Energy Users Coalition of Victoria

Australian Energy Regulator

Victorian Gas Transmission Revenue Reset

GasNet Application and AER Issues Paper

A response

by

The Energy Users Coalition of Victoria

August 2007

Assistance in preparing this submission by the Energy Users Coalition of Victoria was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

The content and conclusions reached are the work of the EUCV and its consultants.

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Executive Summary

The EUCV welcomes the opportunity for presenting its views on the application from GasNet for a reset of the gas transmission costs in Victoria, and to the AER Issues Paper. The EUCV apologizes for its submission being a little after the time set by the AER. The current energy 'reform' agenda is so overwhelming that resources available to major consumers are considerably stretched.

At a high level, the EUCV notes that the costs for providing the gas transmission system in Victoria are set to **rise significantly** based on the GasNet application. In nominal terms, GasNet advises that costs will rise significantly by over 30%, or a real annual increase of over 10%, after allowing for inflation.

This is a massive increase, given that the amount of projected gas actually to be consumed is to **fall** from 2006 levels in both total volume and peak demand. It is forecast that annual volume and peak demand will not exceed the 2006 quantities until 2012.

Rather than develop a response which provides significant detail regarding the GasNet application, the EUCV has elected to provide a series of observations which it believes will provide some triggers for AER/ACCC review before issuing a draft decision.

1. Introduction

1.1 The EUCV

The Energy Users Coalition of Victoria (EUCV) is a group representing large energy consumers in Victoria. The EUCV is an affiliate of the Major Energy Users Inc (MEU), which together comprise some 20 major energy using companies in NSW, Victoria, SA, WA, NT, Tasmania and Queensland.

The EUCV welcomes the opportunity to provide comments on the AER's review of the revenue reset for the Victorian gas transmission system.

Analysis of the gas usage by the members of EUCV (and MEU affiliates in Victoria) shows that in aggregate they consume a significant proportion of the gas used in Victoria. As such, they are highly dependent on the transmission network to deliver efficiently the gas so essential to their operations. Being heavily dependent on suppliers of hardware and services, members also have an obligation to represent the views of their local suppliers. With this in mind, the members require their views to not only represent the views of large energy users but also those of smaller gas using facilities, and even of the residences used by their workforces.

The companies represented by the EUCV (and their suppliers) have identified that they have an interest in the **cost** of the energy networks services as this comprises a large cost element in their electricity and gas bills.

Although gas is an essential source of energy required by each member company in order to maintain operations, a failure in the supply of electricity and gas effectively will cause every business affected to cease production, and members' experiences are no different. Thus the **reliable supply** of gas and electricity is an essential element of each member's business operations.

With the introduction of highly sensitive equipment required to maintain operations at the highest level of productivity, the **quality** of energy supplies has become increasingly important with the focus on the performance of the distribution businesses because they control the quality of electricity and gas delivered. Variation of electricity voltage (especially voltage sags, momentary interruptions, and transients) and gas pressure by even small amounts now has the ability to shut down critical elements of many production processes. Thus member companies have become increasingly more dependent on the quality of electricity and gas services supplied.

Each of the businesses represented by EUCV has invested considerable capital in establishing their operations and in order that they can recover the capital costs invested, long-term **sustainability** of energy supplies is required. If sustainable supplies of energy are not available into the future these investments will have little value.

Accordingly, EUCV (and its affiliate MEU) are keen to address the issues that impact on the **cost, reliability, quality** and the long term **sustainability** of their gas (and electricity) supplies.

The members of EUCV have identified that transmission plays a pivotal role in the gas market. This role encompasses the ability of consumers to identify the optimum location for investment of its facilities. Equally, consumers recognise that the cost of providing the transmission system is not an insignificant element of the total cost of delivered gas, and due consideration must be given to ensure there is a balance between these two competing elements.

1.2 A summary view of the GasNet application

Putting aside for the moment the detail of the elements which comprise the application from GasNet, the outcome of the application is that over the period of the reset, gas transmission tariffs will rise significantly by over 30%, or a real annual increase of over 10%, after allowing for inflation.

This is a massive increase, given that the amount of projected gas actually to be consumed is to fall from 2006 levels in both total volume and peak demand. It is forecast that annual volume and peak demand will not exceed the 2006 quantities until 2012.

The ostensible reasons for this increase are stated as being:-

- Increased capital expenditure to manage increases in demand
- Increased costs due to the shortage of skilled labour
- Increased costs due to increased material costs
- Increased capital expenditure to replace many ageing assets
- Lack of investment by the previous government controlled entity.
- Increased maintenance costs due to the age of existing assets
- Increased maintenance costs due to labour costs.

Despite an application seeking significant across the board cost increases, there is almost no suggestion that there is any prospect of any reductions in costs, including efficiency savings. Competitive industries such as our members are continually driven to reduce the costs of producing their products, yet regulated

businesses seem to depart from the competitive norm by adopting what appears to be a 'historic cost plus increase' culture.

Against this background, we consider that the AER has a clear responsibility to ensure a certain amount of discipline is placed on GasNet and that all claimed costs can be justified and are economically efficient.

1.3 The helicopter view

The EUCV is unable to accept that the proposed increases in costs can be justified where assessed against a background of a fall in consumption. Equally, we accept that the applicant has provided arguments in support of each element of their claimed cost increases. In a competitive world, senior management of a business must and do take a view that any claimed increase in cost must be controlled in light of the potential implications for the businesses' competitive position. In the regulated energy sector, however, legislation has provided the AER with the role of providing this discipline, and so it must ensure that the resultant outcomes are in keeping with what can be expected from the discipline of competitive drivers.

At its most fundamental level, an increase in price of nearly 30% over a 5 year period cannot be sustained by any competitive business.

A consistent complaint raised by infrastructure owners has been the lack of investment by previous government owners. It is now 10 years or more since the Victorian government exited ownership of the assets to transport gas and electricity. Regulators have already undertaken at least one reset review, effectively granting the GasNet much of what was requested in terms of capex, and opex. Performance by GasNet over the regulated periods since has been acceptable, yet the funds granted at the last review seem now to be insufficient, supposedly warranting a significant increase. The businesses have all continued to be financially viable, yet more revenue is being sought.

1.4 The materiality of transmission costs

It is clearly stated by GasNet at the last review that of all the costs that consumers incur from the gas supply chain, gas transmission charges are the least, and as a result GasNet queried why there was so much effort directed at reducing their claims. Further, GasNet pointed out that transmission costs are effectively hidden from most consumers when they are rolled into distribution network charges.

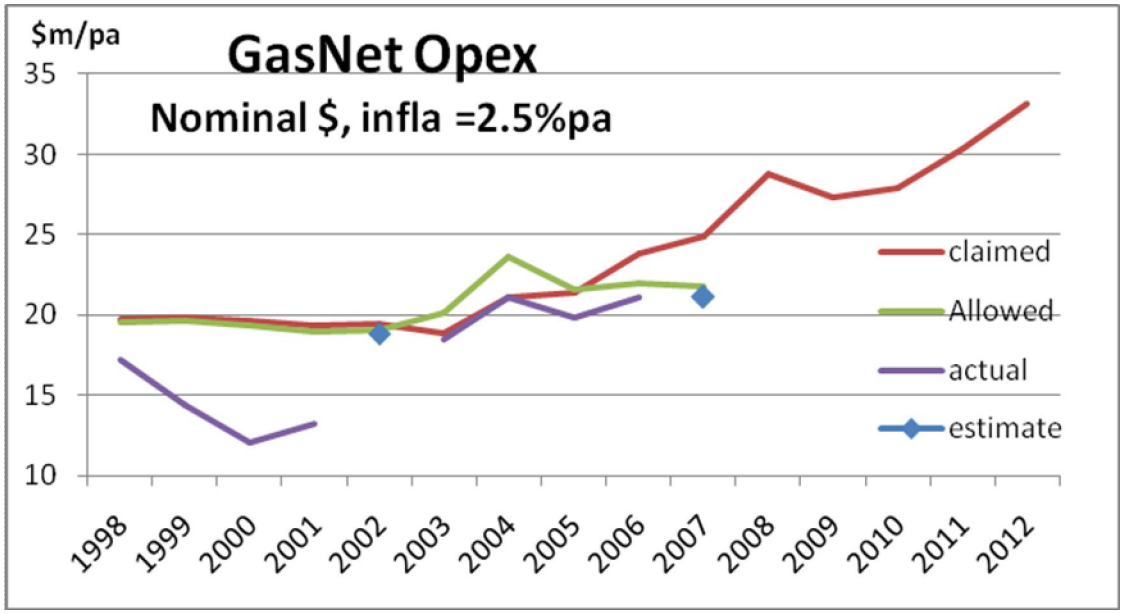
Notwithstanding the above, transmission costs can be significant, and the further a consumer is to the transmission supply point and the larger the demand of the

consumer, the more significant transmission costs can become. It is, therefore, essential that transmission costs are not treated as insignificant, and are addressed in a comprehensive manner.

GasNet intends to expend some $355m of capital over the next 5 years. This needs to be compared to its current RAB which is about $500m, depending on the amount of capex incurred in 2007. Interpreted in this way, GasNet intends to increase the regulatory asset base by some 70% over the next 5 years, yet it is projected that there will be less gas and less demand than GasNet carried in 2006. Regardless of how this is put, the amount of capex is not insignificant.

2. Issues for AER/ACCC to consider

2.1 Opex



Source of input data: ACCC, GasNet reports
Analysis by EUCV, allowing for additions of SW pipeline and interconnect

Points to consider:

- GasNet forecasts for opex have been consistently high compared to actual
- Data for 2002 has not been provided to compare actual to forecast
- GasNet forecasts for 2003-2007 are significantly higher than forecast
- Actuals for 2003-2006 shows some degree of consistency, averaging about $20m pa in nominal terms. This should be the base for future opex, allowing for defined step changes in scope
- There is a massive capex program, which should result in some opex decrease (especially capex for replacement).

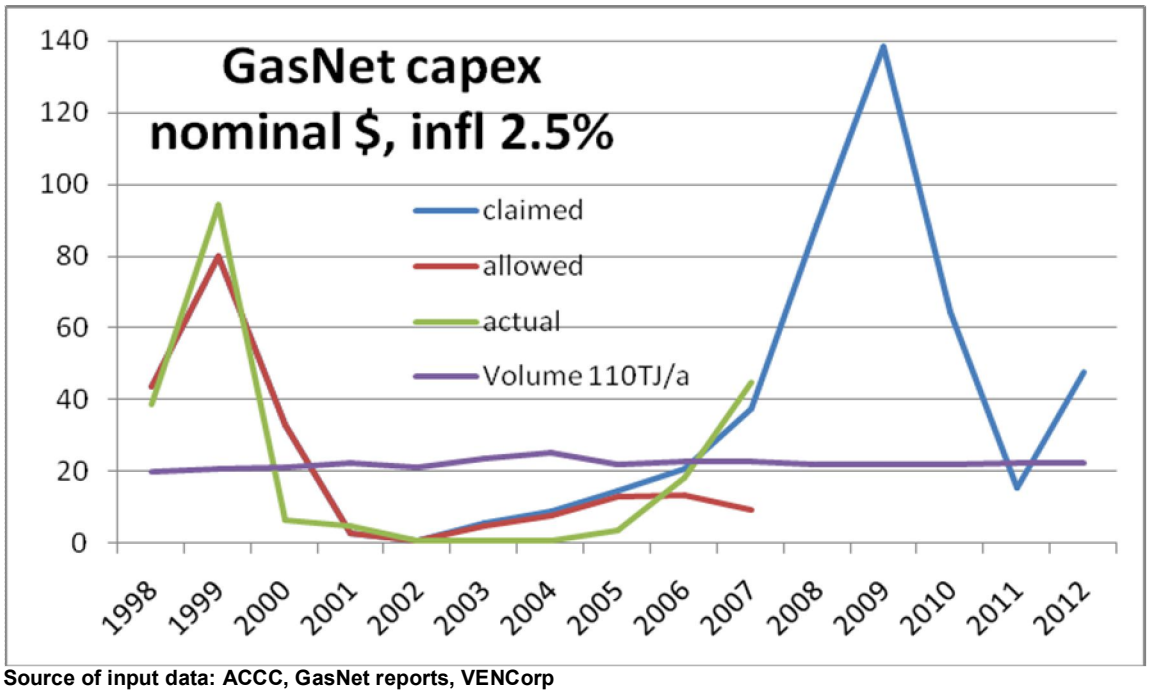
2.2 Capex

The AER should be aware that under a building block approach:

- Depreciation and opex, are recovered on a cost basis and theoretically have no profit attached to them
- Pass throughs have no profit for a NSP attached to them
- Efficiency carry over has no profit attached to it and declines over time

- Achieving performance standards has a profit element but is not a secure source of profit
- The bulk of a NSP profit comes from the WACC which is a return on assets

Therefore a TNSP is actively incentivised to increase the assets being regulated (ie initiate capital expenditure) to increase its profits



Source of input data: ACCC, GasNet reports, VENCorp
Analysis by EUCV, allowing for additions of SW pipeline and interconnect

Points to consider:

- GasNet has proposed that it capitalize the costs associated with the restructure resulting from its acquisition by APA. This raises two points
  - The decision of APA to acquire GasNet was not made to benefit consumers, but GasNet and APA shareholders. In the absence of the acquisition, there would not have been any acquisition costs to recover. EUCV asks why should consumers be required to pay any of the costs for acquisition, as they receive no benefit from the acquisition.
  - Capitalizing the costs results in an increase in the RAB. This in tern allows GasNet to claim a return on this amount over the long term.
- GasNet has generally used capex as approved or less than allowed, except for its forecast for year 2007

- There is no demonstrable prudency of the augmentation works proposed (eg at a macro level there is no net increase in demand as a result of the proposed augmentation works)
- There is no detail to show that the costs to increase coverage by augmentation will be offset by the increased revenue that will flow from the individual elements allowing the increased coverage
- It is alleged that the augmentations have been approved by VENCorp as the transmission planning authority. This does not relieve the AER/ACCC from independently assessing the prudency of the augmentations.
- There is no demonstration of the step changes which warrant the massive increase in capex
- It appears that GasNet has proposed an increase in its capex to increase its profits
- There is an inter-relation between opex and capex, particularly for replacement capex. As GasNet has also sought a major increase in opex, it does not appear that there has been any offsetting reduction opex to reflect the increased capex.

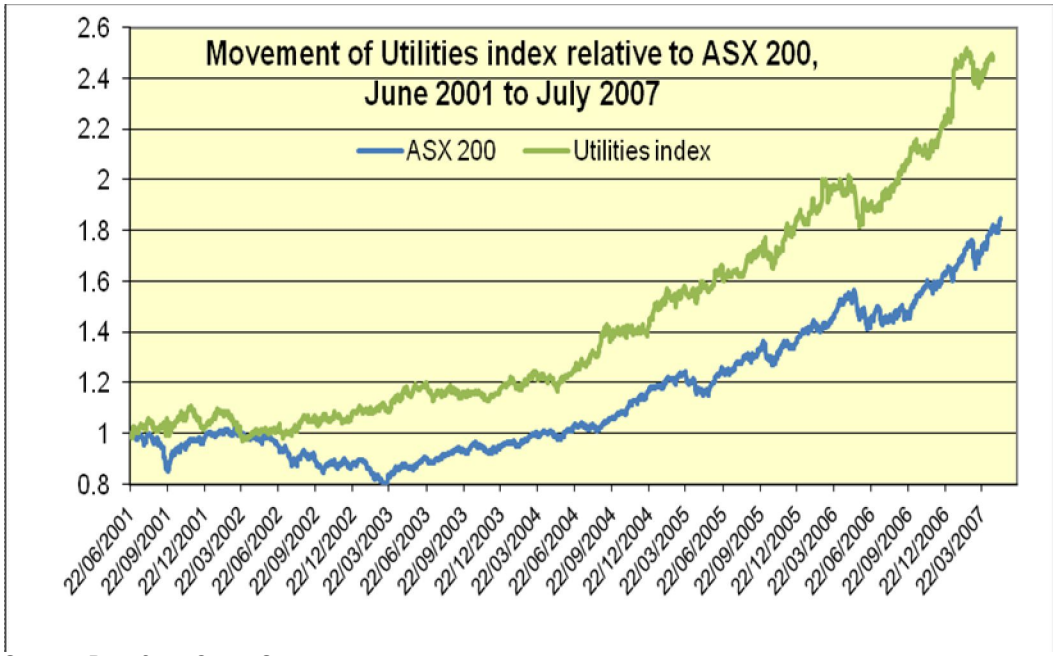
2.3 Return on assets

2.3.1 Outperformance of Utilities

It is interesting but expected that regulated businesses will only provide information where there might be distortions in the market which have the potential to provide higher rewards. We no longer see the regulated businesses point to the "Tech boom" which supposedly distorted the market and supposedly provided an under valued equity beta. Since the end of the "Tech boom" there has been little movement in the equity beta for Utilities, despite the "Tech boom" losing all its impact in 2001. There was no protest when this was over, and it was demonstrated that much of the so-called "Tech boom" impact was seen as having little impact on the Utilities' equity beta.

Since that chart was developed, as at 18 June 2007, CommSec shows that the "All Ords" asset beta has moved from 1.02 in late January 2007 to 1.05 in mid June, with the "All Ords" dividend yield moving from 3% to 3.4%, an increase of 13%. At the same time the Utilities sector asset beta has remained static at 0.37, but the dividend yield has moved from 4.1 to 5.8, an increase of 41%!

Further, as shown in the following graph, the Utilities sector has consistently out performed the benchmark (ASX 200) by some over 40%!



Source: Data from CommSec

The basic assumption of CAPM is that the long term average of the market as a whole is that the MRP is 6%[1]. MRP is the benefit that an investor will achieve from dividends plus share growth above the risk free rate. This means that if MRP is 6%, and dividend yields are 3%, the share value growth is 3% plus the RFR, creating an overall growth of 6% above the RFR.

The consistently higher dividend yield of Utilities (appendix 1 to appendix A indicates that the yield of Utilities is consistently some 125 basis points above that of the market average) and there is a consistent out performance of the share value of Utilities compared to the market average. When these two observations are taken together, this provides a clear indication that the Utilities are experiencing a market risk premium higher than the market average. As the Utilities index is heavily biased to regulated businesses, this supports a view that there is a significant disconnect between the WACC awarded by regulators and the earnings from investing in shares based on the market average.

[1] This value of 6% has been addressed and disputed by a number of independent studies and the recent 30 year average is much less than this as calculated by RR Officer and others.

The AER/ACCC must now recognise that the WACCs awarded to regulated businesses use inputs that have resulted in this massive market outperfomance. The only way to address this by regulators is to carryout a deep analysis of the inputs used in CAPM so that they can be adjusted to result in returns which match the average of the market, rather than significantly outperform it.

2.3.2 Equity beta

GasNet seeks an equity beta of 1.0 using a notional 60% debt 40% equity business. This is too high.

The CommSec has recently assessed the utilities index to have an asset beta of 0.37 at a gearing of 104% debt/equity, (see appendix 1 to appendix A). As can be seen this asset beta is significantly higher in recent months than that assessed over earlier times. If the earlier data was used then the

Using the Monkhouse formula for assessing equity beta, this latest CommSec assessment gives an equity beta for Utilities of 0.7.

In appendix A there is an extract of work by Lally for the SA Treasury. In that Lally estimates ETSA should have an equity beta of 0.8. The range of asset betas and equity betas used by Lally in his advice to the SA Treasury are consistent (even lower) with the CommSec value used above. Lally opines that a gas equity beta is lower than an electricity equity beta (see table on page 22 of appendix A), and that the average gas equity beta is about 0.55.

As there is now a historically relevant index to use for assessing equity beta (unrelated to specific businesses) this should be used as the source of CAPM inputs for developing the assessment of the notional infrastructure business.

In particular there is now a body of evidence that shows an equity beta of 1.0 for gas and electricity utilities is too high, and that an equity beat of 0.80 or lower is demonstrably correct.

2.3.3 Assessment of RFR in relation to the market

GasNet provides work by NERA disputing the current use of “headline” 10 year government bonds as the risk free rate.

The value of government bond rates is set by the open market after valuing a wide range of inputs and discretion of potential purchasers and buyers of these securities. From the market value assessed for purchasing specific bonds of a fixed face value, a yield is determined. This yield is the bond rate.

The NERA papers imply that the market is incorrect in the way bonds are valued, and that this error has the impact of increasing the yield for those bond, or alternatively over stating the purchase price of the bonds when being traded. If an open market sets the purchase price for a bond, then this is the value the market has set, not a different value.

There will always be reasons for increases and decreases in values of securities – some well founded and others entirely speculative. These reasons will have varying degrees of volatility and therefore will impact on the outcomes. At the behest of TNSPs and others NERA has developed a theory that bonds are currently over priced and that therefore the resultant yields are understated, warranting an increase in the stated yield to an apparent yield.

Investment managers have consistently developed theories as to why their particular approach did not work as intended. For example, equity betas in the late 1990s were supposedly depressed as a result of the "Tech boom". Subsequent monitoring since has demonstrated that this outcome was limited in impact, if there was one at all. **As a result investments are assessed over the long term rather than just addressing transient anomalies in the market.**

It should be noted that if long term averages are measured against short term movements then there will always be periods when the market is understating the long term average. The corollary of this observation is that there must be times when the reverse occurs, when the market overstates the long term average.

If NERA is correct in that bond values are currently being over stated, then there will be a time when the market will be undervaluing them, so that in the long term these movements will be averaged out. Alternatively the market for trading bonds is wrong, and many bond traders are consequently equally wrong.

As an example of these transient anomalies, the EUCV points to the valuing of market risk premium. The long term average of MRP has been assessed as 6% although it is accepted that MRP has been both lower

than this and also higher. The AER has to decide whether it will introduce short term adjustments to the bond rates, or continue with current practices.

This point is significant as MRP is essentially the difference between the share market accumulation index change and the corresponding yield on government bonds. If the bond yield is incorrect and should be higher then it equally implies that the MRP is too high and should be reduced. As the long term MRP has been set using government bonds as published, then to change from this approach introduces the need to assess the value of bonds used for all historical analysis.

If the current assessment of bonds is a short term issue, then this has to be assessed in terms of the MRP being overstated at times as well.

2.3.4 Other WACC parameters

GasNet has requested that the WACC parameters are MRP = 6%, credit rating = BBB, gamma = 0.5, and gearing is 60% debt. In its consultant's report this suggests that MRP should be 7%, and gamma 0.

The EUCV has provided data to the AER/ACCC that MRP = 6% is on the high side when compared to the lower amounts calculated by R R Officer as the average of the past thirty years.

We note that GasNet's owner (APT) has a gearing of 68% debt (source CommSec) since it acquired GasNet and therefore assuming a lower gearing will provide a greater return on equity for APT. Equally if APT had a lower gearing then the credit rating it claims of BBB would be higher. Accordingly the AER/ACCC should assess the credit rating on a notional business having a gearing of the claimed 60% debt.

2.3.5 Conclusions

There is no basis for a regulated business to get an even larger WACC than is intended by the regulator, using published government bonds to set the risk free rate, and a credit rating commensurate with gearing at 60%.

The EUCV also points out that the out performance of Utilities is probably related to regulators consistently providing regulated businesses with a higher WACC than would be earned in a competitive environment.

The EUCV considers that the AER/ACCC should assess the WACC parameters with reference to the observed out-performance of Utilities

2.4 The roll forward value of the asset base

The roll forward of the asset base is a "mechanical" exercise, providing that the allowed depreciation is based on agreed bases, and that the actually incurred capex is demonstrably prudent and efficient.

The EUCV expects that the AER/ACCC and its consultants will make a detailed assessment of actual capex to ensure that prudency and efficiency can be demonstrated.

2.5 Future cost increases

GasNet has observed that amongst the reasons for such large increases in opex and capex are matters related to material cost and labour cost increases. Additionally, GasNet points out that its network is old and needs replacing. These issues are examined below.

2.5.1 Inflation expectation - labour

Over the past decade labour rates have risen by an average of 5.3% pa[2]. Since 2002 when the last reset was performed wages have risen by 5.0%. The implication of this data is that wages of late have risen by less than earlier in the decade. It is of concern that GasNet implies that wages will massively increase above this historical rate regime, as the same pressures have been present for 2005 and 2006, yet the actual wages have not risen excessively.

In particular, there is a wide held belief that there is a shortage of skilled labour, resulting in large increases in labour costs. This shortage might well have an impact on some elements of the GasNet cost structure, but this is not a justification for implying that all labour is scarce, and that costs for all labour has risen excessively.

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[2] RBA G6

The AER/ACCC is requested to assess such claims in keeping with the actual independent data available, and that there is a considerable mix of labour which constitutes the GasNet work force.

2.5.2 Inflation expectation - materials

The increase in CPI over the past five years period has been 14.5% or 2.9% pa[3]. Thus materials purchased in 2001 for $100 would now be expected to cost $114.5 in 2006.

Reference to the RBA statistical table G3 shows that construction material output prices have risen by 28.9% (5.8% pa) over the same period. These prices show that materials such as steel, backfilling, concrete, excavation and other materials have grown faster than CPI by about 3% pa.

This relatively modest increase premium does not provide much support for the increases claimed by GasNet for its opex and capex.

2.5.3 Imported materials

Not all material used in the gas pipeline industry are sourced from Australian manufacturers and are imported. In this regard it must be noted that the Australian currency has risen significantly against most other currencies since the last reset, thus reducing the cost of imported materials.

The following table is based on RBA data.

$A buys	USD	TWI	EUR	JPY	GBP
average of first six months of 2002	0.5347	51.8740	0.5954	69.2730	0.3701
average of first six months of 2007	0.8064	65.9199	0.6067	96.6713	0.4095
% increase in $A	51%	27%	2%	40%	11%

Source: Derived by EUCV from RBA data

[3] RBA table G2

The table indicates that the buying power of Australian businesses for overseas goods has increased dramatically since the last reset. Input from EUCV and MEU members provides an observation that as their products have become less internationally competitive with the rising $A, so have imports used by SPA and other regulated businesses reduced in price when purchased.

There is a view that the $A will remain high (or even rise further) as a result of relatively higher interest rates in Australia. When the impact of this is compounded with the expected continuing high exports of resources (for which when there is high demand, has historically driven the $A higher) there is an expectation that the current levels of the $A will remain or even increase. Thus there is an expectation that for a considerable share (if not all) of the next reset period there will be a continuing high purchasing power of the $A.

2.5.4 Conclusions

As pointed out above, the data provided by GasNet might well be somewhat misleading and its veracity is dependent on assessing the many inputs that go into the materials mix used by them.

The AER should examine this information much more closely, and in preference to using data provided by GasNet, it should use data independently developed such as that from the ABS, the RBA or from a range of supplier sources.

Where it can be demonstrated that for specific items costs have grown excessively, then there is a case for analysing the fundamentals for these specific items, and considering them in the context of the overall cost make up of materials and equipment needed by GasNet.

EUCV therefore believes a much more balanced approach to assessing capex and opex is needed bearing in mind that there is considerable doubt as to the validity of the GasNet view there have been large increases in the costs to supply material used by them, causing them to increase dramatically their capex allowances.

2.6 Tariff construction

GasNet has proposed a number of changes to its tariffs, and the development of them. It is a fundamental elements of the Gas Code, that tariffs must be as cost

reflective as is reasonably possible. There is little attempt to demonstrate that tariffs are cost reflective but there are significant changes made to the current tariff structures. The AER/ACCC must ensure that GasNet does demonstrate that tariffs are cost reflective.

The PTS (and SWP) is to be used as a tool to provide exports of gas to other regions. It is questioned whether Victorian gas consumers should be required to fund assets which provide little benefit to them. If GasNet is of the view that the3se assets do provide a benefit to Victorian gas consumers, then this should be clearly explained.

Some of the assets in the PTS and SWP are seen to provide increased security of supply of gas to Victorian consumers. However the assumption is made that all Victorian gas consumers will benefit from this increased security. The EUCV has members[4] that will, in the event of a major gas shortage, be constrained off gas supply. It is therefore questioned whether tariffs for large gas consumers should be discounted as they are unlikely to benefit from increased gas security by gas now being supplied from SW Victorian and Culcairn.

There is significant expansion of the gas transmission system being proposed to accommodate the short term demands placed on the gas system by gas fired generation. Historically large gas consumers have had a high load factor for their gas usage, yet the impact on seasonal gas demand and for electricity generation, has resulted in a gas transport system which is now sized to manage a significantly more volatile gas demand.

This volatility is not caused by large consumers yet they are expected to pay for assets to allow for this increase. As they do not cause the need to accommodate these short term but high peaks in demand, it is questioned whether there is a need for introduction of gas transportation tariffs which are related to usage by those users who impose high but transient demands on the network.

The current approach by GasNet seems to be a “one size fits all” approach which provides a windfall benefit to high but transient (low load factor) users of the network to the detriment of the high load factor users. Overall the EUCV is of the view that there has been little attempt by GasNet to:-

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[4] For example, a large user in the east of the state is unlikely to benefit from the provision of Culcairn, SWP and the Corio loop. In the event of a loss of supply from Longford, there is insufficient capacity from other sources to make up all of the gas lost ex Longford. In such a circumstance, the large consumer will be constrained off, and therefore they will be get the benefit of the increased security afforded by the other sources.

- ensure cost reflectivity in tariffs
- allocate costs to those who benefit from specific assets
- identify those consumers who may not be able to benefit from certain assets that have been provided

Simplification of tariffs is not an adequate excuse to move from cost reflectivity of tariff development, unless it can be clearly demonstrated that simplification does not result in significant cross subsidization and the cost benefits from simplification are commensurate with the out-turn penalties the resultant cross subsidization might cause. As there has been no attempt to demonstrate this (and opex has risen considerably) there would appear to be little reason not to require cost reflectivity in tariff development.

It is recognised that it is demand that causes the need for investment. Currently tariffs are structured on MDQ, yet much of the demand is for short term peaks and it is this that is driving increased capacity. The Victorian gas market has moved to intra-day trading. An element of cost reflectivity is that as short term demands (eg hourly) drive investment, then this same time frame should be the basis for developing tariffs.

There is an approach included in the GasNet application to move from demands related to the 10 highest injection days to an “all of winter” demand. The logic for such a move is for simplification reasons. It should be noted that this is a trend away from the AEMC review for electricity where the AEMC considers that a more cost reflective tariffs will result from moving from along term basis to one representing the highest demands experienced. The logic of the AEMC revolves around the principle that as investment is related to the highest demands on the system (ie the system is built to manage the highest daily – even hourly – gas usage) then the most cost reflective tariffs must be set based on peak usage, and not on average usage.

A move to average usage results in less cost reflectivity, and increases greater cross subsidization from high load factor users to low load factor users.

The AER/ACCC should review the GasNet request to identify if their proposal provides a benefit to low load factor users (eg gas fired peak generation) at the expense of high load factor users.

2.7 Overall revenue

There was an expectation in the 2002 reset that GasNet would recover revenue as follows[5]

Table 7.10: Approved regulatory revenue, 2003 to 2007

	$ million				
	2003	**2004**	**2005**	**2006**	**2007**
Return on capital	42.5	42.1	41.8	41.8	41.9
Depreciation	7.5	8.4	9.4	9.9	9.8
Normalisation	2.2	2.3	2.5	2.8	3.0
Equity raising costs	0.4	0.4	0.4	0.4	0.4
Operations and maintenance	19.3	19.9	19.5	21.2	21.5
Return on 'working capital'	0.1	0.1	0.1	0.1	0.1
K factor carry forward	12.9				
Total revenue	84.9	73.2	73.7	76.2	76.7

Source: ACCC analysis.

The actual revenue that GasNet would achieve is dependent on the accuracy of gas forecasts. In theory, if the gas forecasts are accurate, then GasNet would recover the anticipated revenue if its tariffs are cost reflective. The EUCV recommends that the AER/ACCC review the actual GasNet revenue recoveries in keeping with the forecasts of demand, to identify if, in an overview approach, GasNet over or under recovered the expected revenue.

Using this as a guide, the AER/ACCC can assess the efficacy of the previous tariffs used. In particular it can assess whether the cost reflectivity in the current tariffs allowed for over or under recovery of revenue. EUCV has identified that utilities can (and do) use non cost reflective tariffs as the basis to increase revenue above that which the regulator assesses as reasonable for the assets provided.

[5] ACCC FD on GasNet 13/11/02

Appendix A –

Major Energy Users Inc.

The Voice of Energy Consumers

The Securities Market's Analysis of the AEMC's Determination on Electricity Transmission Revenue

By

The Major Energy Users Inc

January 2007 (updated)

This monograph has been prepared for Major Energy Users Inc by Headberry Partners and Bob Lim & Co.

The conclusions reached are those of MEU and the authors.

Before market data on Utilities was available

Prior to 2001, there was no suitable ASX index available to Australian energy regulators to assist in establishing an equity beta for the class of energy transport **Utilities** from which could be calculated a regulated revenue stream (arising from the economic regulation of monopoly network businesses). Because there was no such specific asset class regulators had to interpolate an appropriate equity beta from indices published for other asset classes.

For example, in 2002[6] the ACCC used the following chart of equity betas prepared by the AGSM in order to develop a specific **Utilities** equity beta.

[6] As used in the draft decision for ElectraNet in 2002

Table 2.2 Average equity beta by industry listed on the ASX

Industry	Average Equity Beta
Property Trusts	0.366
Alcohol and Tobacco	0.420
Food and Household	0.424
Transport	0.463
Diversified Industrials	0.719
Engineering	0.756
Building Materials	0.857
Paper and Packaging	0.953
Developers and Contractors	0.954
Banks and Finance	0.967
Infrastructure and Utilities	0.983
Tourism and Leisure	1.084
Chemicals	1.128
Investment and Financial Services	1.131
Retail	1.269
Mining and Energy	1.305
Insurance	1.394
Other Metals	1.502
Miscellaneous Industrials	1.568
Diversified resources	1.571
Gold	1.678
HealthCare and Bio-Technology	1.899
Media	2.076
Telecommunications	2.772

Source: Australian Graduate School of Management centre for research in finance; risk measurement service

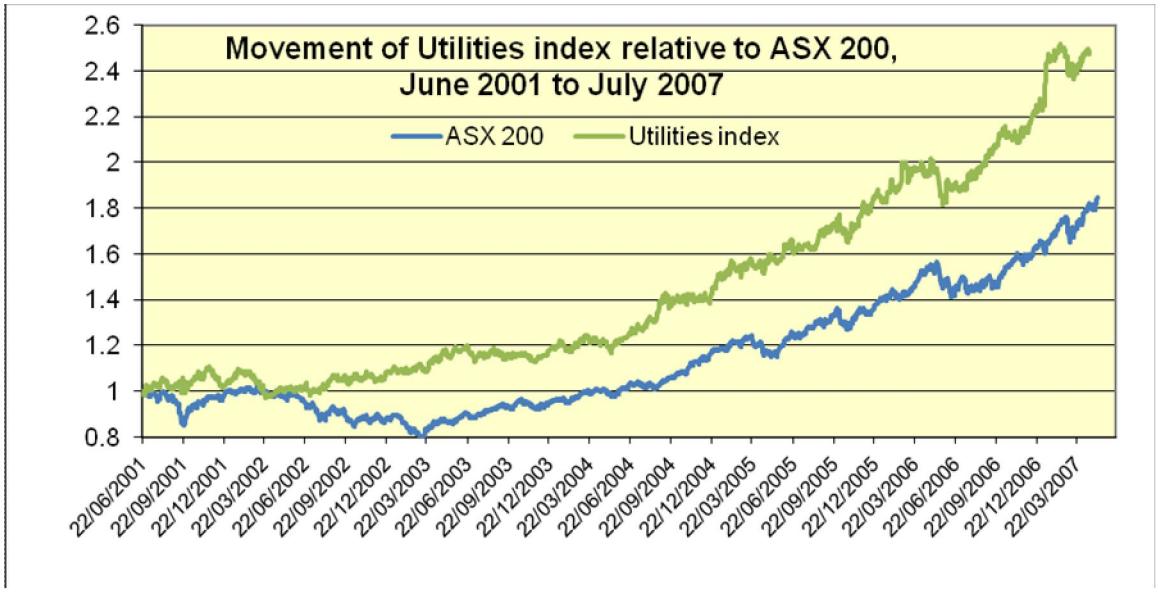
Based on the above listing, the ACCC determined that an equity beta of **unity** was appropriate as this was about the same as the equity beta for the index for **Infrastructure and Utilities**. The ACCC has not changed this value for equity beta since that time. Almost all jurisdictional regulators have used an equity beta less then 1.0 in recent decisions, using equity betas as low as 0.8 for electricity utilities (eg ESCoSA on ETSA Utilities although this was revised to 0.9 on appeal) and 0.75 for water Utilities (eg ESCoV).

The clear import was that an equity beta of 1.0 was seen by most regulators as being too high.

Market data is now available for Utilities

Since June 2001, the ASX (with Standard and Poors) has published details of an asset class (and an index) purely for **Utilities** coded XUJ. This index comprises the listed gas utilities such as APT, Envestra, Alinta and the listed electricity utilities such as Spark and SP Ausnet. These asset owning companies cover electricity and gas Utilities in Victoria, South Australia, Western Australia, Northern Territory, Queensland and NSW. The movement of this index relative to the ASX 200 is best shown using the starting point of both indices as unity.

Analysis of the financial performance of **Utilities** compared to the market average shows that **Utilities** have significantly out performed the market (as typified by the ASX 200). In fact, the **Utilities** index has increased at a rate 50% more than the rate of increase of the ASX 200 over a period of nearly six years of its existence. Based on five year trend lines the performance of the **Utilities** index implies a market risk premium (MRP) of 11.26% using the equity beta of 1.0 as used by ESCoV, whereas the ASX 200 shows an MRP of 4.5% at an equity beta of 1.36 derived from an asset beta of 1.0 and gearing of 36%[7].



Source: CommSec

[7] See appendix 1 showing gearing of the "All Ords" as D/E = 36%

The ASX200 was used as the surrogate index for the average of the market performance as it comprises the companies comprising the bulk of the ASX's market capitalisation.

The Major Energy Users Inc. (MEU) has previously provided information to the AEMC (during its review of electricity transmission revenue and pricing) that the outworkings of the performance of the **Utilities** index implied a market risk premium (based on an equity beta of 1.0 used by AER and ESCoV) of nearly twice that used by regulators of 6%.

The impact on equity beta

Analysis of the risk and stability performance of the **Utilities** index by the independent assessor CommSec implies an asset beta of 0.3 is typical for this class of assets as measured over the past 5-6 years. This compares well with the observed asset beta for similar utilities operating in other countries, such as the US. The following table 9.5 provided by the ESCoV in its recent decision on electricity distribution companies, demonstrates this clearly.

Table 9.5: Lally (2005) asset beta estimates, with equity beta estimates

Source	Data Period	Number of firms in sample	Electricity Utilities Asset Beta	Electricity Utilities Equity Beta	Gas Asset Beta	Gas Equity Beta	Overall Asset Beta	Overall Equity Beta
Value Line	1999 – 2003	83	0.35	0.88	0.17	0.43	0.29	0.73
Value Line	1994 – 1998	147	0.26	0.65	0.26	0.65	0.26	0.65
Bloomberg	2002 – 2003	93	0.27	0.68	0.20	0.50	0.25	0.63
Alexander	1990 – 1994	35	0.33	0.83	0.22	0.55	0.27	0.68
Ibbotson	1999 – 2003	50	0.12	0.30	0.06	0.15	0.11	0.28
Ibbotson	1993 – 1997	108	0.32	0.80	0.33	0.83	0.32	0.80
S&P	1999 – 2003	80	0.18	0.45	0.19	0.48	0.19	0.48
S&P	1994 – 1998	73	0.19	0.48	0.32	0.80	0.26	0.65
S&P	1989 – 1993	65	0.34	0.85	0.29	0.73	0.32	0.80
Median			0.27	0.68	0.22	0.55	0.26	0.65

Source: Lally (2005, p. 14). The Commission has generated equity betas consistent with 60 per cent gearing.

A continuing view has been that the lower levels of historic equity betas, such as those available from the US market were a result of a "tech boom and bust" in the equities markets resulting from the impact of technology stocks of the late 1990s.

Whilst accepting that this "tech boom and bust" might have impacted assessment of equity betas in the early part of this century, nearly six years of recent market data in Australia and overseas supports that the impact of this "tech boom and bust" might well have been grossly overstated (or at least been quite short lived) as equity betas derived after many years since the "boom and bust" period still maintain the similar levels (see appendix 1) as they were during the period of the "tech boom and bust".

CommSec has also noted that the current (30 Jan 07) gearing of the **Utilities** sector is 102% (Debt/Equity) which when used with the current (30 Jan 07) asset beta of 0.39, results in an equity beta of 0.79. Previous values of asset beta developed by CommSec were significantly lower than the current 0.39, implying that the current equity beta of 0.79 is on the high side of the average. Attached as appendix 1 is a summary of the ASX sector analysis provided by CommSec on three separate dates, all some 6 months apart.

Much of this information was provided to the AEMC as part of its review of transmission revenue, but it elected not to investigate this issue at all. Without undertaking any of its own assessment, the AEMC determined in the transmission revenue Rules that transmission companies should be granted a market risk premium of 6% and an equity beta of 1.0, and locked these into the Electricity Rules, preventing any changes being made, although it has required the AER to undertake another review of the CAPM inputs by 2008. **In the meantime all AER reviews must use these AEMC prescribed inputs.**

The AEMC stated that by fixing these inputs in the Rules it created more certainty for transmission companies, and therefore it was likely that increased investment would result. Certainly this would result in more profits for the electricity transmission businesses!

But there was even more from the AEMC

The AEMC also determined that the AER should be more influenced by the claims of the transmission companies for opex and capex to be included in the

revenue application and determined that the AER role in oversighting past capex incurred should be prudent and efficient should be minimal.. Again, the AEMC concluded that this would provide an incentive for the transmission companies to invest – it certainly enables the businesses to "gold-plate" investments and make life easier for the businesses!

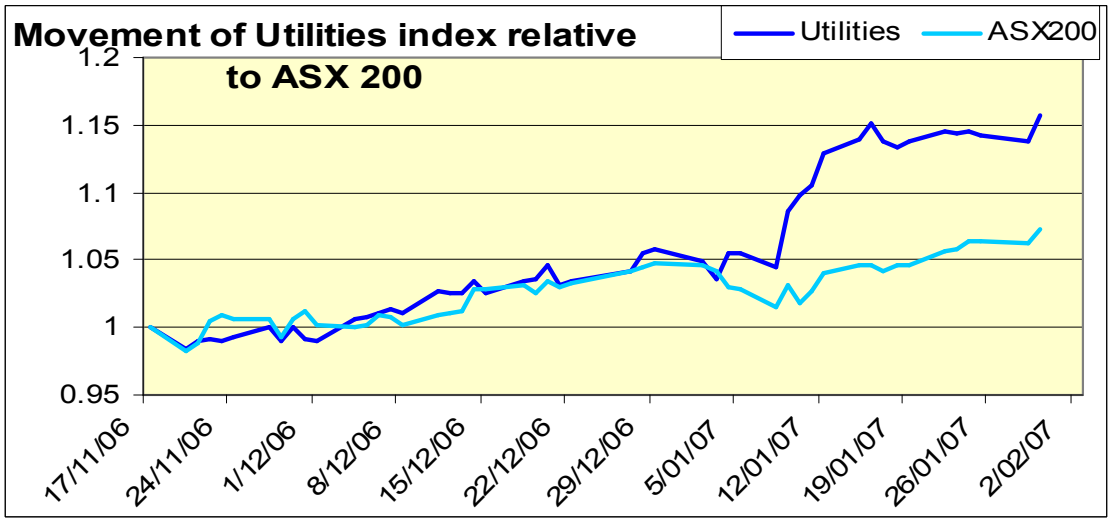
The MEU had pointed out to the AEMC that there had already been significant investment in transmission assets and that transmission companies were in fact not constrained in investing by the regulatory approach, but more by their own inability to manage the investment programs already approved. The MEU requested the AEMC to identify where investment had been constrained, but the AEMC did not undertake any research which might have supported their view.

The MEU had also advised the AEMC that its proposed Rule changes would increase the profitability of transmission companies and not necessarily result in expanding investment. The AEMC ignored this contention.

The AEMC released its final determination and rules on electricity transmission revenue on 17 November 2006 and on transmission pricing on December 21, 2006. Since then, the **Utilities** index has risen so significantly compared to the market average that the release of the AEMC Rule changes and this increase cannot be dissociated from each other.

The following chart shows that the decisions of the AEMC have contributed to a significant increase in the market value of Utilities. Allowing for the time for market analysts to assess the outcome of the AEMC decisions, the chart clearly shows that the market recognises that Santa (in the guise of the AEMC) has delivered an excellent present to Utilities and their investors.

Investors can clearly see that the utilities will be even more profitable businesses (relative to risk) than before. The chart shows a massive outperfomance of the Utilities Sector relative to the ASX 200.



Source: CommSec

The chart relates both the Utilities index and the ASX 200 back to unity at 17 November, the day the AEMC released its decision on transmission revenue. On 17 December the AEMC released its decision on transmission pricing. The fact that after an early surge in January as the AEMC decisions were analysed, the spike flattened and the two indices resumed similar but parallel tracking as before.

Whilst the AEMC can state that their decision only relates to electricity transmission, there can be no presumption that this decision will not flow (in whole or part) to all energy transport services of gas transmission and gas and electricity distribution. The earlier efforts by the jurisdictional regulators (ICRC, IPART, ESCoSA and QCA) in reducing equity beta for regulated energy transport businesses and to control any excesses of the regulated energy businesses have come to naught.

It is quite clear that the market has seen the AEMC decision as a Christmas present of the first order.

Appendix 1

Data sourced from Commonwealth Securities Web site											
	ASX code of typical company in sector	Beta				Sector div yield				sector gearing D/E %	
		27/2 /06	23/8 /06	30/1 /07	18/6 /07	27/2 /06	23/8 /06	30/1 /07	18/6 /07	30/1 /07	18/6 /07
All ords		**1.08**	**1.04**	**1.02**	1.05	**4.3**	**4.3**	**3**	**3.4**	**36**	**37**
Consumer discretionary											
Automobiles and components	OEC	1.02	0.86		0.96	6.2	6.2		5.6		55
consumer durables and apparel	GUD	1.75	1.39	1.42	1.42	5.3	5.2	5.3	4.8	44	43
consumer services	TAH	0.93	1.19	0.96	0.96	4.3	3.9	3.3	3.4	38	32
Media	PBL	1.51	1.39	1.03	1.03	4.5	4.4	3.9	3.8	21	22
Retailing	HVN	1.18	0.99	0.98	0.98	4.6	4.7	3.2	2.9	32	32
Consumer staples											
Food and drug retailing	WOW	0.62	0.64	0.64	0.64	3.8	3	3	2.5	75	50
Food beverage and tobacco	LNN	0.58	0.51	0.6	0.6	4.3	3.9	3.1	2.5	46	49
Energy	**HZN, ORG**	**0.96**	**1.04**	**1.21**	**1.21**	**3**	**2.8**	**2.8**	**2.4**		
Financials ex property											
Banks	CBA	0.86	0.68	0.82	0.82	4.3	4.1	4.4	4.3		
Diversified financials - resources	BNB	1.19	1.16	1.17	1.17	3.5	3.7	3.6	3.4		
Diversified financials - holdings	SOL	1.19	1.16		1.17	3.5	3.7		3.4		
Insurance	AMP	1.58	1.54	1.44	1.44	4.2	4	3	3.7		
Property Trusts	WDC, CEQ	**1**	**1.04**	**1**	0.96	**6.9**	**6.9**	**3.8**	5.5		
Health Care											
Equipment and services	SHL	1.19	1.09	1.01	1.01	2.8	3	2.7	2.4	7.2	6.9
Pharma & Biotech	SIP	1.81	1.52		1.45	2.3	2.9	2.7	2.4	7.2	

Industrials											
Capital goods	COA	1.11	1.12	1.04	1.04	4	4.1	3.6	3.4	34	35
Commercial services and supplies	BXB	1.11	1.19	1.27	1.27	4	3.9	3.4	3.2	28	28
Transportation	ADZ	0.9	0.99	0.96	0.96	4.7	4.9	3.4	3.3	40	61
Info Tech											
Software and services	CPU	1.82	1.61	1.34	1.34	4.6	4.6	3.4	3.1	54	1.4
hardware and equipment	KYC	1.15	1.02	0.89	0.89	4.4	3.9	2.7	3.3	0.7	1.9
Semiconductors	LGD	1.15	1.02	0.89	0.89	0	0	0		58	58
Materials	ORI, ABC	**1.39**	**1.15**	**1.22**	1.22	**3.1**	**3.2**	**3.1**	**2.8**		
Telecomms	ENG, HTA	**0.44**	**0.29**	**0.37**	0.37	**5.7**	**6.2**	**3**	**3.6**	**15**	**5.3**
Utilities	HDF, SPN	**0.31**	**0.23**	**0.37**	0.37	**5.2**	**5**	**4.1**	**5.8**	**102**	**104**
Unclassified	BQF	**1**	**0.98**			**6.9**	**6.9**				