



9 November 2009

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Dear Mr Buckley

Re: **NSW Gas Distribution Revenue Reset
Jemena Application**

I attach a Submission from the Energy Markets Reform Forum regarding the above application.

Yours sincerely

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Australian Energy Regulator

NSW Gas Distribution Revenue Reset

Jemena Application

A response

by

The Energy Markets Reform Forum

November 2009

Assistance in preparing this submission by the Energy Markets Reform Forum was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

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

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Executive Summary

The Energy Markets Reform Forum (EMRF) is a forum representing large gas and gas infrastructure users in New South Wales.

The Jemena application is seeking very large increases in capital and operating expenditures, yet demand for gas is projected to fall slightly over the next access arrangement period.

It is notable that in the two earlier access arrangement periods, capex allowances approved were under spent, and this historical information provides a very good benchmark for the needs of the network looking forward.

Jemena has not sought to demonstrate whether the implementation of its capex programs is efficient in the timeframes proposed, against the background of potential resources constraints. In addition, many details required to demonstrate capex needs are absent from the application.

Again, in the two earlier access arrangement periods, actual controllable opex was less than that allowed by IPART, despite the provision of efficiency improvement allowances, therefore suggesting that there are still efficiency gains to be made. It is, therefore, surprising that Jemena has applied for a 30% increase in opex, notwithstanding projections for no growth in consumption.

The largest proportion of claimed opex is attributable to a related party contract, but the details necessary to substantiate costs have been deleted. In this regard, the EMRF points to provisions in the NGR which prohibit the erection of corporate veils that prevent costs being made transparent. This appears to major customers as another opportunity to place an impost on business with a disproportionate allocation of charges.

The EMRF is concerned with Jemena's use of the Fama French Three Factor Model for setting the WACC. The EMRF notes that, notwithstanding Jemena's consultants' view that the model is "a well accepted financial model" in that it is used in academic literature, by finance market practitioners and by regulators, the model is not used by regulators in Australia, or by Australian business in general. The EMRF provides its views on why the AER should retain the use of the conventional Sharpe CAPM Model as opposed to the Fama French Model, which, unsurprisingly, provides for a higher WACC setting.

The EMRF also raises concerns with the proposed allocation of costs for the Newcastle-Horsley Park-Wollongong trunk line, particularly in light of the STTM introduction and the potential for a new pipeline to be connected between Wallumbilla and Newcastle. These concerns need to be addressed in the development of tariffs.

Overall, the EMRF considers that the AER must substantially prune what are clearly ambit claims by Jemena.

1. Introduction

1.1. The Energy Markets Reform Forum (EMRF)

The Energy Markets Reform Forum (EMRF) is a forum representing large energy consumers in New South Wales. The EMRF is an affiliate of the Major Energy Users Inc (MEU), which comprises some 30 major energy using companies in NSW, Victoria, SA, WA, NT, Tasmania and Queensland. EMRF member companies – from the steel, aluminium, paper and pulp and the mining explosives industries – are major manufacturers in the State and are significant employers, especially in many regional centres.

The EMRF welcomes the opportunity to provide comments on the application to the AER for a review of the revenue allowances for the gas distribution business (DB) located in NSW owned by Jemena.

Analysis of the gas usage by the members of EMRF shows that in aggregate they consume a significant proportion of the gas used in NSW. As such, they are highly dependent on the gas distribution network to deliver efficiently the gas so essential to their operations. Many of the members, being regionally based in NSW, are heavily dependent on local suppliers of hardware and services, and also have an obligation to represent the views of these local suppliers. With this in mind, the members of the EMRF require their views to not only represent the views of large energy users, but also those of smaller gas using facilities, and even at the residences used by their workforces.

The companies represented by the EMRF (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.

As gas is both a source of energy as well as a feedstock it is considered to be an essential element required by each member company in order to maintain operations. A failure in the supply of gas effectively will cause every business affected to cease production, and EMRF members have all experienced the loss of gas to their facilities. Thus the **reliable supply** of gas is an essential element of each member's business operations.

Each of the businesses represented by EMRF has invested considerable capital in establishing their operations and in order that they can recover the capital costs invested, long-term **sustainability** of gas supplies is required. If sustainable supplies of gas are not available into the future, these investments will have little value with the operations stranded with companies looking to offset cost by importing product rather than local manufacture. This in turn will also reduce local demand for gas.

Accordingly, EMRF (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 EMRF have identified that gas transmission plays a pivotal role in the gas market, whether this gas transmission is provided by APA on MSP, Jemena via EGP, Jemena via its trunk lines connecting Wollongong to Newcastle via Wilton and Horsley Park, or even the large Jemena gas trunk lines radiating from Horsley Park to northern Sydney and Botany.

A high pressure gas trunk line provides the ability for consumers to identify the optimum location for investment of their facilities. Equally, consumers recognise that the cost of providing the transmission/trunk 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 the two competing elements of cost and reliability.

1.2 The scope of this review

EMRF recognises that the AER is required to carry out its review in accordance with the recently released new Gas Law and Rules. To a large extent these new Rules (being based on the AEMC developed electricity transmission Rules) need to be seen as being pro investment, as the AEMC stated that this was the focus of its Rule development. Equally, consumers have assessed the new Rules to be unbalanced due the extent of the incentives provided to energy transport businesses. The EMRF notes that the AER is quite heavily constrained in its ability to exercise a holistic view of the final revenue that is determined as the outcome of this review.

It is noted that the determination of the regulatory asset base is quite closely proscribed, and the degree to which the AER can determine any exclusion of future actual capital expenditure is limited. It is noted that the Rules provide significant freedom in relation to setting the inputs to the CAPM used to develop the WACC, and Jemena has made full use of this provision.

As a result of the new Rules, this revenue reset is effectively limited to a review on the allowances for capex and opex, the structure and inputs to the development of the WACC, the standards of service expected from the review, and the degree to which DNSPs are to have incentives to perform more efficiently.

In practice, the Rule changes result in a reduced scope for the exercise of independent regulatory judgment by the AER and the determination of outcomes from the review is now based more on a mechanical process.

There is, however, a change to the Rules which requires the AER to be more heavily involved in – this is the development of the ultimate tariffs and their pricing structure which will result in the AER having

more involvement than in previous distribution reset reviews. The EMRF (and MEU) has had significant involvement in this aspect of the Rules with regard to the determination of the pricing methodologies and views on this element will be presented later in this submission.

1.3 An overview of the capex application

It is quite clear that Jemena has taken to heart the fact that the new Rules are to encourage investment. Across the board capex demands are massively inflated from the current period, as is opex. However, there is effectively no growth forecast for consumption.

For the large increase in revenue sought, consumers are expected to pay considerably more but receive if anything a lower service. Should the AER agree to this, it would mean that the regulatory bargain has undergone a major shift in favour of network service providers. It is notable that missing from the application is an assessment of value for money and, indeed, whether the new gas network tariffs are affordable.

Whilst Jemena has indicated that the demand market is unlikely to see much increase in real network charges, the volume market will see very large increases in the tariffs as the bulk of the increase in revenue will fall on this sector.

The EMRF considers there is essentially an inconsistent proposition being propounded by Jemena under the new Rules. In previous applications IPART had decided not to significantly reduce the capex claimed by Jemena and, if anything, Jemena tended to under spend the capex allowances approved in the previous AA periods. That Jemena has so significantly increased its capex claim under the new Rules, indicates that Jemena sees the new Rules as providing the opportunity to increase capex. Either IPART and Jemena were badly incorrect in the setting of capex under the old Code in 2000 and again in 2005, or Jemena is using the new gas Rules to attempt to convince the AER that they are entitled to such a large step increase now and high annual increases in capex thereafter. The EMRF considers that the claims by Jemena are clearly ambit and need very rigorous pruning, especially as Jemena is forecasting a slightly falling demand for gas over the next AA period.

There is no doubt that under the new gas Rules, incentives for investment are a key element. The EMRF is concerned that as Jemena has so significantly increased its capex (following the trends of the electricity businesses under equivalent electricity Rules) the new Rules have provided encouragement to over-invest. In this regard the EMRF points out that as an energy business has its profit included in the WACC (all other elements of the building block are supposedly at cost) there is a natural incentive to increase capex as this increases the amount of the profit a business gets. That the claim for capex has increased so markedly compared to the capex

needs (for the same consumption) over the past decade demonstrates this. In this regard it should be recognized that this is the fourth revenue reset for these assets (the first was carried out in 1996) and therefore there is a very good understanding of the needs of the assets, compared to the growth in overall consumption. Historical information provides a very good benchmark for the needs of the network looking forward.

The main issue for the AER (other than the bottom up assessment of the Jemena application) is to develop a holistic view of whether the claims being made are valid and whether consumers will be able to pay for the hikes in revenue. It is not merely an issue of agreeing that these monopolies can just continue to increase their charges on the basis that consumers have no alternatives. Gas supply is an essential service (particularly with the policy shift to reduce carbon emissions) and it is simply insufficient to continually allow increases in the costs of essential services until parts of the community can no longer afford to pay. At one end of the scale economically disadvantaged consumers will either suffer or have to be directly assisted by government. At the other end of the scale, large gas consuming businesses will no longer be able to afford the charges and will either curtail their activities or move offshore. Either way the costs will still remain and have to be carried by fewer consumers, further increasing unit prices.

Another major consideration that the AER must make, is whether the capital investment being proposed can be managed effectively in a national environment where, due to decisions being made by private entities and regulators, there is now a well recognised issue of capability across the nation to carryout the large volume of investments with limited resources of labour, plant and materials.

In this regard, the AER should assess whether the implementation of all these capital projects is essential and whether it is feasible to carryout such an enhanced program when resources are scarce (and therefore more expensive) and that such commitments can be considered economically efficient. As the National Gas Law objective requires the AER to ensure regulated businesses are permitted to allow only "...efficient investment in, and use of, gas pipeline services ...", the AER must take into account whether deferral of some of the proposed investments is economically efficient.

Jemena provides reasons for needing its large capex programs but there is no attempt to demonstrate whether the implementation of these programs in the time frames proposed by Jemena at a time of scarce resources is efficient in economic terms.

Jemena provides some argument that the costs for the capex program are well above long term price indices, and this is used, in part, to justify the higher than expected capex program. This then raises a fundamental

question – would a prudent investor build now, or would the prudent investor defer investing at a time when costs are higher than normal.

Thus, in the environment that Jemena operates in, with no growth in consumption projected, there is no market imperative to invest immediately, but there is a requirement under the NGL, that investments must be efficient. Careful analysis is required to ensure that investment is not being made when the need to do so is low and non-compelling, and where deferment would lead to lower (and therefore more efficient) costs.

1.4 An overview of the opex application

An incentive to reduce opex was introduced in 2000 for Victorian electricity DBs. IPART also attempted to incentivise the electricity DBs to operate at efficient levels of opex and specifically included in the opex allowance in the 2005 reset for Jemena assets, an efficiency improvement allowance of 1.5% in the current AA. This was a reduction from the efficiency improvement allowance of 3% used for the AA applying from 1999. The actual controllable opex for the previous and current AAs has been less than that allowed by IPART indicating that there are still efficiency gains to be made in controllable opex.

It therefore comes as a complete surprise that, despite there being effectively no growth in consumption projected, Jemena has applied for a 30% increase in opex, but has provided little substantiation of step changes to warrant the claimed increase.

In particular, the largest proportion of the claimed opex is attributable to the O&M contract with Jemena Asset Management (JAM), a related party, to provide the O&M services. Unfortunately, the Jemena application has deleted much of the substantiation and detail behind the JAM contract and therefore the EMRF cannot comment about this element of the opex in detail. The AER must make this element of costs transparent, assess it against best practice benchmarks and not accept this corporate veil.

It would be expected that after three completed AA reviews, the benchmarking of Jemena's performance must be considered to be clearly established and therefore it should be relatively easy to identify any changes to historic opex performance. For example, Jemena has, rightly identified that the introduction of CPRS legislation will impose costs on it and this has been costed in detail as a step change. Unfortunately, this step change is the only one identified in detail, with all others being provided a more cursory explanation and costing.

In the Victorian EDPR of 2005 the regulator (ESCV) implemented a very structured approach to step changes and required each DB to cost in detail

the impacts of the various step changes they had identified to warrant an increase in opex. The ESCV denied a number of the step changes claimed as it considered there was no step change warranted. The ESCV went further and challenged the amounts claimed for each sustainable step change.

Jemena should be required to demonstrate their step changes from the historic long term benchmark opex with similar rigour as was imposed by the ESCV on the electricity DBs. The AER must require this best practice regulatory approach.

1.5 The EMRF'S General View

The EMRF is supportive of the requirement for reliable security and quality of supply of gas and is not opposed to network augmentations and additions, provided the investments are **efficient** and they are implemented by a **prudent** network business.

Against that background, it is instructive to refer to the Minister's Second Reading Speech (on the National Gas Law):

"The national gas objective is to promote efficient investment in, and efficient use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, reliability and security of supply of natural gas.

The national gas objective is an economic concept and should be interpreted as such.

The long term interest of consumers of gas **requires the economic welfare of consumers, over the long term, to be maximised**¹. If gas markets and access to pipeline services are efficient in an economic sense, the long term economic interests of consumers in respect of price, quality, reliability, safety and security of natural gas services will be maximised. By the promotion of an economic efficiency objective in access to pipeline services, competition will be promoted in upstream and downstream markets." (emphasis added)

To permit expenditure (or allow recovery of actual costs or of costs never incurred such as indexation adjustments) that is inefficient or unnecessary, or for costs previously charged to consumers as expenses of a business, could not be described as supplying services at least cost or maximizing the welfare of consumers.

¹ The equivalent second reading speech for the NEL, goes further in that it states that "**investment in and use of electricity services will be efficient when services are supplied in the long run at least cost...**",

One blatant example of such an unnecessary cost recovery, is the cost of rebadging AGL Networks to Jemena. Whilst it is agreed that consumers need to be made aware of the decision of AGL to sell its assets to Jemena, it is not a cost that consumers should be required to carry. The rebadging of the assets has not added value to consumers and was a decision initiated by them. If AGL and Jemena wish to sell (and buy) the assets, this is their concern and the costs resulting from this desire should not be passed onto consumers.

Referring again to the second reading speech, there are a number of principles that underpin the Gas Law in relation to revenue and pricing principles:

“A key feature of the amended National Gas Law is the inclusion of six principles that guide the development of the framework for the regulation of pipeline services...

These principles are fundamental to ensuring that the Ministerial Council on Energy's intention of enhancing the efficient delivery of natural gas services is achieved ...

The final principle requires that regard be had to the economic costs and risks of the potential for under and over utilisation of a service provider's network. This principle guides decision makers to consider the efficiency of the usage of existing assets and balance this against the principle of over and under investment. Utilisation is another important indicator of whether the network is operating efficiently. Under utilisation during a previous access arrangement period might indicate that prices have been set too high. It may also be an indicator of over investment, which can also result in high prices. Either way it can have adverse consequences on consumers. Conversely, over utilisation is an indicator of under investment which can result in poor service standards.”

The implication of the sixth (final) principle is that the cost to consumers for providing the services must be affordable in the long term. If prices are too high, then the asset will be under utilized, leading to the conclusion that over investment has been permitted, especially if the natural growth in demand for the service is modest.

The EMRF would expect the AER to have regard to the ability of Jemena to prudently invest in the gas network against the background of recently approved massive capex programs in the electricity network businesses in NSW, Queensland and SA. Such programs can be expected to accentuate significant competition for labour and material resources and lead to:

- Supply constraints in the industries supplying equipment and materials

- Constraints in the supply of skilled labour.

The overwhelming challenge for Jemena is to ensure that the investments (in capex) are **efficient** (i.e. “in the long run at least cost”) and that they are being undertaken by a **prudent** network business.

Indeed, the AER has a very important challenge, from the perspective of consumers. Against the background and foreground of very significant infrastructure spending, both world-wide and domestically over the next few years – and this is clearly identified as a cause for increased costs for both capex and opex due to equipment and skilled labour shortages and the concomitant escalation in asset and labour costs – the AER (and its consultants) have a professional obligation to rigorously test the capex and opex claims, as well as assess the scope for capital deferment into the next regulatory period. It is clearly economically inefficient to incur costs which could be reasonably deferred to a less expensive time, when there is less pressure on the availability of materials and labour.

Businesses in a competitive environment make judgments on investment based on such requirements as need for the investment, ability to deliver a project on time and to budget, cost (including short term supply pressures), ability of customers to absorb cost increases, the ability to defer the investment and the risks associated with deferral. Unfortunately, gaining regulatory approvals for capital expenditure has been observed to be quite easily obtained, with greater emphasis given to the stated wants of the network business rather than the imposition of strong development of capital controls combined with an assessment of what the market can pay.

In this regard, it is to be noted that one of the reasons given by regulated businesses for needing to invest more capital now, is that under previous government ownership and control, the businesses were constrained for capital, due to the competing needs within the government budgets. In the case of the Jemena assets, this does not apply. These assets have been held by a private company for over 150 years. If the asset owner has not invested wisely, then this decision can only be attributed to itself, and no other party.

As can be seen from the regulatory decisions made since governments handed over the responsibility of providing the necessary discipline on monopolies to jurisdictional and national regulators, the obtaining of approval to incur capital expenditure (based on a requirement for consumers to pay) there has been an explosion of new capital works undertaken. This clearly identifies that regulators are not applying the same level of discipline on regulated electricity providers as was applied by governments or the private owners of the assets.

As the Rules clearly show that the network providers must provide economically efficient investment, the AER should require them to

demonstrate why there is a need to provide a large capital expenditure program and to provide a risk analysis which balances the risks of deferral against the risks of excessive capital cost resulting from unnecessarily early investment at a higher cost.

In this regard, the AER should recognise that if they allow the network providers to invest capital at a time when costs are high, the impact of such potentially unnecessary costs will be felt by consumers for the next half century. The EMRF accepts that the Rules reduce the risks of inappropriate investment, as future regulators are not permitted to reopen costs previously incurred. This is in stark contrast to when regulators were allowed to optimize previous decisions. It was this ability to optimise in the future, that applied some pressure on the regulated businesses to only implement investment when it was absolutely necessary.

In the absence of this discipline, it is now a requirement on the regulator to ensure that economically inefficient investment is not undertaken. The AER can achieve this by limiting capex allowances, and by ensuring that only needed capex is permitted, and deferring capex that can be deferred with minimal impact on the reliability of the system.

1.6 Confidentiality

The EMRF has noted that throughout the Jemena application it has excised parts of the Access Arrangement Information, effectively classing it confidential. In addition, certain appendices have been excised as being confidential. Unfortunately, eliminating some information makes assessment of the application difficult.

The EMRF through its affiliation with other consumer advocates has seen supposedly confidential information withheld. The excision of the information created significant confusion and if it had been made available, stakeholders may have taken a more supportive view of the application, with significant costs being avoided.

It should be accepted that monopoly asset owners do not have competitors that seek detailed information about them and therefore the need for commercial confidentiality is significantly reduced. Bearing this in mind the AER is urged to minimize the amount of information withheld from stakeholders on confidentiality reasons both now and into the future.

1.7 Regulatory requirements

In addition to the requirements applying generally to all corporations operating in Australia, Jemena provides a listing of the regulatory requirements that are imposed on it which are industry specific.

- Gas Supply Act 1996 (NSW) (gas supply act)
- Gas Reticulator Authorisation under the Gas Supply Act (NSW) 1996
- Gas Supply (Gas Meters) Regulation 2002 (NSW)
- Gas Supply (Safety and Network Management) Regulation 2008 (NSW)
- JGN Network Code for Full Retail Competition (2002) (network code)
- Retail Market Procedures (NSW and ACT) (under AEMO)
- National Gas Law and National Gas Rules 2008
- Pipelines Act 1967 (NSW)
- Pipelines Regulation 2005 (NSW)
- NSW Pipeline Licence Nos 1, 2, 3, 7 and 8 under the Pipelines Act 1967

Jemena is no different to any other corporation in regard to complying with general laws and regulations and the cost impacts are effectively integrated into the WACC and the costs are recovered as part of that.

The implication of listing the industry specific laws and regulations is that Jemena effectively justifies that its regulated revenue must be increased due to a need to comply with these. In fact, most of these requirements were in operation prior to the current AA and therefore the requirements are already included in the allowed revenue.

Some were introduced during the current period and therefore could constitute a step change in requirements. However, analysis of these indicates that there is no substantive step change as a result of their imposition.

In contrast, the impending introduction of the CPRS legislation is likely to increase Jemena costs, but Jemena has already included in its opex for this expected change.

1.8 Short term gas trading market

A gas short term trading market (STTM) is due to be introduced into NSW in the middle of 2010. This will impact Jemena to some extent. The most obvious impact will be to define a “gas hub” at which the STTM will operate.

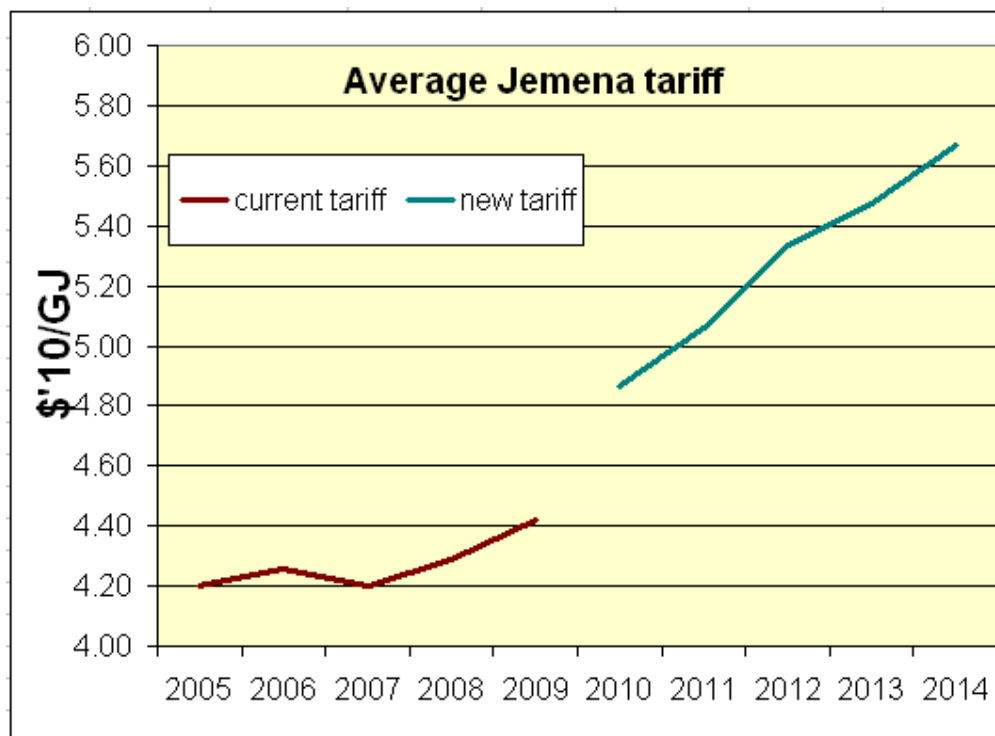
With the developers of the STTM, Jemena has agreed that the hub will be effectively the trunk pipeline which runs from Wollongong to Newcastle. Gas entering this trunk pipeline will be considered to be entering the Sydney hub. Because of this Jemena has changed its pricing structure so that the costs of the trunk pipeline will be integrated into the network tariffs rather than being a stand alone tariff as in previous AAs. This change has to be accepted by the AER as part of this AA review.

This approach then imposes some allocation challenges that the AER has to investigate. Our concerns are more fully developed in section 7 of this submission.

1.9 Summary

It is concerning that regulatory revenue reviews are losing sight of the basic fact that if the regulator keeps on allowing increases in capex and opex, the prices the networks will charge for providing an essential service will take the cost of energy beyond the capacity to pay by many consumers (especially competitive industry and disadvantaged consumers).

Jemena's proposal will significantly increase the average tariff for gas transport (see figure below).



Source: IPART final decision (2005), Jemena (2009) and AGL (2003) applications

Jemena's proposal indicates the average tariff will increase by over 30% during the next 5 years.

We are already seeing price pressures for gas from producers seeking to export LNG², to increase the price of gas above that of the cost of production, and this will get worse as the demand for gas to better manage

² We are also seeing some CSM gas producers publicly stating decisions to shut in gas for later export, rather than release the gas into the domestic market

carbon emissions increases in response to the CPRS and expanded MRET schemes.

The regulators have permitted large increases in capex and opex in its recent distribution revenue reviews and if a similar approach is taken in relation to the Jemena application, the essential service of gas supply will become unavailable to many consumers and may cause some industrial users of gas to migrate off shore.

The regulators need to recognise that as more and more large gas users either move off shore or curtail activities, this will result in those fewer consumers remaining having to carry an even greater share of the gas supply chain prices.

2. Capital expenditure allowances

Under the gas Rules, assessment of capex falls into two distinct elements – assessment of past capex allowed for inclusion in the capital base and an allowance for capex for the next period.

Essentially the assessment for both follows very similar guidelines (Rule 79(2):

Capital expenditure is justifiable if:

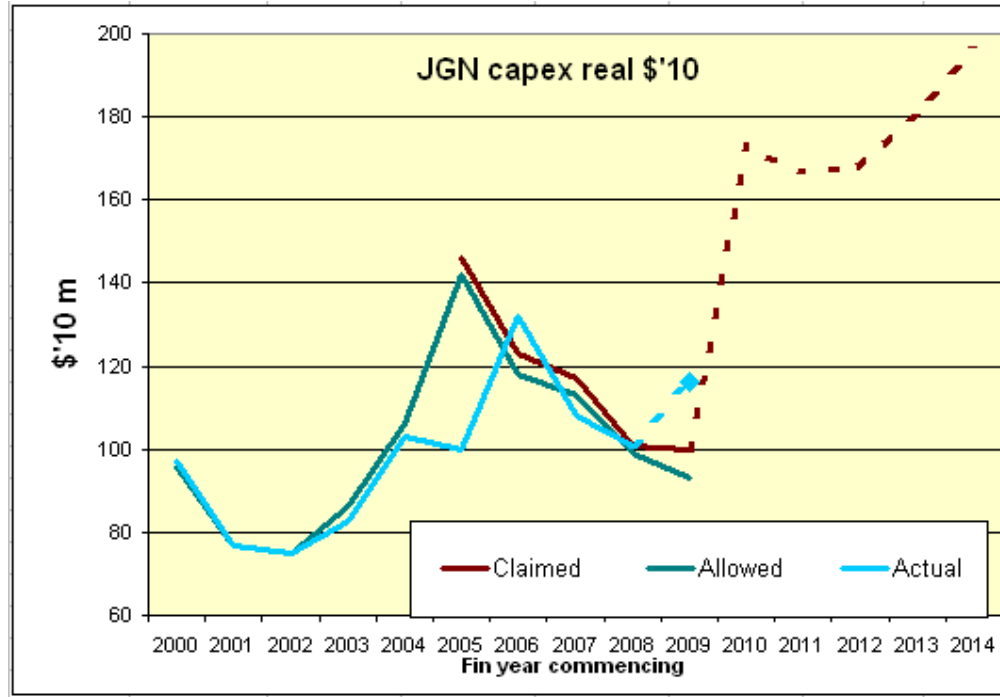
- (a) the overall economic value of the expenditure is positive; or
- (b) the present value of the expected incremental revenue to be generated as a result of the expenditure exceeds the present value of the capital expenditure; or
- (c) the capital expenditure is necessary:
 - (i) to maintain and improve the safety of services; or
 - (ii) to maintain the integrity of services; or
 - (iii) to comply with a regulatory obligation or requirement;
or
 - (iv) to maintain the service provider's capacity to meet levels of demand for services existing at the time the capital expenditure is incurred (as distinct from projected demand that is dependent on an expansion of pipeline capacity);

This means that the AER needs to assess past capex in light of the criteria to ensure that the capex was prudent, as well as ensure that the development of the planned capex for the next AA period is also prudent. .

The EMRF has already commented on the constraints facing the electricity DBs in implementing their capex proposals and has asked that the AER and its consultants would need to examine the projects carefully in the light of a range of identified factors, including the scope for regulatory gaming.

Notwithstanding the close attention the AER might impose on the capex programs, the EMRF notes that there is effectively no requirement in the Rules to require Jemena to implement any of the projects it identifies and uses to support their request for capex. This is because the Rules only require Jemena to be able to demonstrate at the next reset that the capex either generated more revenue than the cost of the project (in NPV terms) or that it was required to maintain the effectiveness of the network. We see this as an added driver on the AER to examine the capex programs holistically rather than just as a series of individual programs.

Jemena's capex past, present and future are pictorially shown in the following chart.



Source: Jemena (2009) and AGL (2003) applications, and IPART FD 2005

Historically, Jemena and its predecessor AGLN have generally followed the capex program allowed by IPART, except that in the current period Jemena shows that it has delayed its capex program significantly and that to meet the IPART allowance for the current AA it shows a large capex injection in the last year of the current AA. Capex for the last full year shows that Jemena used about \$100m, with an indication this might rise to \$120m in the year yet to be completed.

From this amount, Jemena indicates a step rise in capex needs of nearly two times for the first year of the new AA period.

Concurrently, Jemena indicates (see section 6.2 of this submission) that the numbers of new connections in the new period will increase at the same rate as has been the case for the last 18 years at a regular annual rate of increase of ~3.6%. Also, at the same time, annual gas consumption is forecast to have risen by ~2.1%. This raises the fundamental question - is the increase in new connections prudent, in that the increase in revenue from the new connections warrants the capex needed for them?

The AER is required to assess capex purely on the basis of prudence – does the capex result in a positive NPV or is it needed for safety or to accommodate new regulatory requirements. There are not the competing elements of a list of different assessments that are included in the electricity

Rules. Because of this the AER needs to assess the Jemena capex claims very closely.

2.1 Past capex for inclusion in the RAB

Jemena states that it underspent on the capex allowed by IPART for market expansion and overspent on renewal and replacement; capex for non-system assets was as allowed by IPART. What is not highlighted is that Jemena underspent the capex allowance in the early years of the current AA and will only reach the allowance based on a large overspend in the last year of the AA.

This means that there is a significantly high chance that Jemena will underspend its capex allowance by more than the expected -5.7% and that by underspending in the early years of the AA was able to achieve a significant unearned benefit by delaying its capex program. This gaming of the regulatory approvals needs to be reviewed by the AER.

Jemena employed consultant Parsons Brinckerhoff (PB) to assess its past and future capex programs (see appendix 7.4). PB has concluded that the Jemena capex program for the current AA period was prudent and should be included in its entirety into the RAB. As part of its assessment it reviewed the Jemena processes for implementing its capex programs and examined two projects.

What is absent from the PB analysis is whether the commercial benefits of the capex incurred have been examined. It is a clear requirement of the Rules that there be a commercial assessment of capex to demonstrate that the capex shows a positive outcome on an NPV basis.

2.2 New capex proposal

Jemena has advised that its new capex proposal requires a significant step increase from its current levels of capex.

Table 7-6: Forecast capex over the next AA period

Capex	2010-11	2011-12	2012-13	2013-14	2014-15	Total
Market expansion	64.7	75.6	80.7	76.8	73.2	371.0
System reinforcement/ renewal / replacement	82.7	71.4	69.0	69.9	88.0	381.0
Non-system assets	25.7	20.1	18.1	34.2	35.0	133.2
Total	173.1	167.1	167.8	181.0	196.2	885.2

PB makes the observation that in accepting the capex forecast is a large step increase from current levels (PB notes that the increase is 64%

increase from the forecast capex for 2009/10 rather than a higher increase from the actual capex recorded for 2008/09), it attributes this step change as being the result of (appendix 7.4 page 32):

“These increases are generally driven by:

- Forecast increases in unit rates.
- Development of projects postponed from the current Access Arrangement period.
- Facility upgrades to enable higher transmission line pressures and improved condition monitoring of trunk mains.
- Policy changes arising from experience during the current access arrangement period.

Therefore, provided the forecast costs for individual projects comply with Rules 74 and 79, PB’s opinion is that the forecast capital expenditure for the 2010/11 to 2014/15 Access Arrangement period is considered conforming capital expenditure.”

The EMRF provides its views on the forecasts of increases in unit rates below, but it is concerned that PB accepts that part of the increased need for capex is work deferred from the current AA. If this is the case, then Jemena needs to highlight what projects were allowed for, and deferred, and what was included to replace those projects not carried out. This is particularly important as Jemena states that it used almost all of the allowed capex for the current period, although it is noted that Jemena deferred some projects from the IPART approved timelines.

PB also notes that there were “policy changes” but these are neither detailed nor where these changes emanated from. If they are regulatory policy changes then there is a basis for claiming them as step changes but if they are Jemena policy changes, then there is no basis for these to be added as new capex.

PB states that there are facility upgrades included in the capex to allow for higher transmission line pressures on the trunk mains. This may be the case but there needs to be a clear commercial benefit provided, which shows that consumers will benefit from the upgrades, especially when it is considered that there has not been forecast an overall increase in volume throughput in the system. If increased sales do not result from the upgrade, then there can be no net NPV benefit that accrues to consumers.

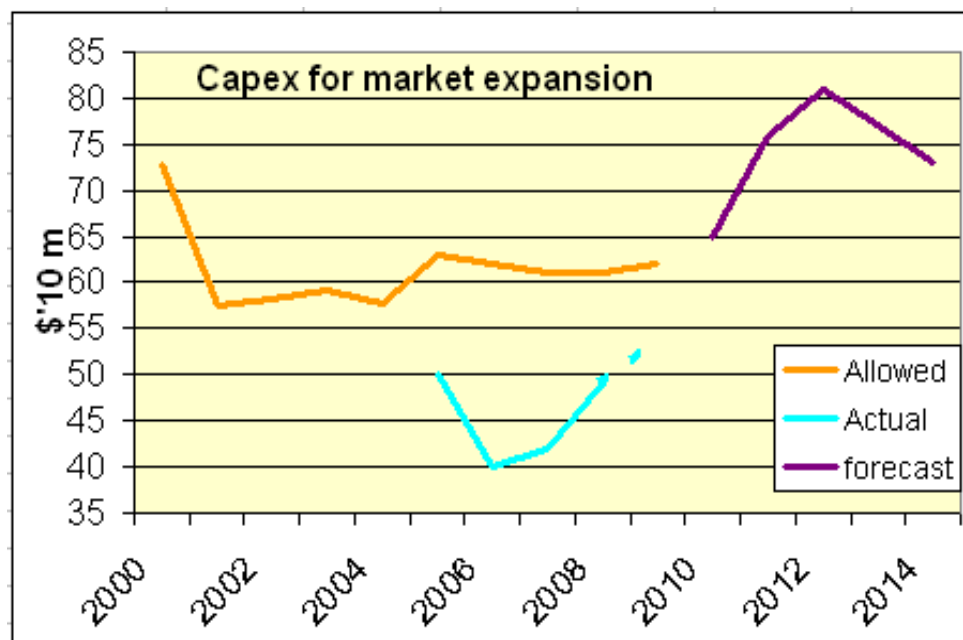
2.2.1 New expansions

The EMRF notes that there appears to be a reducing load factor in the networks based on the information provided by Jemena, in that increased numbers of connections have not increased the total

consumption. The outworking of this reducing load factor is a need to increase capex to increase new connections just to maintain the same overall consumption. This then raises the question as to whether the costs for increasing the number of connections is sufficiently offset by the increased revenue from the new connections, to be classed as prudent. There is no doubt that the political preference is that more connections are made (ie that more people have access to gas) but there is a point where the costs of new connections are greater than the revenue they generate, and therefore would not be classified as prudent. The approach taken by Jemena is to assume that these added connections are prudent.

In Victoria where there is a very high level of connection to gas, the ESCV had identified that many new connections were not prudent. To allow these connections to occur, the government provided the capital contribution needed to make the capex required for these new connections to be classed as prudent.

Jemena must be required to demonstrate that these new connections are prudent. The market extension capex proposed by Jemena is shown in the following chart:



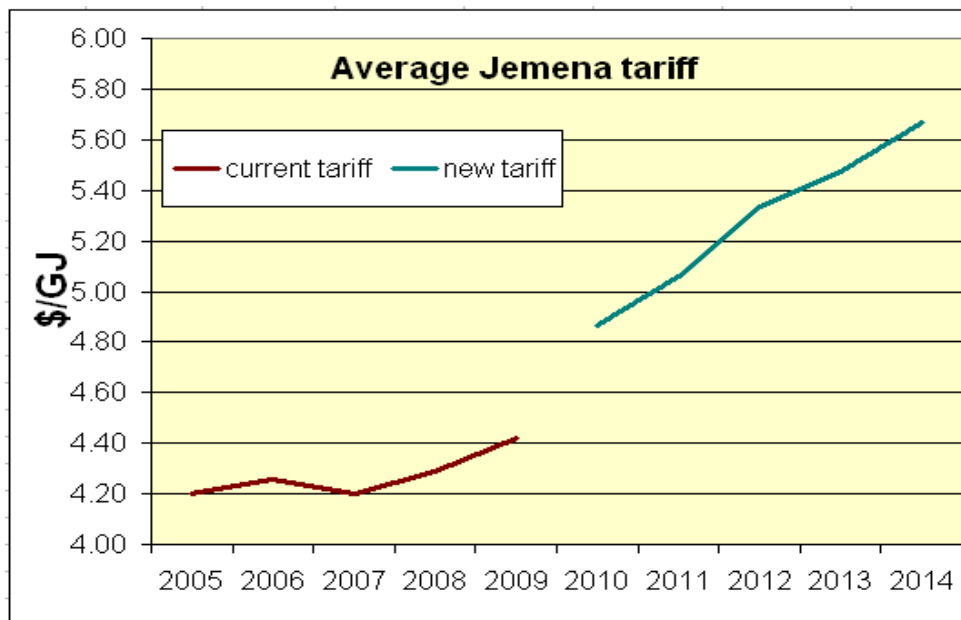
Source: IPART FD (2005) and Jemena application 2009

However, an indication of what Jemena proposes is that the new connection costs per new connection will be much higher than in the past. The following chart shows the capex (allowed by IPART and actual) for market expansion for the past 10 years, together with Jemena's forecast capex to connect basically the same numbers each year of new consumers that it has over the past. As

the number of new connections forecast for the new period is much the same as that actually connected in the current period, this capex need implies that the cost per new connection is about 75% more than that for connections made during the current period.

This raises the concern that the cost of the new connections relative to the expected revenue, might not indicate a positive NPV for this element of the new capex.

Analysis of the expected average tariff increases sought by Jemena indicates that the new connection will have to pay a significantly higher tariff than those already on the network. Further, those already using the network will be paying higher costs to allow (in part) for the new connections. At a high level, there appears to be a clear indication that the new connections might not be prudent, due to average increases in cost across all connections and whether the potential new connections will be able to afford the costs of the network charges.



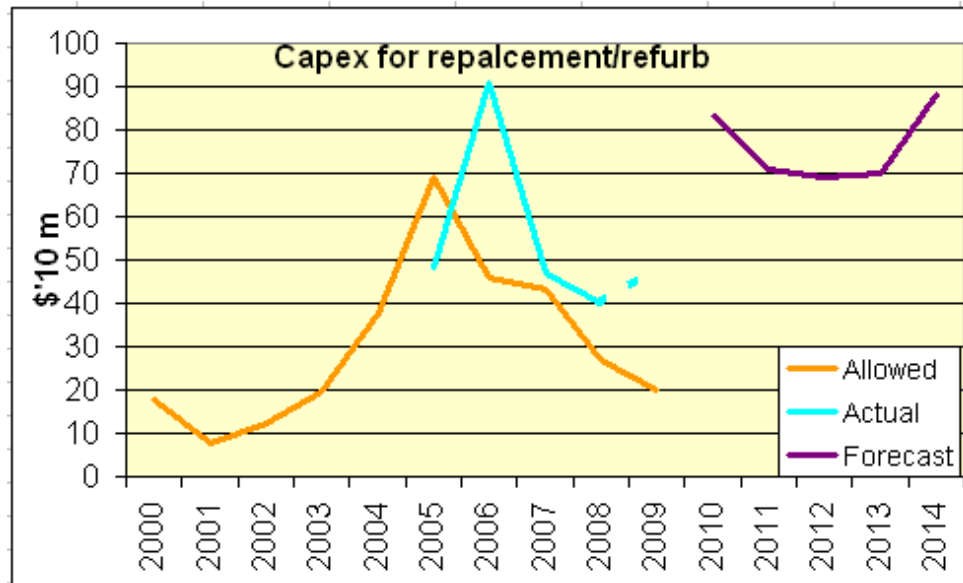
Source: IPART final decision (2005), Jemena (2009) and AGL (2003) applications

This tariff increase further supports the concern that the new connections might not be prudent. The PB analysis of the market expansion element of the proposed capex does not provide any support that the augmentation of the network is prudent.

2.2.2 Network reinforcement and replacement

Jemena proposes that the largest proportion of its capex is related to network reinforcement and replacement works. The following chart

shows the IPART allowed capex for replacement refurbishment, the actual amount used and the forecast capex for this purpose.



Source: IPART final decision (2005), Jemena (2009) and AGL (2003) applications

Jemena is seeking a nearly 50% increase in the capex for replacement and refurbishment from that actually used in the current period. In the IPART decision of 2005, IPART allowed Jemena all of the capex it requested for this purpose and Jemena overspent the allowance by 33% (assuming the last year capex is incurred).

Based on its own benchmarking, it would appear that Jemena does not appear to need the amount of capex that it is seeking and as there is no forecast increase in consumption, the EMRF finds it difficult to reconcile the need for such a large step increase in capex.

PB investigated four proposed capex projects in detail to assess whether these were prudent, and concluded that all four were. The EMRF is not privy to all the information provided to PB, but it can make the following observations.

- **Meter replacement. Jemena has changed its technical policies in relation to meters that rather than have a 15 year life, turbine meters will be replaced after 5 years, and rotary meters replaced after 10 years. The alleged reason for this policy is that rotary and turbine meters appear to read low after these shortened lifetimes and therefore the amount of UAG would be greater if they are not replaced. The program calls for the replacement of 30% of all I&C meters during the forecast period. The issue for**

consumers is that Jemena built in these meters in the first place and consumers, on the basis that the meters would have a 15 year life (rather than a 5 year life for rotary meters), is now required to pay for replacements that are not fully depreciated. This is inefficient.

- **Wakehurst Parkway Augmentation.** In principle, the EMRF would support an augmentation project that would increase consumption and therefore reduce the average tariff. This was the principle behind the completed SPL project which did increase capacity. However, the volume of gas consumed is forecast to fall, and this raises the concern that with falling consumption, why is there a need for augmenting the existing network to manage capacity that is not forecast to be used in the next AA period? At face value, this project would appear to be too early and should be deferred.
- **Smithfield/Liverpool lining project.** The EMRF would support the lining of old cast iron pipes as the EMRF recognizes that gas leakage is a major issue with cast iron pipes and that continual maintenance is a feature of cast iron pipelines. The EMRF notes that an NPV assessment indicates that such an approach is beneficial, but the basis for the NPV assessment is not provided so it is not able to comment on this aspect. The AER should assess whether the inputs to the NPV analysis (especially the discount rate used) are appropriate.
- **The Tempe PRS replacement.** As with the replacement of meters, Jemena proposes to replace the PRS at Tempe (and others) with new PRS even though they have not reached the end of their design life. There is a basic assumption that Jemena would have ensured that all assets were maintained so that they did reach or even pass their design lives, and adequate opex is provided for this purpose. The EMRF accepts that increasing failure rates of equipment do need to be attended to but consider that the AER also has a need to ensure that regulated businesses build and maintain their assets to match the lowest practicable cost life cycle. It is inefficient to allow a regulated business to replace assets earlier than their design life.
- **Capex for mines subsidence.** Jemena claims that it needs some capex because of land subsidence related to mining activities. The EMRF considers that this capex should not be attributed to consumers but claimed back from the miner causing the problem for Jemena.

PB comments that it considers the Jemena processes for identifying and implementing “prudent” projects is appropriate.

However, the EMRF has not had the opportunity to make its own assessment of this key aspect of network management.

What is of interest is that PB makes frequent references to the processes and information provided to it by Jemena's opex contractor, Jemena Asset Management (JAM). Jemena makes much of the fact that its decision to employ JAM was made at "arm's length" and that therefore it decided that to provide information about the contract with JAM had to be kept confidential. The fact that PB made so much reference to the JAM processes raises the real concern that the contract is not at arm's length and that Jemena networks really uses this construct as a way of limiting the provision of information to the AER and other stakeholders. The AER should be aware that a similar device to raise regulated costs is to raise substantially related party costs.

2.2.3 Non system assets

The proposed non-system capex proposal is as follows (appendix 7.4 page 50):

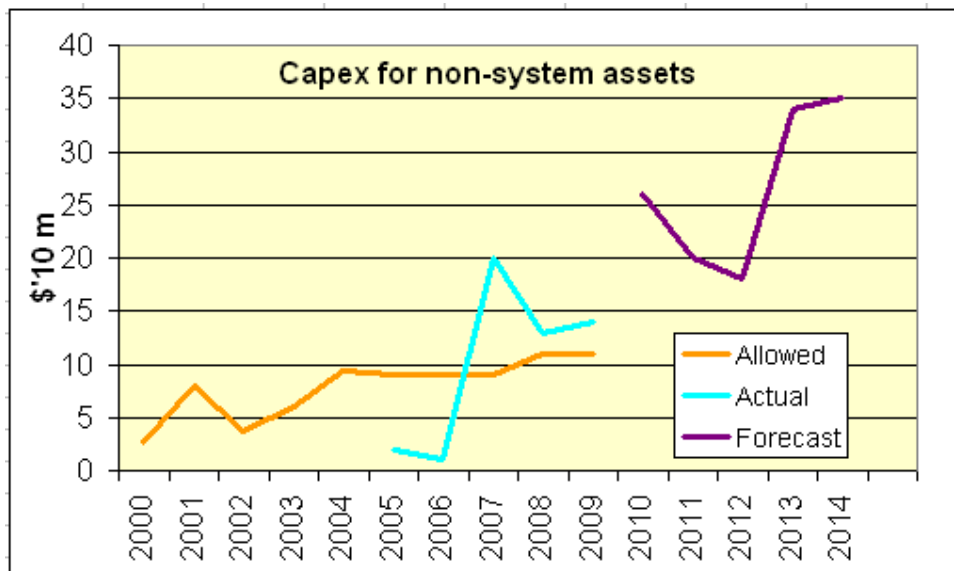
The total 'non-system assets' forecast expenditure for the coming access arrangement is \$128M, with this figure comprised of:

- Motor Vehicles (\$21.8m)
- Leasehold improvements (\$0.8m)
- IT and Communications (\$102m)
- SCADA/Communications (\$1.8m)
- Planned Fixed and Mobile Plant (\$1.6m).

This shows that the bulk of the non-system capex is related to IT and communications but these parts of the no-system capex are not reviewed by PB as PB advises (appendix 7.4 page 29) that this is to be reviewed by others.

Jemena indicates that KPMG was tasked with the review of IT and communications capex and that KPMG considers that the IT capex is prudent.

The following chart shows the historical allowances and actual expenditure on non-system assets along with the forecast.



Source: IPART final decision (2005), Jemena (2009) and AGL (2003) applications

As with other categories, Jemena is seeking a massive 150% increase in capex for its non-system assets. Historically, IPART has allowed Jemena the non-system capex that it sought and basically (allowing for deferred expenditure, Jemena has spent the capex allowed.

Jemena observes that the IT program allows for replacement and upgrade of a number of IT programs and states (AAI page 111) that this investment is overdue and will allow the opex program to be kept at current levels in real terms.

This raises two fundamental questions:

- 1. On what basis has the prudence of the capex been assessed and what savings are assumed to provide the needed offset in other costs**
- 2. The implication of the Jemena comments is that the IT capex is to be offset by opex decreases as Jemena states the IT programs are to allow the opex to remain static in real terms. Therefore, Jemena has assumed that opex would otherwise increase in the absence of the IT programs, yet the opex program shows an increase (see section 3) and the overall trend of Jemena opex has consistently shown a downwards trend over the past 10 years. This significant inconsistency needs to be clarified.**

2.2.4 Early retirement of assets

Depreciation is the allowance included in accounts to reflect the need to recover capital invested so that at the end of the life of the asset, the

asset has no value in the financial accounts. The implication is that at the end of the life of an asset, the investment initially made has been recovered in full, and that the business then has to invest in new equipment in order to continue its operations.

In a competitive environment, the price of an article produced is based on the short run marginal cost of production. The import of this is that the price used for sale does not recover the long run marginal cost, which includes for the depreciation of the assets used to create the product. It has been observed by many businesses that their recovery of depreciation is usually less than the actual investment made, and that this observation is predicated on the nominal value of depreciation as used by the ATO. In a regulated environment the “real” value of depreciation is incorporated into the building block, increasing the costs to consumers.

Bearing in mind that competition does not appear to allow businesses to in fact recover depreciation (either nominal or real values) the AER must be particularly aware of the potential to game the depreciation of regulated assets.

Consumers have noted that with a WACC higher than what the market as a whole achieves, there is a commercial driver for a regulated business to physically dispose of “written off” assets before their technical life may be over. This driver is unique to the building block approach to revenue setting in that a fully depreciated asset does not attract any return (WACC times zero is zero), whereas replacing a written off asset does attract a return. As opex is recovered at cost under the building block, the profits for a regulated business come only from the return on assets. In a competitive business, having written off an asset is seen as a positive if the asset is still used and useful as the costs for production are lower.

In the past, MEU and EMRF members have seen energy supply authorities continue to use assets long after the asset has been written off financially, so the technical life of many assets is really longer than the average time used to financially depreciate the assets in the building block approach. Physical life of an asset is related to many more aspects than just time. Assets lightly used and well maintained will generally be useful longer than the expected asset life. The care used in manufacturing and the basic design parameters also greatly impact on asset longevity. One MEU member cites the example where equipment built in the 1930s and with an expected life of some 40 years, was still being used early in this decade.

EMRF has a deep concern that assets still used and useful will be taken from service by Jemena as it no longer receive any return for them, and replaced with new assets on which they do get a return. This provides an

incentive to replace assets regardless of their continued usefulness, with consumers bearing the costs for early replacement.

The EMRF seeks advice from AER as to how the AER can ensure that used and useful assets are retained in service by Jemena and not replaced unnecessarily. Thus keeping costs applied to customers as low as possible.

2.2.5 When should assets be replaced?

It is of concern to consumers that NSPs do not use a financial model to justify replacement, relying more on time based approach supported by physical asset management approaches, such as condition monitoring. The EMRF agrees that physical asset management must be a standard tool for identifying when an asset requires replacement, but we also believe that such asset management must include for a financial tool to address the commercial need for asset replacement.

The AER should require Jemena to incorporate a financial tool into its asset management programs to identify when it is commercially sensible to replace an asset, rather than use physical asset management alone.

2.3 Cost escalators

Jemena states that costs for labour and materials are increasing faster than CPI and therefore it has to make allowance for these increases in its capex and opex forecasts. Jemena provides a report from Competition Economists Group (CEG) to support its view that this is a reasonable approach and to what level these cost escalators need to be included in the forecasts.

Jemena states that it developed its capex and opex programs based on costs applying at the beginning of 2009, and then applied escalators based on the CEG assessment of what escalation is likely to apply from that time, assuming that allowing for forecast CPI adjustments will provide a “real” cost for the capex and opex.

2.3.1 Basic assumptions

In developing its view that the costs that Jemena will incur over the next five years for wages and materials will exceed the rate of general inflation, CEG and Jemena have made some basic assumptions. These are:

1. That the costs Jemena has allowed for its opex and capex are based on costs applying in 2009 and that these incorporate all cost movements prior to that time.

This assumption is slightly at odds with the principles behind self benchmarking which recognizes that the efficient level of opex and capex are those costs which Jemena **actually** has incurred.

Accepting the premise that the costs are those estimated by Jemena as applying in 2009, this leads to the conclusion that Jemena has effectively disregarded the concept of self benchmarking as the basis for setting capex and opex. This is not acceptable as it totally defeats applying any sort of competitive pressure on Jemena.

The EMRF considers that if Jemena seeks to apply the principles of allowing a premium for wages and materials, it should use its benchmark opex and capex as the starting point and then apply the premiums of inflation (if any) to the starting point as set by the benchmark. If a new value for opex and capex is calculated (as Jemena has done) then there is no certainty that its costs are in fact based on wages and materials prices applying at the time of the calculations.

2. That the general inflation will lie within the bounds estimated by RBA (ie 2-3%) and be an average of 2.5%.

All of the calculations made by CEG to develop the premiums for escalators which Jemena wants to apply to its opex and capex assume that general inflation will be as targeted by the RBA. Once this has been assumed, then CEG carries out its analysis to develop its conclusion that both EWG wages and materials used by Jemena will increase in price faster than general CPI.

This assumption is both courageous and far-reaching.

Firstly, it is a bold assumption as the current annual rate of CPI has been much higher than it is now and has been in the past. In particular, the current CPI is inflated above the target range because of the high costs of electricity and water that have been allowed by the AER and other regulators in earlier regulatory decisions. Thus the AER has indirectly caused the CPI to exceed the CPI target range through its actions (on electricity pricing reviews) and has the potential for it to do so again.

If the AER decisions can lead to the general CPI to be above the RBA target range then the assumption that CPI will be in the target range set by the RBA is potentially incorrect, and therefore the premiums for wages and materials calculated by CEG will be in error.

Secondly, CEG calculates that all of the wages and materials used by Jemena will increase by more than general inflation as measured by the CPI (see appendix 6.4 page 2) with the exception of two materials for one year.

Table 1: Escalation factors for Jemena Gas Networks, real

Financial year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
EBA EGW labour	1.8%	1.3%	2.1%	1.9%	1.6%	1.8%
Contract EGW labour	1.8%	1.4%	2.1%	4.0%	4.4%	4.1%
Aluminium	-7.9%	9.9%	9.0%	7.7%	6.6%	5.9%
Steel	-18.0%	8.4%	6.3%	1.5%	0.9%	0.8%
Polyethylene	0.6%	2.0%	1.1%	0.3%	0.2%	0.2%
Concrete	3.0%	1.5%	3.4%	3.0%	1.8%	0.9%

The EMRF is not in the position to be able to provide factual counter arguments to the CEG analysis, but as an overall assessment, it would appear that such an outcome is statistically unlikely. If general inflation does not provide an average view of the increases in costs faced by the general market, then the assumptions behind its development are flawed. As it is generally accepted to be a reasonable assessment of inflation, then there is an expectation that some material will increase faster than inflation for some of the time, and others would increase slower than inflation for some of the time. The CEG analysis does not show this.

The EMRF is of the view that this is probably because of the assumption made that general inflation will be at too low a level. As noted earlier, general inflation is higher than the benchmark currently due in part to the high cost of utility services which are regulated.

The EMRF accepts that Jemena costs may vary from the general level of inflation for some of the time, but not continuously as implied by the CEG analysis.

3. Many of the materials provided in the CEG listing are subject to currency exchange rates. CEG note this and comment that it is extremely difficult to forecast exchange rates particularly over a five year period.

As CEG comments (appendix 6.4 page 13):

“...it is notoriously difficult to forecast even short term movements in exchange rates, let alone long-term movements. Futures markets for the Australian dollar are relatively thin beyond a few months and these short dated futures are, in any event, driven by differences in risk-free

interest rates across countries. It is not possible to use futures markets to forecast out the value of the Australian dollar in 2015.”

However, despite this CEG does build into its assessment the forecasts for currency exchange. This obviously adds to the general “softness” of the CEG estimates and, naturally, CEG would take a conservative approach to setting the estimates it provides. Although this conservatism is not unexpected, it will increase the costs to consumers unnecessarily.

The EMRF considers that it is unreasonable for consumers to pay for this conservatism if there are other or better ways of removing the risks from Jemena.

The EMRF therefore suggests that either general inflation should be the basis for setting the opex or capex forecasts or that the opex and capex allowances be set using a targeted escalation formula specifically directed at the Jemena cost mix.

The first approach (using CPI as the escalation driver) is what regulators have applied up until the AER commenced revenue reset reviews. It is quite apparent that this approach is a recent innovation of regulatory gaming and has allowed the regulated businesses to increase their opex and capex claims in a way that was neither seen as necessary by regulators nor obviously needed by the regulated businesses in earlier times, as they provided the service in a adequate fashion.

The second approach is also not unusual although not used by regulators or the businesses they regulate. Designing specific escalation formulae to suit a specific purpose has been used in construction contracting for decades and is still used. Many businesses use this approach for internal capex controls. The benefits of such an approach is that it removes the risk to consumers of the regulated business gaming the system by seeking enhanced returns through use of an approach that is designed to reduce the risks faced by the business. Equally, developing a unique formula for the business removes this risk entirely and provides a sound basis for the business to be protected from unexpected price rises.

2.3.2 Wages

The EMRF accepts that wages increase faster than CPI (ie there are consistent increases in ‘real’ wages over time) as EMRF members also pay wages and have observed this phenomenon. Equally, EMRF members operate in a competitive environment and have to make

compensating savings to offset these increases in order to ensure that prices for their commodities are competitive.

The CEG work to develop the “real” premium on EWG wages is dependent on an assumption of what future inflation is likely to be. As noted above this requires an assessment of what future wages will be and what the general inflationary value will be. The EMRF is not convinced that general inflation will be within the RBA bounds as CEG assumes, as there are many other aspects which affect inflation.

Thus, EMRF sees that in order to compensate for the real increases in wages, Jemena should be required to do what business in a competitive environment does – to improve efficiency to offset these real increases.

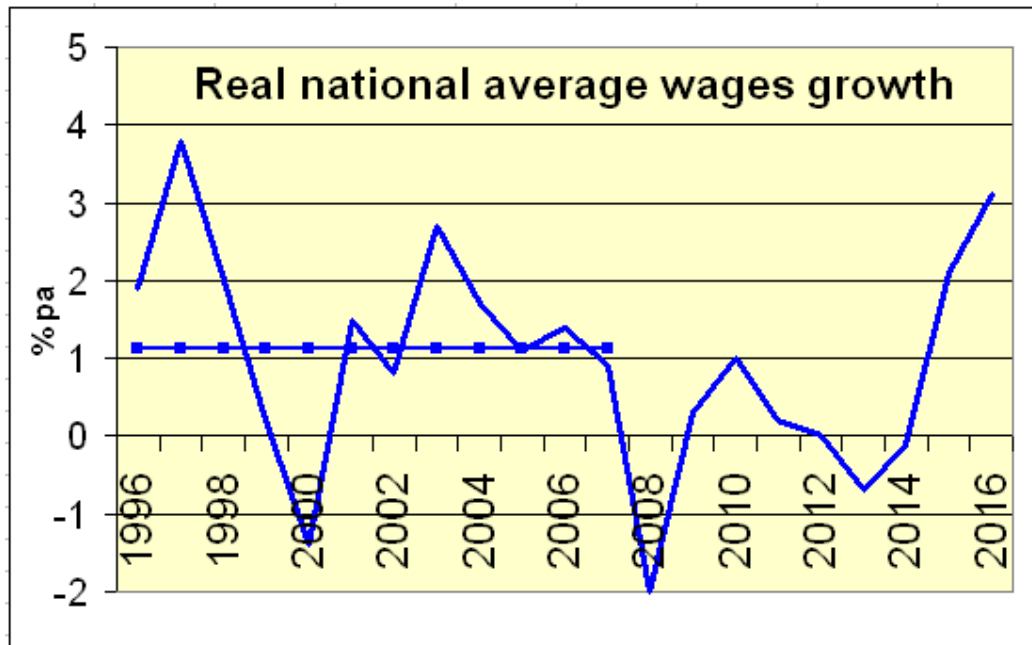
IPART ensured that this occurred by the imposition of an efficiency saving on Jemena allowances for opex. In 2000, IPART included a 3% pa efficiency saving and in 2005, required a 1.5% pa saving. Jemena has stated that as it is now a fully efficient organization these efficiency savings are no longer possible.

EMRF members have been in business longer than Jemena has been subjected to the regulatory price setting program after the NSW gas assets were “deregulated” in the mid 1990s. Using the same argument as Jemena does, EMRF members would be able to likewise over time as they are mature and no longer have any efficiency gains to be made.

Unfortunately the competitive environment does not allow this, and continuous efficiency improvement is essential for all Australian business whether public or private, competitive or regulated.

In its March 2009 report to the AER³, Econtech pointed out that over the previous period the wages nationally have moved (on average) in the following way:

³ KPMG/Econtech Updated Labour Cost Growth Forecasts 25 March 2009 table B4



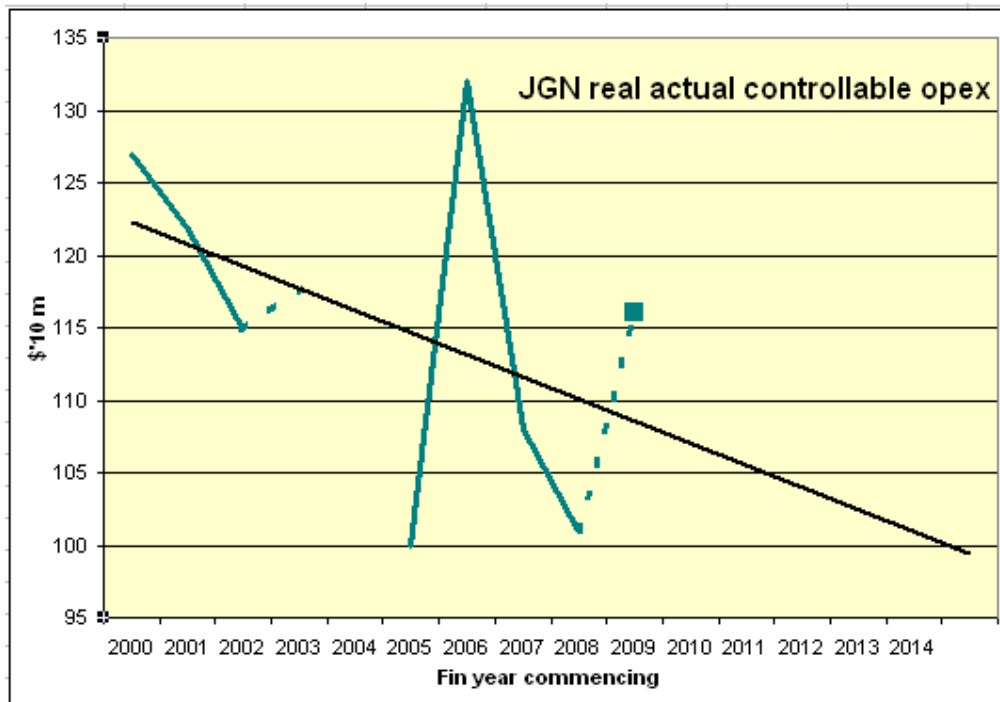
Source: Data from Econtech

This clearly shows that “real” wages were higher in the current period than is forecast for the next period and that the average wage growth nationally is 1.2% real – that is the naturally occurring inflation as measured by the CPI already incorporates an underlying real wages growth.

The import of this Econtech data is that real average national wages are consistently 1.2%. To accommodate this real growth in wages, efficiency has to increase by the same or a greater amount, just to remain static. If this did not occur, then Australian output would price itself out of existence and everything would be imported.

The import of this observation is that Jemena can only include as a wages escalator the premium between the national average real wages growth and the estimated real wages growth applicable to its specific industry. This just maintains parity with the status quo.

In fact Jemena opex over time has shown a real reduction in costs, as can be seen in the following chart:



Source: IPART final decision (2005), Jemena (2009) and AGL (2003) applications

This clearly shows that Jemena controllables opex has been reducing at a consistent rate of 1.1% pa real for the last 10 years, and this is in addition to the national real average wages growth as IPART has only permitted CPI adjustments to the revenue allowed to Jemena over this period.

Therefore, implicitly Jemena has been able to demonstrate accommodating a consistent average national wages growth of 1.2% real plus a consistent reduction in opex wages of 1.1%. The upshot of Jemena's actual performance is that it has demonstrated a consistent benefit of some 2.3% pa reduction in wages in real terms. There is no reason to doubt that this performance cannot continue.

Therefore, the expected real increases in wages forecast by CEG need to be discounted by Jemena performance in managing the real increases in wages. This can be done by either discounting the escalators by Jemena's long term performance of a real reduction of 2.3%, or including the expected escalators as calculated by CEG and then applying an annual discount of 2.3% to the real opex allowance calculated after applying the wages escalator.

The EMRF considers that either approach should result in the same outcome, but considers that it would be more transparent to include the real wage escalators into the forecast capex and opex, and then reducing the capex and opex allowances by the long term efficiency gains of 2.3% that Jemena has so clearly achieved.

2.3.3 Materials

As noted earlier the CEG approach to assessing the materials escalators is a sound approach but fails because of the assumption of a potentially low general inflation value, the assumption that prices were based in 2009, and that all of the materials prices show a real increase over time, which is statistically unlikely when general inflation is expected to cover increases in all wages and material over time.

One of the major drivers of the variation in the cost of materials is currency exchange rates. However, over time the general inflation measure (CPI) accommodates this variation in exchange rates – a rising dollar tends to reduce CPI and a falling dollar tends to increase it.

Because there is doubt as to the start value and date for the escalator to apply to, there is doubt on the escalator deflator (to get the “real” changes) and there is doubt on the impact of currency exchange rates. As the whole process for developing material price escalators is in doubt, there is significant concern about the outworkings that have been used to set the materials price escalators. The EMRF sees that there are so many aspects where assumptions have to be made, that the final values developed, whilst they may well be indicative of trends, have so much assumption and “guesstimate” within them that they can hardly be considered to be sufficiently accurate for consumers to have to pay more because of them.

As was noted earlier, over time the inflationary measure of CPI should reflect the increases in materials use in Australia, including exchange rate variations. It is acknowledged that some materials prices will vary differently to the movement of CPI, but there will be both “pluses and minuses” when taken across all materials. This means that in some years Jemena will do worse and other years do better by using CPI as the cost escalator.

It is because of this uncertainty that the EMRF considers that the AER has no alternative but to revert to allowing the material escalator to be CPI over time. To attempt to develop any other approach exposes consumers to unnecessary costs and Jemena to unnecessary risks unless a very conservative approach is used.

The EMRF recommends that CPI be used as the materials escalator or that Jemena develop an escalation formula to adjust for the movements in the specific materials it uses. Both of these approaches have been used for this purpose and either provides an equitable solution for both Jemena and its customers.

2.4 Conclusions

Jemena has sought a large increase in its capex allowance for the next regulatory period. The breakdown of the capex relative to the current period is provided by PB in appendix 7.4 and is shown in the following chart.

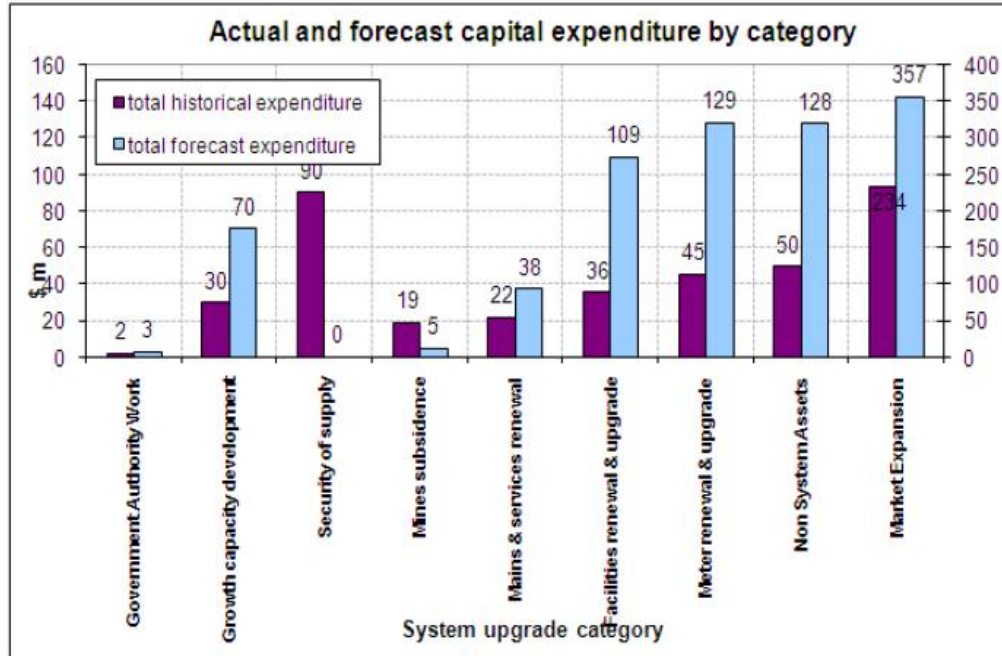


Figure 6-2 Actual and forecast capital expenditure by system upgrade category (Real 2008\$)

This chart shows that capacity augmentation for growth, upgrades and market expansion is forecast to be much larger than was the case in the current period. Yet the number of new connections forecast is the same as in the current period, and the overall increase gas consumption is forecast to be zero. This raises the question as the prudence of the forecast capex program.

Jemena provides a report from CEG supporting (real) increases in capex and opex needs over time but closer analysis of the uncertainty associated with the assumptions made to develop this argument shows that there is significant risk for consumers in the approach suggested. The EMRF provides a view on alternative approaches that might be used instead.

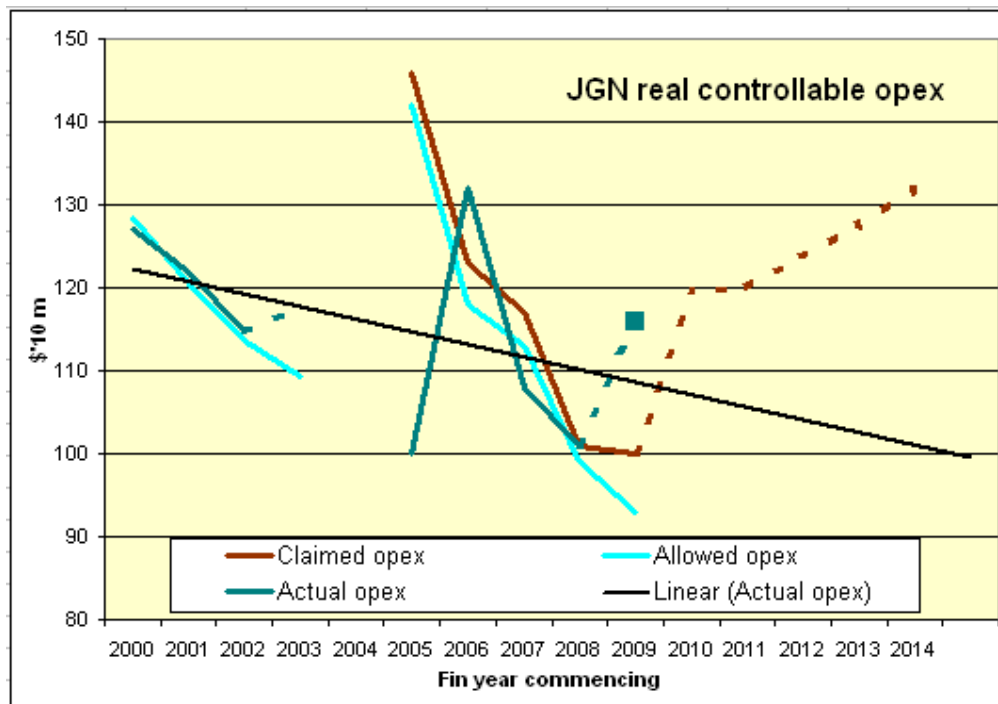
3. Forecast Operating Expenditure

The EMRF considers that, with such a significant increase in capex projects, Jemena should be required to provide much larger efficiency savings in:

- Capex/opex trade-offs (i.e. larger opex savings)
- Larger productivity savings than the 1.5% applied by IPART in the current regulatory period (new and more capital assets)
- Savings from maintenance programs no longer required on replaced assets.

However, what is seen in Jemena's application is a large step increase in opex in addition to the large capex claim. It is alleged that all of the augmentation projects would result in increased opex, but opex only increases in the capex for new "greenfields" augmentation. Increasing the size of existing hardware merely constitutes similar opex for new but larger assets.

The following chart show the opex claimed by Jemena and its antecedents over time, the amount allowed by IPART, the actual opex used and the opex sought by Jemena for the next AA period.



Source: IPART final decision (2005), Jemena (2009) and AGL (2003) applications

There is an expectation, driven by the observation from past performance of energy NSPs that opex is relatively independent of both demand and

consumption changes⁴. That Jemena claims a large trend upwards in opex needs appears to be counter intuitive with historic actual performances.

Comparisons of actual opex compared to allowed opex for the vast majority of regulatory decisions shows a typical trend of actual opex in the early years of the period showing a discount to the allowed opex. With the approach of a new reset, the opex seems almost magically to increase and the forecast for the final year shows a need in excess of the regulator's allowance. The purpose of such a trend is clear – making savings in the early periods, allows the DB to retain all of the savings without risk of losing them in a new reset. Ramping up opex in the latter years provides the DB with the basis of an argument to claim a higher allowance in the new reset.

It is clear that Jemena has followed this trend – its actual opex is consistently below the opex allowed except for the 4th “benchmark” year and the forecast 5th year. This approach would seem to support Jemena's claim that the current opex is insufficient for its needs.

What the chart does show is that over time (including the 4th and 5th year upturns in opex) Jemena has shown a consistent downward trend in actual opex and this is shown by the actual opex trend line. This trend line shows that Jemena has been achieving a consistent efficiency improvement of some 1.1% pa for many years and this trend has continued into 2008. It is only the forecast upturn for 2009 that indicates that the opex efficiency gains might be at an end.

Jemena breaks out its opex into two main categories – O&M and non-O&M.

3.1 Comparative studies

Jemena provides substantiation for its opex by providing comparative partial factor productivity comparisons with the three Victorian gas distributors. This analysis is provided by Economic Insights (EI). This analysis purports to show that Jemena has shown a large increase in efficiency over time (which the EMRF would agree has occurred) but that this efficiency improvement is now tailing off and should not be seen as possible into the future.

Whilst the comparison with the Victorian gas DBs shows that Jemena is performing well, this is not a definitive study as it really only compares to a similar gas DB⁵ that has been de-regulated, over less time than Jemena has, but into three sub-networks. A better study might have looked at how Jemena compares to gas networks which have operated under competitive pressure for a longer period, and have achieved optimum efficiency. To

⁴ That this is the case is clearly demonstrated by the approach used by the ESCoV in its decision on the Victorian electricity distribution businesses in their analysis included in the draft and final decision in the 2005 Electricity distribution price review.

⁵ Gas and Fuel Corporation in Victoria was de-regulated into the three gas DBs later than Jemena was converted into a regulated gas network

compare Jemena with such a partial comparator is not considered to be adequate for these purposes.

EI notes that IPART did undertake such a more comprehensive study in 1999 and identified then that compared to 51 US gas distributors and others, that the Australian gas DBs were some 27% behind best performance. On this basis alone, Jemena has still a long way to catch up with best practice, especially as it would be expected that the overseas comparators would still be trying to improve efficiency.

In this regard EMRF draws attention to the comment made in section 2.3 above. Even in mature businesses, efficiency gains must still be made purely just to retain a market position. Less efficiency gains will result in lost market share. So the concept that there is a point where no more efficiency can be gained does not hold in a competitive environment and therefore should not be allowed to be the case in a regulated environment.

The best benchmark for Jemena is its own performance as it sought to increase its profitability against a considered opex allowance set by IPART. Jemena's actual opex performance has shown a consistent downward cost trend in opex and this has continued until the forecast increase in opex for the 5th year of the current AA period where we would suggest, perhaps different motives apply.

The actual performance of Jemena opex shows that contrary to the observation by EI, Jemena opex is still showing a strong downward trend of 1% pa or more in the final years of its current AA and should be able to continue at its current level or better.

3.2 Step changes

Jemena provides detail of a number of step changes that have occurred and need to be included as supporting an increase in opex. It cites 16 step changes and seeks an increase of \$4.13 m pa to accommodate them.

Whilst a number of the stated step changes are exogenous (such as increased safety requirements) a number are not as there is an expectation that they should have been done previously.

The EMRF comments on each step change identified as follows:

Activity	Step change	EMRF comment
Safety assessments	yes	Cost is already in recent actual opex
SMS for primary trunk	yes	Cost is already in recent actual opex
JAM not doing	No	Work scope is the same for the DB as it

upstream		always was
JAM training	No	The requirement has always been there
STTM impact	Yes	Work scope needs to be more clearly defined as necessary and was not really needed in prior times
STTM IT costs for gas balancing	yes	Discounting of saving is not realistic, and there should not be extra staff to accommodate the loss of the function
New IT system GMW	yes	Implementation should result in a saving in opex not increase it
AER reporting	no	Regulatory reporting was needed with IPART
Mains inspection	no	There is no increased regulatory requirement change and this should be done anyway
More mains repairs because of inspections	no	This may occur but the work was always needed. There is no regulatory requirement change
Encroachment	no	There is no regulatory requirement change. Work of this type was always needed
Recoating	no	There is no regulatory requirement change. Work of this type was always needed
PV repairs	no	There is no regulatory requirement change. Work of this type was always needed
Bath heaters	yes	This is an exogenous change and needs to be accommodated
Telecom costs for meter reads	no	There is no regulatory requirement change. Work of this type was always needed
Data requirements of NGR	yes	The costs appear to be excessive
Contract management	no	There is no regulatory requirement change. Work of this type was always needed. It is a Jemena decision to contract the work which indicates the added need

Overall, it appears that many of the step changes are not imposed exogenously and these are the only ones that should be accepted as step changes. The costs claimed for each need to be better quantified and demonstrated.

The EMRF considers that based on its assessment the added costs for step changes should be less than \$1m pa at most.

3.3 O&M

The O&M element of the opex is related to its decision to employ its affiliate Jemena Asset Management (JAM) to provide the services on a contract basis. Unfortunately, much of the detail to assess whether this is a truly competitive approach is classified as commercial-in-confidence but Jemena does provide assurance that this is the case.

This lack of information⁶ available for review makes assessing the reasonableness of Jemena's application unnecessarily difficult.

Regardless of this, it appears that JAM seeks an increase in its costs from the benchmark year as its share of the opex allowance compared to previous years other than the benchmark year used as the basis for the JAM work scope.

In any contracting out activity, a careful owner would seek to reduce its costs by outsourcing and not increase its costs as it appears to be the case with JGN and JAM.

As the detail of the JAM work scope is not provided due to it being classified commercial-in-confidence, EMRF has a concern that the outsourcing has been a mechanism for providing an enhanced return to the overall overseas owner of Jemena as was the case, which the AER identified with Singapore Power (the part owner of SP Ausnet) which is also the owner of Jemena.

The regulator is required to ensure that only legitimate costs are to be allowed in regulatory assessments and including in notionally "at arm's length" contracts to affiliated entities is a method that has been used in other access arrangements to increase regulated costs and to increase returns to the overall owner of the regulated entity and its non-regulated affiliate.

Overall, it appears that JGN has awarded JAM an increased O&M allowance based on the long term opex needs of the business.

3.4 Non-O&M costs

Jemena advises its non O&M costs include:

- Administration and overheads
- Marketing
- Government levies

⁶ Large parts of section 3 which discusses Jemena's management approach and its outsourcing have been deleted as commercial-in-confidence as have parts of section 6 relating to the O&M opex

- UAG
- Carbon costs
- Debt raising

EMRF provides comments on each as follows

3.4.1 Administration and overheads

The Administration and overhead costs took a step increase of 20% from the average of the 1st to 3rd year to the 4th (benchmark) year which Jemena notes on page 47 was an estimate of its costs. It provides no reasons for such a large step increase and the fact that Jemena uses it as its benchmark for the forecasts indicates that it may have deliberately increased the administration costs purely for this reason.

Jemena provides no explanation as to why the administration costs increased by \$4m between the 3rd and 4th years. As a result, EMRF is not able to provide comment other than state its concern the increase maybe part of regulatory gaming.

Jemena refers to the review work done by PwC in its review of Jemena's Whole of Business Cost Allocation (WOBCA) but as this review is not available to stakeholders, EMRF is not able to comment further, unless this is made available for review by stakeholders familiar with such activities.

This lack of information available for review makes assessing the reasonableness of Jemena's application unnecessarily difficult.

3.4.2 Marketing

In the allowances for opex, IPART provided a marketing allowance of nearly \$80m of which Jemena expects to spend some \$26m of which \$7m is still to be spent and where \$14m is to be spent in the last two years of the current AA.

For this allowance Jemena was able to secure an additional 130,000 new customers but virtually no additional gas consumption. This is a poor reward for so much investment in marketing and the capex needed to connect them.

A review of the actual increase in new customers and the amount spent on marketing seems to indicate that the marketing spend actually incurred early in the current AA was just as successful as the large marketing spends later in the current period, indicating that the amount spent on marketing has only a minor beneficial outcome.

For an allowance of \$41m, Jemena considers that its marketing will result in an increase of \$145,000 new customers and virtually no increase in gas consumption. This raises the question as to the value of the marketing by Jemena and whether the cost of marketing plus the capex needed to connect them is prudent. This issue of prudence is also raised in section 2.2.1 above.

The EMRF finds it extremely difficult to reconcile the large spend on marketing for the poor rewards expected from it.

3.4.3 UAG

The allowance for UAG seems to reflect the actual performance of Jemena during the current period. However, for the proposed large capex to replace meters alleged as being the source of a significant proportion of the UAG, the expected reduction in UAG spend does not seem to demonstrate the need for it.

The EMRF would expect that for the planned capex on meters, there would have been a significant reduction in UAG necessary to demonstrate that the meter replacement program would deliver significant savings. As the program does not give these savings, it raises real doubt about its prudence.

3.4.4 Carbon permits

Jemena has made a good attempt at recognizing its actions result in carbon emissions and therefore it will incur costs when the CPRS legislation is implemented.

As details of the CPRS legislation is still unknown, EMRF considers it is inappropriate for Jemena to be attempting to build into its opex any allowance for this potential increase in costs. Therefore, the impact of the CPRS should be considered to be a pass through cost when actual costs and Jemena exposure to them can be better identified.

The EMRF does not support the inclusion at this stage of CPRS costs.

3.4.5 Self insurance

In its current opex allowance Jemena makes provision for its insurance needs. There has been no change in its insurance requirements from the current period to the next. This raises the question as to why Jemena is seeking to add to its opex allowance to include for self insurance costs.

As Jemena notes, under its current approach Jemena does not insure for some risks but which are insurable, risks which are insured but have an excess and risks which are not commercially insurable.

The EMRF is at a loss to understand why after 15 years of operation as a separate gas distribution entity, Jemena sees a need to increase its costs for these additional aspects that it never considered were necessary until now.

Jemena makes reference to appendix 6.5, a report from insurance adviser Marsh Risk Consulting, but as this report is not available to stakeholders, the EMRF cannot comment on the issue in detail.

What does stand out is that Jemena apparently sees there is an opportunity to increase its opex by \$2.45m pa to provide for insurances that it never deemed to be needed in the past. If they are needed, Jemena should state what the circumstances are that require a change in approach.

The AER needs to investigate this new apparent need in great detail and to explain to Jemena's customers why they need to pay for this additional insurance.

3.4.6 Debt and equity raising costs

The EMRF accepts that there are costs incurred in rolling over debt provisions and increasing the debt held. Business debt is not rolled over every year and on average it is rolled over every 5-8 years. This is because of the cost of renegotiating debt and the need for a degree of certainty the debt will be available for a reasonable time.

On this basis the EMRF would see that the cost of rolling over debt should at most be a once an AA period exercise. The AER should allow for this frequency of debt roll over and calculate the annual costs on this basis.

With regard to equity raising, the costs are only incurred once and only when equity is raised externally. Most businesses operate on the basis that retained earnings and the use of depreciation accounts provide most of the equity a business requires. The AER should only allow for equity raising costs if equity needs to be raised as a result of the allowed capex program and if the internal sources of equity are insufficient for the business needs.

Jemena notes that internal equity should be granted an equity raising cost of 1%. No commercial business charges itself for using its own cash for capex needs as it sees that using its retained earnings are a necessary part of remaining in business.

As Jemena will gain a large return on the equity it provides (as part of the WACC) to charge for the equity raising of internal cash is inappropriate and clearly a way to further increase the return it will make out of its capex program.

3.5 The relationship between capex and opex

As noted above, there is a relationship between capex and opex. With the increase in capex for refurbishment, there must be a proportionate reduction in opex, as this is what justifies the replacement of old assets with new assets. Notwithstanding this inverse relationship, Jemena proposes to increase its opex from current levels, although it is noted there is a modest (very modest) reduction offered in opex to reflect previous capex.

Where there is growth in a network there is an expectation that there would be additional opex attributable for new capex, but where capex is about replacing old assets with new, or replacing old with something new but larger, there is no justification for added opex.

The AER must recognise the inter-relationship between capex and opex as far as the DB applications are concerned. It is a fundamental matter for any business that much of its capex causes a reduction in opex. The other reason for capex is to match increasing demand for products.

Jemena has stated that the capex has increased in part due to higher prices. If this is the case then the commercial relationship between capex and opex becomes even more important. If the cost to replace the assets increases, then from a consumer viewpoint it is more economically efficient for the opex to be maintained rather than pay a higher cost as a result of new assets replacing old (*ceteris paribus*).

In section 2 above it is pointed out that there is an economic driver for Jemena to replace assets rather than continue with incurring opex. It is the building block approach which provides this driver, as opex is recovered at cost whereas assets achieve a return which provides the profits for the regulated business.

The AER must ensure that the capex used does result in opex being proportionately reduced.

3.6 Forecasts of higher costs

Jemena has stated that its forecast opex includes for an expected increase in “real” wages. The EMRF views on this claim are addressed in section 2.3 above.

This clearly implies that there is no basis to allow any premium for expected wages growth over the coming period, as there is no step change between the current period and the next period, in respect to wages growth.

3.7 Conclusions

Jemena has

- Requested a significant increase in the opex it has historically required to provide the services it provides.
- Sought an increase in the O&M allowance which it pays to an affiliated entity but supposedly on “at arms length” arrangement but there are few details available to assess whether this is true.
- Sought significant increases in its non-O&M opex and much of the increases appear not to be sustainable.
- Considered that its opex should see real increases over time as EWG labour sees real increases, but deeper examination indicates that such a request is not appropriate
- Not offered a continuation of the IPART imposed opex efficiency expectation of 1.5% pa. Examination of the historical performance of Jemena indicates that the AER should continue with this IPART practice

The EMRF considers that Jemena has provided a strong basis for AER to set the allowed opex at the same level as Jemena achieved in the current AA period (ie at ~\$100m pa) but that there should be an allowance for step changes of up to \$1m pa and a pass through of carbon costs when the CPRS legislation takes effect.

4. Service Performance Targets

4.1 Overview

Jemena is not subject to service performance targets in the way electricity distribution businesses are. To a large degree this is an outcome of the technical arrangements that impact gas distribution.

Essentially the main service performance consumers seek from a gas distribution business is reliability of supply and that the supply is not curtailed due to actions taken by the gas DB. As a gas DB has the power to curtail any gas consumer if there is a risk that the network could suffer a low gas pressure condition, it tends to curtail large gas consumers as the most effect means to get the fastest outcome for the least effort.

Jemena has attempted to address this deliberate targeting of large gas consumers for priority curtailment by the introduction of its discounted tariff for being first to be curtailed when there is a need.

There is an argument that a number of customer related service performance targets (such as responsiveness to customer needs, scheduled outages and wrongful disconnections) could be introduced as they have in some jurisdictional electricity distribution arrangements, and the EMRF would support that these be introduced into the Jemena access arrangement.

4.2 Incentives for financial performance

Jemena has been subjected to financial incentives through the imposition by IPART of efficiency targets. In 2000, IPART allowed for a 3% efficiency improvement in opex and in 2005, imposed a 1.5% efficiency improvement. Jemena has produced a report by Economic Insights that purports to indicate that Jemena is now operating at maximum efficiency and the opex forecast for the next AA is at maximum efficiency.

Jemena offers that to test that this is the case its financial performance should be measured against key performance indicators based on opex related to customer number and length of the network. It proposes the KPIs should be:

Table 6-14: Proposed KPIs: Operating cost per metre and cost per customer site (\$)

	2010-11	2011-12	2012-13	2013-14	2014-15
Operating cost per metre	4.44	4.41	4.52	4.63	4.74
Operating cost per customer site	98.90	95.73	95.70	95.89	96.90

Jemena provides its KPI performance for the current AA but in terms of the trunk lines and the distribution segments. However, Jemena fails to provide the actual data in the same terms as it proposes for the new AA. Therefore, comparisons are virtually impossible.

Jemena does provide its actual performance data for the distribution segment and this indicates that the new performance indicators show a distinct increase above current performance levels, supporting the general view that Jemena is seeking an unnecessary increase in opex.

Table 4-11: Distribution segment KPIs: Operating cost per metre and cost per customer site (\$)

	2005-06	2006-07	2007-08	2008-09	2009-10
Operating cost per metre	4.43	4.49	4.44	4.21	4.26
Operating cost per customer site	106.94	107.79	103.50	97.16	96.67

The EMRF considers that the KPIs suggested by Jemena are significantly overstated and should be reduced.

Notwithstanding this approach, the EMRF queries the value of these KPIs and considers that a better incentive to increase opex efficiency over time, should be developed.

4.3 Unaccounted for gas (UAG) and carbon permits

One of the major costs incurred on behalf of consumers is the cost of providing for unaccounted for gas (UAG).

The causes for UAG are many but a number of the causes are within the power of Jemena to control, such as gas leakage and unmetered gas consumption. Because of this the EMRF considers that a service performance measure should be the ability of Jemena to reduce the amount of opex required to provide the make up gas to balance the UAG.

Under the current arrangement Jemena made some significant gains in reducing UAG, and a large part of this achievement was attributable to the “gold lining” project where many of the old cast iron gas mains were lined

with plastic so that gas leakage was reduced. This can be seen in the actual performance of Jemena in reducing the cost of UAG over many years, dating back to AA2 and the current AA3

Implicitly, IPART built into its final decision a driver for Jemena to reduce its UAG by limiting the amount of UAG cost recovery, although it should be noted that the IPART allowance was the same as that requested by AGLN in its application.

Table 4-7: Allowed non-capital costs compared with actuals and JGN's currently estimated and forecast outcomes

Cost category		2005-06	2006-07	2007-08	2008-09	2009-10
UAG	Allowed	10.5	10.3	10.4	10.4	10.5
	Incurred	15.7	14.1	12.0	12.5	11.6

Jemena's forecast costs for UAG show little further improvement over the next AA as can be seen in the following table.

Table 6-9: Forecast UAG costs

Year	2010-11	2011-12	2012-13	2013-14	2014-15
UAG	11.41	11.40	11.26	11.40	11.55
Carbon Permits	0.00	4.04	10.96	11.91	12.85

Jemena advises that its benchmark performance for UAG is 2.1% of total gas received into the network, and that an incentive applies in that Jemena retains the benefit of any lesser amount of UAG and is penalized by not being reimbursed to amounts in excess of the benchmark.

The EMRF considers that the AER should look to introduce an incentive scheme to reduce the amount of UAG needed by the Jemena network, but considers that there should be a sliding scale so that Jemena is continuously encouraged to further reduce the amount of UAG required over time.

The EMRF also notes that Jemena has made provision for providing Carbon Permits to accommodate its exposure to the CPRS due to be introduced in 2010 and to start in 2102. The need for carbon permits in the future should also be the focus of an incentive scheme to encourage Jemena to reduce its need for these into the future, especially as a significant proportion of the need for carbon permits is related to fugitive emissions which are a part of UAG.

5. Cost of capital

The EMRF is aware that under the recently released NGR and NER the AER is somewhat constrained in what it is permitted to do in regard to the inputs for the development of the weighted average cost of capital (WACC) to be used in a revenue reset review.

In particular, the NGR allows the applicant considerable latitude in what methodology is permitted and what inputs to be used in the methodology that might be allowed. Notwithstanding these constraints, the AER still has an obligation to ensure that the allowed WACC is appropriate for the purpose it is to be used for.

Jemena has proposed that the WACC be developed using the Fama-French three factor model for setting the equity return and sought advice from Allen Consulting Group (ACG) as to what the inputs should be using this model. This advice is appended to the Jemena application as appendix 9.1

Against this background, it must also be noted that the AER has recently completed a review of the inputs to be allowed into the Sharpe based CAPM approach that are to be used for electricity transmission regulation and which are to be used as a guide for the inputs for electricity distribution regulation.

The NGR allows even greater flexibility for applicants to propose their own form of WACC development and the AER is required to allow these to be used providing they meet the requirements of the NGR.

5.1 Fama French model

The first change that Jemena has sought is the use of the Fama-French (FF) three factor model for setting the equity return element of the WACC. This model assumes that equity returns are impacted by three elements – the market, the size of the business and the market capitalization which all have an impact on the relative return on equity.

Using the ACG proposed inputs under the FF model, the RoE premium for Jemena above the risk free rate would be 6.46% based on an MRP of 6.50%, implying an equity beta of 0.99, almost the same as the market average equity beta. This compares to a premium above the risk free rate of 5.2% using an MRP of 6.5% using the equity beta established by the AER for regulated electricity businesses.

On this basis alone it is clear why Jemena would prefer to use the FF model as it would increase the WACC by over 0.5% points based on a gearing of 40% equity.

ACG goes to great lengths to substantiate why the FF model meets the NGR criteria for use in gas regulation.

The NGR states that the rate of return shall be:

87 Rate of return

- (1) The rate of return on capital is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.
- (2) In determining a rate of return on capital:
 - (a) it will be assumed that the service provider:
 - (i) meets benchmark levels of efficiency; and
 - (ii) uses a financing structure that meets benchmark standards as to gearing and other financial parameters for a going concern and reflects in other respects best practice; and
 - (b) a well accepted approach that incorporates the cost of equity and debt, such as the Weighted Average Cost of Capital, is to be used; and a well accepted financial model, such as the Capital Asset Pricing Model, is to be used.

ACG avers that the FF model is “a well accepted financial model” in that it is used in academic literature, used by finance market practitioners and by regulators.

In Australia, the FF model is not used by regulators and, as the AER identified, it is not used by business. The AER final decision on the review WACC parameters highlighted (page 335) that:

- **72% of Australian businesses contacted by the AER used the conventional Sharpe CAPM and none used the FF model**
- **Every Australian regulator used the Sharpe CAPM.**

The reason the AER gave for this very heavy weighted preference is that there is no consensus that any other model is better than the Sharpe CAPM. Therefore, on the criteria nominated by ACG supporting the FF model as being a “well accepted model”, the FF model fails on two counts – at least in Australia – as it is not used by finance market practitioners or regulators, based on the AER research used in its WACC decision.

In regard to the third leg of the ACG criteria of acceptance, in its assessment of equity beta for the Victorian gas distribution revenue reset review in its final decision released in 2008, the ESCV observed in relation to the FF model (pages 474 and 475):

“The Commission is also aware that, while there are issues associated with the linearity assumptions implicit in the Sharpe CAPM alternative models – in particular non-linear approaches where proportionality does not hold – are also prone to error. For example, non-linear models are prone to data over-correlation or fit, where both systematic and random factors are explained. Similarly conditional models, in which the parameters are time-varying, offer no more certainty in that they are prone to errors associated both with data fit and the accommodation of variation, neither of which can be adequately tested.

Similar criticisms have been made of linear multi-factor models such as that developed by Fama and French. **There has been, for example, a considerable debate about whether the two additional factors that Fama and French focused on – one being an indicator of how returns vary with firm size, the other of how returns vary with ‘value’ (the ratio of book value to market value offered as a proxy) – are robust in other time periods and markets.**

... The Commission considers that it is reasonable, and consistent with the Code, that the equity beta be applied to the Sharpe CAPM. This approach is consistent with the approach used in the draft decision and, despite its shortcomings, is consistent with common regulatory and finance practice.” (our emphasis added)

This ESCV observation would indicate that although there may be some academic support for the FF model, this is not universal. It goes on to support the comments made by the AER that although the Sharpe CAPM has its limitations, it is widely accepted. In contrast, the ESCV avers that the FF model has its detractors in academe.

There is a considerable body of evidence that indicates that in Australia the FF model might not be the “well established financial model” ACG considers it to be.

In addition to this assessment, to make the model effective, there has to be substantial data available over a reasonable period on which to develop the inputs. In this regard it is clear that Australian regulators have only in the last few years seen sufficient data based on Australian equities, for them to move from using the average market equity beta of unity for regulated businesses. The reason for maintaining unity for so long was because of the lack of substantial and sustainable market data within Australia to warrant a move away from the value of unity.

One of the reasons for this position being taken by regulators was that the market for Australian utilities has been relatively short lived and is “shallow” – even now the utilities index comprises relatively few businesses and even

the numbers of businesses comprising the index is reducing in size as aggregations continue.

Thus the suggestion by ACG that Jemena should base its equity element of the WACC on the FF model rather than the more widely used Sharpe CAPM, would be beset by limited data on which to develop the needed inputs for the calculation.

ACG notes that in addition to the MRP used in the Sharpe CAPM, the FF model requires the development of risk premiums for the HML and SMB elements of the FF model. In addition, betas for MRP market and the HML and SMB elements are also required. ACG has populated the FF model using data from the AER decision on WACC and extended it using data from MSCI Australia and Dimensional Fund Advisors (DFA) calculations.

In developing the HML and SMB risk premiums, the data is available for relatively short periods (from 1975 for HML and from 2001 for SMB). In contrast the data for MRP has been assessed over much longer periods.

The betas for HML and SMB are developed by DFA which is affiliated with Professors Fama and French. These betas are calculated from data series of less than eight years of records. This raises the considerable concern that the data used for the FF model for Australian equities must be seen as very limited and this adds to the concern of using the FF model for Australian regulated businesses.

The EMRF would recommend to the AER that a conversion from the Sharpe CAPM to the FF model cannot be considered to be appropriate based on the widely held view that the Sharpe CAPM is more reliable and used extensively in Australia whereas the FF model is not widely used and has its detractors. This recommendation is further supported by concerns that there would be insufficient long term data available on which to establish sound input parameters in the FF model.

5.2 Market risk premium (MRP)

ACG has suggested that the development of the equity return be based on the WACC parameters developed by the AER in its recent review. The EMRF has concerns that the MRP developed by the AER was set on what now appears to be inappropriate assumptions.

In its decision the AER stated that (page 238):

“The AER considers that prior to the onset of the global financial crisis, an estimate of 6 per cent was the best estimate of a forward looking long term MRP, and accordingly, under relatively stable market conditions – assuming no structural break has occurred in the market – this would

remain the AER's view as to the best estimate of the forward looking long term MRP."

That is, the AER considers that MRP in Australia (in the absence of the recent global financial crisis – GFC) should be 6%. The AER went on to observe (page 238)

"However, relatively stable market conditions do not currently exist and taking into account the uncertainty surrounding the global economic crisis, the AER considers two possible scenarios may explain current market conditions:

- that the prevailing medium term MRP is above the long term MRP, but will return to the long term MRP over time, or
- that there has been a structural break in the MRP and the forward looking long term MRP (and consequently also the prevailing) MRP is above the long term MRP that previously prevailed.

Whilst it cannot be known which of these scenarios explain current financial conditions, both are possible, and both suggest a MRP above 6 per cent at this time may be reasonable. However, having regard to the desirability of regulatory certainty and stability, the AER does not consider that the weight of evidence suggests a MRP significantly above 6 per cent should be set.

Accordingly, the AER considers that a MRP of 6.5 per cent is reasonable, **at this time**, and is an estimate of a forward looking long term MRP commensurate with the conditions in the market for funds that are likely to prevail at the time of the reset determinations to which this review applies. " (our emphasis added)

When the AER was drafting its WACC parameter decision (released 1st May 2009), the impact of the GFC in Australia was still unknown. However, the fact that Australia has been only marginally impacted by the GFC – of all the developed countries Australia was the only one which did not suffer negative growth and has had minimal unemployment increases. In fact, Australia is even now increasing its official interest rates to fend off the spectre of inflation caused by a growing economy.

The AER decided that an MRP of 6.5% was needed to reflect the expected concerns that the Australian economy was headed for significant trouble and that a higher MRP was needed to ensure that the regulated businesses would have an adequate ability to secure funding for needed investment. In fact, the economy has shown to be extremely resilient and the AER concerns about the future would seem to be disappearing, and probably, with hindsight, never were substantiated.

Because of this the EMRF is of the view that the conservatism applied by the AER in its setting of MRP, was never necessary and it should have remained with its draft decision, at 6.0%.

5.3 Equity beta

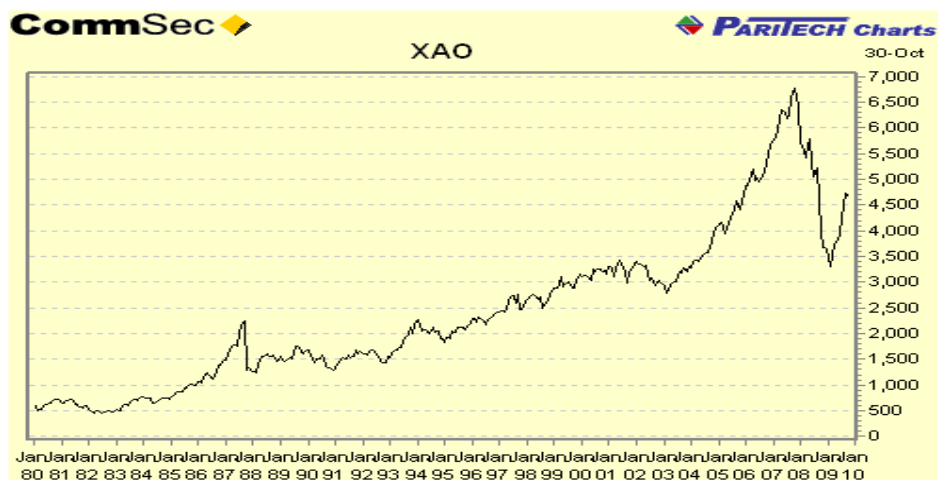
In its WACC parameter decision the AER decided that an equity beta of 0.8% should apply to the electricity transport businesses. In reaching this decision it placed considerable weight on the equity beta developed from Australian listed regulated businesses – the majority of which are gas transport businesses.

In its summation the AER observed that (page 343):

“The empirical evidence considered by the AER suggests that the equity beta of a benchmark efficient NSP is in the range of 0.41 (average portfolio estimated by the AER for Australian businesses post ‘technology bubble’) to 0.68 (average portfolio estimated by the ACG for the JIA using a five-year estimation period).”

It is pertinent to note that the AER calculations for this range excluded the impact of the “technology bubble” of the late 1990s as it considered that this impact created a lower and unsustainable estimate of equity beta. This exclusion is inconsistent for two reasons:

1. The impact of the technology bubble on Australian equities has been seen as having a modest (at most) impact on Australian equities and many see the tech bubble as having almost no impact at all and this is seen by a plotting of the “All Ordinaries” index.



If there was a conscious decision to exclude some data from the calculations due to a concern there may be an unintended impact,

the same argument applies as to whether the impact of the current GFC or the 1987 crash should be excluded from assessing the WACC parameters. This approach has not been taken in relation to other parameters.

2. The AER made a conscious decision to provide an increase in the MRP as a result of the GFC (another exogenous impact) yet the AER decided that it needed to be cognizant of the impact in the interests of the regulated businesses

In these examples, the AER decided that it would accept the market impact of one exogenous circumstance but not another. This is inconsistent.

The AER calculations sets a range for equity beta and the expectation is that the AER would use a value within this range, as to use a value more than this would add considerable conservatism.

The AER settled on a higher value (0.8) for two stated reasons

- The first is that it would negate any bias inherent in the use of the Sharpe CAPM, and
- The second its that it was concerned that applying an equity beat any lower would be too great a step and thereby impugn regulatory stability.

The EMRF sees that the AER conclusion is at odds with a desire to ensure that the resultant value of the WACC is an appropriate level which provides for a reasonable opportunity to recover at least efficient costs, commensurate with providing effective incentives to invest efficiently and having regard to the economic costs and risks of over or under investment.

The EMRF considers that the equity beta that should be used is within the range the AER identified as replicating the actuality of the equities market in Australia.

On that basis the equity beta to be used for the Jemena reset should be no greater than 0.68.

5.4 Other WACC parameters

The EMRF notes the disclaimer in its recent WACC parameters review in regard to its applicability to gas transport regulation

“1.4.4 Gas transmission and distribution

The outcome of the AER’s WACC review applies only to electricity determinations, and has no direct or formal applicability to gas access arrangements. The determination of the WACC for access arrangements is subject to requirements under the National Gas Law (NGL) and

National Gas Rules (NGR), which are not being considered in this review.

Nonetheless, given the similarity of issues, the AER may use the outcomes of this review in the consideration of WACC issues in future gas access arrangement reviews.”

Notwithstanding this disclaimer, the EMRF considers that for the other WACC parameters (ie other than MRP and equity beta) for the purposes of “regulatory stability” the other WACC parameters as developed in the detailed review represent the best assessment of the value and applicability of the WACC parameters carried out in recent times. On this basis the EMRF would strongly support an AER decision to require Jemena to use these for its current revenue reset review.

In this regard the EMRF notes the Jemena view that the debt risk premium should be based on Tabcorp 5 year BBB- rated corporate bonds adjusted to reflect a 10 year maturity and BBB+ credit rating.

In its decision on the WACC parameters the AER indicated that there was sufficient evidence to countenance a move from the BBB+ credit rating to A-, but it decided that for conservatism a rating of BBB+ should be retained.

Jemena’s appendix 9.2 uses the application to the AER for the AMI roll out as the basis for setting DRP. This approach appears to be based on using a single corporate bond (Tabcorp) as the basis for the DRP. The appendix highlights that few bond raisings were carried out during 2008 and early 2009, giving a limited basis on which to set the DRP.

The EMRF is concerned that using a single bond raising is not appropriate as the basis of setting the Jemena DRP and supports the approach used by the AER in developing its decision on the Victorian AMI roll out review 2009-11 budget and charges application, released in October 2009.

6. Demand and consumption forecasts

6.1 General observations

As the AER sets a price cap for the distribution businesses (rather than a revenue cap as used for electricity transmission businesses) the setting of the demand forecasts becomes a critical element of the review. As the key determinant for setting the price cap is consumption (kWh) there is potential for the distribution businesses to manipulate the forecasts in two basic ways.

The first and most obvious way of gaming consumption is by understating the expected increases in consumption entirely. Using this lower figure in the denominator of the calculation, overstates the amount of funds raised on a unit basis.

The second way of gaming using the forecast of consumption is by front end loading the forecast growth over the period. Whilst the average growth for the period may be the same, front end loading allows the businesses to recover cash earlier and therefore provides a greater net present value of the cash flow to the business. The effect of this earlier cash flow allows the business to earn a return on the funds over-recovered.

Careful analysis of the forecasts is required to assess whether Jemena is using one or both of these techniques to secure an improved position to increase their revenues without having to do anything physically.

The EMRF has identified a trend amongst energy transport (gas and electricity) networks to overstate the growth in new connections and in demand (MW and MDQ) as this adds justification to the networks claims for capex. Countering this, the networks tend to understate the growth in consumption (MWh and ACQ) as this amount is used in the denominator of the price cap and tariff calculation. We would therefore counsel the AER and its consultants to closely examine past applications and forecasts to identify any trends in under- or over-forecasting which has led to acceptance of increased capex claims or to gaming tariffs by under estimating forecast usage.

It would also be useful to aggregate all of the claims by Jemena against the values used by AEMO as the basis for its Gas Statement of Opportunities (GSoO) which is to be released in December 2009. Further, as Jemena has requested NIEIR to provide a forecast of gas usage growth, it is recommended that an independent consultant (such as ABARE) also provide its assessments for growth in gas demand and potential new connections.

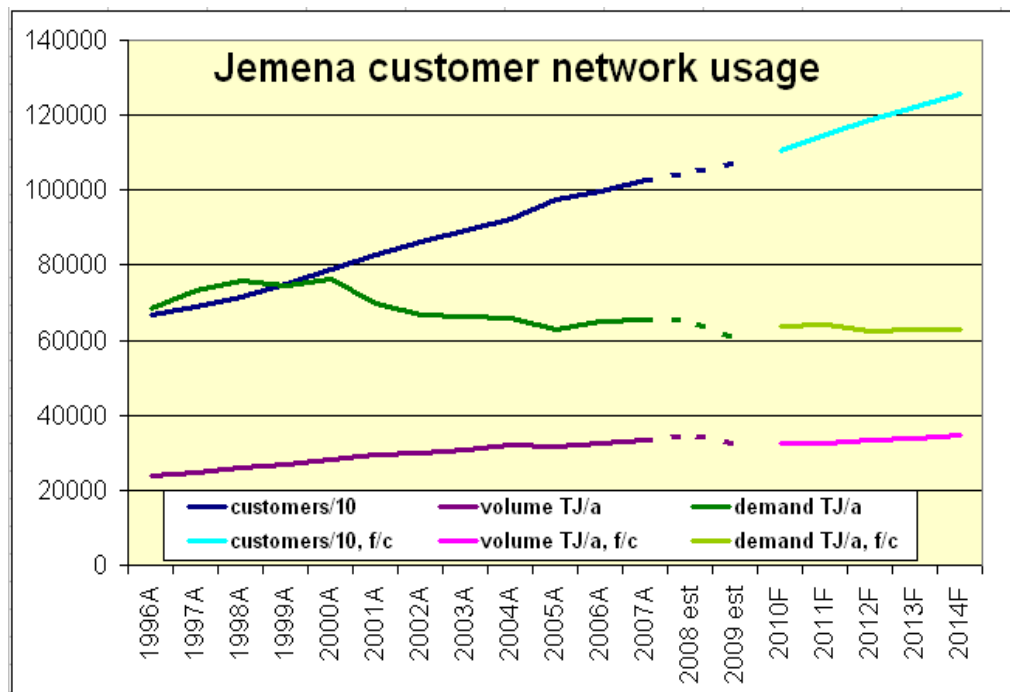
Overstating demand growth and new customer numbers give support to increases in capex and opex. Thus the EMRF would strongly support the AER in securing independent assessments for forecast growth on which to

base the price caps after it determines the appropriate revenue stream for each business.

The EMRF does not have its own forecasts for growth over the coming regulatory period, but what EMRF members have noted is that on average they have experienced some growth due to national and international economic growth. The EMRF would like to review the work commissioned by the AER consultants and independently verify the data before commenting further on the actual forecasts.

6.2 Jemena demand and consumption data

The EMRF has extracted data from the current and past applications made by Jemena and its previous owner AGL. Pictorially this is shown as follows:



Source: Jemena (2009) and AGL (2003) applications

This shows that Jemena is forecasting a consistent growth in numbers of customers connected to its network. By far the largest group of customers is those classed as volume customers who use less than 10 TJ/a of gas. This group includes small business and residential customers, of which residential customers comprise some 97% of the total.

Demand customers are very large users of gas. They comprise between 400-500 sites in total and they have unique tariffs depending on their location. Although the number of large demand customers is small in proportion to the volume customers, they consume about 2/3^{rds} of the total gas transported on the Jemena network.

The values for 2008 and 2009 are estimated by Jemena and these show a significant reduction in gas forecast to be transported for 2009/10. Jemena then uses this reduced forecast as the basis for its forecasts for the next period. Jemena notes that the forecast consumption for 2008/09 does not show this trend and the gas volumes for this period would be more accurate that the forecasts for 1009/10 as a significant amount of the forecast for 2008/09 would have been based on actual consumption, with a small proportion based on estimates.

Jemena notes that consumption forecasts for the current period were significantly overstated in the IPART decision in 2005, and it provides the following table in its AAI to support this contention.

Table 4-5: Forecasts of total gas load compared with actual (TJ)

Forecast	2005-06	2006-07	2007-08	2008-09
IPART final decision – Apr 2005	99,107	101,373	102,432	103,894
AGLGN's submission – Dec 2003	98,690	100,769	101,560	102,561
Actuals to 2007-08 plus estimate 2008-09	94,788	97,349	98,989	100,899

Jemena then goes on to observe that its revenue would have been less than expected as a result of this over-estimate of forecast consumption. The EMRF is not convinced that this is the case as demand customers actually pay for transport on the basis of MDQ and not on annual consumption. Some volume customers are levied on the basis of peak demand as well, and as the following table in the AAI clearly shows, peak demand on the network increased over the current AA period even though consumption was less than the IPART assumed forecast consumption. Again the forecasts for 2009/10 show a large reduction from the previous year.

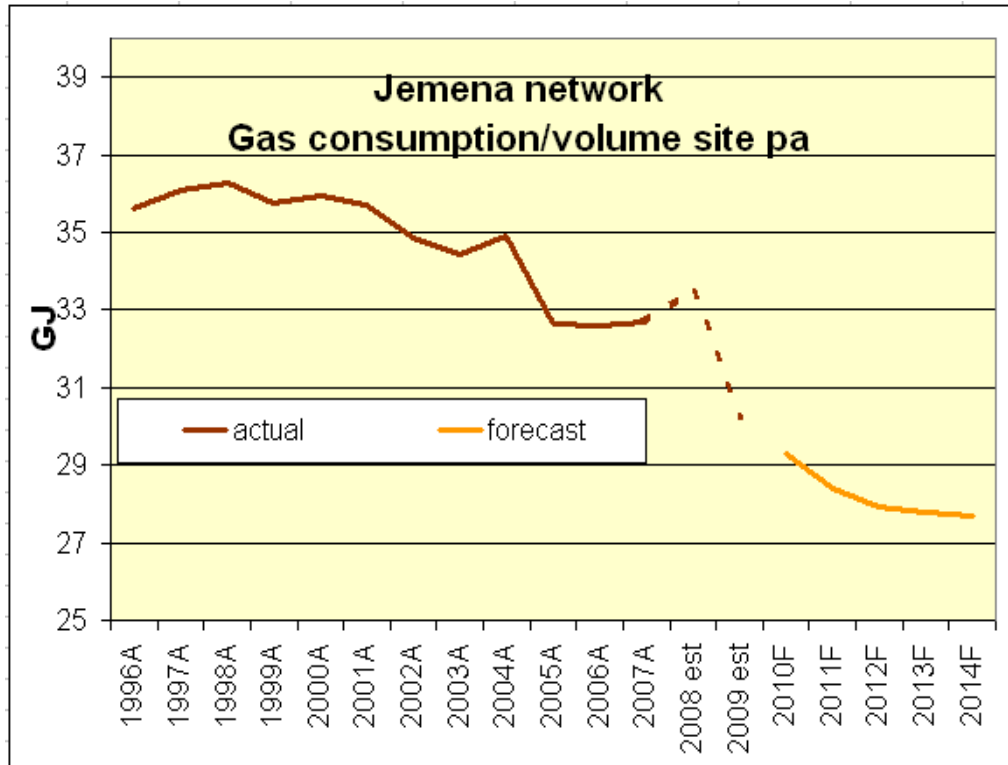
Table 4-3: Average daily gas load - volume and demand customers and MDQ for demand customers for current AA period (TJ)

	2005-06 actual	2006-07 actual	2007-08 actual	2008-09 forecast	2009-10 forecast
Volume customers	87.1	89	91.9	96.2	89.1
Demand customers	172.6	177.7	179.3	179.7	166.3
Total average daily load	259.7	266.7	271.2	275.9	255.3
MDQ for demand customers	292.5	295.1	293.3	334.2	317.5

Note:

1. Average daily gas loads derived from totals in Table 4-4.
2. Demand customer MDQ for 2005-06 to 2007-08 is booked MDQ. Remaining years are NIEIR MDQ forecast adjusted for a large new customer. See section 5.9.2 of this AAI.

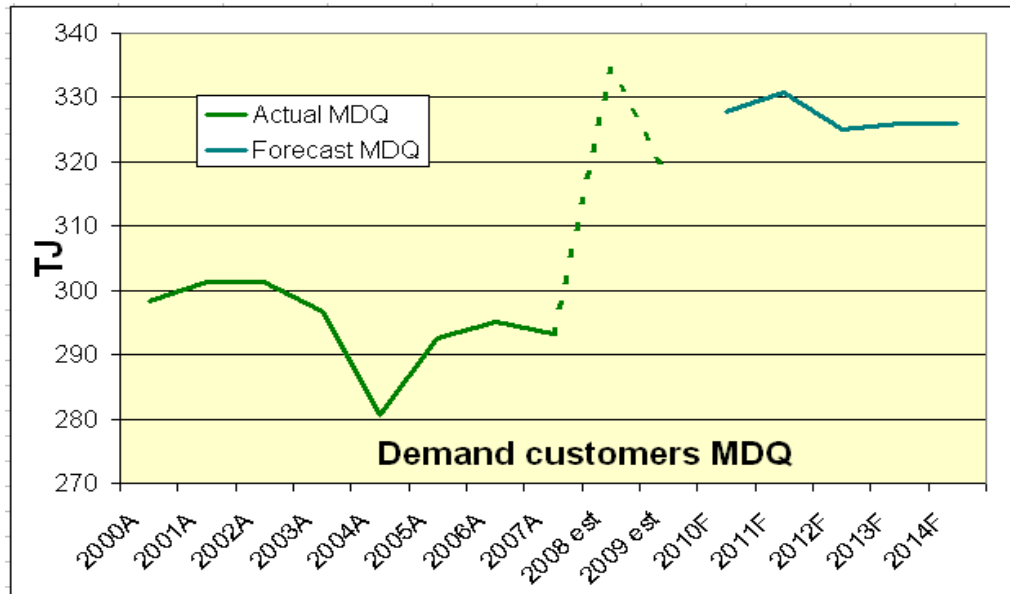
It is fair to note that volume customers appear to be reducing the amount of gas used per site per year over time but this is not as apparent as Jemena seems to indicate. The following chart shows the amount of gas used by volume customers per site over the past and what Jemena is forecasting.



Source: Jemena (2009) and AGL (2003) applications

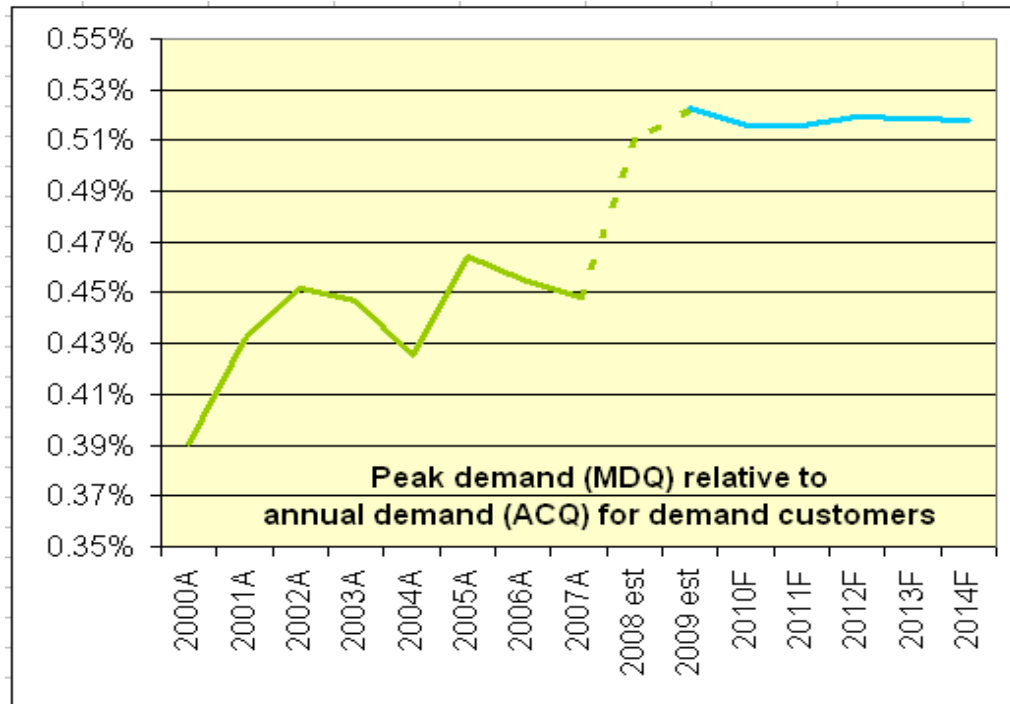
Overall, the actual data confirms there is a consistent trend of a small reduction in usage per site over time of about 0.5% pa. However, the Jemena forecasts indicate that this trend would have had to be three times this rate to replicate the forecast site usage. The EMRF finds this massive step change to be not credible.

In a like vein, the MDQ for the large demand customers shows a step increase in peak demands over time. Historically, the MDQ for demand customers averages about 300 TJ yet Jemena is forecasting an increase in MDQ of some 10%, but it is proposing to retain approximately the same tariffs for these customers. As demand customers are charged on the basis of MDQ (and not ACQ) this implies that Jemena would accrue an increase in revenue for the same tariffs.



Source: Jemena (2009) and AGL (2003) applications

This issue is more clearly shown when MDQ is related to ACQ.



Source: Jemena (2009) and AGL (2003) applications

Historically, MDQ has been about 0.44% of ACQ but Jemena is forecasting an increase in this ratio by some 20% to 0.52%. The EMRF has no data to refute this forecast increase but it has a concern that Jemena could use this as a method of increasing revenue in the future.

This is because Jemena is forecasting that its revenue from demand customers will be much as it is now based on ACQ, but Jemena charges for network usage based on MDQ. This means that the AER needs to ensure that tariffs developed by Jemena reflect the increase expected in MDQ rather than the expected overall flat forecast consumption of gas.

6.3 Relation between capex and forecast growth

Jemena is forecasting an increase in connections for volume customers but a reduction in consumption of gas. It is forecasting an increase in MDQ for demand customers yet a flat consumption.

Jemena is also forecasting a doubling of capex from current levels for the next period, yet the number of forecast new connections is the same as in the current period.

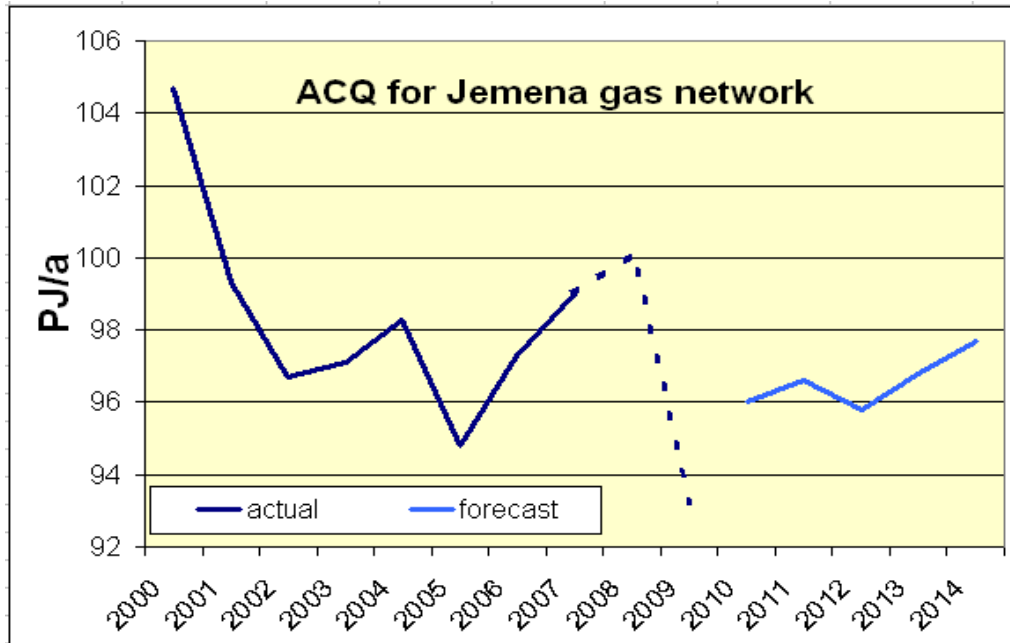
Although Jemena is forecasting a step increase in MDQ for demand customers, there does not appear to have been a trend of increasing MDQ for demand customers over the current period. The EMRF members represent a significant part of the gas used by demand customers and they do not currently see that the relation between MDQ and ACQ will undergo the step change indicated by Jemena.

Jemena has provided a breakdown of the capex and advises that it requires some \$371m (\$'10) of capex for market expansion over the next AA. The same growth in new connections and MDQ growth for demand customers was achieved for about \$300m (\$'2010). Analysis of the historic data does not support a more than 20% increase in capex to accommodate market expansion. It does, however, indicate that the increase in customer numbers forecast might not be warranted for the resultant increase in capital.

The AER needs to carefully examine whether the increase in capex for market expansion is prudent and efficient. Based on the historic returns, the EMRF has concerns that the market expansion capex claimed is neither prudent nor efficient.

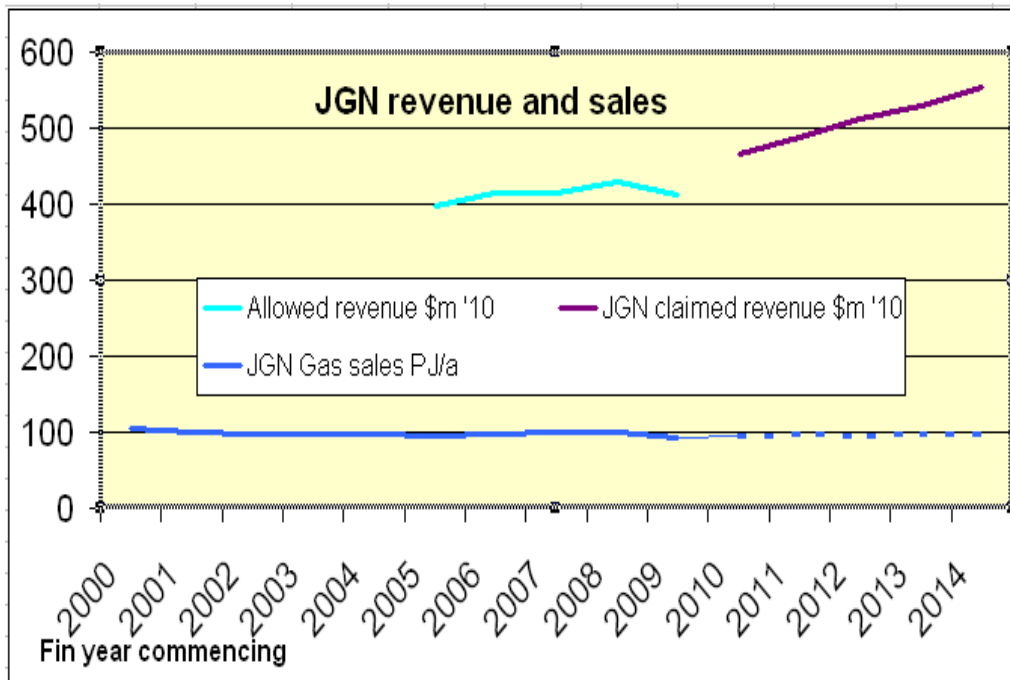
6.4 Relation between revenue and expected consumption

Jemena is forecasting little change in the consumption of gas transported on its network; if anything it is indicating there maybe a small reduction in gas transported over the next AA period compared to the actual amount of gas consumed in 2008/09. This is shown in the following chart.



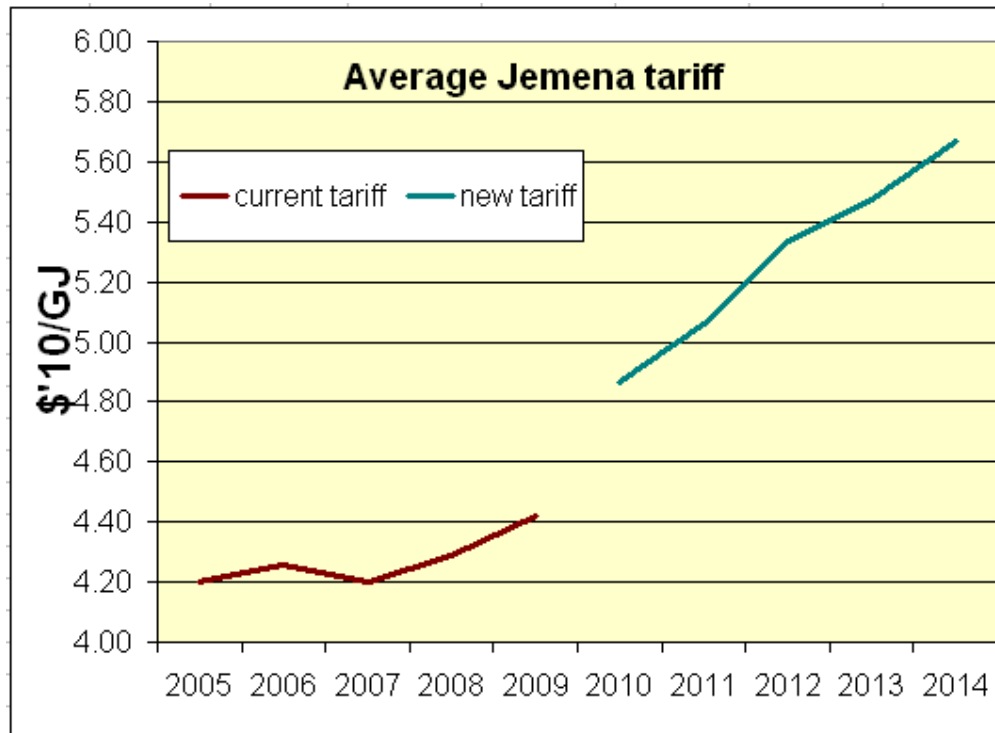
Source: Jemena (2009) and AGL (2003) applications

However, Jemena has requested a significant increase in revenue as shown



Source: Jemena (2009) and AGL (2003) applications

The resultant average tariff changes are very large, showing an increase of over 25% by the end of the next AA period.



Source: IPART final decision (2005), Jemena (2009) and AGL (2003) applications

This analysis shows that Jemena is seeking large increases in revenue against a backdrop of virtually static demand. This raises the question – is the increase in capex and opex warranted when the amount of increased demand (in terms of ACQ) is static and the amount of new connections has such a high cost for the reward that will be achieved.

When the impact of Jemena’s decision to retain the tariffs for the 400+ point tariffs at the current “real” level is carefully considered, it is seen that the increases in tariffs for volume customers will be even higher than implied by the average tariff. This reinforces the view that the AER must assess the Jemena claims for increased opex and capex so as to identify whether the costs associated with increasing the number of connection points, as proposed by Jemena, is efficient and prudent.

7. Pricing Methodology

In the recent development of the National Gas Rules by the MCE, it has accepted the principle that distribution pricing is more a matter for users of the transmission network than for the DNSPs, although it is accepted that under a price cap pricing approach, the DBs are still incentivised to increase demand and consumption as by doing so they will increase their revenue.

Under the Gas Code, tariff setting and pricing was of interest to regulators but only to the extent of establishing a mechanism to manage the price movements overall, and to ensure that the tariffs set lay between the extremes of avoided cost and stand alone pricing.

Under the new Rules, the regulator is required to ensure that the individual prices for each service are set as close to cost reflective as in reasonable. These changes now require the AER to ensure that the prices developed by DBs are based on sound economic principles.

7.1 A shared network: the underlying principles

As consumers are the prime providers of funds to support the distribution network, they accept that having a jointly shared facility is by the far the most cost effective approach to the provision of a natural monopoly service. Not only would it be absurd for each user to have a separate supply arrangement for its provision of gas, it is economically inefficient from a national viewpoint for this to occur. Having established that a joint facility is the most appropriate approach for infrastructure provision, there is an unstated but real requirement that the costs each user is liable for must be equitably shared and that the prices they pay are representative of the use they make of the shared facility.

Consumers see distribution pricing as an essential element of the AER regulatory reviews of energy transport providers. Pricing is the allocation of the revenue streams into clearly identifiable elements so that consumers can readily see that the allocation of the permitted revenue is equitably allocated between all consumers representing the share of the cost of the provision of the transmission network. The outcome of this approach provides for all consumers to see that they each pay their equitable share of the jointly used assets. It also provides certainty that decisions made by each user (such as location, time of and frequency of use, and overall use of the network) are adequately recognised by the user, and that no one user is effectively supporting less rational decisions by another user.

Inappropriate pricing of services leads to inefficient outcomes. A user that is convinced that it is paying too much for the service will take a number of actions to reduce its costs, perhaps leading to nationally inefficient outcomes. The user that is not paying its fair share for the service undervalues it and makes inappropriate use of the facility. Over-allocation of

distribution costs can lead to companies deciding to relocate overseas or curtail activities, causing remaining users to provide that contribution from the business ceasing its operations. Equally, under-allocation of costs results in the proliferation of occasional users who do not recognise the impact of the decisions they are making.

Consumers have observed that DBs have an incentive to maximise prices in elements where they identify as the most likely to exceed the estimates for consumption used in their development, and to minimise prices where elements are likely to be less than forecast. Gaming of the DB pricing methodology is a fine art and can lead to very large rewards for the DB.

Requiring prices to be as cost reflective as possible eliminates much of the potential to game pricing methodologies. It is imperative that the AER devotes considerable effort into minimising the incentive on Jemena to game its pricing methodologies.

7.2 The impact of the STTM

Jemena has indicated that it will allocate the costs of the trunk line from Wollongong to Newcastle across all consumers. The issue that this presents is the process Jemena will use for this outcome to ensure that unexpected outcomes do not arise. The AER needs to have a clear understanding of the Jemena processes in developing the cost allocations, how these will reflect the principle of cost reflectivity and how they will accommodate credible alternatives and future changes.

For example, the EMRF is aware that there is a likelihood that a pipeline will be built from Wallumbilla in Queensland to Newcastle via the Gunnedah coal seam gas fields (QHGP). This pipeline would bring to the NSW gas market new lower cost sources of gas, with the likelihood that lower cost gas would then be available in Newcastle, obviating the need for the expensive Sydney to Newcastle section of the trunk line. If Newcastle users are allocated the cost of the Horsley park to Newcastle section of the trunk line, then when QHGP commences operation, there will be potential for bypass, such as when occurred when EGP was constructed and Wollongong gas users were able to bypass the trunk line.

A bypass of the Horsley Park to Newcastle trunk line will result in Jemena losing significant revenue.

If all costs of the trunk line are then allocated to all NSW gas users, there is potential for “free riding” of gas transport from Newcastle to Wilton as the proposed approach will allow gas injected at Newcastle from QHGP to be extracted at Horsley Park, Wilton or Wollongong without paying for the transport of the gas for this long haulage.

It is therefore incumbent on Jemena to explain what its cost allocation and pricing approaches will be so that all consumers will be able to identify what each tariff includes as a result of this proposed cost allocation of the trunk line, and if some gas users will be providing for free gas transport from Newcastle to southern NSW gas users.

7.3 Tariff setting for large users

Jemena has advised that it will retain the 400+ point tariffs which provide access for the largest of the gas users in the Jemena network. Jemena has also advised that, although some of these point tariffs might vary individually, the overall revenue recovery from these point tariffs will be much the same, in real terms, to the current tariffs paid by those gas users.

This approach reflects the actuality as the consumption at these point locations is unlikely to vary much and the assets used are the same. This approach, in principle, is supported by the EMRF but it is incumbent on the AER to confirm that this outcome does result from the new point tariffs and that any variation from the current point tariffs is fully explained and justified.

Jemena has advised that it will introduce a discounted tariff (the interruptible supply tariff) which will provide a discounted tariff to large users prepared to be “first cab off the rank” when there is a need for involuntary load shedding. This approach recognizes that historically large gas users are always requested to curtail demand when there is a gas shortage⁷.

The EMRF supports such a discounted tariff being introduced, and considers that a number of its members would be interested in discussing the discounted tariff with Jemena in more detail, and to assess the implications of its requirements.

⁷ This recognises that it is more efficient to require large gas consumers to curtail than small gas users. Traditionally the curtailment tables always have large consumers as first to be curtailed and because of this, large users tended to have lower gas supply tariffs. With the segmentation of the gas market into supply, retail, transmission and distribution the discounted tariffs previously available to offset the lower reliability were eliminated.