advice to determine the Non Capital Expenditure in the Draft Decision.

ECG therefore acknowledges that as the customer numbers and gas demand used in the initial calculation were based on the AGLGN 2003 submission, there is merit in reviewing the impact on the efficient cost given that both the customer numbers and the gas demand have now been increased.

ECG has therefore reviewed the methodology adopted by AGLGN in forecasting its revised controllable costs to determine if it meets the requirements of the Code.

To calculate the revised costs for the period 2005 to 2010, AGLGN has used as the starting point, the controllable cost for 2004. The cost is then adjusted for 50% of the revised customer numbers and gas demand provided in February 2005, less the efficiency factor of 1.5%.

AGLGN has calculated the "efficient" controllable cost for 2005 by adopting the Draft Decision controllable cost for the year 2005 (shown in Table 4-1) and adjusting the cost back to 2004 using the factors derived from the 2003 December customer and gas demand.

As AGLGN has adopted a similar approach to that used by ECG during the Total Cost Study, ECG concurs with this methodology. In addition, ECG has also separately verified the calculation of the AGLGN escalation factors including the customer numbers and gas demand forecast.

[9] AGLGN email dated 10 March 2005

4.2.1 Customer Numbers

The discussion on the increase in customer numbers has been included in Section 2. However for the purpose of analysing the controllable costs, ECG has presented the customer numbers in Table 4-4.

Table 4-4 AGLGN's Customer Numbers February 2005

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Feb 2005 Submission	927,214	961,553	998,495	1,035,158	1,072,166	1,109,476	1,147,155
Percentage Increase (%)		4	4	4	4	3	3

ECG has accepted the customer numbers provided in February 2005 for the calculation of the controllable costs. These customer numbers are the same as those accepted by the Tribunal in the Draft Decision.

4.2.2 Demand Forecast

In December 2003, AGLGN submitted its forecast of the gas demand for the forecast period shown in Table 4-5.

Table 4-5 December 2003 AGLGN Demand Forecast (TJ)

Dec 2003 Submission	**2003/04**	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**
Tariff market load							
Residential	21,058	21,827	22,640	23,460	24,287	25,122	25,965
Business	11,153	10,936	10,953	10,969	10,986	11,000	11,014
Sub total	**32,211**	**32,763**	**33,593**	**34,429**	**35,273**	**36,122**	**36,979**
Contract - ACQ	66,014	65,756	65,097	66,340	66,287	66,439	66,695
Total load	**98,225**	**98,519**	**98,690**	**100,769**	**101,560**	**102,561**	**103,674**

In June 2004, AGLGN resubmitted its forecast that was accepted by the Tribunal in the Draft Decision. The revised forecast is shown in Table 4-6.

Table 4-6 Draft Decision Demand Forecast (TJ)

June 2004 Submission	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**
Tariff market load					
Residential	22,975	23,999	25,039	26,094	27,168
Business	11,109	11,159	11,166	11,213	11,262
Sub total	**34,084**	**35,158**	**36,205**	**37,307**	**38,430**
Contract - ACQ	65,000	66,238	66,230	66,369	66,608
Total load	**99,084**	**101,396**	**102,435**	**103,676**	**105,038**

Note the Draft Decision has only included the customer demand for the next Access Arrangement period.

However, the gas demand forecast (Table 4-7) provided by AGLGN in its spreadsheet in February 2005 is different to the Tribunal's Draft Decision gas demand forecast.

Table 4-7 AGLGN February 2005 Demand Forecast (TJ)

February 2005 Submission	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Tariff market load	32,172	33,013	34,058	35,111	36,165	37,275	38,406
Contract -ACQ	65,914	65,656	65,000	66,238	66,230	66,369	66,608
Total load	**98,086**	**98,669**	**99,058**	**101,349**	**102,395**	**103,644**	**105,014**

The difference between the Tribunal's Draft Decision and the revised February submission could be due to AGLGN's assertion on the effect of the introduction of the water saving devices. As this is the subject of a future separate study, ECG proposes to adopt the AGLGN February 2005 gas demand for this review.

The percentage increase in gas demand is shown in Table 4-8.

Table 4-8 Increase in Demand Forecast February 05

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Feb 2005 total load	98,086	98,669	99,058	101,349	102,395	103,644	105,014
% Increase		0.6	0.4	2.3	1.0	1.2	1.3

4.3 SUMMARY OF NON CAPITAL COST

ECG has verified the escalation factor for calculating controllable costs by:

1) Add the percentage increased customer numbers (Table 4-4) with the percentage increased gas demand (Table 4-8).

2) The sum is multiplied by 50% (to reflect that the increases has only a 50% increase on the controllable costs)

3) This increase adjusted by the efficiency factor of 1.5% makes up the escalation factor as shown in Table 4-9.

Table 4-9 Calculation of Escalation Factors

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Customer Increase %	4	4	4	4	3	3
Demand Increase %	0.6	0.4	2.3	1.0	1.2	1.3
Escalation Factor	1.006	1.006	1.014	1.008	1.008	1.008

As ECG has verified the escalation factors and has also concurred with the methodology adopted by AGLGN, ECG considers that the controllable expenditure presented by AGLGN in February 2005 meets the requirements of the Code.

The recommended non capital expenditure, which includes the controllable costs is presented in the table below.

Table 4-10 Recommended Non Capital Cost
($m 2004/05)

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Total 05/06-09/10
Controllable Costs							
Operating and Maintenance	61.4	61.7	62.6	63.1	63.6	64.1	315.2
Administration Overheads	18.3	18.4	18.7	18.8	19.0	19.1	94.0
Market Operations	3.5	3.5	3.6	3.6	3.6	3.7	18.0
Marketing	16.5	16.6	16.9	17.0	17.2	17.3	85.0
Total controllable	**99.7**	**100.3**	**101.7**	**102.5**	**103.4**	**104.2**	**512.2**
Govt Levies	3.2	3.2	3.2	3.2	3.2	3.2	16.0
Retail Contestability	3.9	3.9	3.9	3.9	3.9	3.9	19.5
UAG	9.1	9.1	8.9	9.0	9.0	9.1	45.1
Total Non Capital	**115.9**	**116.5**	**117.7**	**118.6**	**119.6**	**120.4**	**592.8**

5. STAKEHOLDER'S COMMENTS ON OPERATIONS AND MAINTENANCE EXPENDITURE

In its response to the Draft Decision on 28 February 2005, Orica said that it disagreed with the Tribunal's decision of a real efficiency saving of 1.5% in comparison with the 3% target set by the Tribunal at the last Access Arrangement.

Orica supports the arguments of Energy Australia and EMRF for additional efficiency gains given the following:

- The allocation of Opex that should result from the dramatic increase in Capex allocation represents no structural or systematic operating prudency on the part of AGLGN.
- Such reductions are expected and monitored in any commercial managed organization.
- Comments made by ECG that:
  "AGLGN's proposed capital expenditure on system reinforcement, renewal and replacement should result in a higher proportion of the remaining ferrous network being rehabilitated during the proposed Access Arrangement period…."

In addition, Orica also said that it cannot support the Tribunal's finding that AGLGN should receive an additional $3.5m (real 2005) per year for undertaking market operation which is one of the essential functions of the network operator as defined by the Gas Retail Market Business Rules to support Retail Contestability in Gas.

During the total cost study, ECG concluded that 1.5% real cost reduction is consistent with section 8.37 of the Code. ECG took into consideration that the productivity gain in the electricity, gas and water sector has decreased since the nineties[10] and that 1.5% would be within the range of what is expected from a prudent service provider.

ECG recognises that AGLGN capital expenditure for the Access Arrangement period from 2005/06 to 2009/10 has increased significantly from the current Access Arrangement period. It can be seen from Table 5-1 that 52% of the expenditure is for market expansion and 39% of the capital expenditure is for reinforcement and renewal. The major proportion of the reinforcement and renewal expenditure is considered to be consistent with the Code for safety and regulatory compliance requirement (such as metering replacement program).

The major expenditure for non-system asset is in IT and also vehicle replacement. The capital expenditure for vehicle replacement is part of AGLGN's ongoing replacement policy and the IT expenditure has been assessed as required to replace legacy technologies.

In addition, another factor that would affect AGLGN's controllable costs is the requirement to comply with a number of Codes and Standards (e.g. Pipeline Code). This would have an effect on AGLGN's ability to significantly reduce its operating cost.

Given that an efficiency factor of 1.5% is within the range expected in the utilities industry, ECG concluded that the efficiency factor of 1.5% would be within the requirements of the Code.

[10] Page 97 ECG report on the Access Arrangement

Table 5-1 Draft Decision Approved Capital Expenditure[11]
($m 2004/05)

	2005/06	2006/07	2007/08	2008/09	2009/10	Total	
Market Expansion	50	48.5	46.8	46.6	46.5	238.4	52%
Reinforcement/Renewal	59.9	40.2	37.4	23.2	17.1	177.8	39%
Non System Asset	8	8	8	9.2	9.7	42.9	9%
Total	117.9	96.7	92.2	79	73.3	459.1	100%

In relation to the gas market operations cost, ECG believes that the cost of the activity referred to by Orica under the Gas Market Retail Rules is covered under the item Retail Contestability in Table 9.3 of the Draft Decision of the Proposed Access Arrangement.

The cost claimed by AGLGN in relation to market operations is for the management of the following functions[12]:

- Management of Load Shedding
- Monitoring of the Gas Quality
- Gas Balancing
- Type B appliance approvals.

AGLGN indicated that the cost for these activities was overlooked when determining the efficient costs during the current Access Arrangement period. ECG is aware that the benchmarking exercise carried out for the current Access Arrangement took into consideration the distributors' costs in Victoria. In Victoria, VENCorp and the Office of Gas Safety carry out the activities listed above and hence the distributors' costs will not reflect these operations.

ECG then concluded that these costs might have been overlooked during the benchmarking exercise. However, ECG in reviewing the cost for these activities concluded that the costs of $4.2m did not meet the Code's requirements and recommended that a cost of $3.5m would comply with 8.37 of the Code.

[11] Table 7.7 Draft Decision on the Proposed Access Arrangement
[12] Pg 99 ECG Review of the Proposed Access Arrangement.