Energy Consumers Coalition of South Australia

Australian Energy Regulator

SA Gas Distribution Revenue Reset

AER Draft Decision

A response

by

Energy Consumers Coalition of South Australia

April 2011

Assistance in preparing this submission by the Energy Consumers Coalition of SA (ECCSA) was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

This project was part funded by the Consumer Advocacy Panel (www.advocacypanel.com.au) as part of its grants process for consumer advocacy and research projects for the benefit of consumers of electricity and natural gas.

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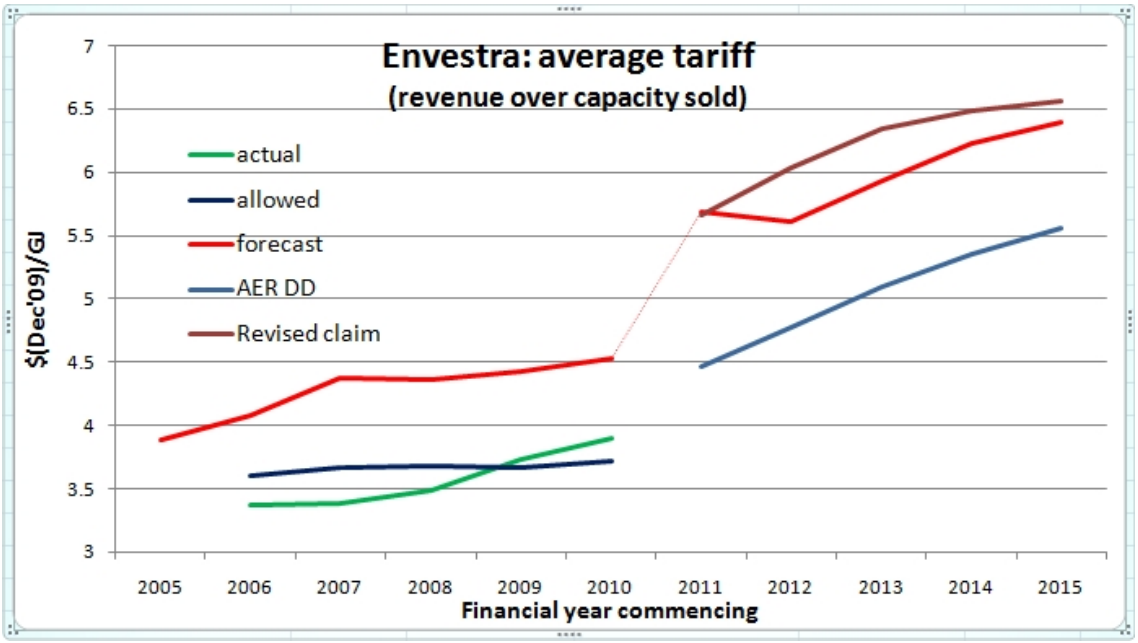
Executive Summary

The Energy Consumers Coalition of South Australia (ECCSA) welcomes the opportunity to provide its review of the AER draft decision on the Envestra SA gas distribution application for its revenue reset, and on the revised application from Envestra.

Overall, Envestra is seeking a very large increase in tariffs and the AER draft decision still provides large increases over the next five years.



Source: ESCoSA, SAIPAR and AER decisions, Envestra applications, ECCSA analysis

The changes in the Envestra revised application show that Envestra is seeking a higher tariff than in its initial application, mainly as a result of increased revenue claims.

The main causes of the increases in revenue from the current period are attributable to a very large capex claim, the decision to pay a large fee to its contracted operator and increasing costs for unaccounted for gas combined with an excessively high WACC, all measured against a declining amount of network capacity being sold.

The AER draft decision still maintains an unnecessarily high WACC (mainly due to an excessive debt risk premium), and a large asset replacement program combined with a too little reduction in unaccounted for gas resulting from the asset replacement program.

Most disconcerting to ECCSA is the failure of the AER, in this review, to rigorously assess Envestra's initial application. ECCSA strongly considers that

it is this failure that has provided Envestra with the incentive to raise its claims even higher in its revised application.

The initial request by Envestra for a 250% increase in capex was unwarranted and unsubstantiated. The revised application where the capex has been increased is even more so.

The AER draft decision to still allow a large increase in capex is also incorrect. The AER has not addressed many of the issues raised in the ECCSA response to the initial application, and needs to address the additional points made by ECCSA in this submission.

In particular, the ECCSA reiterates its view that as Envestra was subject to a capex incentive program in the current period (and where that incentive has resulted in incentive payments to be made) the AER must have greater cognisance of the actual capex performance rather than totally ignoring it.

It would appear that the AER agrees with ECCSA that the actual performance of Envestra should be used as the basis for the capex (and opex) allowances. On page 146 of the AER draft decision, the AER notes:

> "By forecasting based on its best estimates, the AER provides businesses with an appropriate efficiency baseline that it can potentially outperform, revealing efficiency gains. The service providers' actual costs are then used as a basis to forecast or roll forward over the next period, reflecting the most up-to-date information and passing the benefits of any efficiency gains through to consumers."

It is unfortunate (especially for consumers that have to pay for the excessive capex allowed) that the AER has not applied its own philosophy to the current capex allowances, even though ESCoSA specifically included capex in its incentive program.

If the AER were to incorporate the outcomes of the actual capex performance of Envestra under the incentive program, the AER would need to reduce the claimed capex by far more than it has.

The ECCSA was very much of the view that Envestra has provided an application which has excessive levels of "ambit" included in it. The revised application supports this view, but of great concern is that the AER has accepted significant elements of this ambit.

1. Introduction

1.1 The ECCSA and the scope of the review

The Energy Consumers Coalition of SA (ECCSA) welcomes the opportunity to comment on the AER draft decision on the Envestra (SA) application for its revenue for the next five year regulatory period commencing July 2011 and to provide its views on the revised application from Envestra in response to the AER draft decision. .

The ECCSA is a forum representing large energy consumers in South Australia. The ECCSA is an affiliate of the Major Energy Users Inc (MEU), which comprises major energy using companies in NSW, Victoria, SA, WA, NT, Tasmania and Queensland.

What most concerns the ECCSA about the AER draft decision (DD), is that Envestra has used the draft decision to "cherry pick" those elements of the AER DD to increase its allowed revenue and to generally maintain its views where the AER DD has determined a lesser amount should be allowed. The overall impact of the Envestra revised approach has resulted in Envestra seeking a higher revenue than it originally sought.

This same outcome was seen in the recent Victorian electricity distribution pricing review where the five businesses all sought a higher level of revenue after the release of the AER DD. The expectation of the Law and Rules is that a revised application would accept many of the AER DD aspects or provide explanations as to why the AER DD was incorrect. Such an approach would result in a revised application reducing the areas of contention.

What is being seen is a "cherry picking" exercise with the business then appealing the AER Final Decision (effectively at the consumers' cost) with an expectation the Australian Competition Tribunal will disallow some of the AER decisions, thereby increasing the allowed revenue. This is no more than a "regulatory forum shopping" exercise, all carried out at consumer expense, as the Tribunal has demonstrated that it is "standing in the shoes of the regulator" in recent appeals

In the recent Garnaut update #8 in relation to the climate change review, Garnaut makes disconcerting observations about the current approach to merits reviews.

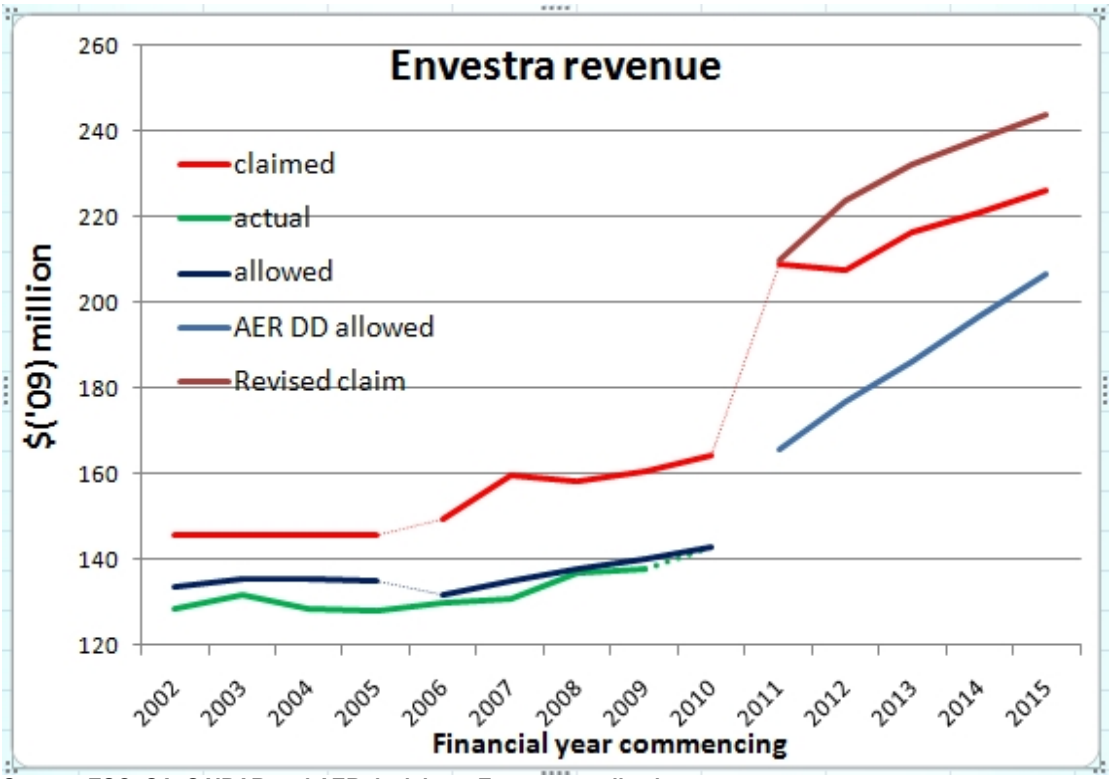
Another key element of the Garnaut observations is that the regulator needs to address more closely the issue of affordability of its decisions on consumers. At most the AER addresses the issue of affordability by calculating the cost impact of its determination – it does not address the ability to pay.

Intriguingly, many energy distribution businesses are advising the AER that the volume of their sales is declining causing increases in tariffs. What is not recognised is that consumers' ability to pay is being eroded and as a result there are lower volumes of energy being transported. A major cause of this decline in volumes is that the costs for transport are increasingly less affordable, indicating that the energy transport businesses are causing their own outcomes by excessive price increases. How the businesses react to this is to add ever more consumers to the networks to replace the volumes lost, yet the cost/benefit per new customer added, is becoming ever more marginal.

This latest revised application by Envestra is another step into an increasingly steeper downward spiral of higher transport prices forcing more reductions in energy usage.

1.2 An overview of the AER DD

The increased revenue sought by Envestra in its initial proposal for the new regulatory period is significant (and even more so in its revised proposal), but the allowance in the AER DD still shows a significant increase from the current period, with a sharply increasing trend.



Source: ESCoSA, SAIPAR and AER decisions, Envestra applications

Historically, Envestra has sought more revenue than the previous regulators (SAIPAR and ESCoSA) allowed. Equally, it must be noted that the actual revenue recovered by Envestra has been less than that allowed by the regulators, especially in the case of the first regulatory period assessed by SAIPAR. However, it must be also noted that the regulatory allowances were much closer to the actual revenue than have been the Envestra claims and despite the revenues being less than allowed, Envestra has consistently reported to its shareholders that it is performing well. Appendix 3 provides the most recent example of this where Envestra advises its shareholders that there is potential for an even better result than forecast earlier.

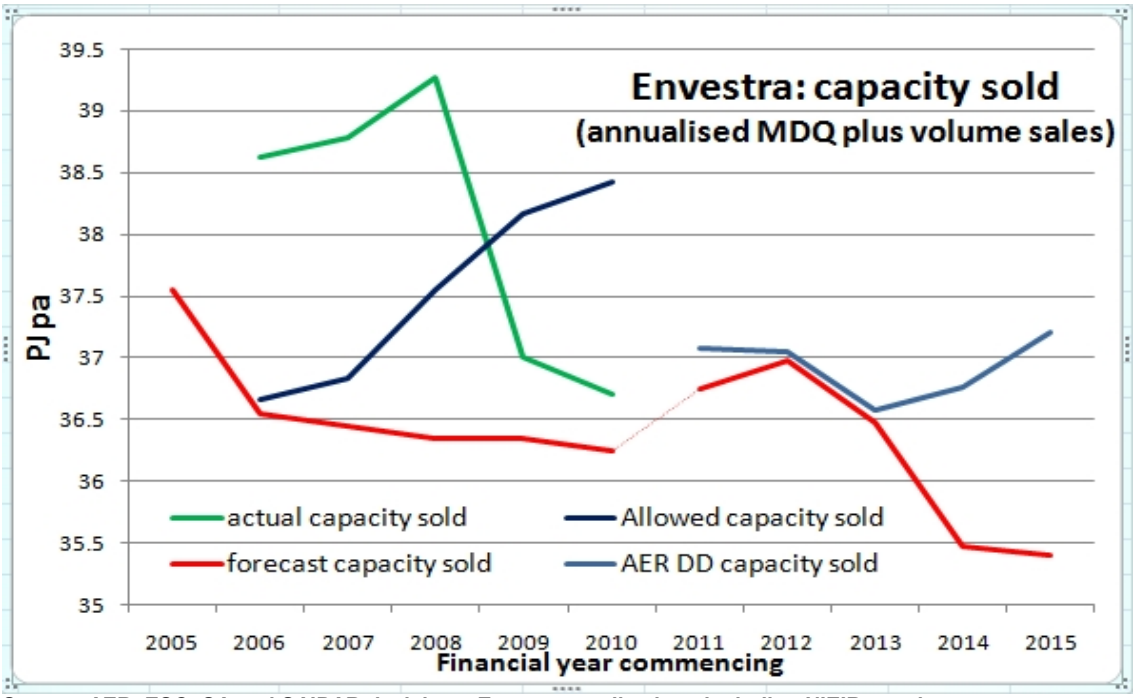
To counter the small under-run in revenue, Envestra's costs tended to be much less than the revenue allowed (especially in the case of the second regulatory period assessed by ESCoSA) so that the less than expected revenue was more than offset by opex and capex under-runs.

The AER draft decision will result in a massive increase in capital investment combined with an excessively high WACC mainly as a result of an over estimation of the debt risk premium. Ironically, the large asset replacement program, ostensibly to reduce the amount of unaccounted for gas (UAFG) seems not to result in the reductions in the costs that would be expected. Unfortunately the actual levels of UAFG that the AER has estimated will occur as a result of the asset replacement program is classed as commercial in confidence, so no actual performance can be readily assessed by the consumers who are paying for the work.

The massive increase in capex, combined with a large weighted average cost of capital, results in a large increase in revenue being allowed by the AER, but the opex benefits arising from the capex program are less than would be expected.

The following chart provides a view on the capacity of gas transport sold by Envestra, including the AER draft decision on forecast capacity to be included. The revised Envestra application makes no change to its forecasts.

This graph reflects the annualized MDQ for tariff D customers plus the actual volume of gas carried for tariff V customers – combined, these provide the actual transport capacity paid to Envestra.



Source: AER, ESCoSA and SAIPAR decisions, Envestra applications including NIEIR attachment

The AER draft decision reasonably replicates the Envestra forecasts except for the final two years. Envestra had forecast a rapidly declining volume of gas usage whereas the AER advice implies that gas sales volumes will recover in this period. Overall the average AER forecast seems to indicate that the current rate of actual consumption in 2009/10 will be maintained.

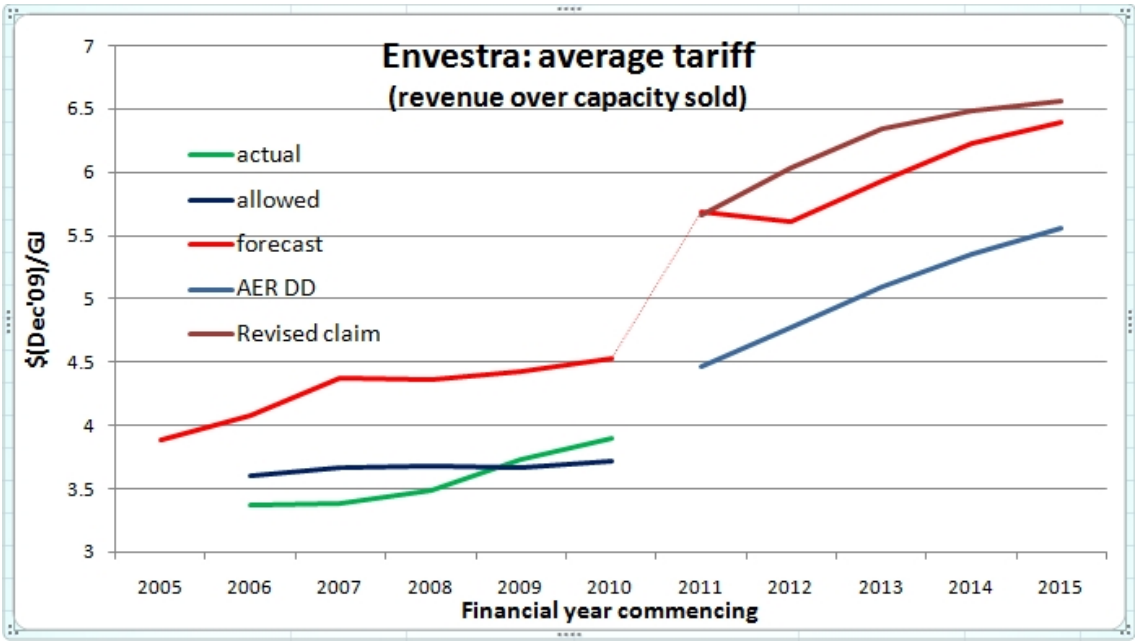
Overall, the average AER forecast seems to indicate that the current rate of actual consumption in 2009/10 will be maintained. This view is probably conservative, because of a number of factors, including:

1. The winter of 2010 was colder than earlier in the decade indicating that there might be a change in the weather patterns to a cooler period as had happened in the 1970s after the warmer 1960s. It must be acknowledged that the cooler winter in 2010 will have increased volumes above the forecasts provided by Envestra in its application, thereby understating usage for 2010/11.
2. In its assessment of market risk premium, the AER is of the view (as is ECCSA) that the impact of the global financial crisis in Australia has effectively been "washed out". Further the demand for commodities has been generally maintained. The implications of these two effects are to increase gas consumption
3. However, acting against the general improvement in the Australia market has been the impact of the very high $A and this particularly in SA has provided massive downward pressure on manufacturing in the State. The AER has previously in its regulatory decisions considered (on the advice of experts) that the high $A is likely to fall

over the next 5 years so that this will provide an impetus to manufacturing in SA.

Yet, despite these positives, and although the massive fall in gas usage in 2008 was directly related to the GFC and an unusually warm winter, the AER forecast does not indicate any rebound in gas usage. This would support a view that the AER allowance for gas usage is probably on the conservative side, and replicating the conservative assessment by ESCoSA in the current period.

Combining the two elements (increasing revenue with decreasing volumes), results in very large increases in the average tariffs. The following chart shows this pictorially.



Source: ESCoSA, SAIPAR and AER decisions, Envestra applications, ECCSA analysis

What this chart shows is that, historically, Envestra has consistently sought higher average tariffs and just as consistently regulators (first SAIPAR and then ESCoSA) have decided that the average tariffs should be lower. That Envestra's actual average tariffs (being based on actual revenue and actual volumes) in the second regulatory period reasonably match the ESCoSA allowed average tariffs, indicates that Envestra forecasts for revenue and consumption would appear to be aggressive.

The revised application from Envestra shows that Envestra considers its average tariff should be even higher than it forecast in its initial application. In contrast the AER draft decision shows the average tariff increasing by a smaller amount but still with an excessive step increase of over 12% followed by equally excessive real increases of 5% each year thereafter.

The concern of consumers is twofold:

- The large increases proposed by the AER are bad enough and will result in more and more consumers seeking not to use gas because such high distribution tariffs will make gas unaffordable for many, thereby causing further increases in the future, and increasing price pressure in the next review.
- Envestra has operated as a commercially viable entity at the current tariff levels. Increasing tariffs will result in a significant transfer of wealth which is not justified and nor is it necessary.

In the ECCSA response to the Envestra application, ECCSA provided considerable analysis highlighting where the Envestra claims for increased costs were not supportable for a monopoly provider of a service. In like manner the ECCSA points to some specific areas where the AER has overcompensated Envestra in the draft decision.

- The AER has included a debt risk premium in the WACC calculation that is so far high compared to a realistic debt risk premium, that it is clearly erroneous.
- The AER has allowed Envestra a massive replacement program that is not needed to achieve the unaccounted for gas levels stipulated as a performance requirement by ESCoSA
- The AER allowance for providing UAFG does not reflect either the actual outcome of the replacement program nor for the price of gas that other large gas users pay.

These and other issues ECCSA has are addressed in more detail later in this submission.

A significant issue for the AER is whether consumers will be able to pay for the hikes in revenue that the AER draft decision will cause. It is not merely an issue of agreeing that energy distribution monopolies can just continue to increase their charges on the basis that consumers have no alternatives. Gas supply for those consumers using it is an essential service and it is simply unacceptable to continually allow increases in the costs of essential services until parts of the community (including businesses that become uncompetitive as a result) 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, businesses will no longer be able to afford the charges and will either close or move inter-state or offshore. Either way, the costs will still remain and have to be carried by fewer consumers, further increasing unit prices.

1.3 Regulatory gaming

As did the Victorian electricity distribution businesses in the recent electricity distribution review, Envestra used the opportunity of the AER approach, to revise upwards its revenue claim in submitting its revised application. This trend is most concerning to consumers.

The revised Envestra claim shows an increase in all elements that comprise the building block approach to setting revenue, including increases in opex, capex and WACC parameters above those used in the initial application despite the AER draft decision indicating a reduction in each element other than the level of debt risk premium used in the WACC development.

Envestra submitted its initial application in October 2010, and it was made public on 22 October 2010. The AER needed until February to analyse the application and prepare a draft decision which was released on 16 February 2011, giving the AER some 14 calendar weeks to review and prepare its draft decision.

Envestra provided its revised application in late March, with it being released publicly on 31 March 2011. The final decision by the AER is due in mid May, providing the AER and stakeholders with less than 8 calendar weeks to address what is a significant upward change to the Envestra application.

This raises a significant issue of regulatory gaming. By an applicant seeking significant changes to its application and increasing its revenue claim, this places the AER and stakeholders at a significant disadvantage when assessing an application, and thereby provides the applicant with the ability to both place pressure on the AER and to establish grounds for a merits appeal should the applicant consider that such an appeal will provide a better outcome for it.

It is becoming quite apparent that applicants are using the merits appeal process to “cherry pick” elements of an AER decision they consider can improve their financial position and by placing the AER under increased pressure by deferring some elements until submitting a revised offer, then the potential for getting a better outcome via the appeals process can only be considered to be a form of regulatory gaming.

The ECCSA is very concerned about this trend and consider that the AER needs to address the issue. As the AER has announced that it is reviewing the regulatory environment as a result of the Garnaut update #8 review in relation to climate change, the ECCSA suggests to the AER that this regulatory gaming trend that is incentivised by the appeals system should be included in the AER review.

1.4 ECCSA's concerns with the AER draft decision

The ECCSA is very concerned that the AER Draft Decision has not addressed or responded to many key issues raised in ECCSA's submission on the Envestra initial application.

That the AER approach to ignore the fact that the Envestra capex program was under an incentive regime deliberately set by ESCoSA to provide the basis for the capex requirements for the next period is one such element. Arising from the incentive program, Envestra provided clear pricing outcomes for replacement of mains on a /km basis and extension of the network to connect news customers on a /customer basis. ECCSA indicated that the rates Envestra is seeking for the next period bear little resemblance to the rates that Envestra actually achieved under the ESCoSA incentive. In a similar vein, the AER has not used the past performance of Envestra for assessing "other capex" needs. For the AER to merely assess the claimed capex in isolation of the past performance which was set under an incentive program is most concerning.

The fact that the AER has not addressed the Envestra capex claims in light of past performance indicates a severe lack of due diligence by the AER and its technical consultant.

1.5 Summary

In its response to the Envestra application, ECCSA noted that there is an incentive regulatory regime applying in Australia. This means that for a time, the regulated businesses are provided some "head room" on their allowances combined with a sharing of any under-run of actual costs. The purpose of this approach is to encourage regulated businesses to strive for efficient costs. Once these efficient costs are identified then the regulated business' actual performance can be used as the basis for future cost setting.

Envestra has been exposed to incentive regulation for two cycles and this review by the AER is the third cycle. This means that Envestra actual costs should be near maximum efficiency levels.

The Envestra application and its revised application essentially ignore this feature of the incentive regulatory regime, seeking to increase revenue by any means that it can. ECCSA does not condemn Envestra for taking such a view because Envestra management is required by its shareholders to do exactly that.

What is important is that the AER has to apply the rationale behind the incentive regime. To an extent the AER has done this in regard to Envestra opex, although it is debateable whether the AER approach has extended to the setting of the UAFG allowance. The AER has not applied any rigour reflecting the outcomes of the incentive regime to the capex claim from Envestra.

As a result of the AER approach to capex and UAFG, consumers are to incur considerable unnecessary costs that could be addressed by a stronger application of the incentive regime.

Envestra has effectively used the AER draft decision to upwardly revise its revenue, effectively espousing the view that incentive regulation only works one way – in the interests of the regulated business, rather than a two way approach where consumers contribute to increasing the efficiency of the regulated business activities.

In the current regulatory period, ESCoSA allowed Envestra increased capex for IT and mains replacement in order to deliver opex savings of $1.7m pa[1]. Despite consumers contributing to this work there is no apparent benefit that has been achieved on behalf of consumers – all that consumers see from Envestra is a dramatic step increase in opex.

The AER has not ensured that the full value of the incentive regime has been delivered to consumers and it needs to address this shortcoming in its Final Decision. To achieve this requires the AER to be disciplined and thorough in its evaluation of the Envestra revised application. The outcome must provide economic efficiency and recognise that affordability is essential for the long term value of the Envestra network to be realised. The revised application should be seen for what it patently is – an explicit attempt at regulatory gaming to extract even higher revenues.

Opex must be demonstrably efficient in all elements. Capex must be prudent and demonstrate compliance with performance criteria or if the issue is not performance related, that the investment must be supported by a strong business case

[1] ESCoSA Final Decision page 201

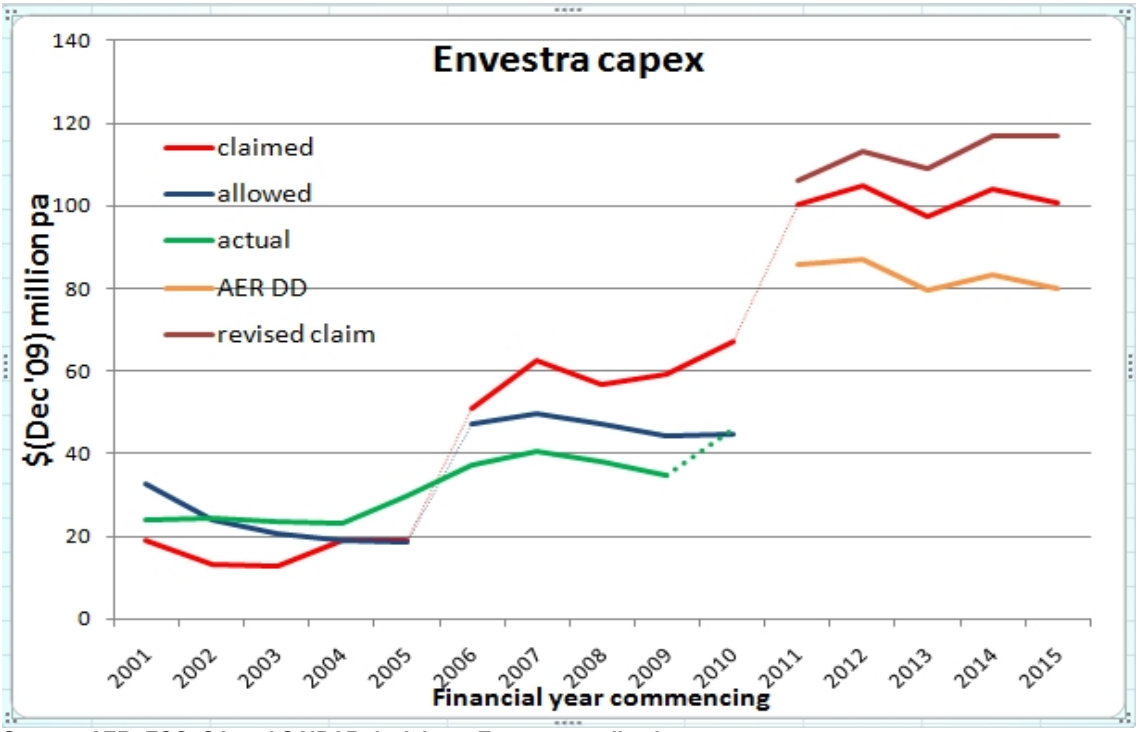
2. Capital Expenditure Allowance

Envestra's initial application sought a tripling of its current rate of capex but its revised application has further increased the amount.

The AER draft decision approves past capex for rolling into the asset base and provides an effective doubling of the current capex for the next period. By doing this, the AER effectively gave Envestra further incentives to raise its capex claims, as is demonstrated by the revised application.

However, the allowances provides by the AER do not reflect the intended incentive that ESCoSA applied to Envestra for the current period so that the capex for the next period could be benchmarked.

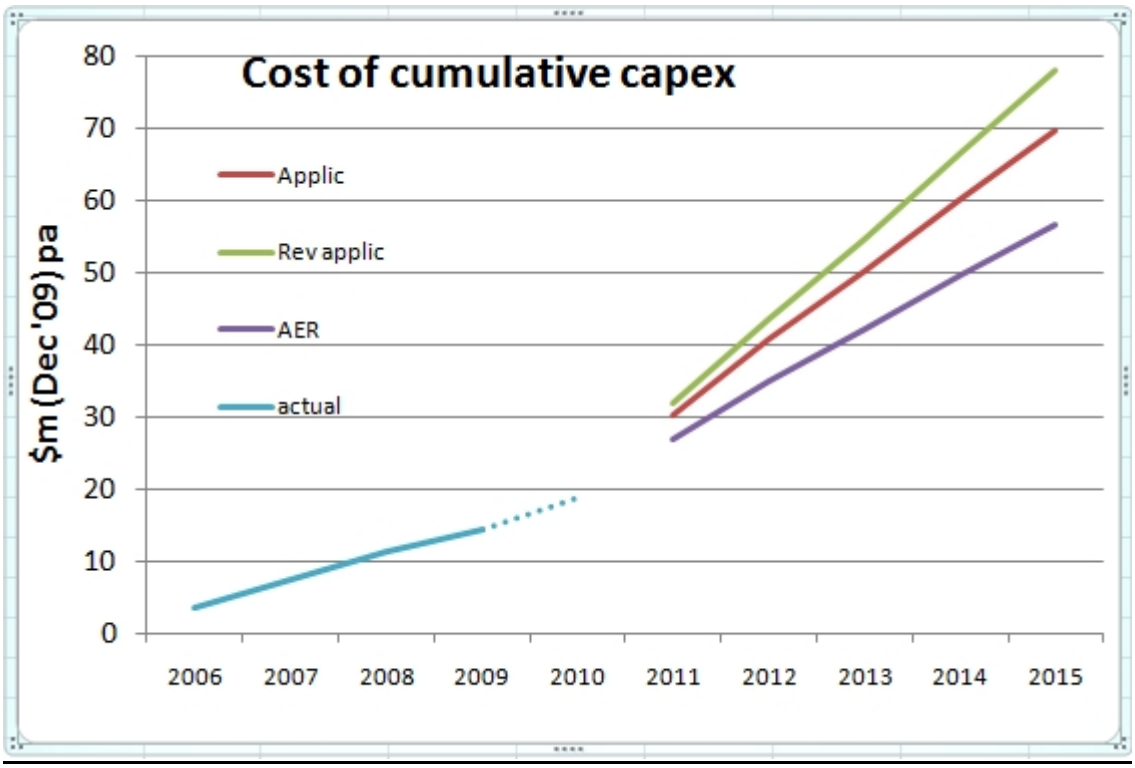
The following chart shows the proposed changes graphically:



Source: AER, ESCoSA and SAIPAR decisions, Envestra applications

When these new capex amounts are combined with the higher WACCs claimed by Envestra (initially and in its revised application) and allowed in the AER draft decision, the costs to consumers of these massive increases, is even more marked.

This effect (allowing for a depreciation effect implying a 50 year life of the assets involved) is shown in the following chart which shows the actual capex (the benchmark rate) plus the impact on revenue of the WACCs related to each document.



Source: AER and ESCoSA decisions, Envestra applications, ECCSA calculations

What is most concerning about the overall capex is that the AER draft decision and the two Envestra applications all show a much greater rate of increase of capex impact on revenue by 2 (AER DD) to 3 times (revised application) than is implied by the actual rate of capex impact resulting from the incentive set by ESCoSA.

This shows that neither the AER nor Envestra consider that the ESCoSA decision to incentivise Envestra capex has any bearing on the new capex allowance, yet both Envestra and the AER are content for consumers to pay a premium resulting from the ESCoSA incentive.

In its application, Envestra indicated that the costs it used to establish its capex program, are well above long term price indices and this justified the higher capex program. In its investigations, Wilson Cook identified that Envestra had included high levels of contingencies added to its expected costs, ranging between 10% and 20% higher, and this has contributed to excessive capex claims. Envestra noted this and its revised application has reduced the contingencies by 25%.

ECCSA addresses this issue of contingencies below.

Envestra proposed a massive increase in capex for the next regulatory period, incorporating large increases in the scope of capex and large increases in the unit costs for the capex proposed. Its revised capex program amplifies this further indicating Envestra has taken little notice of the AER draft decision.

Even the reduced capex program included in the AER draft decision shows scant regard for the outcomes of the ESCoSA incentive program on capex or the SA Minister of Energy's request for the AER to ensure there is no over investment.

Overall, the AER draft decision results in a doubling of the capex allowance that will raise unnecessary costs for consumers for many years.

2.1 A review of capex in the current period

There are two aspects of the AER decision to accept the actual capex in the current period which concern the ECCSA.

Firstly, in the draft decision and in the Wilson Cook report, there is an assumption that as the costs incurred for capex in the current period reflected the amounts allowed in the ESCoSA final decision, then the capex must be prudent and efficient. However there has been no effort to vigorously examine the business case for the benefit that consumers will get from the capex. In particular, there has to be a business case for the "growth related" capex (ie does the return from the growth capex warrant the investment, and does the benefit to consumers from mains replacement capex warrant the investment? As there is no analysis by either AER or Wilson Cook about the cost/benefit of the capex, there can be no assumption that the capex is efficient or prudent.

Secondly, the AER has not used the actual performance of Envestra usage of capex as the basis for setting the new capex allowances, which was the intention of the ESCoSA capex incentive program. As a result consumers will not only pay Envestra for capex not used, but also pay a bonus to it for not using all the capex, yet consumers will receive no benefit from these contributions to Envestra.

The above comments reflect serious concerns with the lack of rigour applied by the AER in this pricing review.

2.1.1 Benchmarking

Benchmarking was a core element of the current period capex program established by ESCoSA. As a result of the incentive, there has been allowed a payment to Envestra for under-running the capex allowance provided by ESCoSA. Despite this the AER has permitted Envestra to use much higher rates for carrying out new capex programs with absolutely no reference to the rates incurred in the current period. This indicates a failure of the regulatory approach by the AER as the incentive program is to provide the basis for efficient capex.

For example, neither the AER nor Wilson Cook examined the cost per new connection that ESCoSA based its growth capex on, nor did they examine the actual cost per new customer implied by the actual growth capex. All that was relied on was that there was a business case which supported the proposed growth capex.

The AER is not only required to examine the business case for capex, but it is also required to examine the actual performance of the NSP to ensure that the actual amount of capex is prudent. In the case of growth capex, the actual cost rate per new customer achieved under the incentive arrangement is much lower than the rate the AER has included in its draft decision.

What is required as part of incentive based performance is that the actual benchmark achieved should be the starting point for the rates to be used in the next period, adjusted for exogenous changes. If this is not done, what is the purpose of providing an incentive? It is simply insufficient just to accept higher rates proposed, even if contingencies have been excised.

2.2 New capex

2.2.2 Mains replacement

The issue of gas leakage from cast iron (CI) and unprotected steel (UPS) gas mains has been a continuing problem for Envestra since before the first regulatory review by SAIPAR in 1999. Even before 1999, Envestra had implemented an “accelerated” mains replacement program (AMRP) yet the rate of mains replacement has proceeded at a modest rate, and even slowed down at times by Envestra to recognise the impacts of the GFC.

The driver for such action has been both the safety implications and the cost of providing gas to replace the gas lost through leakage. Because of the slow response to addressing the leakage, ESCoSA (with the support of the technical regulator for gas) has determined that it will impose a licence condition on Envestra to carry out a best endeavours response to limit unaccounted for gas to 1,626 TJ by the end of the 2015/15 regulatory period, This represents a reduction of some 20-25% from current levels.

This requirement has only been imposed since 29 March 2011 although ESCoSA had required earlier that UAFG was to be no more than 4% of the total gas introduced to the distribution network so there was little doubt as to what the intentions of ESCoSA were when Envestra prepared its application and when the AER prepared its draft decision.

This is the only firm requirement on what UAFG levels must be achieved.

Regardless of this, Envestra has decided to replace all of the remaining CI&UPS mains over the next two regulatory periods with the bulk of the work to be carried out in the next period.

It is review of the mains replacement program, Wilson Cook assessed the business case for the mains replacement program and highlighted several deficiencies in the Envestra calculations. Despite this Wilson Cook observed that the benefits of the replacement program are substantial (pages 25 and 26).

ECCSA does not disagree that the benefits will be substantial but it still considers that there is no evidence that the program is prudent. This concern about prudency has three elements:

- Wilson Cook considers the amount of UAFG reduction that should be achieved is greater than the amounts assumed by Envestra and the AER, implying that the business case based on the AER assessment is flawed
- ESCoSA has only required a reduction of UAFG to 1,626 TJ by the end of the regulatory period, and this only on a best endeavours basis. This means that the program suggested by Envestra is not driven by a technical requirement but by the business case
- The rates used by Envestra (and supported by Wilson Cook providing the contingency amounts are excluded) to develop the business case are much higher than the rates Envestra actually completed the work for in the current period.

In its revised application, Envestra has increased the amount of capex in the next period to $253m to provide for the mains replacement of 1073 km proposed for the next period. There is another 411 km of replacement scheduled for the following regulatory period.

In its response to the Envestra application, ECCSA provided some basic rates for mains replacement that were allowed by ESCoSA for different categories of work, actual rates achieved and rates implied by the Envestra application. To this can be added the implied rates for mains replacement, based on the capex allowance from the revised application. These rates are:

Rate/km for mains replacement	**$(2010)/km**
Envestra 2005	108
ESCoSA 2005 (general)	75
ESCoSA 2005 (CBD comprising 72 km of mains)	100
Envestra actual 2005-2010 ($48m for 491 km^2)	98
Envestra 2010 (Initial application)	211
Envestra 2011 (Revised application)	253
Wilson Cook (=Envestra initial rate less 15% contingency)	180
AER draft decision ($182m^3/1071km)	170

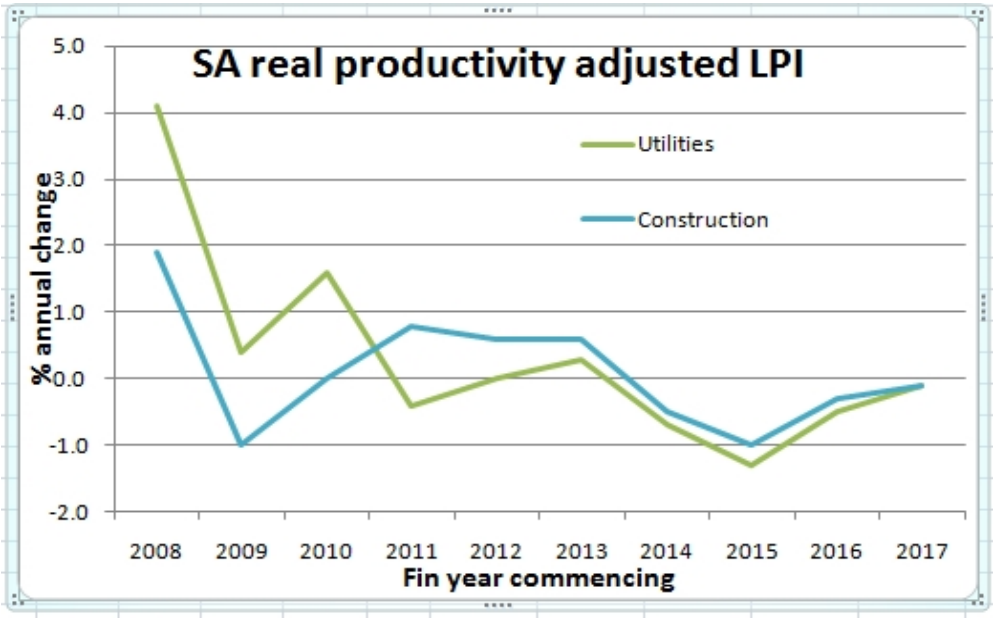
Source: AER and ESCoSA decisions, Envestra applications, Wilson Cook report, ECCSA calculations

This table raises a number of significant concerns.

1. The AER (and Wilson Cook) consider that because the rates of the mains replacement were competitively tendered, this supports a view that the rates achieved in the current period are no longer applicable. What has not been addressed is that the way the work has been called for might have caused significant change.

   For example, by more than doubling the amount of work, more efficient and lower cost contractors might have been unable to quote for some of the work due to an inability to manage an increased work volume. Similarly, changing the work scope to include more or less in the work, might have precluded lower cost contractors from bidding. Just the fact that competitive quotes were called does not necessarily imply that the outcome is the most efficient practice. If Envestra targeted a lesser volume of work (sufficient just to meet the ESCoSA requirements for UAFG, there may well have been increased competition for the mains replacement, reflecting the actual current rates.
2. Examination of the trends in construction costs in SA also does not support the contention that the new costs are efficient. In its report on labour cost movements, Access Economics provides the trend in SA real construction wage movements which shows that the labour cost increases does not support a view that the costs for mains replacement should increase as much as by the 70% the AER has agreed to in its draft decision. In fact, construction labour rates have seen only a small increase over the past two years and that will stay low for a number of years. The following chart shows this.

[2] Wilson Cook report page 13
[3] See AER DD table 3.12



Source: Access Economics table 10.2

Effectively, Access Economics seems to indicate that construction labour rates have fallen by 1% since the benchmark year of 2009/10 and forecast to remain low. It is accepted that the cost of mains replacement is only partially related to labour costs, and therefore other effects will influence the outcome. Yet the increases in materials costs and fuels which make up the balance of the costs for mains replacement do not show a step increase that would support a 70% increase in the cost of mains replacement

3. The AER has accepted the Envestra observation that it is not feasible to get interstate contractors to bid for the work due to increased work in other regions. If the costs for replacing the mains has increased to the extent of more than tripling (as implied by Envestra revised application) or even the near doubling the AER considers is acceptable, it raises the question as to whether it is prudent to replace as much of the mains at such a high cost, when lower costs might eventuate when there is less interstate competition, especially considering that the ESCoSA licence condition requires less mains replacement than is allowed for and where this requirement is a best endeavours obligation only. Prudency is required.
4. Consumers are being required to pay an efficiency bonus on the understanding that the capex for the next period will reflect the actual efficiency demonstrated in the current period. This has not happened and the “efficient rates” from the current period are being totally ignored.
5. CBD mains comprise less than 7% of the total to be replaced. ESCoSA assessed the CBD premium as 35% which over the entire program would add only 2-3% increase to the average installation

rate. Even if the cost was double for the CBD, then the impact of this cost premium would only be a 7% increase in the average cost.

6. Mt Gambier mains comprise 50 km (or 5%) of the total mains to be replaced which when a 20% premium is added to the costs adds perhaps 1% increase to the average installation rate.
7. Envestra alleges that there has been a significant uplift in construction rates which the AER has accepted. However, analysis of labour rates in SA provided by Access Economics does not support this contention. The Access Economics report to the AER shows (table 10.2) there has been a cumulative increase in productivity adjusted construction LPI from 2007/08 of less than 1% to 2010/11. At the same time imported products have fallen in cost due to the high $A. This raises the doubt that the new rates provided to Envestra might not be truly reflective of actuality.

If the actually achieved Envestra rate for installing the mains is used as a starting point (and this is the basis of benchmarking opex), the following increases in costs are likely to reflect for step change.

Base rate for mains (actual cost in $Dec '09))	$98.00/km
Add for CBD premium (increase average by 5%)	$102.90/km
Add for Mt Gambier premium (increase average by 1%)	$103.93/km
Add for increase in LPI (increase average by 1%)	$104.97/km

At most the actual mains replacement rate should be no more than $105/km to adjust for the various cost premiums that AER uses to justify a higher rate. The AER has notionally accepted a rate nearly twice this for all mains. This cannot be considered to be efficient!

Both Wilson Cook and the AER consider that the mains replacement is prudent and that a business case can be made that supports the replacement even at the inflated rates the AER considers is acceptable. The AER has not provided details of the business case, so ECCSA is not able to verify this allegation, but even if the business case does support the excessive increases in the rates for the work, it is quite clear the rates used to provide the basis of the business case are not efficient nor are they reflective of the actual productivity Envestra has actually achieved.

The AER must reassess the capex for the mains replacement along the lines used by ECCSA with a view to it being reduced to reflect actual performance and realism. The ECCSA considers that the amount of capex that should be allowed for replacement of 1071 km of mains should be no more than $110-120m, and certainly not the $182m allowed by the AER (see table 3.12).

In addition to this grossly excessive capex to achieve a reduction in UAFG, the full benefit of the UAFG that should be achieved has not been allowed. This aspect is addressed in more detail in section 3.3 below.

In light of the cost premiums Envestra seeks for the work, ECCSA considers that a continuation of the current replacement rate of some 500 km of mains per regulatory period using current cost rates, is a more appropriate approach. This approach can be more easily implemented and be more readily justified than the massive expansion planned.

2.2.3 Growth in connections

In its assessment of the growth capex, Wilson Cook advises that it considers the "growth capex" to be prudent and efficient. The AER in its draft decision concurs.

As the AER has not required Envestra to divulge its business case for growth (to prove that the capex will result in a net benefit to existing consumers) the ECCSA is unable to comment on the prudency of the growth capex. There is, however, sufficient information to assess, at a high level, whether the capex is efficient.

In its response to the Envestra application, ECCSA observed that ESCoSA had considered the growth capex was efficient and prudent based on an allowance of some $99.55m ($'10) for new connections assumed to be connected and that there would be an increase of 1% in volume of gas consumed. The ESCoSA allowance equated to a cost per new customer of ~$2800/ customer.

In fact, Envestra expended $107.93m[4] for new connections, at a rate of ~$3,100/customer, which is 11% higher than ESCoSA considered was efficient. Despite this increase in numbers of customers, actual gas usage fell. Despite this, Wilson Cook and the AER have determined that the expenditure was prudent and efficient. Not having the Envestra business case details, the ECCSA is unable to assess the prudency of either the past capex or the prudency of the growth capex for the next period.

However, the Envestra application implies that the cost for the new connections will be some $157m to add 37,875 new connections – a cost per connection of $4,145/new customer. Envestra considers this rate is prudent even though it is forecasting a declining gas consumption of about 1% pa.

The revised Envestra application seeks a total of $178m for the same number of new customers, implying a cost per customer of $4,700/customer.

[4] See table 3.5 Envestra AAI

In its draft decision, the AER has allowed $143m for growth capex for a similar number of new connections to that estimated by Envestra. This implies a rate of $3,780/customer.

These rates for connecting new customers can be tabulated as follows:

Rate for connection per customer	$('10)/customer
ESCoSA 2005	2,800
Envestra actual	3,100
Envestra (initial application)	4,145
Envestra (revised application	4,700
AER draft decision	3,780

Source: AER and ESCoSA decisions, Envestra applications, ECCSA calculations

As was pointed out in the sections above, Envestra was subject to a capex incentive program in the current period, and by under-running the ESCoSA allowance, is entitled to a bonus for being more efficient than ESCoSA had assumed. Because of the incentive program, it is reasonable to assume that the starting point for the growth capex will be that actually achieved, but adjusted for exogenous factors. The AER has not done this.

In fact, the AER has implicitly agreed to a 20% increase over the benchmark performance without providing any explanation as to why it has not used the benchmark, nor why it has agreed to a much higher rate for each connection.

The ECCSA notes that contingency amounts had been added to other large elements of the capex program but it also notes that Wilson Cook did not advise whether the growth capex claimed did include for contingencies. If it does, then this might explain why the AER allowance is some 20% above the benchmark performance for new connections.

Wilson Cook should advise the AER regarding the inclusion of contingencies in the growth capex and if this is included then the contingencies should be removed

2.2.4 Augmentation

ECCSA has not been made privy to the business cases supporting the $29m of augmentation capex and neither the Wilson Cook report nor the AER draft decision provide any additional information as to the business justification for this work.

The ECCSA is aware that there are restrictions (bottlenecks) in the Adelaide sub network that prevent large industrial users in the Northern Zone from being supplied with gas from SEAGAS during periods of high

demand, such as in winter. In order to provide flexibility and reliability for the supply to large users in the northern zone and to facilitate the function of the STTM, augmentation of the network to eliminate these constraints or adding a new gate station from the SEAGas pipeline to the Northern zone are accepted in principle as ECCSA considers that a business case for such an augmentation could demonstrate a positive benefit for consumers.

The ECCSA notes that Wilson Cook had identified that an unnecessary contingency had been added to the capex for augmentations. Wilson Cook recommended its removal and we note that the AER has concurred with this recommendation. ECCSA views on contingency are included below.

2.2.5 Other capex

Envestra is seeking a net amount of capex for activities other than mains replacement, growth and augmentation, of $94m of which $21m is for meter replacement[5] leaving $73m for other stay-in-business capex.

In the current period, Envestra spent $197m on capital works. Excluding mains replacement ($48m), growth projects ($108m) and meter replacement ($17m) from total actual capex, leaves $24m needed for stay-in-business capex. This amount approximates the same amount of work in the amount of $73m of planned capex for the next period.

ESCoSA applied an incentive program for Envestra capex, and Envestra actually under-run the capex allowed by ESCoSA, indicating that that this residual capex of $24m is the amount of capex needed for stay-in-business, excluding mains replacement, augmentation, growth capex and meter replacement.

Essentially, stay-in-business capex has increased from the benchmark level of $24m over 5 years to $73m over the next five years – an increase of $49m or effectively a step increase of three times the current benchmark performance.

Despite this massive increase, Wilson Cook and the AER both concur that a large increase warranted and has allowed a 50% increase to other stay-in-business capex. This amount is effectively unsubstantiated by the AER in terms of the benchmark set under an incentive scheme.

However, not content with the AER agreeing to such a large increase Envestra revised application seeks the other stay-in-business (excluding mains replacement, augmentation and meter replacement to increase from $73m to $77m.

[5] Meter replacement is a task that the technical regulator considers is an essential activity

The AER needs to reassess the capex allowance for stay-in-business capex (excluding mains replacement, augmentation and meter replacement) to reflect the actual capex for this work, recognising that Envestra required a much lesser amount when it was incentivised to do so in the current period.

2.2.6 Contingencies

In its advice to Envestra (included in the Envestra revised application) PB advises that (page 7/7)

> "...PB is of the view that the contingency added by Envestra is generally a provision for specific cost items that cannot be quantified but are expected to be incurred to their full extent. Furthermore, detailed examination shows that there is a basis for an additional amount to cover the "gap" between the baseline cost estimates derived from the incomplete project definitions and the final estimates that will be determined from the completed project definitions"

This observation was made in response the Wilson Cook view that the costings provided by Envestra in its initial application were based on considerable direct experience of carrying out work of a similar nature, and that there was little evidence that the costings were not comprehensive. Wilson Cook observed in section 4.6 of its report (page 36):

> "The cost-effectiveness of the work reviewed in the preceding parts of this section of the report rests heavily on attachment 7.1 to the AAI. This attachment, a well-written document of 15 pages, discusses the make-up of the costs applied to work under the following headings: mains in new estates, mains to existing homes, mains to industrial and commercial premises, service connections (inlets) to new homes, service connections (inlets) to multi-user sites, service connections (inlets) to existing homes, service connections (inlets to industrial and commercial premises, the periodic-meter-change programme for domestic meters, the same for industrial, commercial and demand customers, domestic meter connections, industrial and commercial meter connections, connections for large consumers and, finally, mains replacement of various types (block replacement, trunk replacement, CBD block replacement and CBD trunk replacement).
>
> We refer you to the attachment in full, as it is a comprehensive statement of the basis of the various cost estimates and their efficiency. It is clear from the statement which rates are contracted, which have internal cost elements and which vary with volume. The extent to which individual rates have increased in recent years is also clear. A more detailed analysis in given by Envestra in the spreadsheet in attachment 7.5 to the AAI.

> We consider the resulting unit costs efficient based on the analysis as presented and comparisons with such other information as is available to us, subject to removal of the following general contingency allowances noted in the attachment: block and trunk mains replacement, 10%, and block and trunk mains replacement in CBDs and piecemeal mains replacement, 20%."

ECCSA was not provided with Envestra attachments 7.1 and 7.5, but despite this ECCSA views the Wilson Cook report as providing a clear indication that the costings used by Envestra were based on actual experience and reflected a changing environment. As Envestra uses APA group as its provider of technical support (especially O&M services and overseer of capex programs) the ECCSA has assumed that APA would provide Envestra with costings not only of the work it has done in SA to support the capex program, but also reflecting the work APA has carried out for Envestra and others in other regions. Essentially, the ECCSA would expect that APA Group with its wide experience would have established cost rates for work which were quite accurate and would therefore include the entire scope of the works to be undertaken.

With this in mind ECCSA sought advice from Mr David Headberry (a Chartered Professional Engineer) of Headberry Partners P/L who has over 30 years of experience in the construction industry including many years involved in estimation of costs on a "hard money" basis for design and construction projects where there is no clear and detailed design provided. He advises that the levels of contingency (between 10% and 20%) included by Envestra are excessive and do not reflect the risks involved with the work involved. He advises that in normal "hard money design and construction projects, a contingency of 5% or less might be used, but where average rates from direct experience have been used, a lower contingency would be applied reflecting the expectation that the average costing rates will reflect a range of conditions and therefore unknowns are effectively incorporated.

He adds that use of average costing rates implies that the rates have been derived from direct experience and therefore would include many elements of the "uncosted" items and changed circumstances that PB alleges require the addition of contingency amounts. His view is that the use of average costing rates recognises that the costing rates will be typical of a wide range of circumstances and cover the full scope of the activities involved otherwise there is little value in developing such rates. He concludes with an observation that to assume that for such a capex program as is proposed, it would be most unlikely that the such projects would incur such high levels of contingency for every element, as there would be an expectation that some elements would be costed accurately and by using average costing rates, there will be an expectation that some elements of the work will be achieved at less than the average rate. He comments that this is the very reason why average costing rates are used.

This professional experience and advice is very much in accord with the recommendations of Wilson Cook, which the AER has accepted. The ECCSA is of the view that the rates used for calculating capital costs by Envestra are typical and not specific to any project. To assume that all elements of the capex program requires the addition of contingencies, especially as high as those included by Envestra is incorrect, especially as average costing rates have been used as these rates would already include some contingency by the very nature of their development.

The capex allowance is an ex ante assessment and Envestra has the right to change priorities and timing so to include a contingency which is identified for a specific project is therefore not appropriate.

The excising of these contingencies is supported by Envestra's actual past performance of its capex in past periods where Envestra has consistently under-run the capex allowance provided. The reasons for this under-run are not provided but they must include an over estimate of costs in the first place, along with changed priorities and timing and different projects being carried out.

The ECCSA concurs with the Wilson Cook recommendations and the decision of the AER to exclude these capex contingencies from the capex program.

2.2.7 Summary

The initial request by Envestra for a 250% increase in capex was unwarranted and unsubstantiated. The revised application where the capex has been increased is even more so.

The AER draft decision to still allow a large increase in capex is also incorrect. The AER has not addressed many of the issues raised in the ECCSA response to the initial application, and needs to address the additional points made by ECCSA above. ECCSA strongly considers that it is this failure by the AER to rigorously assess Envestra's initial claims that has led to Envestra seeking even higher claims in its revised application.

In particular, the ECCSA reiterates its view that as Envestra was subject to a capex incentive program in the current period (and where that incentive has resulted in incentive payments to be made) the AER must have greater cognisance of the actual capex performance rather than totally ignoring it.

It would appear that the AER agrees with ECCSA that the actual performance of Envestra should be used as the basis for the capex (and opex) allowances. On page 146 of the AER draft decision, the AER notes:

> "By forecasting based on its best estimates, the AER provides businesses with an appropriate efficiency baseline that it can potentially outperform, revealing efficiency gains. The service providers' actual costs are then used as a basis to forecast or roll forward over the next period, reflecting the most up-to-date information and passing the benefits of any efficiency gains through to consumers."

It is unfortunate (especially for consumers that have to pay for the excessive capex allowed) that the AER has not applied its philosophy to the current capex allowances, even though ESCoSA specifically included capex in its incentive program.

If the AER were to incorporate the outcomes of the actual capex performance of Envestra under the incentive program, the AER would need to reduce the claimed capex by far more than it has.

2.3 Escalation of costs

2.3.1 A general view of cost escalation

With each regulatory review, the AER has accepted that costs (material and labour) will increase in real terms over the regulatory period and has allowed for increased opex and capex amounts to reflect these expected real increases. To support these additional cost allowances, the applicant and the AER find experts who provide their expectations as to what movements in various indices will be over the next regulatory period. This approach is intended to provide a "more accurate" outcome for cost movements than is achieved by just applying the national inflation (as measured by the CPI) to future tariffs that are set as a result of the regulatory review.

From a consumer's viewpoint, this approach provides the applicant with the best outcome possible for the two basic scenarios – where prices increase faster than CPI, the applicant gets a higher allowance but where prices are falling and less than CPI, if the applicant does not seek a reduction, then the AER accepts that CPI adjustments are appropriate.

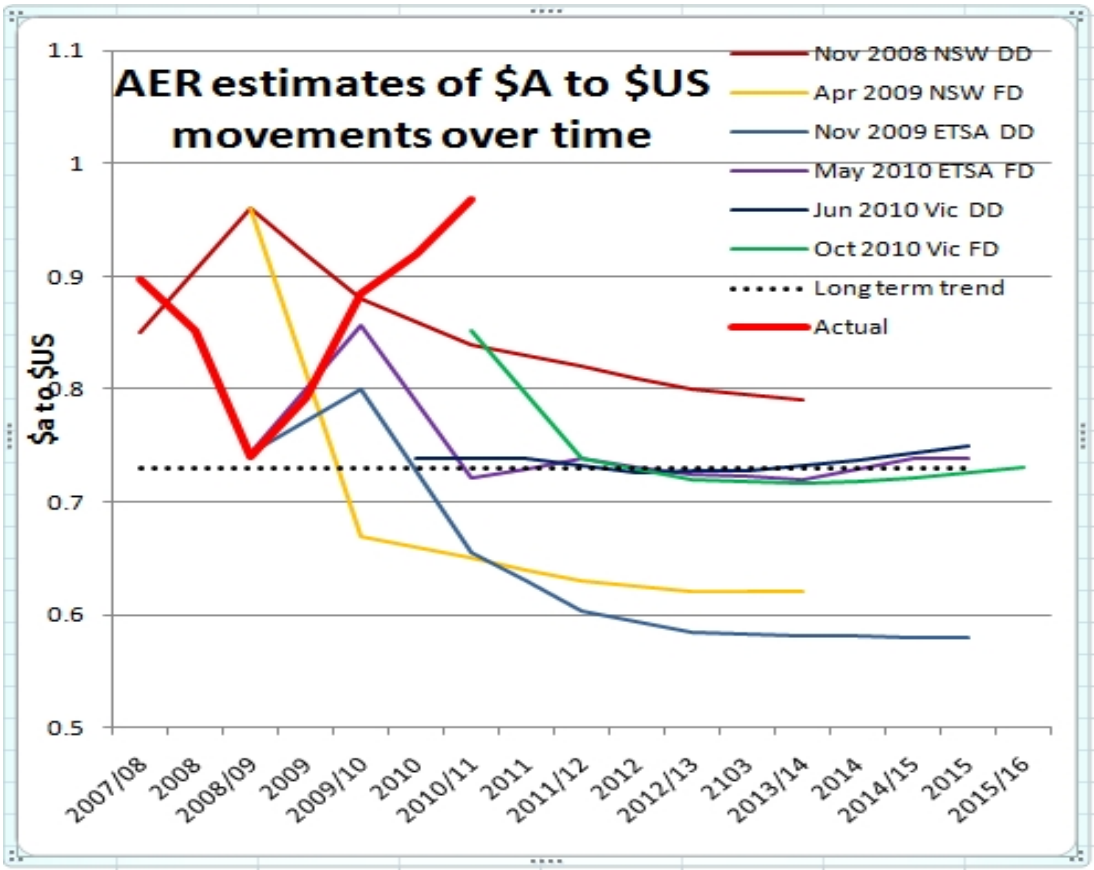
To overcome this bias against consumers, the ECCSA suggested that the AER develop an "Energy Industry inflation adjustor" to overcome this bias and to eliminate the obvious inaccuracies that the AER has allowed to be made in future cost estimations. The AER has decided that such an approach would create unnecessary regulatory precedent and that the current regime is simple and allows greater predictability. The AER adds that it also assists in providing incentives for better efficiency.

In its defence of its current approach, the AER overlooks an essential truth – the inclusion of an inflator (such as the CPI or that suggested by ECCSA) is

only there to protect the business from exogenous cost movements – it is not, nor should it be, part of any incentive regime.

What has resulted from the AER approach is a new regulatory game – which inflators will give the highest increase? Which consultant will give a higher forecast increase? Is an inflator forecast to give a lower result than CPI?

If the AER decided that it would just adjust future costs to reflect the movements of the CPI (such as was done in previous regulatory decision prior to the advent of national regulation), this would be acceptable to consumers. But the AER approach has resulted in consumers paying more than is needed. One only has to look at the AER expectations for currency movements to see how badly consumers have been affected by AER decisions on future index movements.

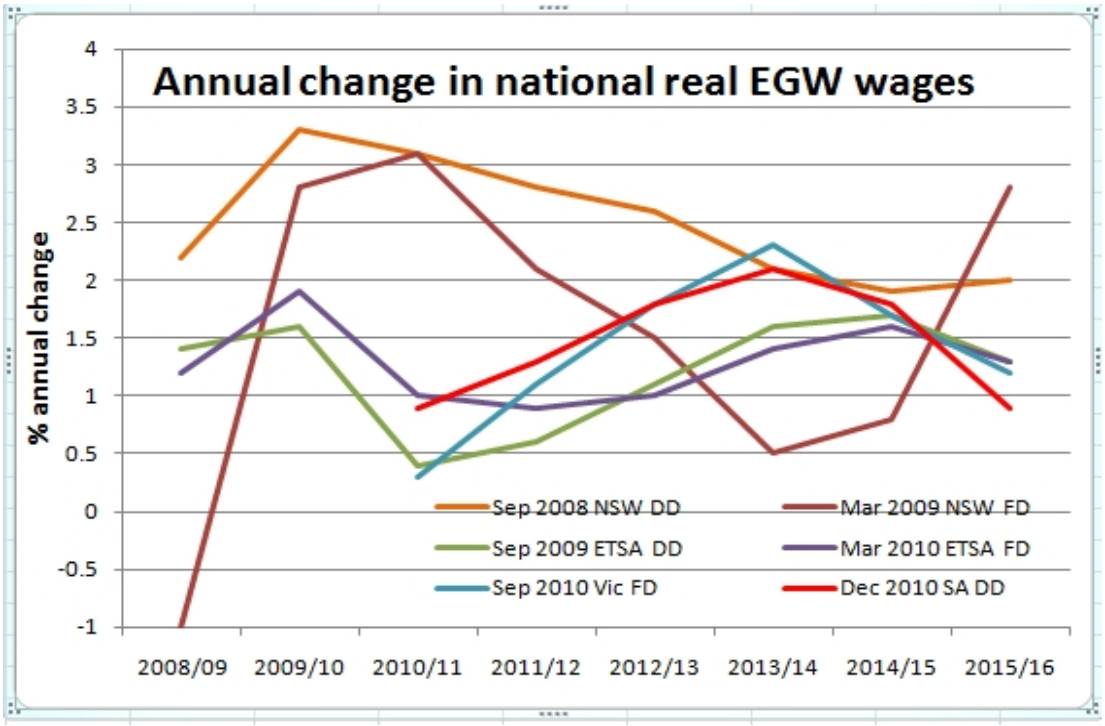


Source: AER decisions, RBA statistics

As can be seen, AER expectations of the $A movement provided only 6 months ago have been demonstrably incorrect by some 15% and those made only 12 months ago are wrong by 35%.

A similar but expected phenomenon is observed with the variability of forecasts for the same period in the forecast labour rates, and this is shown in the next chart. The forecasts for the same year (eg 2010/11) have a range

of increases from 3.1% made in September 2008 to 0.3 made in September 2010 with the most recent forecast being 0.9 made some 3 months after the forecast of 0.3 was made.



Source: Access Economics data provided to AER

What these show is that forecasting future movements of indices is a fraught exercise and will probably provide a wrong forecast. It would be much more preferable to both consumers and the businesses if the AER implemented a different process that removes this variability.

Overall, adjusting costs based on actual index movements using data specifically relevant to the business is the most accurate way of protecting each regulated business from future cost movements and at the same time ensuring consumers do not over pay for this protection.

Failing using an energy industry inflator, the AER could revert to using the CPI as a surrogate, just as regulators did prior to the AER approach being implemented.

2.3.2 Envestra materials cost adjustment

In its application Envestra only sought cost adjustment for materials for “network materials” which would reflect the changes in costs for plastics. For various reasons the AER has not previously accepted this index as being reasonable and continued its previous approach by not allowing the index to be used for the Envestra application.

The information provided in its revised application continues to require the same materials index be used but adds little in hard evidence as to why the AER should vary its previously stated view, other than the view that the use of CPI is inappropriate for the task. What the Envestra consultants overlook in relation to the use of CPI for the movement in the costs of network materials is that a significant element of the CPI is directly related to the cost of oil (and by association therefore to the costs of thermo-plastics) and probably the CPI is better suited to reflect the cost of thermoplastics than perhaps the costs of other materials used by Envestra. Despite this, Envestra has accepted that (except for the plastics index) the CPI is an adequate surrogate for movements in material prices.

The ECCSA considers that the AER general approach to forecasting future movements is flawed due to the obvious inaccuracies in the forecasts. However, the ECCSA considers that the AER is correct in using the CPI as the inflation adjustor for materials used by Envestra.

2.3.3 Labour costs - EGW

In its application, Envestra seeks to use AWOTE as the EGW labour cost index, in the full knowledge that the AER has consistently used the labour price index forecasts provided by Access Economics. In its revised application, it maintains using AWOTE is preferable because it better reflects changes in the mix of skills in an enterprise and this is the focus of Envestra's consultant Professor Borland.

The ECCSA does not intend to debate this but does point out that the labour mix of Envestra is relatively static and that due to the difficulties in securing skilled labour, many businesses are actually decreasing the ratio of skilled to unskilled workers.

Therefore the Envestra contention is that AWOTE better reflects its forecast cost increases because it reflects its changes in labour mix. However, as the Envestra labour mix is basically unchanged as the work scope has not changed, there should be no difference in using the LPI or AWOTE as the index. With a static workforce mix, Envestra should be indifferent to the impact of using either index.

In its report to the AER Access Economics specifically addresses the issue of which index is a better guide to wage movements. Access Economics notes that AWOTE does pick up labour mix changes and this is one reason why the LPI is preferred. The BIS Shrapnel and Borland reports do not appear to add more information to refute the Access Economics advice.

This raises the question as to why Envestra would use AWOTE in preference to LPI. The obvious answer is that Envestra would get a better outcome and be more easily under-run its opex and capex allowances.

The ECCSA supports the AER draft decision as LPI better represents the overall movements in labour costs and its continued use maintains regulatory consistency

2.3.4 Construction costs

In its report to Envestra BIS Shrapnel contends that the cost of construction labour will rise strongly over the next period. Access Economics does not concur as can be seen from table 10.2 in its report.

Analysing the two reports there can be drawn some quite different conclusions which have a major impact on the forecasts. BIS Shrapnel considers the decision to expand BHP Billiton's Olympic Dam will cause a major increase in construction costs in SA. In contrast Access Economics is not so sanguine about the certainty of this project proceeding. Access Economics view uses the words on page 10

"The expansion at Olympic Dam – if it goes ahead – "

The ECCSA has seen the planned expansion of Olympic Dam be debated for over a decade, even before BHP Billiton acquired Western Mining. The ECCSA is aware that BHPB is examining many options regarding Olympic Dam ranging from very small expansions through the massive expansion implied by BIS Shrapnel. Therefore the ECCSA considers the Access Economics assessment of future construction costs is a much more balanced view of the potential impact of this and other projects on SA construction costs.

2.3.5 Labour productivity

In its response to the Envestra application, ECCSA noted that the AER should only allow adjustments for forecast labour indices if these adjustments included the effect of productivity improvements. In its draft decision, the AER has ensured that it used the Access Economics productivity adjusted LPI in its draft decision when allowing for future labour cost inflation. The ECCSA agrees that this is the correct approach and supports the AER draft decision in this regard.

The ECCSA was unable to assess whether the initial Envestra application has made adjustment to its forecast labour cost movements as Envestra decided not to make the BIS Shrapnel report which it refers to in its AAI, confidential.

However, Envestra has provided a separate BIS Shrapnel report with its revised application in support of its requirement that AWOTE should be used in preference to LPI and that Access Economics is in error in

developing its productivity adjusted LPI. The BIS Shrapnel report merely contends that the LPI cannot include for productivity as Access Economics has done and that the Access Economics outcome double counts productivity improvements.

It is clear that there is a difference in opinion between consultants and because of this the ECCSA has a view that the AER should continue to use the Access Economics approach as this provides for regulatory consistency.

2.4 Early retirement/replacement of assets

In its response to the Envestra application, ECCSA raised a concern that the mains replacement program would result in early depreciation of the gas mains that have been and will be replaced due to their failure and resultant gas leakage. Depreciating these now will cause consumers an increased cost.

The AER considers that the mains are being replaced as would be expected at the end of their economic life and therefore no cost premium is being applied to consumers.

The ECCSA is of the view that the AER has not addressed its concerns in sufficient detail. Cast iron mains have an expected economic life of some 85 years, although many of the mains (eg for Mt Gambier) were built much later than the late 1920s which would have to be the case if the cast iron mains are now considered to be fully depreciated.

The ECCSA requires the AER to carry out a much more intensive examination of this issue to ensure that

1. Consumers are not being required to pay for cast iron and unprotected steel pipes that are now and will become redundant as the replacement program progresses
2. Envestra does not increase its depreciation to recover the capital involved in these CI and UPS pipes.

2.5 Capex overall

Envestra made a claim for a massive increase in its capex for the next period, increasing its current actual capex by some 250%. Subsequent to the AER draft decision being released, Envestra has increased its capex claim even further despite the AER draft decision indicating the capex should reduce.

The AER assessment of the capex is that Envestra should be able to increase its capex from that actually incurred in the current period by a factor of two times, despite the current capex being less than allowed by ESCoSA and thereby causing the ESCoSA capex incentive to result in a payment to Envestra.

Benchmark performance for the incentivised capex program does not agree with the allowance the AER has included in the draft decision for:

- Mains replacement
- Growth of the network
- Other capex less the meter replacement program

Envestra has not accepted the AER draft decision in relation to escalators. The ECCSA considers that while it does not agree with the AER overall approach to the growth in costs, it has a more logical approach than that proposed by Envestra.

3. Forecast Operating Expenditure

The Gas Rules require opex to be prudent and efficient. Opex incentive programs, such as that applied by ESCoSA to Envestra in the current period, is intended to incentivise Envestra to deliver prudent and efficient opex. Based on the outcome of the incentive regime, the regulator should use the current opex as the basis for setting future opex, making allowance for step changes that are forecast to occur in the future.

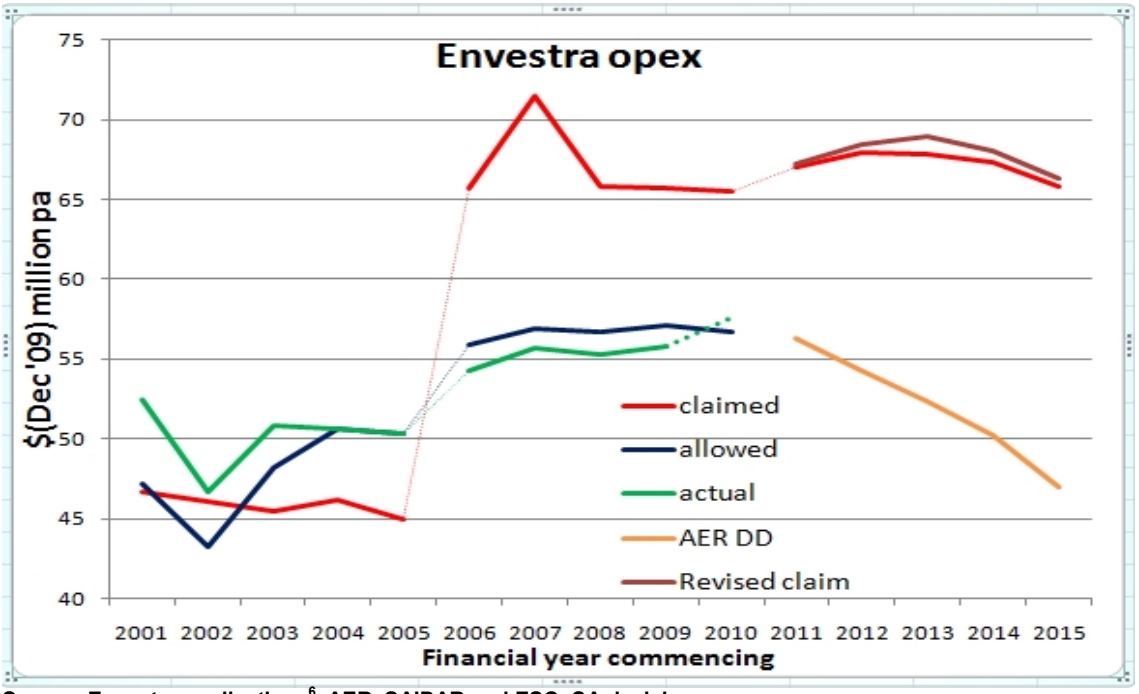
To a reasonable degree, the AER has done this in this review with one notable exception – that of the allowance for unaccounted for gas (UAFG).

In its revised application, Envestra has sought to increase the opex allowance by the incorporation of large increases related to management fees for its O&M provider and in the Administration and General opex element. Envestra has also sought an increase above the current opex needs for UAFG

3.1 Overview of past and future opex

Envestra has indicated that it is seeking a step increase in opex from the fourth year of the current period of some 20%. The reasons for this are a mix of increased UAFG costs, a desire to give a management fee to its O&M contractor, higher development and marketing costs and step change increases from the current regulatory period. Envestra's revised application shows an increase in its opex claim, despite the significant reduction the AER considers is an appropriate allowance.

The trend of Envestra opex over the past two regulatory periods is shown in the following chart.



Source: Envestra applications[6], AER, SAIPAR and ESCoSA decisions

This shows that both SAIPAR and Envestra were probably incorrect in their assessments for opex for the first regulatory period, although some of the mismatch was attributable to a need for increased opex due to management of FRC. Overall, actual opex exceeded the allowances for a number of years.

This trend was not replicated in the second period where the main difference between the Envestra forecast and the amounts allowed by ESCoSA relate to the ESCoSA decision to refuse to allow a "Network Management Fee" (NMF) although ESCoSA also trimmed other allowances as well. Despite this "trimming" of the NMF out of the allowed opex, Envestra was still able to earn an efficiency benefit by under-running the allowances for opex. If ESCoSA had allowed the inclusion of the NMF, the under-run in opex would have been significantly greater.

It was apparent from the detailed breakdown of costs for the various elements that make up the total opex, that Envestra had some under-runs and some overruns on the elements of opex, but overall, the total opex was under-run in the current period, providing Envestra with a cash benefit, but also providing consumers with an expectation that Envestra actual opex is more efficient than the opex amount allowed by ESCoSA.

ECCSA used the breakdown of the actual opex as the basis of its analysis so that clear benchmarking can be used as the basis for the future opex

[6] The 2006-2010 Envestra application excluded UAFG. For comparison purposes the Envestra application for opex includes the amounts for UAFG allowed by ESCoSA

needs. It seems that the AER has derived its opex forecast on a similar basis, especially for the largest element, O&M. In contrast, the approach by the AER to setting an appropriate allowance for UAFG leaves a lot to be desired.

Because of the need to analyse the main elements of the opex claim, the ECCSA has analysed the data for each element, noting that the overall opex claim (both the initial and the revised claims) show a significant increase from the opex that Envestra has demonstrated is adequate for its needs. In this regard, because Envestra has been able to operate at less than the regulatory allowance for the current regulatory period[7], this basically implies that efficient opex is less than the current regulatory allowance. From an ECCSA point of view, Envestra must provide sustainable argument for the opex for the next regulatory period to be increased.

The AER obviously concurs with the ECCSA as the AER considers that opex for the next period should reflect a reduction from the current actual opex. This view is supported by the ESCoSA decision to allow increased capex in the current period with an expectation that there would be an opex saving. For example, ESCoSA (on page 201 of its final decision) noted an expectation that as a result of the IT upgrade and the mains replacement program, Envestra should deliver an annual saving of $1.7m by year 5 of the period.

Envestra has sought increases in the O&M budget (particularly by the inclusion of a network management fee – NMF), the provision of UAFG and in marketing and development. In its revised application, Envestra has reduced the amount it wants for administrative and general opex by some $2.5-3.0m pa, but much of this amount has been transferred to an increase in the revised O&M claim.

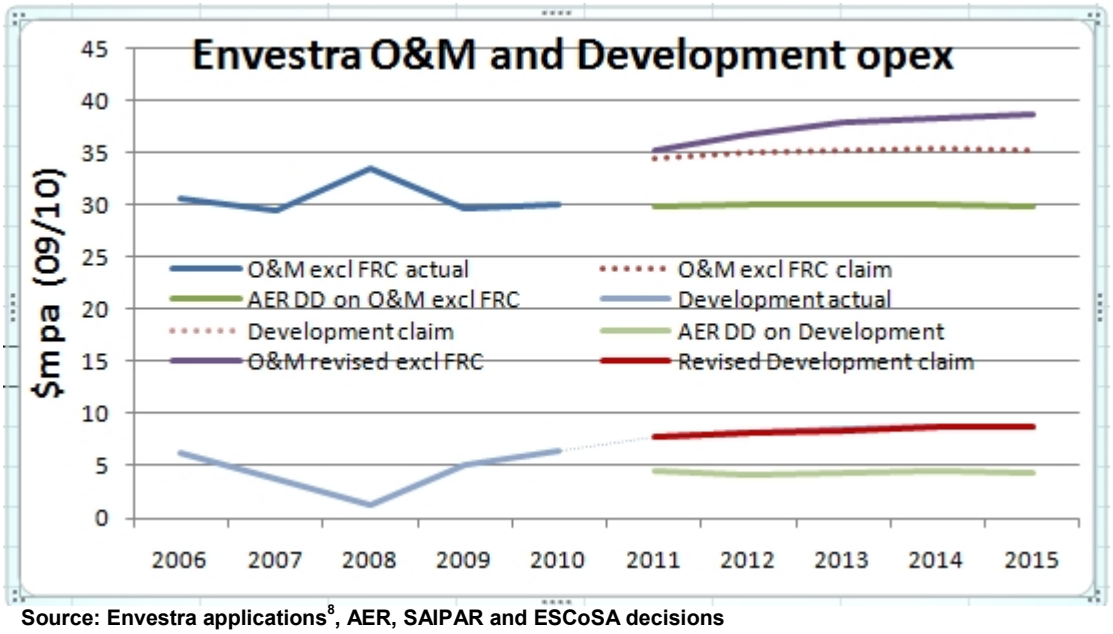
3.2 Operating and maintenance (O&M) and development

The AER has recognised that the allowances for O&M and development should reflect the performance of Envestra in previous regulatory periods as the actual outcomes are incentivised and therefore should reflect improving efficiency. The fact that Envestra actually has under-run its allowed opex in the current period indicates that this assumption has strong validity.

Despite the AER devoting considerable effort to explain why it considers the Envestra applications for O&M and development were significantly overstated, Envestra has in its revised application actually increased its

[7] The only year where this has not occurred is for the forecast opex for the current uncompleted financial year.

claim for O&M and maintained its claim for an increased allowance for development and marketing. The following chart shows this clearly.



Source: Envestra applications[8], AER, SAIPAR and ESCoSA decisions

3.2.1 Operating and Maintenance (O&M)

Whilst the Envestra claims for O&M were stated as being inclusive of FRC costs, for the purposes of comparison, the ECCSA has deleted FRC from the O&M costs at a rate of expenditure that was declared in the Envestra AAI. This amount was $2.2m pa but trending downwards. This means that the amounts shown in the chart for O&M excluding FRC might well be understated. The allowance for the AER draft decision deletes FRC at the same rate for consistency.

Essentially the AER draft decision shows that it was prepared to accept that the current expenditure Envestra incurs for O&M is considered to be efficient. Wilson Cook agrees that this is the case as it states:

> The main conclusions in relation to operating expenditure are as follows.
>
> (a) Operating expenditure in the present period was substantially at its forecast level. Variances in individual categories were significant but Envestra appears to have managed its expenditure carefully, making reductions in discretionary items to offset increases in nondiscretionary operating expenditure that arose from deferral within the period of mains replacement expenditure. As in the case of capital expenditure, this was a reasonable and appropriate

[8] The 2006-2010 Envestra application excluded UAFG. For comparison purposes the Envestra application for opex includes the amounts for UAFG allowed by ESCoSA

response in a period when external factors put the business under financial pressure.

(b) The proposed base-year level of expenditure is considered efficient, based on our analysis, but we have recommended adjustments in several of the proposed "step changes" and additional costs.

As is considered to be necessary, there have been adjustments made to allow for the impacts of step changes between the periods, for growth of the network and for real increases in wage and material costs.

3.2.1.1 Base level of opex

The analysis by ECCSA based on the actual performance of Envestra over the current period indicates that current level of O&M is demonstrably efficient and should only be increased for step changes, growth and real increases in costs.

The aspect of a network management fee is addressed below.

3.2.1.2 Standby crews

In its revised application, Envestra makes an impassioned plea that there should be an allowance for additional standby crews to be able to address the potential for leakages.

ECCSA accepts that there is a need to provide standby in the eventuality there is a major leakage. But what ECCSA does not accept is that there is an increased need above that that has applied for standby included in the base O&M allowance. Leakage is a problem but over time, replacement of the mains will result in a reduced number of occasions when severe leakages occur – that is the purpose of the mains replacement program Envestra has been undertaking for the past decade and more.

The ECCSA points out that Envestra has managed with the current numbers of call out staff on standby and as the numbers of leakage events reduce as the mains replacement program extends, so too will the need for standby crews.

Envestra highlights that the current cost of leakages will reduce over the next period from current levels, so there is obviously no need for additional standby above the levels already included in the base O&M allowance. The revised claim is intriguing.

3.2.1.3 Step changes

In its response to the Envestra application, ECCSA provided detailed observations on each of the step changes proposed by Envestra. Wilson Cook has done likewise as has the AER in its draft decision.

The ECCSA considers that Wilson Cook has made a sensible set of observations regarding the 19 specific programs listed as “opex related to capex, ad hoc opex and step changes. The AER has generally accepted the Wilson Cook suggestions.

The ECCSA has reviewed the Wilson Cook and the AER commentary and based on the information available to ECCSA, the ECCSA is not able to further enhance the WC/AER assessments of each of the items.

3.2.1.4 Network growth

The ECCSA accepts that the network has grown over the current period and therefore O&M will increase in order to manage the increased length of the network.

However, over the current period, Envestra has indicated that even though the network did grow, the increase on O&M has been very modest. Therefore the rate of increase in the O&M to be allowed should only reflect the marginal rate of increase in O&M actually seen in the current period.

3.2.1.5 Real increase in costs

In its response to the Envestra application, ECCSA noted that the real increase in costs to be applied to the base year costs to replicate costs in the next period should be based on productivity adjusted costs, especially in relation to wage costs.

The reason for this is that in a macro sense, wages do rise faster than inflation and the difference between the two has to be the increase in national productivity. To apply an increase just in wages does not reflect improved output as a result of productivity.

In previous regulatory decisions, there was no increase in costs to reflect the expectation of wages growth with inflation (as measured by the CPI) being the only adjustment allowed to reflect increases in costs. This approach reflected the fact that there were productivity improvements occurring continuously. Some

regulators[9] also reduced allowances as there was an expectation that actual productivity improvements would be greater than the national rate of improvement.

In its draft decision, the AER has rightly used productivity adjusted labour rates to determine what adjustment is needed for the next period to reflect the increased cost of wages tempered by expected improvements in productivity.

In its revised application, Envestra has sought to use AWOTE rates in preference to labour rate indicators. The AER has been using labour indicators for some years and to change from its current practice would result in regulatory uncertainty, so ECCSA agrees that the AER approach used in the draft decision is preferable to changing to a different method for this decision. The AER approach provides consistency and if it changes then it creates the potential for "regulatory shopping" for a preferred outcome in future regulatory decisions.

Envestra implies that the labour indices do not capture all of the changes in costs that AWOTE does. This is unlikely as a labour index is intended to reflect the total costs involved in employing labour on a consistent basis. But even if it were true, then there will be times when AWOTE based calculations will provide a lower outcome at some time in the future, resulting in an inconsistency in the future.

The ECCSA considers that the AER approach is preferable and maintains consistency over a range of regulatory decisions in different locations and over time.

3.2.1.6 Contingencies

Envestra had sought to have its project costs calculated on its cost expectation which is to be inflated by adding a contingency allowance. This issue is addressed in more detail in section 2 but it is important to recognise that the need for a contingency depends very much on how the rates used for the base case development were derived and the degree to which there is an expectation that actual costs will vary from the basis on which the base rates were set.

To assess the value of the work for each activity Wilson Cook (as competent consultant engineers) would have used rates for the work envisaged that are average for each task and therefore will

[9] For example, IPART when assessing opex for the gas distribution networks in NSW in the 1990s and 2000s

be high in some cases and low in others, but that overall they will reflect the most likely outcome.

In a like manner, Envestra's O&M contractor would have used rates for developing costs based on similar criteria, perhaps with even more accuracy as it would have firsthand knowledge of the work type and risks involved. It is most unlikely for an efficient contractor to under-estimate its costs in such a way that it would require a large contingency factor.

For Envestra to consider that both Wilson Cook would have an error that was always low (presumably by the 20% contingency included) is not sustainable. In fact it would be expected that in some cases the estimates would be too high if average rates are used, meaning that the contingency is unnecessary and that the rates would deliver an unexpected profit. This unexpected profit should be used to offset any under-run in another element of the O&M projects.

ECCSA considers that both Wilson Cook and the AER are correct to discount the costs by the contingency amount included.

3.2.2 Network Management Fee (NMF)

In its response to the Envestra application, ECCSA observed that they do not consider the payment of an additional amount for the O&M for the NMF is appropriate. ECCSA also noted that outsourcing can be more efficient than carrying out work in house, but also observed that a decision to outsource is made only when the total cost of outsourcing (including margins and fees) is less than the total cost of carrying out the work in-house. When this occurs, the outsourcing is a more efficient method than in-house operations.

In its response the ECCSA recommended that the AER should not accept an NMF but use the actual performance of Envestra in the current period as the basis for assessing what are efficient costs. Envestra's actual O&M costs are close to efficient, as Envestra is operating under an incentive scheme in the current period. Although Envestra did spend more on O&M in the current period than ESCoSA allowed in its final decision in June 2006, ESCoSA (pages 137-140) seems to imply that the actual O&M already includes for margins payable to the O&M contractor (OEAM).

That Envestra spent more on O&M than was allowed by ESCoSA indicates that probably the actual O&M cost can be assumed to be efficient and inclusive of all the costs that Envestra incurred for this element of opex. As this cost already includes for fees payable to its

contractor (APA), then the addition of an extra fee duplicates costs already included and is therefore both unnecessary and not reflective of the efficient cost for carrying out the task.

The AER notes that Envestra has advised that the NMF includes some costs that are not margins but costs which are attributable to operating the network but not covered as direct costs. The AER then notes that as Envestra is unable to break down the NMF to such detail, then the AER rejects the entire NMF as claimed. Based on the direct experience on outsourcing similar activities, ECCSA members have questioned the Envestra assertion and the fact the AER accepts this. Contractors invoice for all their costs whether direct or indirect. The Envestra costs as recorded for O&M must include all of their contractor's costs. Therefore the actual amounts included for O&M (whether direct or indirect) would be included as a cost to Envestra. To assert that an additional cost is legitimate should not be supported.

From the approach used by the AER to set an efficient opex, it is difficult to identify what the actual efficient O&M allowance determined by the AER actually is, but it appears that the AER has accepted that the current actual O&M is efficient and needs only to be adjusted for step changes, growth and real escalation of costs. ECCSA agrees that this is an appropriate approach.

3.2.3 Marketing and development

In relation to the development and marketing costs, the AER identified that a number of the programs that Envestra proposed for its development and marketing program were not demonstrably efficient and therefore rejected these. Intriguingly, after these programs are deleted for the development budget, the outcome closely replicates the actual Envestra expenditure on this element over the current period. This outcome implies that the current expenditure on development is probably efficient and therefore should be maintained at the level the AER has set.

Overall, the ECCSA agrees with the AER that all marketing and development programs need to be demonstrably efficient in that the cost of the program needs to develop, **as a minimum**, sufficient reward to pay for the cost of the program. In fact MEU members advise that any discretionary expenditure such as a marketing and development program must be expected to achieve many times the cost of the program in its first year to be considered as appropriate.

In the current period, Envestra advises that it secured new connection growth of 1.8% pa (AAI page 195) and this is the growth forecast for the next period. This seems to imply that the current rate of expenditure on

marketing and development would achieve the same growth in connections as its forecast for the new period.

Envestra advises that its expectation of the increased marketing and development program will arrest the decline in residential consumption. However, as Origin Energy comments, increased demand is more of a retail function than a network function implying that Envestra activities should be more focused on responding to the market than setting the market outcomes.

Envestra already has an implicit incentive to increase the use of gas because of the regulatory approach and the application of a price cap regime. The regulatory approach allows Envestra to retain the benefits of increased gas consumption. Envestra therefore has the incentive to offset the costs of attempting to increase consumption of gas against the rewards it achieves from such action.

At a very basic level, Envestra should not be provided with funds from consumers to pay for a benefit that only Envestra will enjoy for many years. Envestra is well able to assess the cost benefit of increasing expenditure to increase consumption. In contrast, consumers are not in any way able to assess either the costs or the benefits and so cannot make any meaningful assessment as to the efficiency of such expenditure.

Overall, the ECCSA agrees with the AER assessment that the marketing and development allowance should be retained at the current level and not increased, as an increase is not efficient.

3.3 Unaccounted for gas (UAFG)

The issue of unaccounted for gas (UAFG) has been a major one for Envestra since its first regulatory review by SAIPAR and continued through the review by ESCoSA. In each review Envestra has made promises to conduct a mains replacement program in order to reduce the amount of UAFG in response to an increased allowance for the cast iron and unprotected steel gas mains. The outcome has been an ever increasing cost to provide UAFG.

In a decision in March 2011, ESCoSA varied the gas distribution code so that there was a best endeavours obligation on Envestra to reduce UAFG. Clause 2.1.1 states

> In operating the ***distribution system,*** the ***distributor*** must:
>
> (f) use its ***best endeavours*** to achieve:

(i) a level of unaccounted for gas for the ***distribution system*** of no more than 1,626 TJ by the end of the 2015/16 regulatory period; and

(ii) annual reductions in levels of unaccounted for gas for the ***distribution system*** in each year up to and including 2015/16.

The rate of UAFG in 2011 is expected to be 2200 TJ pa of which some 80% (1760 TJ pa) is attributed to leakage in the cast iron and uncoated steel mains still in service[10], and Envestra expects that by the end of the mains replacement program, UAFG will fall to 500 TJ pa.

In its report Wilson Cook advises that based on the proposed mains replacement program the average amount of UAFG FOR 2016 should be only 1206 TJ[11] after adjusting for reasonable deterioration rates. On replacement of the last 411 km of mains, UAFG should reduce to 475 TJ pa.

Wilson Cook also adds its view that:

> "We note that the business may react to the effects on UAFG of mains replacement work as it proceeds by modifying the rate of replacement accordingly and we consider that this would be a valid response, as it is optimality of the cost of leakage *vs*. mains replacement cost that should be sought, not leakage reduction for its own sake. We suggest to the AER that this possibility be considered in its decision."[12]

This is a clear indication that the business case should be used as the driver for the replacement program rather than a "fix at all costs" approach that seems to be driving the Envestra mains replacement program.

As ECCSA noted in its response to the Envestra application, there has been no business case provided to consumers about the mains replacement program as this is considered to be confidential. On this basis, ECCSA must make its own assumptions and assess costs based on the information that is available to it.

3.3.1 The price of gas

The first element of the business case is the cost of UAFG. ECCSA members who are large gas users advise that the cost of gas delivered for much of the next regulatory period when adjusted for

[10] Wilson Cook report page 8
[11] Table 4.2 Wilson Cook report
[12] Page 1 of Wilson Cook letter 17 December 2010 to AER

delivery to Adelaide would be between $5-6/GJ in real terms – this is based on firm prices offered to the members.

This assessment appears reasonable as the spot price for gas at the Adelaide hub since September 2010 has averaged at an ex ante price of $2.78/GJ and an ex post price of $3.24/GJ. The imbalance cost of gas in Victoria has been even lower from July 2009 implying that the spot prices for gas at the Adelaide hub might be reflective of a full 12 month period, including winter.

This target range of prices $5-6/GJ is also supported by forecasts of gas prices by ACIL Tasman and MMA that were included in the ECCSA response to the Envestra application. For the purposes of this response, the high end price has been used as indicators as to what a reasonable price for UAFG should be.

Wilson Cook (in its table 4.6 of its report) indicates that the starting volume of UAFG is 2,173 TJ for 2011. Multiplying this amount by $6/GJ indicates that the cost for UAFG in 2011 would be $12.78m. This figure closely replicates the revised Envestra allowance. The initial allowance was 10% higher than the revised amount, indicating the price of gas had been inflated by at least 10% in the initial application.

Overall, ECCSA is of the view, based on pricing that its members have for gas into the future that the correct price for gas should be lower than $6/GJ, perhaps by another 10% to $5.50/GJ.

In its revised application Envestra notes (attachment 6.9 page 22):

"The AER noted in the Draft Decision that in its public submission, the ECCSA stated that its members "are currently paying or have contracted for gas prices well below the price that Envestra has proposed". However, it is noted that Envestra's proposed prices were not made public in its submission, which renders the ECCSA's statement unsubstantiated. Further the Envestra UAFG contract has unique characteristics which differentiates it from standard industrial customer contracts."

ECCSA did not imply that it was aware of the price Envestra had included in its initial application. ECCSA noted in its response to the application that it had attempted to develop a price and quantity of gas to reflect the amount for UAFG that Envestra had included in its opex allowance. Thus the ECCSA assessment was derived, but did reflect the price Envestra had paid for gas in the current period which can be derived. The ECCSA assessment also reflected the price for gas ECCSA members were paying for gas.

Envestra goes on to state in its revised application attachment 6.9 (page 24):

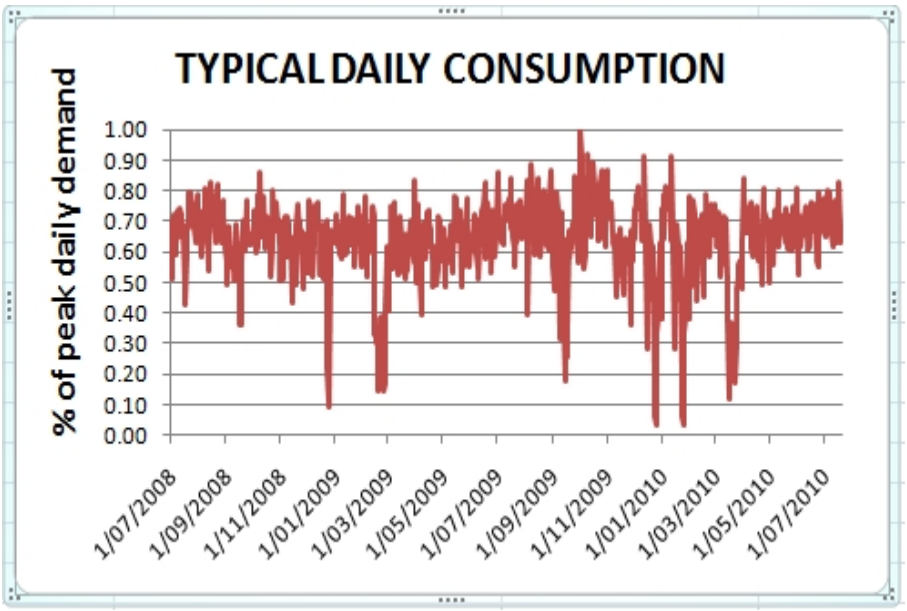
> "In a particular gas sales contract the size of the margin will reflect the characteristics of the contract. Envestra South Australian UAFG requirements have specific characteristics which suggest a higher margin (described as the "premiums" in Core's September 2010 report) than average given that:
>
> (a) the contract volume is small (2.5 PJ per annum). While materially larger than the Queensland UAFG contract this is still a relatively small volume compared to those of large scale users;
> (b) there are multiple delivery points (e.g Angaston, Mount Gambier, Gepps Cross, Elizabeth etc.) which introduces complexity;
> (c) sale volumes are uncertain and potentially highly variable (as compared, for example, to a large industrial customer who is likely to have a relatively predictable demand for gas) and there is no take or pay requirement imposed on Envestra;
> (d) there is an element of complexity in administering a UAFG contract due to the need to determine and agree the actual volume of UAFG used by the network over a year."

The implication is that Envestra gas demand is modest and that it is so small that it must use a retailer to provide the gas. ECCSA does not disagree that a retailer might be a better solution for Envestra to source its gas and most large gas consuming manufacturers do this, although some do source gas at the production plant and transport the gas to its usage point. Regardless, the ECCSA assessment of gas prices reflects both ex process plant and retailer sources for gas supplies.

ECCSA would respond to the Envestra observations that:

- Envestra would have to be classed as one of the largest gas users in the state with a demand of 2.2 PJ pa, with only large power generators and a very few manufacturing businesses using more than this amount each year. The ECCSA member observations about price reflect both larger and smaller gas users than the Envestra consumption.
- The STTM is based on an Adelaide hub which operates successfully with a number of delivery points. The issue of multiple delivery points to the Adelaide hub was considered when the Adelaide hub was developed so the impact of multiple delivery points is not significant

- Gas consumption by small and large manufacturing businesses is variable but this does not impact the price of gas significantly, although it does impact the cost of transport. A typical manufacturing usage pattern is shown in the following chart. This shows considerable variation on a daily basis and this variability is reflected in the prices ECCSA members have provided for gas supplies in SA. For Envestra to allege that its variability warrants a significant price premium is not supported by the direct evidence of ECCSA members.



- Envestra notes it does not have a take or pay (ToP) requirement in its pricing. Many large gas consumers don't have ToP requirements and those that do often only have the ToP requirement imposed on the transport element which is usually a relatively smaller element of the delivered cost. Where the ToP requirement is imposed on quantity it is usually a relatively modest percentage of the total expected annual requirement. For example, a ToP requirement being set at 70% of the nominated annual contracted quantity (ACQ) is quite common. The expectation is that Envestra should be able to identify its annual requirement for UAFG within this range of usage, especially as it has effectively no risk as consumers have underwritten the expected ACQ by the allowances included in the opex.
- The complexity of resolving the actual amount of UAFG is not as difficult as Envestra seems to imply. UAFG is the net amount after the total gas measured at the inlets less all the gas that has been billed. Most large manufacturing gas users are billed monthly and even residential gas consumers are all billed on a two month cycle, so two monthly reconciliations for

UAFG are possible. The Adelaide STTM is reconciled on a daily basis, assisting in providing ease for Envestra's reconciliations as this is where the bulk of the UAFG is caused.

Overall, the arguments that Envestra provided in support of an increased cost for its gas are not costs that are incurred by other gas users who also buy gas from the gas markets for their own use.

3.3.2 UAFG Time lag

Envestra notes in its revised application that there is a time lag between when a leak is fixed and when the final reconciliation is made on gas allocations, and therefore this time lag needs to be reflected in when the benefits for the repair are incurred.

By the deeming of the UAFG to be at the rate seen in the previous year for the current year, does result in the resultant cash benefit from the repairs being delayed, but not by as much as Envestra implies.

The AER should seek guidance from AEMO as to the process used by it to reconcile payments and quantities, to verify the processes and delays. In this regard, as the bulk of the UAFG is lost within the Adelaide hub, it should be noted that the STTM is reconciled within days, so the current approach used by Envestra does not seem to reflect the changes in the market.

Even if the delay were valid, the issue is not when the final reconciliation is made, but how it impacts the actual cash flows involved. The issue relates to the difference between the payments that Envestra makes for gas on a continuing basis and the final assessment of the actual UAFG determined.

It is possible that a reconciliation might show that there was an under or over payment for UAFG and the cost to Envestra is not the total amount that is paid, but the cost of the money involved. This means that Envestra's concern relates more to the need for operating capital rather than the fact the reconciliation is delayed.

3.3.3 Costs and UAFG usage

Envestra has claimed that it needs the following allowances for UAFG, and the following table includes the Wilson Cook analysis outcomes and the AER draft decision. Evaluation of the AER draft decision for UAFG, indicates that it has reduced the cost of the gas rather than the quantities calculated by Wilson Cook. Adjusting the

$6/GJ assumed for Wilson Cook analysis, this would equate to the AER using a rate of $5.55/GJ (a value that ECCSA sees is sustainable based on pricing received by its members).

UAFG in terms of cost and volume

	2011/12	2012/13	2013/14	2014/15	2015/16
Initial UAFG, $m (real)	13.91	13.89	13.00	11.82	10.31
Rev UAFG $m (real)	12.79	12,77	11.95	10.87	9.48
Volume @$6/GJ, PJ	2.13	2.13	1.99	1.81	1.58
ESCoSA req'm'nt, TJ					1.63
WC expectation, TJ	2.13	1.98	1.75	1.49	1.21
WC @$6/GJ, $m (real)	12.78	11.88	10.5	8.94	7.26
AER allowance $m (real)	11.82	10.97	9.69	8.26	6.69
AER @$5.55/GJ, TJ	2.13	1.98	1.75	1.49	1.21

Overall, the mains replacement program is expected to replace 1072 km of a total of 1483 km of CI and UPS mains in the next period with another 411 km of mains to be replaced in the following period. According to Wilson Cook (table 4.6 in its report) the expectation is that by the end of the replacement program there will be only 475 TJ of UAFG pa, down from the current rate of 2.13 TJ pa or to a quarter of the current levels.

This analysis by ECCSA demonstrates that the Envestra allowance is inflated in two counts:

- The rate for the price of gas is too high and should be at about $5.50-5.60/GJ.
- The expected reduction of UAFG is too small as Envestra revised calculations imply that its mains replacement project will only achieve the best endeavours target set by ESCoSA even though there will be a replacement of some 75% of the CI and UPS mains.
- The AER draft decision still only implies that Envestra will reduce its leakage from the mains by 55% even though 75% of the mains will have been replaced.

Further analysis supports the view that the AER draft decision is extremely conservative.

Replacement of all 1,483 km of CI and UPS mains is expected to reduce UAFG to 475 TJ pa[13]. The current rate of loss from the mains is 1,698 TJ pa (2173 TJ less 475 TJ from other causes). This equates on average to 1.14 TJ/a/km of mains. Over the next period, 75% of the mains will be replaced leaving 411 km of mains to be replaced in the following period. Wilson Cook considers that the last

[13] See Wilson Cook table 4.6

411km of mains will emit 731 TJ of gas (1206 TJ less 475 TJ) or 1.8 TJ/km. This is equivalent to a 12% pa rate of increase/km in fugitive gas from the mains over the next five year period. This compares to the rate of worsening/km of ~6% pa over the current five year period when only 25% of the mains were replaced.

If the current rate of worsening of the leakage/km at 6% pa is maintained, the leakage rate of the last 411 km would be some 1.5 TJ/km (1.14 TJ/km escalated at 6% pa) releasing some 620 TJ of UAFG, This is 590 TJ less than the 1206 TJ of gas calculated by Wilson Cook after 75% of the mains are replaced. At $6/GJ, this would equate to a reduction of $3.5M in UAFG.

However, the expectation of a worsening rate of fugitive gas does not reflect the fact that Envestra has advised it has already and will continue to address first those mains where the leak rate is highest. If Envestra does this, then the expectation is that the rate of leakage/km should reduce as the worse parts of the network are fixed rather than increase as Wilson Cook has assumed.

3.3.4 The mains replacement business case

In our response to the application, we pointed out that Envestra considered that its mains replacement program would reduce leak repair costs by $5m in the period, implying a saving of ~$1m pa, although it is accepted that this figure might be higher in year 5 and lower in the earlier years. Envestra calculations indicate that there might be a saving of $6m from current levels in UAFG costs, giving a total benefit against current levels of $11m over five years. The cost of the mains replacement for the next period is expected to be $187m, giving a 17 year simple payback. This is clearly not an efficient project.

Even if all the mains leakage is removed and the cost of UAFG is only for the residual 475 TJ (or $3m pa), the benefit of eliminating the mains leakage will still be only $8-10m pa, giving a total saving of $15m $10m reduction in UAFG and $5m in opex), the payback is still some 12 years, indicating the program is not efficient.

The AER needs to ensure that the ESCoSA requirements under the Envestra gas distribution licence can be met, but beyond this, the AER must assess the mains replacement program in terms of its cost/benefit analysis. Currently the licence requirement should be met for a much smaller capex program.

Under the Gas Rules, the rewards from the balance of the program must provide sufficiently to warrant the investment. Based on the

Envestra advice in its application and the revised application, there is no business case beyond achieving the ESCoSA licence requirement. Even under the expected benefits from the AER draft decision, the business case for the mains replacement is not sustained.

3.4 Summary of the ECCSA view on Envestra opex

Overall, the ECCSA considers that the AER has made an appropriate allowance for the O&M and marketing and development costs.

It has failed to give sufficient recognition of the benefits of the mains replacement capex program it has agreed should proceed in terms of the reduction in UAFG. The ECCSA analysis indicates that the UAFG reduction should be much higher than the AER has assumed. The ECCSA analysis indicates that by the end of the period, the amount of UAFG should be some 600 TJ/a less than assumed by Wilson Cook and the AER and some 1000 TJ less than Envestra has calculated.

Further, the price used by Envestra for its supply of gas is probably too high based on comparisons with what other similar sized gas users are experiencing.

4. Incentives on opex and capex

The Gas Law requires the regulatory approach to include incentives to maximise efficiency.

> "24—Revenue and pricing principles
>
> (3) A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes—
>
> (a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and
> (b) the efficient provision of pipeline services; and
> (c) the efficient use of the pipeline."

24(3)(a) specifically makes reference to efficient investment (ie capex) and 24(3)(b) specifically refers to the efficient provision of the service which inter alia includes non-capital costs (ie opex).

The wording of the Law implies that the AER has primary responsibility for ensuring there are adequate incentives for an NSP to deliver efficient services.

In the current arrangement (based on the National Gas Code), ESCoSA provided Envestra with a specific incentive to reduce opex (akin to the AER's EBSS) in order to incentive the level of opex to the most efficient level. The ECCSA agreed that such an approach was appropriate and that the benefits arising should be provided to Envestra, but only providing that the outcome became embedded in the following regulatory reset.

This means that the actual opex that was achieved must be the basis for the future allowance for opex. If there is any dilution of this concept, then ECCSA could not support the inclusion of the incentive.

The concept of incentives for opex cover two aspects – firstly that the under-run in opex can be retained and, secondly, that the savings in opex are continued into the next period.

In the current review by the AER, Envestra has sought to limit the benefits of under-running of opex by declaring that some elements are included (eg O&M but even this is watered down) and other excluded (such as UAFG). The ECCSA is not convinced that such segregation is appropriate as Envestra is the only party able to influence the outcome, and the intention of the Law is that all opex (and capex), not just elements of it, should be

incentivised. The AER should as a matter of course include all elements of opex in the incentive arrangement for carry forward into the next regulatory review, rather than just elements.

However, the Law is quite specific about the need to incentivise capex, yet the only incentive on capex, is that the NSP might retain the benefit of any under-run, regardless of the cause of the under-run.

In this review, Envestra has not used all of the costs of the capex that it was allowed to include in the tariffs, and as a result there has been a blow-out in opex costs, particularly in the cost of UAFG. Thus the incentive that has delivered Envestra a significant benefit has resulted in consumers incurring increased but unnecessary costs in the next period. Despite the Envestra under-run on capex, it has been able to include this same capex in the next period with a resultant increase in tariffs.

It is quite clear that the incentive regulatory regime is being used to maximise benefits for the NSPs at the expense of consumers, and the approach used by the AER has not addressed this issue.

The ECCSA does note that in relation to capex, the AER has decided that it will provide a small incentive to better utilise capex allowances, by its decision to roll forward the allowed capex depreciation rather than the actual depreciation. The ECCSA notes that such is a step is in the right direction, but it still does not overcome the heavy bias in favour of the NSP that the AER approach permits in regard to:

(1) Allowing the NSP to retain the benefits of capex under-run but still include that same but unused capex in the next regulatory period (ie double dipping)
(2) Using the actual capex in the current period to provide a basis for setting the capex for the next regulatory period.

In relation to the Envestra review, consumers are seeing the AER allow Envestra a significant increase in its allowance for UAFG despite the fact that Envestra has been paid for unused capex that could have reduced the cost of UAFG in the next period. This outcome is made further poignant for consumers in that the unused capex they paid for in the current period has been allowed to be included into the coming period.

In the draft decision the AER comments (pages 118 and 119):

> "As the AER does not envisage implementing a similar incentive mechanism to capex, the AER considers that this concern can be partially mitigated by ensuring that any reclassification of opex or capex is reasonable and does not adversely affect the calculation of the carryover amounts."

The ECCSA recognises that the AER has concerns that if there is not a capex incentive but there is an opex incentive, there is a risk that Envestra might transfer costs for opex to capex and therefore this needs to addressed.

The ESCoSA program for incentivising capex has not been used by the AER at all in its draft decision. The import of the ESCoSA approach to the capex incentive is that the incentive would have an impact on the capex for the next period; that the actual capex would set a benchmark for the next period (just as it does for opex).

The AER draft decision has completely avoided the intent of the ESCoSA incentive and has allowed Envestra not only a carryover benefit (at consumers' cost) but not used the outcome of the incentive to assist in setting the new capex allowance. The AER approach has effectively rewarded Envestra in three ways:

(1) Envestra is able to retain the benefit of the capex under-run in the current period
(2) Envestra gets a bonus payment in the next period for using less capex in the current period
(3) Envestra is able to include in the new capex allowance, the amounts that it did not spend in the current period.

The AER is required under the Gas Law to provide an incentive for efficient investment. Its draft decision provides the very antithesis of what the Law requires. Consumers have received no benefit at all (capex for the next period is set to double using the AER draft decision, or triple using the Envestra revised claim) yet consumers are being required to provide Envestra with rewards for making money for itself.

Overall, the ECCSA agrees that the opex incentive program required by the AER should be implemented. However, the lack of any capex incentive program needs to be addressed.

5. Cost of capital and allowed revenue

In the ECCSA response to the Envestra application, ECCSA commented that the National Gas Law posits six principles that guide the development of the detailed rules that the regulator must use to determine the allowable revenue for a regulated network.

Principle 1 posits that the regulated firm should be provided with the opportunity to recover at least its efficient costs. Principle 4 posits that the regulated firm should receive a return that reflects its regulatory and commercial risks.

However, underlying all of the National Gas Law and the National Gas Rules is the supposition that the regulated firm will receive a revenue stream that is what a prudent NSP will require and which would reflect the efficient provision of the service provided. Notwithstanding this underlying requirement, the Gas Rules are also quite specific in regard to what the rate of return should encompass. The rate of return must meet benchmark standards as to the financial parameters for a going concern and it must reflect best practice.

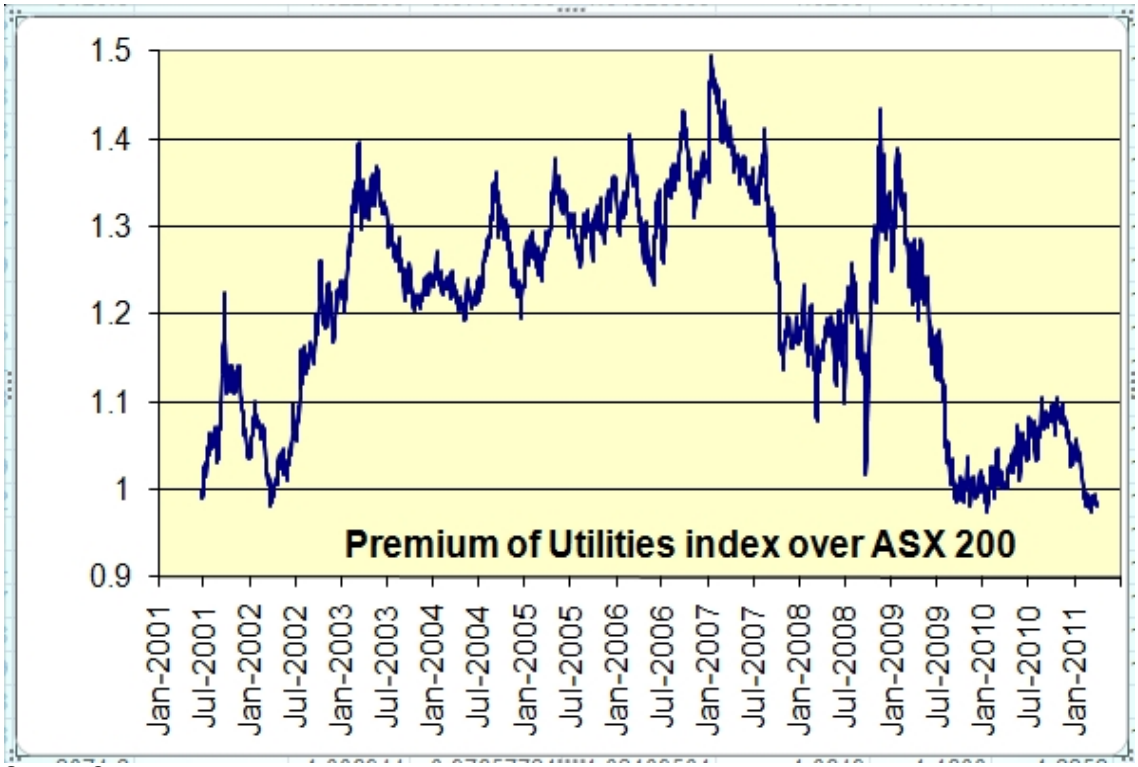
Analysis of the Envestra financial reports and declarations to the market indicate that the WACC parameters used in the current access arrangements provide strong revenues to Envestra and have done so throughout the global financial crisis. For Envestra to require the AER to substantially increase the WACC parameters so that Envestra can “manage” the fallout of the GFC is quite disingenuous in the extreme. Envestra and its consultants all have noted that the impacts from the GFC are fading, but despite this Envestra is seeking WACC parameters that will significantly increase its current WACC, even though it has demonstrated that the WACC derived from the current parameters used for its present access arrangements are adequate and demonstrably efficient.

Throughout the Envestra application and the AER draft decision there is debate about the degree as to what various approaches provide a reasonable return for the delivery of the service. Both Envestra and the AER commissioned expert and learned views as to how various elements comprising the WACC development should be calculated, with Envestra seeking to increase the WACC by seeking to raise the WACC it is to receive by various means and parameter selection.

In this debate, the experts differ quite markedly. Envestra advocates want to use an approach that increases the WACC considerably above that widely accepted as reasonable, and the AER experts continue to support the regulatory approach used by all Australian regulators since the “Great WACC debate of ‘98” where the ACCC and the Victorian ORG developed an approach that has been used in every energy network decision since.

The fact that the outcome of using that approach has not resulted in energy network firms going "bust" with all of them providing an acceptable return to their shareholders, should be noted. That the returns are acceptable is evidenced by the fact that all of the listed network firms have their shares traded at prices for the most part exceeding the overall market index.

In fact for only 4% of the time has the relativity show the Utilities index has less than the market average and over the past decade the Utilities Index has outperformed the market average by a premium of over 20%. If anything, this market result would imply that the regulated returns have been considered by the market as overcompensating regulated firms.



Source: Commsec

This result, when combined with dividends that exceed the market average[14], shows what the market outcomes have achieved, and provides a clear prima facie case that the regulatory approach used has been appropriate for the purpose of setting a WACC which reflects the needs of the regulated firms. This view is supported by the analysis of Professors Davis and Handley who were commissioned by the AER to review whether the Envestra claims to use a different approach to the Sharpe CAPM were justified. Neither professor was convinced of the need or appropriateness of a change, despite the recognised shortcomings of the Sharpe CAPM.

[14] For example, data from Morningstar advises that consistently the dividend of the Utilities sector has regularly exceeded the market average.

With this issue well addressed, the ECCSA response to the AER Draft Decision looks at the parameters to be used in the CAPM approach.

5.1 WACC overview

The clear requirement of the Law, Rules and AER approach is that the rate of return must be efficient and reflect the rate of return a prudent service provider would require in order to most efficiently provide the services.

Despite its stated concerns as to the development of the WACC to be used for its regulated return, Envestra has actually taken other approaches to reduce its cost of capital. For example it has borrowed to an extent where its level of gearing[15] is well in excess of the AER benchmark gearing of 60%, yet Envestra considers the benchmark should be 55%. Even at its high gearing, Envestra still retains a credit rating of BBB, only one level below the AER benchmark rate of BBB+. That Envestra can advise that the benchmark levels for setting gearing should be so much less aggressive than its own performance yet have a minor reduction in its credit rating, is a clear example of the conservatism inherent in the AER parameter settings.

It is axiomatic that Envestra would be seeking to operate at efficient levels for its own benefit so as to maximise the return to shareholders. To this end, Envestra has introduced various approaches to gaining more efficient outcomes, such as its approach to its provision of debt. These are detailed in its reports to its shareholders, ASIC and the stock exchange. The AER has a responsibility to ensure that its approach to setting the benchmarks are equally as efficient.

In its submission to the Envestra application, the ECCSA noted that despite Envestra seeking higher rates of return than those it currently receives from decisions by ESCoSA, ESCoV and QCA, it has improved its financial position in the past few years, supporting the approaches used by those regulators. When it is recognised that Envestra achieved an improvement of its financial position despite a reduction in gas consumed (see Envestra application page 24), it is clear that based on Envestra's own data, the current WACC levels were a contributor to maintaining financial success against falling consumption of gas. This observation does not support the Envestra approach to seeking an even higher WACC than one based on the same parameters used by previous regulators

In its earlier submission, ECCSA provided a table of the WACC parameters used in the most recent gas distribution decisions. The explicit or implicit Envestra proposals (in its original application and in its revised application) are provided for comparison purposes, along with the AER draft decision values.

[15] Morningstar has assessed Envestra gearing at 78% debt

Parameter	Mar 2008 Vic ESCV	Jun 2010 NSW AER	Envestra claim	AER DD	Envestra revision
MRP	600 bp	650 bp	735 bp	600 bp	725 bp
Gearing	60% debt	60% debt	55% debt	60% debt	60% debt
DRP	214.5 bp	293 bp	339 bp	393 bp	467 bp
Equity beta	0.7	0.8	1.05	0.8	1.0
Inflation	2.7% pa	2.6% pa	2.57%pa	2.52% pa	2.52% pa
gamma	0.5	0.65	0.2	0.45	0.2

When Envestra's revised claims are totalled into a final WACC allowance, it has claimed a massive premium over the rate of return the AER provides in its draft decision. Where the AER increased the allowance above that claimed by Envestra (eg the DRP) Envestra has requested even higher allowances than the AER had assessed.

If Envestra, as it seems to be, can provide a return to shareholders which delivers a dividend above the average dividend for the overall market and its sector, then Envestra is demonstrating that the bases for its revenue stream are probably efficient but conservative. Certainly they do not show that Envestra must be provided with a higher return on its assets than it currently gets.

Envestra would seem to concur with such a view. In a report to the financial markets in September 2009 Envestra provided a view as to the impact of the then current AER WACC decisions on its expectation over the coming regulatory period. Envestra observed that at worst there might be a small reduction in return but highlighted that if the AER approach on DRP continued, there was a distinct upside for Envestra:

Long Term Regulatory Outlook

- Key parameters from AER WACC decision for electricity transmission companies

WACC parameter	AER final decision	Current decisions	Impact
Risk free rate	10 year government bond	10 year government bond	Nil
Equity beta	0.8	0.8 – 1.1	-20 bp to -60 bp
Market risk premium	6.50%	6.00%	+ 20 bp
Credit rating	BBB+	BBB+	Nil
Gearing	60%	60%	Nil
Value of imputation credits	0.65	0.43 – 0.50	- 20 bp to -35 bp
TOTAL IMPACT			Vic Nil, SA – 35bp, Qld – 60bp

- Upside: AER "credit margin" uplift on WACC: if August 2009 margins prevail would add at least $15M p.a
- Downside: impact of lower WACC parameters - only a minor impact on haulage revenue (<2%)
- From 2011-12: expect to see revenue growth of 2-3% (customer growth / CPI tariff increases)

20

Envestra

It is clear that Envestra recognises that the current AER settings are appropriate and will have minimal impact on Envestra but the AER approach to DRP provides the basis for a significant upside.

5.2 Specific elements of the WACC

Envestra claims it needs a higher WACC because many of the parameters the AER uses in its draft decision for setting the WACC for the notional gas distribution business need to be changed to reflect the current financial environment.

Generally the ECCSA considers the AER draft decision demonstrates a better appreciation of the Law, Rules and the expected financial environment than do the parameters suggested by Envestra in its revised application. As with the original application, Envestra is clearly making an ambit claim to dramatically increase the WACC despite the fact the parameters used in developing the WACCs in their current access arrangements are demonstrably delivering a WACC that is efficient and reflective of best practice.

ECCSA provides its views on a number of these parameters, especially on the DRP for which the AER has clearly made a fundamental error.

5.2.1 Formula for equity returns

In its revised application, Envestra maintains that the parameters sought originally should be Envestra provides a number of different approaches and formulae for developing a value for the return on equity. But as the AER expressed in some detail in its decision on NSW (Jemena) gas distribution, the approaches suggested are not as frequently or widely used as the Sharpe CAPM. The Rules require the method to be a “well accepted” method and as the AER has previously determined, none of the methods (other than the Sharpe CAPM) proposed by Envestra are demonstrably “well accepted” and more widely used than the Sharpe CAPM.

The Law requires that the NSP should receive at least the efficient costs for providing the services, and the return on assets is the largest single element of the cost for the service. As Envestra is demonstrating that its financial performance is not only adequate (indicating it is receiving an efficient return) but improving, it appears that the returns it is getting from the current regulatory approaches are therefore efficient.

As the AER approach will continue the approaches used by the jurisdictional regulators, this “real world” evidence supports that the AER approach used for the Jemena network decision has equal applicability to the Envestra review.

In its response to the AER in relation to the Jemena NSW gas distribution review, ECCSA affiliate EMRF provided a view as to the appropriateness of the other methods for assessing rate of return proposed by Jemena. The ECCSA refers the AER to those comments and the AER decision in regard to rejecting those other methods.

The ECCSA recommends that the AER should reject the use of other methods of assessing the rate of return and continue with the use of the Sharpe CAPM.

5.2.2 MRP and equity beta

Subsequent to the AER draft decision, Envestra has revised its combined MRP and equity beta to a value of 725 bp, whereas the AER has provided reasons for it to be 480 bp in its draft decision.

Envestra posits its view that the MRP should be higher because the impact of the GFC in Australia has not yet disappeared, despite the views of IMF, OECD and the RBA. Envestra goes on to reinforce its view that for the AER to reduce the MRP to 600 bp promotes regulatory uncertainty.

Envestra seems to miss the following points.

- The AER increased the MRP to 650 bp in its final decision[16] on the WACC parameters in May 2009 to accommodate the very real (then) impact of the GFC was expected to have on the Australian market. The AER advised at the time, it intended that the MRP would revert to the usual regulatory value of 600 bp at some time in the future, as the AER was convinced that its regulatory decisions should reflect the long term trend. If the AER does not revert to the lower value of MRP as it forecast, then not to do so when the market indicates this move is appropriate, would create regulatory uncertainty.
- This means that there must be a time at which the impact of the GFC is effectively washed out of the long term trends. The AER (backed by three reputable organisations) considers that for the coming regulatory period, the impact of the GFC will be negligible.
- Envestra seems to be convinced that the impact of the GFC will continue until 2016, some nine years after the start of the GFC
- Envestra has not recognised that the impact of the GFC on the Australian market reflected at most a minor recession, although there are much more severe and continuing impacts in other markets. The fact that the impacts in Australia are so relatively mild, indicates that Australia will have overcome the GFC very much earlier than other markets
- Even for severe recessions and depressions, the impacts of these were mainly overcome well within the nine year period that the new regulatory period will encompass, again supporting the AER view for change.
- Envestra's own ability to manage the impacts of the GFC at its height show that the WACC parameters used in their access arrangements were adequate to allow Envestra to survive and even flourish. For Envestra to now state that the AER WACC parameters used in the draft decision are inadequate is patently false based on its own performance.
- Even with the similar WACC parameters in the current regulatory period, Envestra is forecasting an increased profit for the second half year to that achieved in the first half year of 2010/11[17]. This indicates that the currently used WACC parameters are correct, despite the Envestra and consultant rhetoric

It is obvious the "real world" does not agree with the Envestra contention that the higher MRP is necessary, and nor does the actual performance of Envestra as it performed profitably before, during and immediately after the GFC with an MRP set at 600 bp. For Envestra to argue that the impact of the GFC will continue to the end of the next regulatory period and that therefore the higher MRP and equity beta are essential is not supported by Envestra's actual performance.

[16] Its draft decision was that MRP should be 600 bp
[17] See appendix 3 Envestra half year report for 2010/11

The ECCSA agrees with the AER that an MRP of 600 bp and an equity beta of 0.8 are appropriate for the next regulatory period.

5.2.3 Gearing

ECCSA notes that Envestra has "reluctantly" accepted that the gearing for the benchmark NSP should be 60% as the AER has determined in its draft decision.

However, as the AER is required to assess the WACC under the Gas Rules to reflect "best practice" as exhibited by the market and be "efficient". It is obvious from the market that gearing needs to be higher than 60% as the market has determined that a higher gearing is possible whilst still retaining the benchmark credit rating of BBB+. Envestra has maintained its view that the notional energy network provider should be geared to 55% debt. This issue was first widely discussed at the ORG/ACCC "Great WACC debate of '98" and even as late as the AER WACC review in 2009, the level of gearing has been held at 60% as being appropriate for the notional efficient energy network provider.

A review of the financial statements of energy network providers shows that the AER level of 60% is conservative as on average most of the Australian NSPs are geared at more than 60%. For Envestra to allege that the notional provider should be geared lower than the AER assumed level of 60% is inconsistent with Envestra's own gearing which is over 70%[18].

Envestra points out that gearing of a BBB+ rated entity would be as low as 55%, and lower rated entities would have a higher gearing.

This is not necessarily so. For example, during the 2009 AER WACC review, it was noted that Ergon is rated as AA+ with a gearing of nearly 70%, and ElectraNet (geared to over 90%) has a BBB+ rating.

Envestra's arguments do not stand up when the "real world" outcomes are observed.

5.2.4 Debt risk premium (DRP)

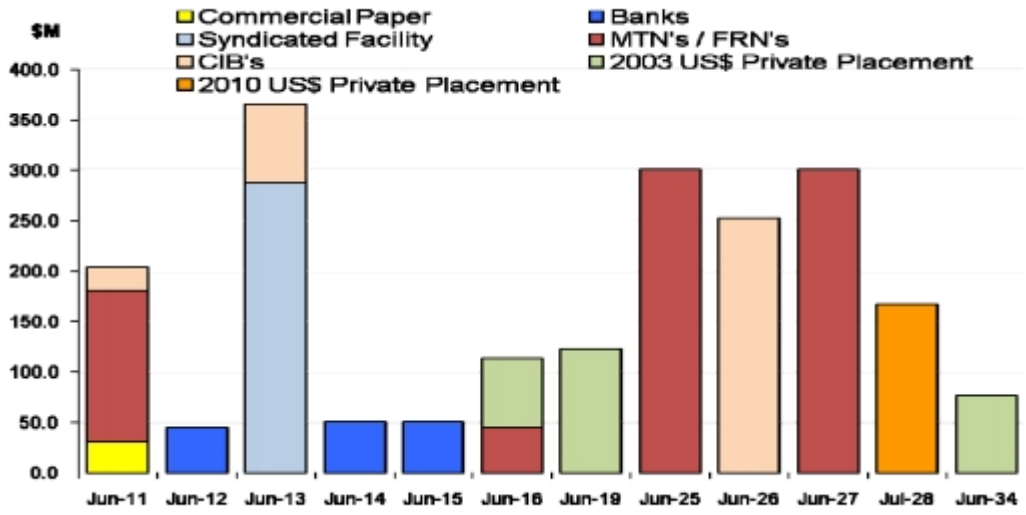
There is an essential problem with the AER approach to setting DRP. It assumes that all debt will be acquired at the current point value. This is patently wrong as most of the debt held by Envestra is already in place. At most the AER approach could be used for would be for new debt acquired in the regulatory period.

[18] Morningstar assesses Envestra gearing at 78%

That there is a problem is clear from the comparison of the market risk premium of 600 bp assessed by the AER in its draft decision and the 393 bp used for the DRP. Adjusting for the equity beta of 0.8 used by the AER, this implies the market premium is an effective 480 bp. Essentially the AER draft decision indicates that there is little difference between debt and equity used for the WACC development. The MRP of 600 bp and equity beta of 0.8 has been demonstrated as a long term equity return for assets of this class, so on a comparative basis the AER decision of DRP of 393 bp is intuitively too high. A review of Envestra's own financial accounts supports that the DRP is too high.

Analysis of the Envestra balance sheets and profit and loss statements (in its 2010 Annual Report and its recently released first half year report for 2011) shows that the cost of Envestra's debt is well below that implied by its revised application, supporting the ECCSA view that both the AER and Envestra are fundamentally incorrect in the debt risk premium used in the AER draft decision and the revised application, and that the AER draft decision DRP is grossly "inefficient" when compared to "real world" costs for debt.

Analysis of Envestra's debt profile shows that well over half its current debt facilities are due for renewal beyond the current regulatory period



Source: Envestra announcement 4 February 2010

Envestra reported on 4 February 2010 that it was to issue $US150M of 17 year bonds. In that report Envestra advised that the price for these bonds

> "... compares favourably to that recently available for 3-year bank funding in the Australian market..."

and that the US dollar debt is swapped to Australian currency so that no foreign currency risk arises during the term of the bonds.

This report from Envestra shows that actual long term debt secured overseas can be secured at less than short term Australian bank debt, which in turn is less than long term corporate bonds secured on the Australian market.

Not all debt is sourced offshore[19]. In its ASX release on 29 March 2011[20] SP Ausnet advises that it secured $250 million in the Australian bond market

> "...priced at a margin of 167 basis points over the benchmark swap rate."

But what is just as important to note is that a single point debt as used by the AER is setting the DRP is not efficient. As SP Ausnet comments in its ASX release on 29 March 2011:

> "SP AusNet maintains a well diversified debt maturity profile together with well diversified sources of debt. This, together with a strong investment grade credit rating, allows SP AusNet ready access to debt markets both in Australia and offshore. SP AusNet is therefore not reliant on any one capital market or any one source of debt."

In its submission to the Envestra application, ECCSA provided a report by its affiliate Major Energy Users addressing the issue of the large debt risk premia the AER was awarding in its regulatory decisions. Attached as appendix 1, is this report with two recent addenda and an executive summary which amplifies the concerns of consumers regarding the AER approach to developing the debt risk premiums The ECCSA concurs with the MEU that the current approach to calculating DRP is flawed and does not meet the requirements of the Energy Laws or the Energy Rules.

Of great concern to consumers, is the AER draft decision provides an increase to the DRP suggested by Envestra and following the AER draft decision, Envestra is now seeking a DRP even greater than the DRP the AER considered was applicable.

Implicit in the Rules is the rate of return must reflect an efficient level and efficient practices. It is clear from the way that both Envestra and SP Ausnet have developed their debt structure, is that the best practice and efficient approach is the debt will comprise a range of facilities over a range of debt maturity dates.

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[19] Australian Financial Review page 19, 31 March 2011, "US warms to Aussie corporate debt". It should be noted that SP Ausnet advises that the amount raised was $250 million in its announcement.
[20] See appendix 2

In its report the MEU comments

> "The DRP levels set in recent times by the AER are much higher than the actual costs for providing debt incurred by regulated firms. This suggests that, post GFC, the market has changed dramatically and therefore the AER has to assess whether it should continue with an approach to setting a DRP that delivers a significantly higher DRP than the actual costs incurred by a firm in providing debt.
>
> Essentially, what the AER approach does is to use a single source of debt which has to be interpolated and extrapolated to provide an outcome. The AER then uses this single output to provide a benchmark source for all debt provided (ie the AER generalises an outcome from a single output); this is poor regulatory (and scientific) practice.
>
> To continue with the current practice is to assign an inefficient level of debt cost in the WACC and condemn consumers to pay an unnecessary premium for the network services provided. An inefficient WACC is contrary to both the National Electricity/Gas Laws and the objectives and principles embedded within them. Even the Australian Competition Tribunal (in its September 2010 Decision in relation the ActewAGL appeal, seems to support a change to the current AER approach."

The ECCSA concurs with these sentiments and points out that Oakvale Capital Ltd (the AER consultants relating to DRP for the Envestra review) makes an interesting observation in its report that Bloomberg often uses composite quotes which are based on where they believe the market should be, rather than actual hard data[21]. The MEU draws the conclusion from this that:

> "This observation provides a clear reason why Bloomberg values might be higher than actual observed values (such as the APT bond issue) as an expectation of "what should be" tends to provide an overstated view of the market when compared to actuality. That the AER considered that a value based more on "what the market should be" compared to what actually occurred is of major concern."

The ECCSA considers that the current AER approach is flawed and is resulting in an unnecessary cost premium for consumers who expect to only pay a debt risk premium which reflects an efficient level of DRP and one which reflects best practice.

[21] This provides a reason for Bloomberg fair values often being higher than those estimates made by CBA Spectrum

The AER needs to address this clear inconsistency between its practice and what is required. It is clear from Envestra presentations (such as that in September 2009), that Envestra itself concurs with the ECCSA view.

The ECCSA considers that the AER has been provided with three examples of recent debt acquisition (APT, SP Ausnet and Envestra itself) which show best practice in debt acquisition together with recent bond issues to acquire $A debt. This actual “best practice” should be the basis for setting and efficient debt risk premium and the current outmoded approach used by the AER must be changed as implied by the Australian Competition Tribunal

5.2.5 Gamma

The issue of dividend imputation continues to be vexed, with the AER being challenged regularly on its assessment of gamma for the notional Australian energy network. This most recent draft decision by the AER is that gamma should now be set at 0.45 and still Envestra seeks a value of 0.2.

The setting of gamma has exhibited a massive change over the years. Initially regulators used a value of 0.5 set deliberately at a conservative value because there was no certainty about this parameter. The AER devoted considerable effort during the WACC review to establishing a level of gamma that was based on a better view of facts surrounding the valuation.

Consistently networks have argued that shareholders get little value from dividend imputation with Envestra maintaining that only 20% of shareholdings in Australian companies get value from imputation. The AER draft decision concludes that 45% of shareholdings attract imputation.

This assessment by both the AER and even more so by Envestra, raises the core issue that dividend imputation is essentially not worth having. This is in contrast to the Commonwealth government which introduced this feature in 1987 and where every government since has retained the feature. If dividend imputation is as little used as implied by Envestra it would be assumed that the government would abolish the feature as creating transactional costs that outweigh the benefit. Even at the 45% level implied by the AER, it raises a serious question as to the commercial validity of continuing with dividend imputation.

With such uncertainty, perhaps the AER should contact the Commonwealth Treasury to seek its guidance as the relative value of dividend imputation bearing in mind the extent of the AER view that dividend imputation has such a modest value to shareholders.

Certainly on a high level view, the ECCSA considers that the Envestra claim of 20% take up makes little sense for continuing with dividend imputation and that this implies the Envestra arguments must be quite flawed.

5.2.6 Conservatism in parameters

In its submission to the AER draft decision on the WACC parameters the Major Energy Users analysed the derivation of each of the set points derived by the AER for the WACC parameters. From this the MEU concluded that using the AER's own data and range of values it identified that the AER had introduced compounding conservatism in the WACC development from these parameters.

If the AER is of the view that there is "persuasive evidence" to change the WACC parameters based on the Envestra application, it should have re-open all other WACC parameters due to this compounding effect. However the ECCSA considers that the

The only changes in the parameters set at the WACC review are the AER decisions to reduce the market risk premium back to its historical levels (recognising that the increase to 650 bp was to accommodate the impacts of the GFC) and to reduce the level of gamma by 30%, the ECCSA considers that due to the independence of these two need not require any movement in any of the other parameters..

5.3 Depreciation

In its response to the Envestra application, ECCSA noted a concern that reducing asset lives provided an incentive for earlier replacement of assets that were still used and useful. The ECCSA notes that a fully depreciated asset no longer provides a return (read profit) to the asset owner under the building block approach. The AER has commented that they consider this incentive is not significant because the majority of the Envestra assets still have significant lives.

ECCSA does not agree with the AER. That there is still significant economic life remaining, means that the issue might not be immediate, but by reducing asset life and increasing the rate of depreciation will increase costs to consumers now and there still remains the issue of whether a monopoly under the building block approach will elect to retain a fully depreciated asset in its inventory (and get no return on it) or replace the asset regardless of its usefulness and get a return on the new asset.

This issue is raised by the AER on page 24 of the draft decision where the AER comments:

> "The AER considered an issue raised by ECCSA as to whether Envestra's asset base should be adjusted to reflect the removal of cast iron mains that had been replaced and were not fully depreciated. The AER did not find any evidence to suggest that Envestra is proposing to replace its cast iron mains too early. The AER considers that Envestra's cast iron mains are generally at the end of their useful life and therefore fully depreciated."

The ECCSA sees that this AER view is opposed to its earlier comment. Cast iron mains have an economic life of 85 years but when the DORC valuation of the Envestra assets was made in 1999 by SAIPAR in order to set the initial capital base, the mains on average had accrued depreciation of 20% implying that the assets have 80% of their residual life remaining[22].

Whilst details of the actual life of the CI and UPS mains remaining is not available to ECCSA, it could be assumed that at 1999, the CI and UPS mains had at least 50% of their lives remaining or another 40 years of life. In fact Envestra is replacing these assets earlier than this remaining 40 years of life implied, supporting the observation made by ECCSA. The AER should investigate this issue more deeply to ensure that consumers are not being disadvantaged by early replacement.

The AER has accepted that there is an inbuilt incentive for a regulated firm under a price cap approach to reduce its capex below the level allowed in the regulatory determination. To reduce this incentive the AER proposes that depreciation be included in the roll forward calculation at the forecast rate rather than actual depreciation.

Whilst ECCSA does not consider that this provides a significant disincentive to overstate capex during the reset, and then underspend the allowance, it does provide less incentive to do so than the alternative of overstating capex needs and then rolling forward the capital base using actual depreciation.

On this basis, the ECCSA considers the AER approach is sound and supports it.

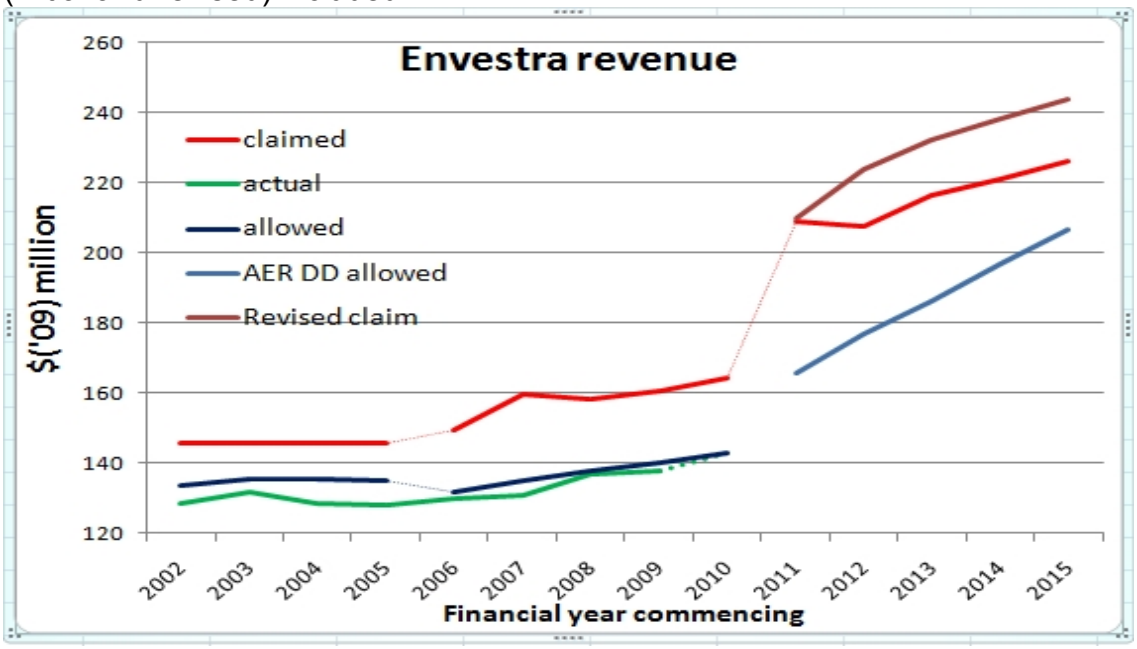
5.4 Revenue allowed and the impact on consumers

The Envestra claims that its revenue needs to increase at a very high rate. The revised application shows that Envestra wants even more revenue than it claimed in its initial application, despite the AER draft decision indicating that the network needed less revenue than Envestra first claimed.

[22] See table 5.2.1 of SAIPAR final decision December 2001

This increased revenue need is at odds with Envestra's current performance where despite getting less revenue than allowed by ESCoSA due to fewer sales, Envestra was able to under-run its capex and opex allowances so that overall Envestra increased its profitability.

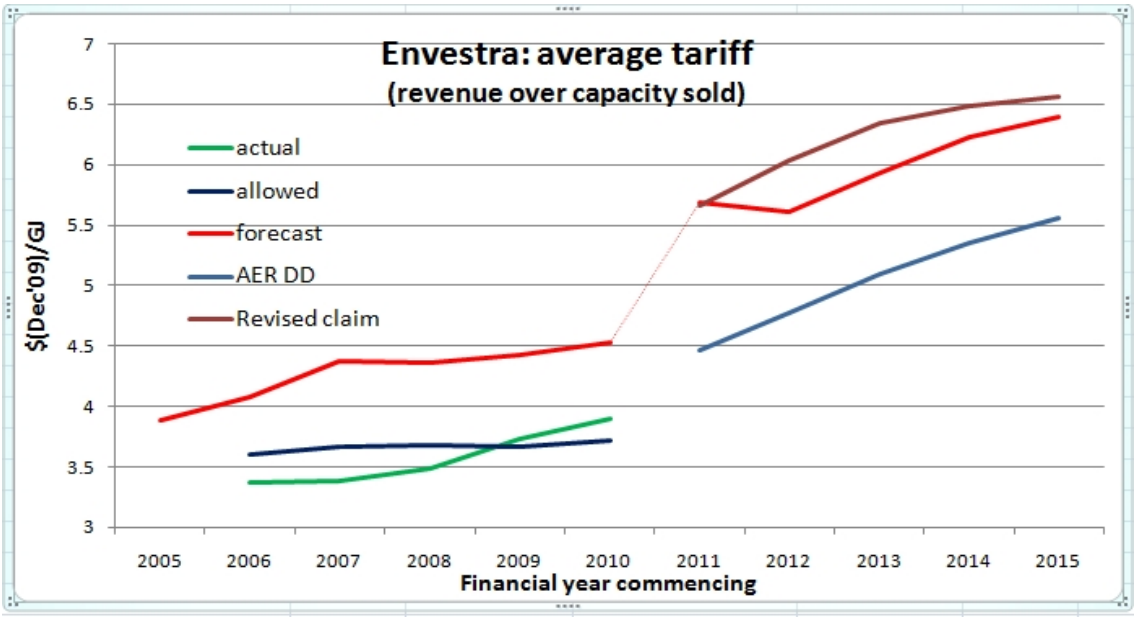
The following chart shows the trends in revenue over time, compared to allowances with the AER draft decision and the two Envestra applications (initial and revised) included.



Source: Envestra applications, AER, SAIPAR and ESCoSA decisions

What is most remarkable about the large forecast step increase in targeted revenue is that this is set against declining gas sales.

This large increase in revenue (whether the Envestra initial or revised applications or the AER draft decision) causes very large increases in tariffs from those currently applying For the purpose of this analysis ECCSA has assumed that Envestra services sold (in GJ terms) are the actual sales of gas sold to tariff V customers and the annualised MDQ bought by tariff d customers – this is effectively the amount of transport capacity sold by Envestra in GJ and the outcome is shown in the4 following chart.



Source: Envestra applications, AER and ESCoSA decisions, ECCSA calculations

What the chart shows is that until 2009, the Envestra actual notional tariff was lower than the tariff assumed by ESCoSA due to much higher gas sales than was assumed, and only with the reduction of gas consumption as a result of the GFC and general reduction in the gas used by manufacturing has the notional actual tariff exceeded benchmark. That the notional actual tariff under-run that allowed by ESCoSA supports the view that Envestra was not disadvantaged as a result of its revenue being less than allowed by ESCoSA.

The ECCSA has provided its views in sections 2, 3 and 4 above as why it considers the claimed and allowed revenues are too high, but on a macro scale, the large step increase in tariffs can only impose downward pressure on future gas usage, and to cause greater hardship on gas consumers, whether at the residential, commercial or business level.

It is greatly concerning that the AER is unable to control the excessive claims being made by energy networks, and the Envestra claims for the SA gas distribution network is no exception. It is even more concerning that the AER is proposing to allow such a large step increase in real tariffs followed by significant real tariff increases each year after.

The AER is expected to impose on monopoly firms, the surrogacy of competition. Competition throughout Australia is increasing as a result of the rising value of the $A, and prices are being kept low as a result. In contrast Envestra is being permitted almost unfettered increases in its charges for the services it provides. In this regard, it must be noted that Envestra is currently earning increased profits[23] yet despite this it is using its monopoly

[23] See its press releases included in the ECCSA response to the Envestra application and in appendix 3

position and the weaknesses in the Gas Rules to further increase its profitability.

Distribution network charges comprise nearly 1/3rd of the total cost of delivered gas so an increase in network charges of the magnitude sought by Envestra will increase this financial pressure and burden to an even greater extent.

The AER must address the step and continuing increases in tariffs in terms of consumers' ability to pay and the negative impacts such large increases will cause. If a resultant of the increases is there is a reduction in gas consumption, then the large costs Envestra is imposing on gas consumers will be amortised over fewer consumers.

The AER has previously advised that it is required to assess an application from a regulated entity "on its merits" with due care for ensuring the business has sufficient funds to provide the service required. The AER also has a responsibility to ensure the long term interests of consumers are protected. Allowing the regulated business to massively increase its tariffs for short term gain has the potential to result in a business which is not commercially viable in the long term because its customers cannot afford its services, and so failing to provide the long term service that consumers require.

Gas supply is an essential service and in a first world country for a regulator to allow the monopoly provider of an essential service to price its product at a level where it either causes financial hardship to a large element of the service users or to ultimately cause users to cease using the service due to the cost being too high, is clearly not in the purview of a regulator.

The ECCSA has the view that the AER must balance the ability to pay for the service against the aspirations of a monopoly to maximise the cost of the service it provides.

5.5 Pass through events

Envestra has requested that the AER allow the pass through of costs for certain events with a materiality threshold of $100,000 per event.

In its response to the Envestra application, ECCSA considered that certain aspects of providing a regulated service might, at times, result in a risk to the NSP that they could not foresee at the time of a regulatory review, and which they cannot recover within the existing allowances. ECCSA also noted that competitive business has pressures on it that limit its ability to pass through such costs with the cost being absorbed.

In its initial and revised applications Envestra has provided detailed reasons why it's WACC (which includes its profits) should be increased. In a competitive business the pass through costs that Envestra is seeking protection from are absorbed and are effectively included in the WACC. The WACC that Envestra is seeking is greater than that many businesses enjoy so for Envestra to have both an attractive WACC and the ability to pass through costs would appear to allow "double dipping".

The AER has reduced the WACC sought by Envestra (although not to the levels of the market in general) so this provides some support for the inclusion of pass through of costs for certain events. ECCSA also notes that the AER has agreed with ECCSA that the materiality threshold should be increased to at least 1% of allowed revenue before the pass through will be entertained.

The ECCSA supports the AER detailed listing and definition of what will be allowed as pass through events providing the AER addresses the concerns ECCSA has raised in relation to the WACC to be allowed.

5.6 Tariff development

Envestra has sought a number of changes to its approach to tariff setting. The AER has provided a requirement for a number of changes and the ECCSA agrees with the AER that these changes are necessary.

As part of its justification for capex, Envestra noted that short term gas demands were expected to increase (leading to a need for increased capacity in the network) but despite this Envestra has not moved to a tariff based on MHQ which is used by some other distribution networks. Yet despite this observation, Envestra has not sought a tariff based on MHQ, even though MHQ is used in other jurisdictions.

The ECCSA notes that the tariff structure does not clearly define how Envestra develops its connection rates for "farm taps[24]" of which there are many in the SA region. The AER needs to ensure that the costs charged by Envestra for these farm taps are reflective of the costs involved.

[24] Farm taps are connections Envestra establishes for single services off a transmission pipeline

6. Demand and consumption forecasts

In its application Envestra provided a view that the gas consumption is expected fall from current levels to even lower levels through the next period. In its application Envestra used the views of NIEIR to provide legitimacy to its forecasts.

The AER commissioned ACIL Tasman to review the NIEIR methodology and the assumptions used to develop the forecasts. ACIL considered that the NIEIR methodology was appropriate for the task but that a number of the assumptions are quite conservative in a way that leads to an expectation of a reduction in consumption.

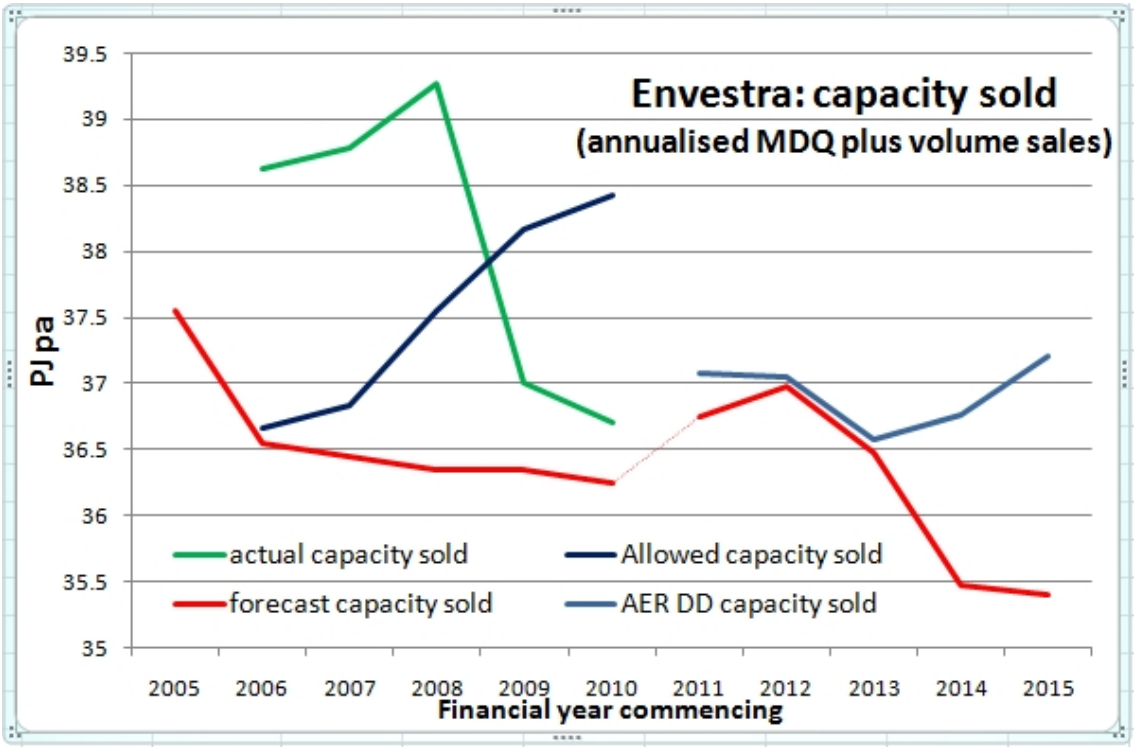
Based on the ACIL review and comments the AER considers that gas demand in the residential sector will fall slightly over time even though customer numbers is forecast to increase by nearly 10% above current levels. This seems to indicate that there is an expectation that residential consumers will reduce their consumption by a similar amount over time. Inherent in this assumption is that global warming will continue at the current rate despite the 2010 and 2011 indications of a significantly cooler period.

There are a number of views regarding this recent change in weather patterns. At one end of the scale is the view that 2010 and 2011 weather changes are an aberration in the global warming trend with others viewing the change as a result of a “flip-flop” in the El Nino/La Nina effect with the La Nina effect to last for some time as it did a number of times last century, such as between the warmer 1960s followed by the cooler 1970s. The answer probably lies somewhere between but if a cooler period is to eventuate, then Envestra will receive a significant boost to its revenue. But the reverse is unlikely to occur as Envestra has shown in the current period where as consumption fell Envestra was able to manage its opex and capex to offset the decline in revenue. This indicates that the outcome for Envestra is asymmetric with Envestra likely to benefit either way, but consumers having to pay more by understating consumption.

The ACIL/AER view is that Tariff D consumption will initially fall and then return to current levels and Commercial consumption will increase slowly over time. This expectation has a lot to do with the recovery of business activity after the GFC and the impact of a high $A.

What is concerning is that neither NIEIR nor ACIL have made any assessment as to whether the increased tariffs that will result from the Envestra application will have a downward impact on gas consumption, and whether lower tariffs might actually lead to increased consumption or at least return consumption to levels seen earlier in the last decade.

The ECCSA has a continuing concern that Envestra has consistently under estimated gas demand in past periods but the regulators seem to be better at forecasting than Envestra. This concern is demonstrated in the following chart.



Source: Envestra applications, AER and ESCoSA decisions, ECCSA calculations

In the current period Envestra totally underestimated actual sales (average 36.4 PJ/a) whereas ESCoSA on average (at 37.5 PJ/a) slightly underestimated actual average consumption of 38.0 PJ/a. It must be noted that Envestra has a financial incentive to try and convince the regulator to allow an under-estimate of consumption under a price cap regulatory approach. This trend is again obvious as ACIL views a number of the NIEIR assumptions as being quite pessimistic.

The ACIL/AER expectation for gas consumption is that it will be maintained at about the average consumption of the last two years of the current period, although this is probably incorrect as consumption in 2010/11 is likely to be much higher than in 2009/10 due to the cooler winter of 2010.

ECCSA is of the view that the ACIL/AER assessment of consumption is likely to be pessimistic and an under-estimate, but certain to be more accurate than Envestra's forecast (as was ESCoSA's in the current period).

Appendix 1

Australian Energy Regulator

Measuring the Debt Risk Premium

A Submission
by
The Major Energy Users Inc
Updated March 2011

Assistance in preparing this submission by the Major Energy Users Inc (MEU) was provided by Headberry Partners P/L and Bob Lim & Co P/L
The content and conclusions reached in this submission are entirely the work of MEU and its consultants

Executive Summary

The Major Energy Users (MEU) have on-going concerns with the excessive cost of capital used by the Australian Energy Regulator (AER) in setting regulatory revenues in its various energy network pricing reviews.

It is the MEU's view that this has been a major factor in driving up regulated energy network prices in recent AER pricing reviews.

The MEU, in particular, considers that a more appropriate return on the debt portion of the weighted average cost of capital (WACC) should be applied by the AER and to stop over-rewarding network businesses. A serious outcome arising from the AER's use of an excessive level of cost of capital is that much inefficient network investment has been incentivised, thereby contributing to the recent network price shocks experienced by consumers.

The ACCC argued during the development of its statement of regulatory principles in 2004, that it is preferable to set a debt risk premium (DRP) that is independent of the way a firm might actually provide its debt, as this provides an incentive for the firm to be efficient in its debt provision. Effectively, this means that the ACCC recognised that it needed to encourage efficient debt provision and that consumers should not be charged for a firm's inefficient arrangements in the provision of debt.

The observation implies that the ACCC would set a benchmark, which was efficient, but might have a little "head room" so that the regulated firm could provide for debt more efficiently and benefit from this. As the energy regulatory regime is based on incentive regulation, inherent in the ACCC approach is that over time, consumers would benefit from this increased efficiency that the regulated firms were encouraged to achieve.

In the period prior to the Global Financial Crisis (GFC) the outcomes of the ACCC approach to setting DRP seemed to be reflected by the actual costs of debt incurred by regulated firms. This provided confidence that the ACCC approach had legitimacy recognising that the firms actually used different approaches to providing for their debt. As the outcomes of the actual debt provision by the firms were similar to the DRP calculated by the ACCC, the outcomes reflected efficiency in debt provision and there was no need to vary the approach used.

However, since the GFC there is a very clear disconnect between the AER approach to setting DRP and the actual costs incurred by regulated firms. That this is so is obvious from a number of sources. The Australian Pipeline Trust (noting that APT has both regulated and unregulated assets) successfully issued a corporate bond at a rate well below the AER calculated benchmark, and the actual costs incurred by regulated firms show the cost of their debt is well below the AER benchmark. Additionally, demonstrating that the AER

approach clearly does not reflect an efficient DRP as most of the regulated energy firms have not used the Australian bond market to any great extent, indicating that the costs for doing so are much greater than other sources of debt provision.

The DRP levels set in recent times by the AER are much higher than the actual costs for providing debt incurred by regulated firms. This suggests that, post GFC, the market has changed dramatically and therefore the AER has to assess whether it should continue with an approach to setting a DRP that delivers a significantly higher DRP than the actual costs incurred by a firm in providing debt.

Essentially, what the AER approach does is to use a single source of debt which has to be interpolated and extrapolated to provide an outcome. The AER then uses this single output to provide a benchmark source for all debt provided (ie the AER generalises an outcome from a single output); this is poor regulatory (and scientific) practice.

To continue with the current practice is to assign an inefficient level of debt cost in the WACC and condemn consumers to pay an unnecessary premium for the network services provided. An inefficient WACC is contrary to both the National Electricity/Gas Laws and the objectives and principles embedded within them. Even the Australian Competition Tribunal (in its September 2010 Decision in relation the ActewAGL appeal, seems to support a change to the current AER approach.

Analysis of the Electricity/Gas Rules shows that they do not require the AER to apply an inefficient DRP and thereby provide a premium in the WACC that consistently overstates the costs that an efficient service provider actually incurs, thereby providing the service provider with a large windfall benefit.

This paper was originally developed to respond to a Discussion Paper issued by the AER in September 2010 in relation to the Victorian Electricity Distribution Pricing Review. Since that time the MEU has obtained additional information which augments its earlier comments and the response now includes two addenda (addendum 1 prepared in December 2010 and addendum 2 prepared in March 2011) which provide updates on a main paper prepared by the MEU in response to the AER's Discussion Paper. These updates further highlight the deficiencies in the AER's current approach to setting debt risk premium.

Addendum 2 (March 2011)

Issue 1 – History of the current arrangements for setting Debt Risk Premium (DRP)

The approach to setting the DRP had its genesis at the Great WACC Debate of '98 where the ACCC and the Victorian Office of the Regulator General hosted a forum to discuss issues for setting the Weighted Average Cost of Capital (WACC) for regulated businesses. The outworkings of this forum and subsequent work during 2003 and 2004, culminated in late 2004 when the ACCC issued its Statement of Regulatory Principles (SRP). The ACCC also provided a background paper which explained the principles underlying its statement.

The SRP was published by the ACCC on 8 December 2004 along with the background paper. The SRP stated, in regard to debt risk premium, that:

> **8.7 Cost of debt**
> In determining the cost of debt the ACCC will use a 10 year government bond rate as a proxy for the risk free rate and proposes to calculate a benchmark debt margin, corresponding to a 10 year term and a benchmark 'A' credit rating for a TNSP. This would be subject to the practical application of available benchmark data on long dated Australian corporate bonds.

The AER restated this approach when it assumed responsibility for regulation by inserting "AER" for "ACCC" in the statement of principles.

The ACCC explained its reasons for this approach in the background paper. It stated:

> **8.6.5 ACCC's considerations**
> In the DRP the ACCC stated that it would not reference a TNSP's actual cost of debt because the actual cost of debt may not reflect efficient financing. A WACC based on an industry wide benchmark cost of debt may deter inefficient debt financing, as the revenue cap will only contain a return on capital allowance consistent with the return requirements of efficient financing.
>
> The ACCC considers the reference to electricity network companies generally (rather than the actual position of the firm in question) should provide an incentive for the TNSP to establish least cost financing arrangements within the regulatory period.
>
> ... The debt margin (short term averaging period equal to the averaging of the risk free rate) should also reflect the prevailing rates which represent current market expectations for debt issues at the benchmark maturity and credit rating for the regulated entity.

The ACCC makes it clear that the actual cost of debt that a NSP incurs might not be efficient, and so to "...deter inefficient debt financing ..." it would use an external benchmark as a proxy for implied efficient debt financing. The clear implication of this approach is that the NSP will not be rewarded for inefficient debt financing. In fact the ACCC approach seems to indicate that there is an upper limit to efficient debt financing and this will be set by reference to the corporate bond market.

When the Chapter 6 and 6A rules were subsequently developed the ACCC's SRP was used as the basis for the sections on setting the debt risk premium.

Issue 2 – There has been no review of the methodology

In the draft statement of regulatory principles, the ACCC compared the outcomes of the methodology of its approach with what was seen in practice. The outcome of the approach used by the ACCC and the state regulators to set the DRP, was seen to reflect the actual costs incurred by the regulated businesses in the provision of debt and this provided a view that the approach reflected efficient provision of debt.

Further, as the bulk of electricity distribution and transmission businesses are owned by state governments, the debt provided to the regulated businesses by the state Treasuries has continued to reflect the levels observed before the GFC. State Treasuries raise funds based on the fact that they are part of government but are required to add a premium to this debt when funds are on lent to the regulated businesses so as to maintain competitive neutrality with non-government owned businesses[25]. Despite the impacts of the GFC, the cost of debt to government owned businesses has hardly moved and reflects DRP levels that occurred prior to the GFC.

The benchmark levels of DRP developed from the approach used by the ACCC and others ranged in the 100-160 bp band and this approximated the levels of DRP that were observable in the actual costs regulated businesses (both private and government owned) incurred. This provided confidence that the approach did provide an efficient and sensible outcome.

Because of this, during the AER's WACC review the entire focus of the review in relation to DRP was on the rating to be used. In the draft decision the AER set a credit rating level of A- but this was revised down to BBB+ in the final decision.

The WACC review was carried out on the cusp of the GFC and this has caused significant movements and volatility in the levels of DRP.

[25] See addendum 1 issue 1

Since the GFC, there has been an observable increase in the DRP for Australian corporate bonds and an increase in the DRP levels actually incurred by privately owned regulated businesses, although there was little change in DRP levels for government owned businesses. Further, the Australian corporate bond market has shown that there is little trade, especially by regulated electricity and gas businesses. What has been observed, is that many businesses are now seeking debt overseas because the cost of Australian corporate bonds is much higher than in overseas jurisdictions. Effectively, the cost of debt on the corporate bond market in Australia is regarded as too high.

This means that since the GFC, there has been a quantum shift in the market for debt that has resulted in the cost of debt provided by the Australian corporate bond market to be seen as no longer an appropriate benchmark. That this is the case cannot be denied.

There is no regulated energy transport business seeking funds in the Australian corporate bond market. The closest to one is the APA Group which has some regulated assets. Even then, the APA 10 year bond at BBB rating was secured at rates well below the apparent 10 year BBB+ rating inferred from the bond market.

Scrutiny of 2009/10 annual reports for regulated firms (ie post GFC) show that the other listed but privately owned regulated businesses have an implied DRP much lower than the benchmark rate inferred by the AER from the Australian corporate bond market. Further, they also show that their debt is not sourced from the Australian corporate bond market. As noted in addendum 1, the government owned regulated energy service providers have debt rates even lower than the privately owned businesses, despite the government Treasury corporations adding a premium to reflect open market rates.

The historic comparison between the Australian corporate bond market and DRP for regulated businesses shows that, prior to the GFC, there was positive correlation between the benchmark and actual outcomes, giving support to the approach used at that time.

However, there is now an obvious quantum shift that shows the historic relationship is no longer valid. The current approach that the AER has carried over from the ACCC Statement of Regulatory Principles without assessing its continued validity, is demonstrably resulting in inappropriate settings for DRP and is no longer serving its intended purpose of providing a realistic benchmark for performance in efficient debt sourcing.

In fact, that all the current approach is doing is providing a significant windfall benefit to regulated businesses (especially government owned businesses) at the expense of energy consumers.

Issue 3 – The ActewAGL decision by the ACT

In September 2010, the Australian Competition Tribunal (ACT) assessed an appeal by ActewAGL regarding the setting of the debt risk premium. Whilst the ACT addressed quite specific issues, it also made some very important observations in the course of its decision[26]. Whilst the decision was made in relation to the application of National Gas Law and the National Gas Rules, the decision is readily transferrable to the electricity market.

The first observation made by the ACT is at paragraph 10:

> "There are various ways to estimate the debt risk premium. Estimates based on historical averages are one of the most common proxies for the debt risk premium. Surveying market participants is another method and has the advantage of better reflecting prevailing market conditions. The debt risk premium can also be estimated based on the yield (ie return) on corporate bonds, which is the method commonly adopted by Australian regulators."

The ACT followed this (at paragraph 79) with the view that:

> "Of course, we do not intend to discourage the AER from investigating other ways to estimate the debt risk premium."

The clear import of these observations by the ACT (as they sought to derive a solution to the appeal through considerable debate as to statistical methods and sources of information) is that there may be a better and less contentious approach to set an efficient level for debt risk premium.

The second observation is that there is no clarity or transparency available regarding the methods used by CBASpectrum and Bloomberg as to how the fair value curves are developed and so explain why there are significant differences between them[27]. The ACT comments at paragraph 23:

> "The importance of choosing the right estimate is driven by the divergence between the two curves. The divergence may be observed by examining [figures in] the AER's final decision with the dates normalised ... No doubt the divergence is a reflection of the different methodologies and data used to produce the respective estimates. **Only limited information is known about the methodologies. Each involves exercises of judgment and discretion which are non-transparent.** The differences in methodology can be observed by examining the fair value curves of both companies ..." (emphasis added)

[26] Application by ActewAGL Distribution [2010] ACompT 4 (17 September 2010)
[27] In Addendum 2 Issue 4 regarding the Oakvale input, Oakvale provides some insight into the disparity

The ACT notes that because of the disparity between the two benchmarks, the AER used "real world" observations of actual known bond issues to assess which of the two benchmark approaches might deliver the more relevant outcome. The ACT notes that in its endeavours the AER approach created more difficulties and potential arguments than it solved. The ACT makes these points quite strongly at paragraphs 68 and 69:

> "First, the Tribunal is sceptical about any statistical testing for an outlier amongst a mere six candidates. With such a small number of observations, a finding that one or more bonds were outliers would be unsurprising, but ought to draw attention back to what, if anything, can be ascertained from statistical testing in such a small pool of data.
>
> Second, if the AER is to undertake statistical testing in the future, it should reconsider its approach to data interpolation."

Generally the ACT was critical of the statistical approach the AER used to assess which of the fair value curves provided a more reliable benchmark for setting the debt risk premium. Its decision was that the AER should have averaged the two fair value curves rather than attempt to demonstrate that one was more appropriate than the other.

The ACT finally pointed out that there was a major issue that needed to be addressed. At paragraph 72 the ACT commented:

> "The reason a 10 year bond was originally chosen was because, in the past, many firms favoured long term debt, albeit that it came at a higher cost, because it reduced refinancing or roll-over risks. The high rate was then hedged via interest rate swaps. That may no longer be the position. If not, the AER may need to reconsider its approach in light of more current strategies of firms in the relevant regulated industry. Further, there seems to be little point in attempting to estimate the yield on a bond which is not commonly issued."

In this statement the ACT has summarised succinctly the main issues with regard to the current AER approach to assessing debt risk premium:

- There are few 10 year Australian corporate bond issues so there is little data available to interpolate a debt risk premium from them
- The reasons as to why there are so few bonds to establish a benchmark is that most firms do not use such instruments and this is particularly noticeable by the absence of such bonds in the debt portfolios of the regulated firms
- Historically the use of 10 year corporate bonds provided a basis for assessing DRP that reflected what actually occurred in the market, but the way the debt market now operates implies that there are better approaches to providing debt

- If the 10 year corporate bond is so scarce, and other approaches are used by regulated firms, why persist in trying to develop a DRP benchmark from this source of data.

The Australian Competition Tribunal decision provides convincing arguments that the current approach to setting the DRP needs to be significantly revised.

Issue 4 – The Oakvale input

As part of its review of the Envestra gas distribution reviews in SA and Queensland, the AER sought advice from Oakvale Capital Ltd, which provides professional financial risk advice to corporate and government institutions. The value of the Oakvale report is that it provides independent advice to mitigating operational risk associated with the treasury functions of large enterprises.

Whilst the Oakvale advice to the AER is focused on responding to a number of specific questions, the advice also provides some quite illuminating observations regarding the AER approach of using 10 years BBB+ rated corporate bonds as the benchmark for establishing an appropriate debt risk premium to be applied to energy infrastructure businesses.

In particular, Oakvale observes that "bonds ain't bonds" – that bonds have a number of features that will impact on the yield that is likely to be negotiated between the issuer and the debt provider[28]. An investor will address aspects such as the options that are included in the bond have some impact, but also other variables such as (page 1):

> "... but not limited to, industry sector, market sentiment, economic outlook, credit rating and secondary market liquidity[29] more heavily influence the price/yield that an investor is willing to pay."

Oakvale goes on to assess the general marketability of corporate bonds and notes that the term to maturity of a bond is a key element (page 2):

> "[B]onds with longer maturities will normally require a higher return; longer term bonds may be beyond an investor's portfolio mandate for their investments. For example, most investor groups are limited by mandates that prohibit investments beyond three or five years. Here, 'investor groups' includes

[28] For example on page 7 Oakvale observes that "....the debt market practitioner will use a combination of both qualitative and quantitative analysis to determine whether the bond represents overall value to him as an investor..." and on page 8 "...The debt market practitioner will, after assessing advantages / disadvantages plus the qualitative analysis as previously described, determine whether the bond represents overall value."

[29] Oakvale points out on page 17, that differences in perceived liquidity impact yields. They note "...e.g. a Bank of Queensland bond would be considered to be more liquid than a Dalrymple bond and therefore trade at a lower relative yield."

> (but is not limited to) financial institutions, corporate clients, retail investors, superannuation funds, charities, hedge funds, fixed income investment funds, and insurance companies.

The very fact that most debt providers do not accept bonds with a term of more than 3-5 years results in two very important issues – firstly that there will be a scarcity of debt providers for longer term bonds, and secondly that longer term bonds will attract a higher yield because there is a lack of a secondary market liquidity for such instruments.

Oakvale than observes (page 3) that banks regularly are issuers of senior debt and have a maturity of up to 5 years. As a result there is considerable liquidity in such bonds because of the wide investor base and the transferability of the bonds. This means that price discovery is reduced as there are several peers for comparison, ensuring accurate and transparent pricing.

In contrast, the AER approach to setting DRP is heavily constrained due to the minimal availability of data for 10 year bonds and few (if any) bonds with BBB+ credit rating. As a result the AER has had to interpolate and extrapolate data from a few long maturity bonds to derive a yield for the target duration and credit rating. This view is reinforced by the Oakvale observation (page 3) that:

> "Liquidity is not readily available in the Australian corporate bond market, in contrast to the Australian commonwealth and semi government bond markets. This creates an ongoing challenge for issuers as even though they can raise funds in this market it is not readily available and therefore cannot be relied upon as a ready source of capital."

This observation reinforces the MEU contention that the bulk of debt raised by energy infrastructure firms is not raised from the corporate bond market at all, and therefore using the bond market as a surrogate for assessing DRP is totally inappropriate.

The AER approach is predicated only on just the credit rating of the issuer but Oakvale makes the observation that there are many other aspects regarding the provision of debt via bonds that a debt provider will use to assess the yield than the credit rating. Oakvale lists the following as important aspects for consideration (page 3):

- "Market sentiment – does the market momentum / economic outlook support investment at the current point in time, and what are expectations going forward? In particular, debt market practitioners would consider the economic prospects and the outlook for interest rates.
- Scarcity (availability) and desirability of issuer – is the issuer constantly issuing, is there over/under supply on the market at the moment, will there be significant issuance in the future? Liquidity of bond issues is important in determining pricing. For example, banks issue senior bonds regularly; these

> tend to be highly rated issues with a maximum maturity length of five years. Therefore senior bank issues have maximum liquidity as they can appeal to the widest possible investor base and have maximum transferability. Price discovery is reduced as each bond issue has several peers it can be compared against – ensuring accurate and transparent pricing.
> - Industry prospects – what is the outlook for the industry that the issuer normally operates in?
> - Financial standing of company – how is the financial standing of the company and what are its prospects?
> - Abnormal features – does the bond contain any abnormal features or one off terms that may impact secondary market liquidity?"

In addition to these features which impact on the expected yield, Oakvale notes that the options embedded in the bond also have a major impact on the nominal yield, such as whether there is a call option included. Oakvale points out that a call option increases the yield as there is a risk that the issuer will exercise the call if general market rates fall.

In its September 2010 Discussion Paper the AER noted that it considered it might use the average of the Bloomberg fair value index and the actual yield for Australian Pipeline Trust (APT) 10 year bonds to derive the surrogate DRP because the CBA Spectrum index had been discontinued. In its final decision for the Victorian 2010 EDPR, the AER determined a DRP being comprised 75% of the Bloomberg value and 25% of the actual DRP achieved by APT.

However, it has been consistently observed that the Bloomberg fair value index tended to be a higher value than that determined by CBA Spectrum. Oakvale seems to have provided a reason for this discrepancy. On page 25 Oakvale comments that:

> "Bloomberg often uses composite quotes (i.e. where they believe the market should be), whereas market practitioners use pricing models and actual data flow for pricing and this is deemed more reliable."

This observation provides a clear reason why Bloomberg values might be higher than actual observed values (such as the APT bond issue) as an expectation of "what should be" tends to provide an overstated view of the market when compared to actuality. That the AER considered that a value based more on "what the market should be" compared to what actually occurred is of major concern.

On page 17, Oakvale provides a general view as to the corporate bond market:

> "All bonds, whether callable or not, will trade at different levels as not all debt market practitioners will assess the bonds equally. As previously described not all bond valuation is logic and quantitative analysis, there is a high degree of

> qualitative analysis involved and many variables that are considered when the market determines the relative yield of one bond versus another."

This assessment provides a much different view as to the efficacy of using the corporate bond market to provide a surrogate value for DRP.

In its report Oakvale makes the clear point that the corporate bond market is only a small part of the overall debt market, and that bonds tend to be of much shorter duration than 10 years. This makes the use of the bond market for the purpose of setting DRP highly suspect when combined with the Oakvale view that the bond market is also quite subjective (being strongly influenced by qualitative aspects).

The Oakvale report tends to reinforce the MEU view that the AER approach to setting a DRP based on the corporate bond market is flawed, especially when the actual sources of debt used by energy infrastructure firms uses the bond market for just a small part of its debt. Essentially, what the AER approach does is to use a single source of debt which has to be interpolated and extrapolated to provide an outcome. The AER then uses this single output to provide a benchmark source of all debt provided (ie the AER generalises an outcome from a single output); this is poor regulatory (and scientific) practice.

Issue 5 – The Garnaut observations

Professor Garnaut has been retained by the Commonwealth Government to update his 2008 report on Climate Change. During early 2011, he has been releasing updates on his report preparatory to releasing his Final Report. Garnaut Update #8 (released in late March 2011) provides Garnaut's views in relation to "Transforming the electricity sector".

Amongst his key points he states (page 2):

> "The recent electricity price increases have mainly been driven by increases in the costs of transmission and distribution.
>
> - There is a prima facie case that weaknesses in the regulatory framework have led to overinvestment in networks and unnecessarily high prices for consumers.
> - The upcoming review of regulatory arrangements by the Australian Energy Regulator presents an opportunity to correct distortions in current regulations."

Garnaut points to the result of excessively high rates of return on capital as being a key incentive on the network business to over-invest in network assets. He observes (page 42):

> "So there are cascading mechanisms through which the shareholders of state-owned businesses—like most electricity distribution businesses outside Victoria—do well out of over-investment. May be, that provides part of the explanation for why government-owned network providers invest more heavily than privately owned providers and have consistently over-spent their regulated allowance (Mountain & Littlechild 2010). May be that is why the rate of increase in distribution and intra-state transmissions investments is so much higher in other states (with mainly state-owned distribution enterprises) than in Victoria (where these assets are owned privately)."

Garnaut observes that (pages 41, 42)

> "There seems to be little recognition that investment in the network is recouped with near certainty, being passed on to creditworthy retailers who recoup it from customers. ... And yet the discussion of returns proceeds as if this were a mixture of ordinary business equity and debt investment, earning normal commercial returns for debt and equity.
>
> Regulatory imperfections in this area can lead to excessive returns being allowed on investment and in turn encourage over investment. The extraordinary increases in the regulated components of electricity prices since this system has been in operation confirms the case for the system to be subject to an early and searching independent review.
>
> ... In Australia the cost of general corporate debt is used, which has an interest rate around 2.5 percentage points higher. If regulated firms can borrow more cheaply than the rate of debt allowed through the regulatory process, then they can profit from over investment.
>
> The rate of return allowed on the equity component of the weighted average cost of capital does not seem to reflect the low risk of these investments.
>
> Where the business is government owned, the regulated rate of return exceeds the true underlying cost of finance to the owner to an even greater extent. For instance, in February 2011, the average interest rate on 3-year New South Wales Government bonds was around 5.5 per cent, compared to the average interest rate on AA-rated 1-5 year corporate debt of around 6.1 per cent."

Garnaut considers that there is a prima facie case for reviewing the way the cost of debt is set so that the cost of debt used for setting the WACC reflects the actual costs incurred by the business. He adds that a failure to ensure that the rate of return used really reflects the true risk profile of the business, then the outcome is not only an unwarranted cash benefit but a more insidious impost on consumers caused by the incentive to overinvest in network assets.

Issue 6 – The NEM is an incentive regulatory environment

An incentive regulatory environment (such as that established by the National Electricity Law and the National Gas Law) is intended to drive a regulated business to the most efficient cost structure. As Mr D Biggar stated in attachment B to the Discussion Paper issued by the ACCC in 2003 in its review of the draft Statement of Principles for Regulation of Transmission Revenues:

> At the broadest level, "incentive regulation" is the use of (usually financial) incentives in this regulatory compact to align the interests of the regulated firm with the objectives of the regulator.[30]

Essentially this means that in order to get to the most efficient operation, there is a financial incentive on the regulated business to perform at a more efficient standard than it is currently doing. The incentive is that the benefits of the more efficient approach can be retained by the business for a period of time and thereafter the out-turn performance is provided to the consumer as is intended by the National Electricity/Gas Objective – the long term interests of the consumer.

The clear import of the incentive is that as the regulated business shows that it is performing better than the regulator-set benchmark, then the benchmark should be reset to reflect the actual performance of the business where the business has demonstrated that the benchmark is no longer appropriate or relevant.

It is clearly inefficient to set a benchmark that exceeds the actual performance of the regulated business, as the outturn results in not providing an outcome that is in the long term interests of consumers.

Issue 7 – All NSPs have a portfolio of debt

The ACCC/AER approach is based on single source of debt of a single duration assessed at a single point in time.

In contrast, the financial structure of all NSPs shows that they have a portfolio of sources of debt, with varying durations and varying renewal dates. The actual practice of the NSPs shows that the ACCC/AER approach is not realistic.

That this is the case cannot be denied. Many Australian corporations issue corporate bonds, especially the banks, for bonds of up to 5 year terms, as Oakvale notes.

But even more obvious in the crafting of their portfolios of debt, Australian firms are seeking overseas sources of debt through the issue of bonds in other

[30] It is recognised that the Biggar observation was made specifically in relation to opex and capex, but the principle equally applies to other elements of regulation.

countries. Such bonds are being converted into $A via exchange rate swaps to still deliver debt at lower rates than can be achieved by the issue of bonds issued into the Australian market. That this can be achieved shows that corporations are demonstrating efficiency in debt raising by using such methods, and preferring to source debt more cheaply than in the Australian corporate bond market.

The Australian Financial Review of 9 March 2011 reports[31]:

> "After emerging from the earnings season, more Australian companies are expected to tap bond markets to refinance debt with international markets keen to gain exposure to Australian companies.
>
> "US private bond investors have demonstrated a nearly insatiable appetite towards Australian corporate debt," said National Australia Bank's US-based co-head of capital markets origination, Geoffrey Schmidt. "With low unemployment, a stable business environment and strong ties to China, investors completed more transactions than any country outside the US," he said.
>
> ...While local corporate bond issuance is expected to increase, international markets are expected to account for most non-financial corporate bond issuance. Already this year, the US private placement market – which consist of buy and old life insurance funds – has seen several bond issues by Australian firms including ... [placements] by TRUenergy, ... engineering firm WorleyParsons and ... Dalrymple Bay Terminal. ... Brisbane Airport ... is said to also be meeting with US insurance funds ... QR National [is] likely to access the world's largest corporate bond market for financing."

That these Australian corporations seeking such large amounts of debt shows that international fund raisings are preferable to the higher priced local market clearly shows that efficient debt requires more than debt from just a single source.

Analysis of the debt structures of most Australian public corporations show that their debt is a portfolio of not only varying maturities but also from a range of sources, be it bank debt, local bonds, international bonds or more.

The market has demonstrated that local bonds are currently not preferred to international bonds (especially when hedged back to $A), providing the AER with clear evidence that their current approach to setting DRP, is essentially flawed, and does not reflect an efficient debt structure.

Issue 8 – NSPs have a lower debt cost than the AER set DRP

[31] "Europe shells out €550m for Amcor bond issue"

A review of the actual costs of debt of NSPs has shown that a portfolio approach is more efficient than a single point debt approach. Further, the actual costs of debt incurred by NSPs shows that the values the AER is setting for DRP is significantly higher than the actual costs of debt NSPs are paying.

That actual debt costs are lower than the AER benchmark shows that the AER benchmark is neither efficient in itself (because it is not reflective of how debt is sourced efficiently) nor does its outcome replicate the outturn of efficient debt provision.

This can be readily demonstrated. In its revised decision after a successful appeal by EnergyAustralia (now AusGrid) to the Australian Competition Tribunal, the AER released a revised final decision for the EnergyAustralia network distribution determination for 2009-2014. In it the AER provided table 2 which details the debt risk premia to be used

Table 2: AER conclusion on the debt risk premium for the NSW DNSPs (per cent)

NSW DNSP	Averaging period determined by the Tribunal	Debt risk premium	Risk–free rate	Nominal return on debt
Country Energy	18 August 2008 to 5 September 2008	3.00	5.82	8.82
EnergyAustralia	18 August 2008 to 5 September 2008	3.00	5.82	8.82
Integral Energy	18 August 2008 to 5 September 2008	3.00	5.82	8.82

However, in its Annual Report for financial year ending 2010, EnergyAustralia notes on page 67 that it had access to $6.3 Bn in long term loans from NSW Treasury Corporation (T-Corp)

The report adds (page 68):

> "The non-current T-Corp loans are payable on or before 15 April 2039, with maturity dates ranging between 2 and 29 years from reporting date.
>
> All T-Corp debt is fully payable on maturity with the majority being fixed rate loans."

What is most illuminating is that the interest rate payable by EnergyAustralia for its loans is provided:

	Consolidated Entity		EnergyAustralia	
	2010 %	2009 %	**2010** %	2009 %
(4) Effective interest rates:				
Bank overdraft	**4.2**	2.7	**4.2**	2.7
T-Corp short term accommodation	**4.7**	3.2	**4.7**	3.2
T-Corp loans	**5.9**	5.7	**5.9**	5.7
Inscribed stock	**7.0**	6.9	**7.0**	6.9

This means that EnergyAustralia was provided with debt recovery at a rate of 8.82% by the AER/ACT, but is only obliged to pay its major debt provider at the rate of 5.9%. This provided EnergyAustralia with a surplus of 292 basis points which equates to a surplus of 175.2 bp on the WACC. Translating this over-recovery on WACC into cash means the AER/ACT decision meant that EnergyAusytralia's customers contributed an unnecessary $170m in 2009/10 to its owner – the NSW government. Effectively this is indirect taxation that the AER has allowed to be levied.

A similar calculation could be made for network owners in Queensland and Tasmania as well as for the other three networks in NSW. This clearly provides quantification of the observations made by Garnaut in his update #8.

If the ACCC/AER approach consistently delivered a benchmark that could not be achieved by most NSPs then such a benchmark would be classified as inefficient as it would provide an incentive for under-investment. Equally, a benchmark that is consistently overstated will provide both an incentive to over-invest and unearned revenue for the networks.

Either outcome is not in the long term interests of consumers.

Conclusions from this additional analysis

The current approach to setting benchmark levels of DRP is based on an historic approach that seemed to reflect actual outcomes in the times before the GFC. There has been no detailed review of the approach to assess whether the outcomes of that approach is still appropriate in post GFC times. Empirically, there is a strong indication that the approach does not yield an outcome that can be considered to be efficient.

It appears that the correlation that applied before the GFC between the actual costs for debt and the ACCC benchmark no longer applies. That this is the case is supported by the AER decision to consult with stakeholders about the need for change to its previous approach.

The September 2010 decision of the Australian Competition Tribunal in relation to the ActewAGL appeal regarding debt risk premium, provides a strong

indication that the ACT considers an alternative approach to setting the DRP could be implemented.

The input provided by the independent Oakvale Capital, whist focused on the cost premium for call options on corporate bonds, provides some valuable but damning insights into the use of the corporate bond market to set DRP.

The actual debt profile of regulated businesses can be identified from the financial reports issued by the businesses. Corporations Law requires that these financial reports must be factual. The AER has commented that using actual financial data can incorporate aspects which over/understate debt costs, but the MEU considers that assessments made over a number of time periods and a number of firms will provide a better indication of actual DRP levels than the AER's current practice.

Perhaps as an alternative to the current flawed approach, the AER could use "estimates based on historical averages [which is] one of the most common proxies for the debt risk premium" as suggested by the Competition Tribunal. Averaging the results of these from all energy network providers annual reports would provide an independent benchmark for DRP to be used as the surrogate for an efficient energy network provider DRP. After all, such an approach using actual recordable data is the concept behind total factor productivity.

Regardless of the method, it is incumbent on the AER to develop a new approach that provides a realistic benchmark DRP that achieves what used to apply before the GFC when its development of a benchmark reflected the actual costs of sourcing debt.

Addendum 1 (December 2010)

Issue 1 – Evidence of actual interest rates and DRP

Since writing and submitting the main analysis an MEU affiliate was provided with advice from the MCE SCO regarding the cost of debt provided by the Queensland Treasury Corporation to the Queensland government owned electricity distribution and transmission businesses Powerlink, Energex and Ergon.

This advice is as follows:

> "... with regard to financing arrangements for the Queensland distribution GOCs, it is true that they source all debt from Queensland Treasury Corporation other than non-recourse funding.
>
> However, the *GOC Act 1993* provides that the State does not guarantee any obligation incurred by a GOC, unless the liability is expressly undertaken on behalf of the State. Under this arrangement QTC operates the same as any other financial institution providing debt facilities to a client. It is essentially an intermediary financial organisation will enters the domestic and international markets to source the required funds.
>
> In accordance with the National Competition Policy principles, GOCs are expected to operate on the basis that they do not gain advantages or disadvantages by virtue of their Government ownership. One of the most significant advantages GOCs could enjoy is the ability to borrow funds at a lower rate than private sector competitors, on the basis of the State Government's credit strength. That is, the interest rate at which GOCs could borrow funds might reflect the creditworthiness of the State of Queensland rather than the stand-alone credit of the individual GOC. To the extent this resulted in a lower cost of capital, GOCs would derive a competitive advantage over private sector competitors.
>
> In order to prevent any such advantage, the Competition Principles Agreement requires a notional charge to be applied to the cost of debt for all GOCs. As a party to the Agreement, the Queensland Government has previously notified its GOCs of the application of a Competitive Neutrality Fee (CNF) to all borrowings and financial arrangements in the nature of debt obligations. The CNF is individually determined for each GOC in accordance with its stand alone credit rating and the market cost of debt, to ensure that the cost of funds paid by a GOC is equivalent to a similarly rated private sector entity."

This response supports the MEU contention that government owned electricity businesses pay an interest rate on the debt provided by the related treasury

corporation at a rate considerably below the corporate bond rates used by AER in setting the WACCs.

There are five electricity entities that are "pure" network providers owned by governments – Powerlink, Energex and Ergon[32] in Queensland, Transgrid in NSW and Transend in Tasmania.

Of the remaining government owned electricity network businesses, EnergyAustralia, Integral Energy and Country Energy have significant retail functions and therefore analysis of debt premia for these entities would have to reflect that this retail function was a large part of their activities and would therefore distort the outcomes of any analysis.

The advice MEU received from MCE SCO was that the treasury corporations add a margin to the base cost they incur for funds (the Competitive Neutrality Fee) to reflect the debt risk premia that would be available to their fully related entities if they were required to access debt from the open market.

Reviewing the annual reports for these five businesses shows that each receives its debt funding from its related treasury corporation. Based on 2009/2010 financial year data from annual reports (ie after the global financial crisis) the actual financing cost and average debt for each (ie the arithmetic average of the debt levels at the start of the year and at the end) was used to calculate notional rate for debt. From this was deducted the average 10 Commonwealth bond yield (which averaged 5.50% for the financial year). The following table summarises the analysis.

Entity	Interest paid in 2009/10 $m	Average debt used in 2009/10 year $m	Effective interest rate %	Average 10 year bond yield % 2009/10	Notional DRP bp	AER DRP bp	Date of AER decision
Powerlink	196	3189	6.1	5.5	60	114	2007
Energex	225	3968	5.7	5.5	20	333	2010
Ergon	243	3826	6.4	5.5	90	333	2010
TransGrid	106	1501	7.1	5.5	160	349	2009
Transend	33	503	6.6	5.5	110	349	2009

Consistently the treasury corporations have charged the government owned businesses notional DRP levels below 160 bp which reflects the DRP used historically in regulatory decisions. Equally the AER has calculated a DRP above 300 bp in recent years, although the DRP calculated in 2007 by the AER was consistent with the levels previously used by the ACCC and jurisdictional regulators, and still currently used by T-corps.

It is accepted that the financial values used in deriving the notional DRP might have some bias in them and therefore might not be fully comparable, but the

[32] Ergon does carry out some retailing functions but the bulk of its activities are network provision

magnitude of the difference between the actual interest charges and the AER calculated interest charges is so great as to clearly demonstrate there is a very large problem with the AER approach.

The analysis raises two basic questions:

1. Why T-corps have calculated lower DRPs than has AER even since the global financial crisis, bearing in mind that the T-corps are required under the Competition Principles Agreement, interest rates that reflect the open market cost of debt.
2. Why the AER has provided the entities with a DRP far in excess of the debt costs that the entities are actually incurring, accepting that the AER is required to allocate debt costs that an efficient entity would incur.

In its draft decision on the Victorian EDPR (page 505), the AER advised that it sought to provide a debt rate that "equate[d] to a commercial cost of debt". This is what the T-corps are required to do under the National Competition Policy.

The AER has advised that it has used the approach implied in the Rules and its own Statement of Regulatory Intent and this has resulted in the higher values for DRP than used historically. The T-corps have calculated market based interest rates, at values that are higher than the average 10 Commonwealth bond yield.

There is a basic difference between the market based cost calculated by three different T-corps and the way the AER has calculated the market based cost.

There is no doubt that the AER approach has resulted in a massive increase in unnecessary revenue (and hence increased profit) for the regulated entities from its approach in awarding such a large debt risk premium compared to what entities are actually incurring.

The AER has advised that its approach (using corporate bond rates) is the only method they have of independently assessing realistic debt costs. The same can be said of the T-corps who have set actual interest rates considerably lower than the AER.

Issue 2 – Requirements of the National Electricity Law

The National Electricity Law requires in section 7A(5) that a revenue and pricing principle is:

> "A price or charge for the provision of a direct control network service should allow for a return commensurate with the regulatory and commercial risks involved in providing the direct control network service to which that price or charge relates."

During the second reading speech (2007 when the Law was being debated, the Minister (Pat Conlon) stated in relation to this principle:

> "[This] principle ensures [that risks are appropriately compensated for when determining efficient revenues and prices] by requiring that prices and charges for the provision of regulated network services, allow for a return commensurate with the regulatory and commercial risks involved in providing the service to which that price or charge relates."

The various T-corps also have this obligation in that the funds they lend to the regulated entities, is lent at a rate reflecting the risks involved. The T-corps responsibilities go further in that under the Competition Principles Agreement they must lend at a market rate to their entities.

The T-corps must provide debt to the related regulated entities at market rates. It is therefore an obligation of the AER to recognise that the entities have been provided with debt which is provided at a rate which recognises the regulatory and commercial risks involved. In disregarding the rates at which the regulated entities have actually acquired their debt, the AER has totally ignored this relevant principle in the Law.

Issue 3 – The Market Objective

The Market Objective requires the promotion

> "...of efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, reliability and security of supply of electricity, and the reliability, safety and security of the national electricity system".

The second reading speech for the National Electricity Law (2005)[33] makes it clear that investment and use of electricity services will be efficient when services are supplied in the long run at least cost.

To provide a debt risk premium to a regulated entity at a level higher than the price at which a lender will lend to the entity in order to provide those services is not efficient in the terms that the Minister clarifies in his second reading speech.

For the AER to include for a higher cost of debt than an entity can actually source the debt in the open market is not efficient.

Conclusions from this additional analysis

[33] See appendix 1.2

1. There is a basic difference between what the AER considers is a market based DRP and what three different government treasury corporations consider is an appropriate debt premium to allow for their obligations to meet the requirements of the Competition Principles Agreement. The weight of evidence does not support the AER outcomes.
2. The AER is required by the National Electricity Law to ensure that the rate of return reflects the regulatory and commercial risks faced by the entity. This means that if lender is prepared to provide funds at a rate less than the AER might consider to be appropriate, then the AER must not provide a rate of return that is based on what the market considers to be efficient.
3. The Market Objective requires the AER to allow only efficient costs to provide the service as efficiency will deliver the least cost to consumers. If an entity can secure debt at a lower cost than that assessed by the AER, then to meet the Objective, the AER must use the actual costs, and not a higher cost.

The MEU original response (September 2010)

1. Preamble

In its Consultation Paper on Measuring the Debt Risk Premium (DRP) in relation to the Victorian Electricity Distribution Price Review (EDPR), the AER is attempting to establish a better mechanism to calculate an appropriate return on the debt portion of the weighted average cost of capital (WACC), as the current approach is quite flawed due to the absence of supportive data.

Under the building block approach to setting regulatory revenues, the revenue includes an amount derived from the amount of capital provided (the Regulatory Asset Base) multiplied by the weighted average cost of capital (WACC). Previously the AER had relied on estimates from data service providers such as Bloomberg and CBA Spectrum to develop the DRP to be used in the weighted average cost of capital formula which was then applied to capital provided by the regulated network service providers.

In its draft decision for the Victorian EDPR the AER observed (page 505):

> "The DRP (or debt margin) is added to the nominal risk-free rate to calculate the return on debt, which is an input for calculating the WACC. The DRP is the margin above the nominal risk-free rate that a debt holder in a benchmark efficient DNSP is likely to demand as a result of issuing debt to fund the business operations. **It is intended to equate to a commercial cost of debt**. (Emphasis added)
>
> The underlying criteria used by the AER in its SORI[34] in relation to the credit rating level were:
>
> - the need for the rate of return to be forward looking that is commensurate with prevailing conditions in the market for funds and the risk involved in providing regulated distribution services
> - the need for the return on debt to reflect the current cost of borrowings for comparable debt
> - the need for the credit rating level to be based on an efficient DNSP
> - the need to achieve an outcome that is consistent with the NEO
> - the need for persuasive evidence before adopting a credit rating level that differs from the level that has previously been adopted for it"

[34] Statement of Regulatory Intent

The MEU agrees with the AER that in setting the debt risk premium (DRP), the outcome should "equate to a commercial cost of debt" reflecting the costs an efficient electricity network provider would incur.

It must be remembered that under the building block approach, the provision of debt is intended to be a "cost recovery element" (similar to opex) and not a source of profit – profit for the entity is recovered in the equity risk premium.

The allowance the AER should therefore include for DRP should reflect the actual costs an efficient provider would incur. This means that the AER should develop a methodology to reflect this need, ie the DRP should be that which an efficient benchmark provider would incur **in an efficient debt structure**.

2. Debt risk premium (DRP)

The debt risk premium is defined in the National Electricity Rules[35] (NER) as the premium required over the risk free rate (set as Commonwealth 10 year treasury bonds) to acquire debt and the AER, in its WACC decision in May 2009, determined that the debt benchmark would reflect a BBB+ credit rating.

The definition of DRP in the Rules is somewhat circular. The Rules define the risk free rate, and then define the DRP as the difference between the risk free rate and the:

> "...the observed annualised Australian benchmark corporate bond rate for corporate bonds which have a maturity equal to that used to derive the nominal risk free rate."

Effectively the NER considers the return on debt (k_d) is to be the:

> "...the observed annualised Australian benchmark corporate bond rate for corporate bonds which have a maturity equal to [10 year Commonwealth Bonds]."

2.1 DRP and the NEO

The National Electricity Objective requires the "efficient investment and efficient operation of" network services as these will provide, in the long term, the "least cost" to consumers[36]. It is not efficient to pay a regulated entity a higher return than is needed.

Efficiency implies, in relation to the DRP, that the AER must determine a mix of debt (a debt structure) that is efficient, and not be hidebound to assessing DRP based on using just one type of debt structure. As the NER does not

[35] See appendix 1.1 which includes the relevant excerpts from the NER
[36] See appendix 1.2 – second reading speech for NEL

define what corporate bonds are to be, then the AER must assess what the DRP should be in terms of the efficient mix of debt so that its measure of DRP is based on an efficient debt structure.

2.2 Efficient debt

The MEU considers that an efficient debt structure is a mix of bank borrowings and debt provided by the open market. However in May 2010, in its final decision on ETSA, the AER stated (clause 11.4.3.4) that

> "The AER notes that the DRP is set with regard to the Australian benchmark BBB+ corporate bond rate. The experience of two particular businesses' (SP AusNet and ETSA Utilities) recent capital raisings in isolation are not directly relevant but experience of individual businesses will be reflected in the fair value curve that is used to establish the benchmark DRP.
>
> The AER determines the benchmark DRP by averaging the yield on a 10–year BBB+ corporate bond over the averaging period of 18 business days between 29 March and 23 April 2010 (to match the period used for estimating the risk–free rate)."

What the AER is effectively stating is that actual observations of debt raised and debt structures used by exactly equivalent entities are not relevant, but might impact on the "fair value curve" used to calculate the DRP based on a range of other non-related entities seeking debt from the open market. Further the AER will only consider that debt acquired in the open market is applicable to setting DRP.

2.3 Debt is not just "bonds"

The NEO requires the development of the weighted average cost of capital (WACC) along with many other elements, to reflect an efficient rate of return. To achieve this, the NER Clause 6.5.2(b) considers that debt structure must equate that used by:

> "... investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by the *distribution* business of the provider"

Clause 6.5.4 (e)(2) goes even further in requiring the AER to set the return on debt (that is the risk free rate plus the DRP) which:

> ".... reflect[s] the current cost of borrowings for comparable debt"

This clearly requires the AER to not only just consider the way the open market might price debt but to include other forms of debt an efficient provider would use in addition to debt sourced from the open market.

An efficient provider would acquire its debt on a portfolio basis. A portfolio would include debt from a mix of sources – from a number of banks, from the open market (often referred to as bonds), and internal sources (such as funds held against future liabilities including employee provisions, trade creditors, etc) – each type being addressed with a variety of term lengths and maturity dates. It would be inefficient (and unwise) for a business to have all debt maturing at the same time.

The AER approach of assuming that all debt will have a cost the same as that obtainable from the open market does not reflect efficient debt provision. From the observations of Credit Suisse noted in section 4 below, it would appear that the AER approach of basing the DRP on just the open market for debt, does not deliver the least cost to consumers, as would be expected from an efficient provider.

The ACCC in its final decision on ElectraNet revenue reset in 2003 confirms this view (page 25) when it stated:

> "The Commission understands that the interest margin associated with bank issued debt is generally lower than capital market interest margins. However, information on the debt margin associated with bank issued debt is generally not widely available. The Commission therefore considers that it is reasonable to use capital market data as the benchmark, which is biased in favour of the TNSP."

Under the National Electricity Code, the ACCC was permitted to include such explicit conservatism, but under the NER, the AER is required to apply a level for the WACC that is "economically efficient" and delivers "least cost" over the long term to consumers. This means that such explicit conservatism is not permitted.

3. Corporate bond rate

The NER does not define what corporate bonds are, but the AER has assumed that these are formal debt raisings issued on the open market by corporate entities, which are often issued under the title of "bonds".

A review of the definitions of "corporate" and "bonds" reveals that (Encarta dictionary[37]):

> "A Bond [finance] is a certificate issued by a government or company promising to pay back borrowed money at a fixed rate of interest on a specified date"

[37] Similar definitions are in Collins English Dictionary and Oxford Concise Dictionary

and

> "A Corporate Bond is a bond issued by a company rather than by a national or local government"

This definition of a corporate bond would reflect that any debt raised by a corporate entity if it entailed an agreement to pay back the borrowed money at a fixed rate of interest at a specified time would be a bond. It does not require these bonds to be tradeable, although the AER seems to have restricted itself to assessing the DRP based only on tradeable corporate bonds existing on the open market.

The NER does define that only Australian corporate bonds may be used in developing the DRP. This restricts the AER from following what is good debt practice – that an entity would have a portfolio of debt instruments, including debt provided by overseas entities. This restraint results in the AER having a much reduced or "thinner" market from which to develop its benchmark DRP. However such restraint does not prevent the AER from assessing DRP based on other debt instruments, providing that they are from an Australian source.

4. Previous AER and state regulatory determinations

In its submission to the AER in relation to the recent ETSA Utilities regulatory review, the MEU affiliate ECCSA observed that the DRP allowed by the AER in relation to its draft decision was excessive in light of the actual cost of debt ETSA was incurring. The ECCSA provided evidence of a Credit Suisse report[38] where CS observed, based on the AER assessment of DRP of [sic] 427 bp[39]:

> "ETSA locked in 5, 7 and 10 year debt at an average margin of ~295bps in July -09. On that basis ETSA will be making a ~130bps benefit than the regulated allowance reflecting its higher credit rating (A-) ... against the regulated allowance (BBB+, 10year)."

This observation provides commentary on a number of salient issues, viz

1. The AER calculation would have provided ETSA with an unearned benefit of 130 bp on the debt portion of the rate of return allowed. To put this into context, the AER would have allowed a WACC of nearly 80 bp higher than ETSA was incurring for its WACC, or nearly an additional $136m more in revenue over the 5 year regulatory period than ETSA would have actually incurred. Such a payment would not be efficient as it would not impact on the long term benefits to consumers.

[38] Credit Suisse, Company Update1 December 2009, "Draft ETSA decision positive for SKI", Page 3. SKI is the ASX code for Spark Infrastructure, part owner with CKI of ETSA, Powercor and Citipower
[39] In fact the CS report is in error as the AER had set a value of 429 bp

2. The observation supported the ECCSA contention that an efficient provider would have a portfolio of debt instruments of varying durations
3. That a privately owned electricity network provider (as distinct from the government owned electricity network providers[40]) have a higher credit rating than BBB+ assumed by the AER in its WACC review.

4.1 Historical allowances for DRP

Prior to 2008, regulatory decisions by the national and state regulators had set a DRP in the range 90 to 150 basis points, with a median between 120-130 bp with a lowest value of 90 bp used in the TG final decision in 2005[41]. Since the beginning of 2008, DRPs have been calculated by the AER to be as high as 429 bp (ETSA DD 2010) and yet as recently as in the AER Final Decision on the WACC review in May 2009, the implied DRP is 160-180 bp.

Whilst the ACCC and state regulators also used CBASpectrum and Bloomberg data to develop the DRP, at that time the Australian bond market was more liquid and development of a DRP was more straight forward, although regulators did note that they had to manipulate the data in order to generate 10 year BBB+ bond data. However there has been significant consistency in the generated values for the DRP over the decade from the first setting of DRP (at the "Great WACC Debate of '98" conducted by the ACCC and Victorian ORG) until 2008.

While it is accepted that the global financial crisis did have the impact of increasing the cost of debt, it must also be accepted that this impact will be relatively short lived, before the market reverts to more historical trends. To set the DRP for a 5 year period (or longer) based on effectively single point data[42], obviates the reality that over the period of the five year reset, the DRP will trend to its longer term values – this trend is already being seen in the falling values of DRP calculated by the AER.

Yet despite the observed downward trend, in the ETSA Utilities Final Decision in May 2010, the AER determined a DRP of 298bp yet one month later, in its draft decision for the Victorian EDPR, the AER set the DRP at 325 bp. This highlights that the data used by the AER is demonstrating extreme volatility and this can be attributable to the AER decision to use effectively single point data market to generate a DRP for the next five years.

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[40] As the MEU pointed out to the AER it is response to the Issues Paper to the WACC review in 2008, the government owned electricity network providers have credit ratings of AA and AA+

[41] When it was the regulator, the ACCC used to assess financial indicators to identify if the WACC (amongst other elements) was set at an appropriate level

[42] The AER advised that for the ETSA Final Decision, it had used an averaging period of just 18 days, which in terms of the 5 year period the reset is to apply is just 1% of the time – effectively single point data

That such a variation could occur in just on a month for the DPR to apply for the following 5 years is absurd and shows that the methodology is quite flawed. A well designed approach would demonstrate greater consistency in its outcomes.

5. Inaccuracies introduced by the AER approach

In addition to the fact that efficient acquisition of debt comes from a portfolio approach (types of debt, and varying maturities and durations), the AER approach fails in two other aspects

5.1 Scope of debt instruments

The single major cause of the inaccuracy of calculating the DRP is that the bulk of debt used in Australia by electricity network providers (and indeed most other businesses) is bank debt and not debt issued on the open market.

A review of the debt structure of the private electricity network businesses shows that bank debt is the major source of debt, with overseas bonds adding to it. The government owned electricity network businesses use bank debt and government bonds sourced from government owned investment vehicles such as Queensland Treasury Corporation. Few, if any, electricity network businesses have sourced any of their debt from the open market. This clearly implies that an efficient electricity network provider uses other sources of debt.

For the AER to set the DRP purely on the assumption that all debt will be sourced from bonds issued on the open market does not reflect what an efficient network provider would do, and introduces significant but unnecessary inaccuracies and conservatism.

5.2 Assessing the "corporate bond" market

Clause 6.5.2(e) requires the AER to use:

"...observed annualised Australian benchmark corporate bond rate for corporate bonds which have a maturity equal to that used to derive the nominal risk free rate and a credit rating from a recognised credit rating agency."

The AER has admitted that it cannot comply with this clause as there is no "observed" bonds that meet these criteria either in relation to quantity, duration or rating. To achieve the outcome the AER has to **calculate** a bond yield (as distinct from observing a number of appropriate bonds) which complies with the requirement. This means the rule is unworkable and should therefore be changed.

The AER identifies in its decisions that there is a thinly traded market in Australia for debt issued on the open market. For example in its final decision on ETSA and again its draft decision on the Victorian EDPR, the AER has identified that the forecasts for BBB+ rated entities is so thin as to be non-existent, and it has to use other debt issued against other credit ratings, and then interpolate the values to reach BBB+ credit rating. Even then, the market is still thin, and the AER has used bonds raised businesses dissimilar to electricity network businesses with a different degree of non-diversifiable risk such as:

- Coles Myer (a consumer retailing business)
- Snowy Hydro (an electricity generator/retailer)
- GPT (a listed property trust)
- Wesfarmers (a coal miner, consumer products retailer)
- Santos (a gas producer)
- BBI (a diversified infrastructure owner of ports, gas transport, ship loading, etc)

Of these, none had sought bonds over more than a 6 year period.

What is salient is that no electricity network providers are listed as raising debt in this way, yet despite the NER requiring the WACC to be based on:

"...a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by the *distribution* business of the provider"

None of the entities used to provide the benchmark bond meet this very basic requirement. If there is no enterprise of a similar nature and risk to an electricity network provider, then the AER must find another approach to setting the DRP.

The trade in, and debt raisings from, corporate bonds in Australia has been greatly overshadowed by more traditional fund raisings by Australian businesses such as bank debt and equity raisings. This has caused the thin market in the "corporate bond" financial instruments.

This means that the AER has to find alternative ways of developing an efficient DRP for use in its WACC development.

5.3 Duration of the "open market" debt provision

None of the data from the open market has a debt maturity of more than 6 years (although the AER has found one – APT which issued 10 year bonds but at a different credit rating – yet the NER requires the AER to set a debt duration matching the risk free rate duration of 10 year Commonwealth bonds.

To meet this requirement the AER has extrapolated the shorter period debt to match the 10 year debt duration required. This introduces unnecessary risk.

Because of this introduced risk of extrapolation, the NER provides guidance to minimise risk where actual data is not available. For instance, when developing the risk free rate, the NER states that interpolation must be used. For example NER 6.5.2(d) requires that if there is no actual data available when setting the risk free rate:

"...the *AER* must ... determine the nominal risk free rate for the *regulatory control period* by interpolating on a straight line basis from the two Commonwealth Government bonds closest to the 10 year term and which also straddle the 10 year expiry date."

This implies that interpolation is acceptable, but extrapolation is seen as less acceptable due to the risks implicit in its application.

5.4 Volatility of outcomes

Because of the approach used by the AER, this has resulted in a significant amount of volatility and this volatility must have a negative impact on both consumers and the network owners.

The regulatory environment should provide participants with a high level of certainty and consistency over time. If it does not, then there is a negative impact on investment, leading to greater risks for consumers. As noted in section 4.4 above, up until 2008, regulators have been setting the DRP in the range of 90 bp to 150 bp, with a median value well below 150 bp. The global financial crisis has caused the DRP to rise as lending was constrained, but in recent times, borrowing has become much easier. Equally the global financial crisis has resulted in very low (even negative) DRP values in most first world countries, as interest rates have been slashed in an endeavour to encourage investment.

Because of a very illiquid market and thin trading in Australia for bonds, the volatility of DRP calculated from tradeable corporate bonds has shown excessive volatility, especially in the wake of the global financial crisis.

The AER must develop an approach which reduces the volatility in forecasts of future movements. One of the main aspects of the AER approach is that it uses a short averaging period of time to set the forward estimates of the various variables used by it. To all intents, this means that the data is based on almost a single point in time. This introduces significant inaccuracy. For example the AER performance in forecasting the forward exchange rate has been demonstrably wrong and, with the benefit

of hindsight, show gross errors were made in the forecasts[43]. Errors such as these add significantly to the risk participants have to manage.

The AER, in attempting to be "accurate" in its forecasts, has introduced major concerns for all. The problem with using data from effectively a single point in time is that it eliminates all of the moderating effects that comes from the "smoothing" effects of time.

In developing the market risk premium (MRP) the AER has assessed MRP over the long term – many decades in fact. If the AER attempted to use a forward looking MRP based on such a short averaging duration that it is effectively a single point in time, then the MRP would swing violently from large positives to large negatives over very short periods, making a mockery of the WACC developed using these swings. The AER has recognised that investor sentiment is fickle and causes large short term movements in MRP. To overcome this variability, the AER has sensibly used time to smooth the MRP, so that the value used does not vary significantly decade on decade.

The same issues (such as investor sentiment in valuing corporate bonds) affect the DRP and cause significant short term movements such as occurred during the global financial crisis. The same logic used to smooth the MRP should apply to the setting of the DRP

6. Summary

The AER approach to setting DRP does not comply with the NER or the NEO. It does not reflect efficient DRP levels as it excludes the (lower cost) source of debt most commonly used by electricity network businesses. As the approach used by the AER is acknowledged as being conservative (and therefore a higher cost than needed) it does not deliver the least cost to consumers. Therefore the AER must develop a methodology for setting DRP which reflects the major sources of debt used by an efficient notional network provider.

In all the recent AER assessments of DRP consistency and certainty over the long term have been ignored. Regulation should lead to consistent and certain outcomes and not provide wild fluctuations in values. In this regard large fluctuations increase risk and increased risk increases costs. Implicitly,

[43] See appendix 2 exhibiting the errors in the forecasts of the $US/$A exchange rate errors used in assessing future materials costs. The purpose of this example, is not to deride the AER ability to forecast, but to highlight that in attempting to be more accurate and accommodate future changes, the outcome is exactly the opposite – that greater error is introduced by attempting to be more accurate. Because of this the MEU considers that greater certainty and consistency is achieved by using longer term averages, rather than attempting to extrapolate from observations set in a short time frame.

fluctuations increase costs to consumers, thereby not delivering the least cost as is expected by economic efficiency.

The risk free rate is set on a 10 year term and the DRP is intended to mirror the term of the risk free rate. However achievement of this is not possible because there is:

- No extrinsic market data that provides a clear value for DRP that can be derived from using “observable” Australian 10 year corporate bonds. This means that there is a need to extrapolate from shorter term bonds. The NER implies that where data is not explicitly provided it should only be interpolated and not extrapolated.
- Almost no market for corporate bonds for businesses of similar “...nature and degree of non-diversifiable risk ...” to electricity network businesses.
- No strong and liquid market for any corporate bonds in Australia. If there is insufficient liquidity in a market, this introduces risk and risk increases costs to consumers.

This makes the requirement in the Rules unworkable as the wording of the Rules (especially clause 6.5.4(e) as interpreted by the AER contradicts the achievement of the NEO.

7. Conclusions

The AER has up to now has based its approach to setting DRP on the assumption that the DRP is the difference between the yield of Commonwealth treasury 10 year bonds and the yield of BBB+ Australian corporate bonds of 10 year duration. To obtain the yield of corporate bonds it has used published data from CBASpectrum and Bloomberg and extrapolated the data for duration and interpolated the data to get the correct credit rating.

In fact this approach does not comply with the Objective and the Rules as it:

- Does not incorporate the DRP that applies to the bulk of the debt (bank debt) acquired by electricity network businesses
- Has only a small population of bonds to work with reducing the diversifying benefit of a large population, thereby increasing risk (and therefore cost)
- Does not comply with the requirement of comprised of businesses with similarity to electricity network businesses, because:
    - Those bonds that are listed, few reflect the similar nature and risk to electricity network businesses,
    - Those very few bonds that might be applicable are mostly not as long as 10 years causing the need to extrapolate, increasing risk
    - Those even fewer bonds that might be applicable in terms of similarity and duration do not have the same credit rating as is

> stipulated, creating the need to interpolate from those of a different credit rating.

Despite the AER misgivings about using actual experience of the electricity network businesses, it appears to the MEU that by not doing so, the AER is not recognising the requirement of the Objective to reflect economic efficiency in setting the WACC. Economic efficiency requires that the allowance the AER is to include for DRP should reflect the actual costs an efficient provider would incur.

This means that the AER should develop a methodology to reflect this need, ie the DRP should be that which an efficient benchmark provider would incur for its debt structure and not rely data which is inappropriate, insufficient and not reflective of actuality.

To the structural difficulties identified by attempting to follow the rules, are added the fact that electricity network owners do not source the bulk of their debt from the open market, but obtain it from lower cost sources. Persisting with the current approach means that consumers will be required to pay for an inefficient and not “least cost” outcome. This is contrary to the NEO which requires efficient costs only to be charged to consumers and that the outcome should be the least cost.

Overall, the Rules are inconsistent with the NEO and, further, the AER has identified that the Rules cannot be explicitly complied with. This means that the AER should seek a rule change to make their task one which will deliver a DRP which reflects the actuality of the cost of debt as it applies to the regulated networks.

Arising from this, the MEU would recommend a number of specific aspects the AER should consider in seeking a rule change:

1. The fact that all the electricity network owners raise debt from banks and very little from public raisings in the open markets
2. The fact that some of the privately owned electricity network owners have raised debt on the overseas bond markets (and swapped this back into $A)
3. The fact that the large proportion of all electricity networks are government owned and would have a lower cost of debt than would be calculated from corporate bond markets

Whilst the AER has focused its review on the need for an outcome for the Victorian EDPR, there is the long term issue of trying to use a small and illiquid bond market to generate an accurate DRP which needs to be addressed. It is simply inadequate for the AER to try and reach a reasonable reflective and efficient DRP from the Australian tradeable corporate bond market.

8. Specific questions for stakeholders

1. Given the paucity of available data, the fact that CBASpectrum recently ceased publication of its fair yield curve, the characteristics of the recently issued APT bond and the Tribunal's recent decision on the DRP issue, the AER intends to examine the yields from the recently issued APT bond and those derived from Bloomberg in terms of their appropriateness in estimating the DRP for the Victorian DNSPs' distribution determinations. Please provide comments on the AER's intended process.

The MEU considers that the AER needs to develop a new approach to setting DRP based on what an efficient network provider would do, rather than relying on data that is inappropriate, insufficient and not reflective of what an efficient provider would do.

The MEU considers an efficient provider would source the bulk of its debt from bank loans as this is the most economically efficient approach to sourcing debt.

2. Given the uncertainty in determining whether yields from Bloomberg or from the APT bond are more appropriate in setting the DRP, the AER intends to take an average of the two. Please provide comments on the AER's intended methodology.

The MEU notes that Bloomberg data is of the wrong duration and of the wrong credit rating, and needs manipulation to attempt to make it fit the need.

Using the APT bonds is not appropriate, as the credit rating level is incorrect, and much of APT revenue is from non-regulated sources, whereas the electricity networks are all regulated.. This means that APT is not a business of similar "...nature and degree of non-diversifiable risk ..." to electricity network businesses.

To take an average of these two sources to generate a DRP is not appropriate.

A more appropriate outcome is to use an approach which reflects economic efficiency, such as sourcing debt from banks, as the electricity network providers do for most of their debt.

3. Do stakeholders agree with the AER's conclusions regarding information from other sources?

The MEU does not agree with the AER conclusions. The MEU considers that the AER approach does not deliver an economically efficient setting for DRP as an efficient network provider would source the bulk of its debt from bank loans.

Additionally an efficient provider would source some debt from internal sources and might obtain some debt as Australian and overseas bonds, although (because of the paucity of similar corporate bonds) this is not a preferred option by most electricity network businesses.

As most of the networks are government owned, much of the debt used by electricity networks is effectively sourced from bank debt and government bonds. The DRP on these government bonds is readily calculable for both duration and credit rating.

4. Are there other sources of relevant information the AER has not considered above?

The MEU considers that the AER should source information of DRP from banks which are the prime lenders to electricity network businesses, and from the financial statements of electricity network providers.

Financial statements from the businesses will provide quite accurate indications of what the cost of debt is to businesses with a similar nature and non-diversifiable risk. If the AER uses the outcomes from analysing the financial statements of all the electricity network businesses, it will have a much greater population of data to work with than just the proposed two sources (Bloomberg and APT).

The approach of using data from multiple network sources has some similarities with the Total Factor Productivity (TFP) approach currently under review by the AEMC.

5. Do stakeholders consider it necessary to use an alternative method for estimating the DRP during days in averaging periods where APT data are not available?

The MEU considers that the approach of using a short period in time to set DRP creates the potential for excessive volatility. Just as the AER considers that a long term average for MRP is a more appropriate approach than having the MRP assessed over short periods, the MEU considers the same long term averaging for setting DRP provides a lower risk outcome for all, with consistency and certainty being key drivers for setting appropriate and cost reflective values.

If the MEU approach is used, then an answer to question 5 is not needed.

6. Do stakeholders consider there is justification for making adjustments to the APT bond data to generate information during days where bond data are not independently available?

See answer to question 5.

Appendix 1

A1.1. National Electricity Rules – excerpts

Weighted average cost of capital

6.5.2(b) The rate of return for a *Distribution Network Service Provider* for a *regulatory control period* is the cost of capital as measured by the return required by investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by the *distribution* business of the provider and must be calculated as a nominal post-tax *weighted average cost of capital* (*WACC*) in accordance with the following formula:

$$WACC = k_e \frac{E}{V} + k_d \frac{D}{V}$$

Where:

kd is the return on debt and is calculated as:

rf + DRP

where:

rf is the nominal risk free rate for the *regulatory control period* determined in accordance with paragraph (c);

DRP is the debt risk premium for the *regulatory control period* determined in accordance with paragraph (e);

Meaning of nominal risk free rate

6.5.2 (c) The nominal risk free rate for a *regulatory control period* is (unless some different provision is made by a relevant *statement of regulatory intent*) the rate determined for that *regulatory control period* by the *AER* on a moving average basis from the annualised yield on Commonwealth Government bonds with a maturity of 10 years using:

(1) the indicative mid rates published by the Reserve Bank of Australia; and

(2) a period of time which is either:

(i) a period (**the agreed period**) proposed by the relevant *Distribution Network Service Provider*, and agreed by the *AER* (such agreement is not to be unreasonably withheld); or

(ii) a period specified by the *AER*, and notified to the provider within a reasonable time prior to the commencement of that period, if the period proposed by the provider is not agreed by the *AER* under subparagraph (i),

and, for the purposes of subparagraph (i):

(iii) the start date and end date for the agreed period may be kept confidential, but only until the expiration of the agreed period; and

(iv) the *AER* must notify the *Distribution Network Service Provider* whether or not it agrees with the proposed period within 30 *business days* of the date of submission of the *building block proposal*.

6.5.2 (d) If there are no Commonwealth Government bonds with a maturity of 10 years on any day in the period referred to in paragraph (c)(2), the *AER* must (unless some different provision is made by a relevant *statement of regulatory intent*) determine the nominal risk free rate for the *regulatory control period* by interpolating on a straight line basis from the two Commonwealth Government bonds closest to the 10 year term and which also straddle the 10 year expiry date.

Meaning of debt risk premium

6.5.2(e) The debt risk premium for a *regulatory control period* is the premium determined for that *regulatory control period* by the *AER* as the margin between the annualised nominal risk free rate and the observed annualised Australian benchmark corporate bond rate for corporate bonds which have a maturity equal to that used to derive the nominal risk free rate and a credit rating from a recognised credit rating agency.

Review of rate of return

6.5.4 (e) In undertaking a review, the *AER* must have regard to:

(1) the need for the rate of return calculated for the purposes of clause 6.5.2(b) to be a forward looking rate of return that is commensurate with prevailing conditions in the market for funds and the risk involved in providing *standard control services*; and

(2) the need for the return on debt to reflect the current cost of borrowings for comparable debt; and

(3) the need for the credit rating levels or the values attributable to, or the methods of calculating, the parameters referred to in paragraph (d) that vary according to the efficiency of the *Distribution Network Service Provider* to be based on a benchmark efficient *Distribution Network Service Provider*; and

(4) where the credit rating levels or the values attributable to, or the method of calculating, parameters referred to in paragraph (d) cannot be determined with certainty:

(i) the need to achieve an outcome that is consistent with the *national electricity objective*; and

(ii) the need for persuasive evidence before adopting a credit rating level or a value for, or a method of calculating, that parameter that differs from the credit rating level, value or the method of calculation that has previously been adopted for it.

A1.2 Interpretation of efficiency in NER

Second Reading Speech on NEL 2005[44]

"The market objective is an economic concept and should be interpreted as such. For example, **investment in and use of electricity services will be efficient when services are supplied in the long run at least cost**, resources including infrastructure are used to deliver the greatest possible benefit and there is innovation and investment in response to changes in consumer needs and productive opportunities.

[44] Hansard SA HOUSE OF ASSEMBLY Wednesday 9 February 2005 page 1452

The long term interest of consumers of electricity requires the economic welfare of consumers, over the long term, to be maximised. If the National Electricity Market is efficient in an economic sense the long term economic interests of consumers in respect of price, quality, reliability, safety and security of electricity services will be maximised." (emphasis added)

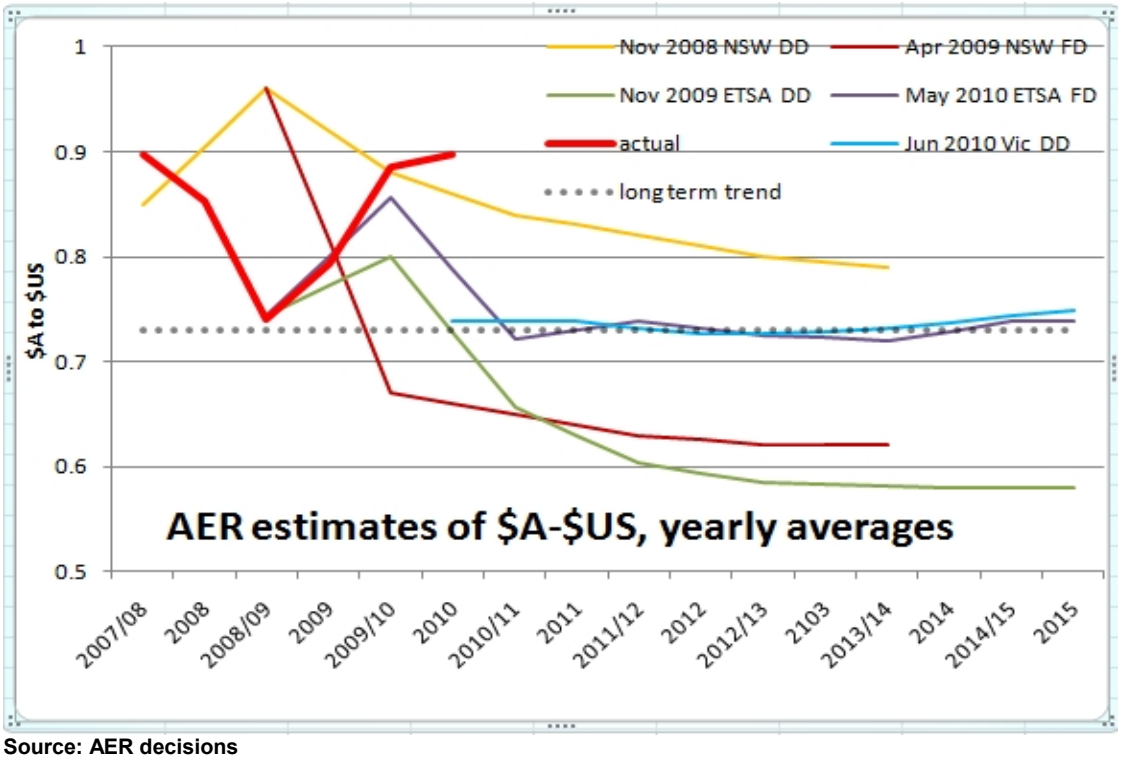
Appendix 2 –
A2. Problems with forecast variability
Example: US to Australian dollar exchange rates

The MEU has assessed the negative impacts arising from the AER approach to setting adjustments to forecast opex and capex to reflect potential moves in materials and labour costs.

Prior to 2007, regulators set opex and capex and assumed that future movements in the costs of material and labour would be accommodated by the application of inflation as measured by the consumer price index (CPI). In an attempt to be more accurate in ensuring forecast amounts would reflect actual future costs, the AER has introduced a methodology which forecasts future movements in material and labour indices.

The only certainty about these forecasts is that they will be wrong.

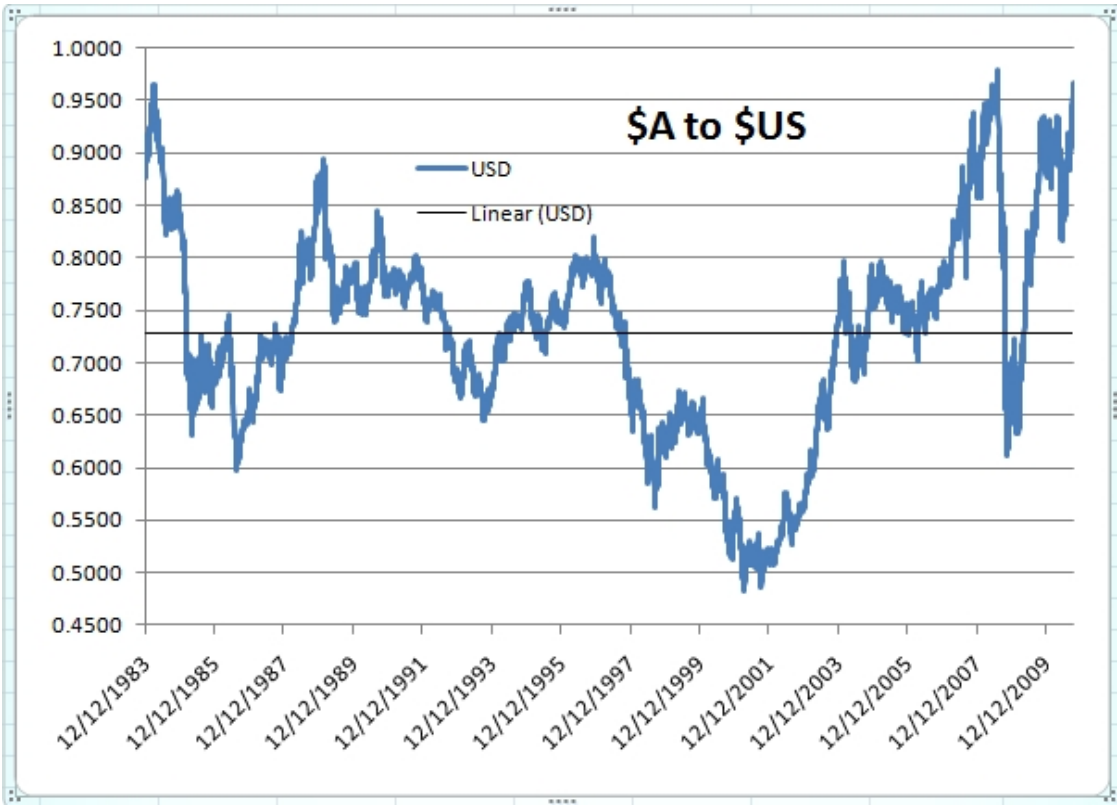
To exemplify the MEU concern, it points to the issue of exchange rate variation. In each regulatory decision the AER has proposed adjustments to material costs which are forecast in $US, such as oil, steel, zinc and copper. The following graph plots the actual movement in the $US and the $A against the forecasts used by the AER in various draft and final decisions. This shows that there has been significant error between the forecasts and the actual movement to date, and massive variation in the forecasts.



Source: AER decisions

The long term trend for the exchange rate is the linear calculation based on the historical movements in the $A since it was floated in 1983. This is shown in the next graph.

This shows that the longest period the $A has been below $US0.65 was just over 3 years, but the AER considered that this could happen for a longer period (ETSA DD and NSW FD) i the current 5 year outlook period. In fact earlier forecasts by the AER of what the exchange rate would be now were about 0.65, whereas in actuality it is approaching parity.



Source: RBA

The purpose of this example, is not to deride the AER ability to forecast, but to highlight that in attempting to be more accurate and accommodate future changes, the outcome is exactly the opposite – that greater error is introduced by attempting to be more accurate. Because of this the MEU considers that greater certainty and consistency is achieved by using longer term averages as the basis for inflation, rather than attempting to extrapolate from observations set in a short time frame

Appendix 2

ASX & SGX-ST Release

SP AusNet
A member of Singapore Power Group

29 March 2011

SP AusNet Successfully Prices 250M Australian Dollar Offer

SP AusNet is pleased to announce the successful pricing of a 250 million 10 year Australian dollar bond issue. The proceeds will be used to refinance existing debt and to fund growth capital expenditure.

The transaction followed strong expressions of interest from an investor update in Australia conducted last week.

Geoff Nicholson, Chief Financial Officer, stated that "the deal saw strong demand and again demonstrates our ability to access competitively priced debt from a variety of markets and for a variety of tenors".

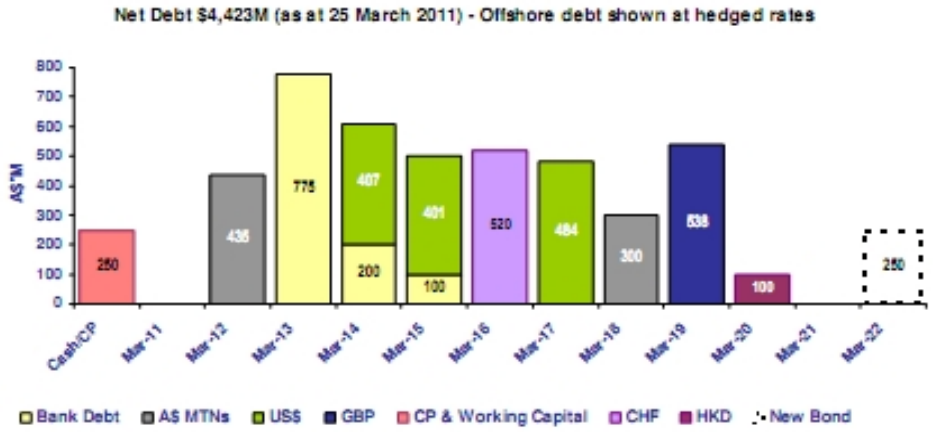
SP AusNet maintains a well diversified debt maturity profile together with well diversified sources of debt. This, together with a strong investment grade credit rating (Standard & Poor's 'A-', Moody's Investors Service 'A1') allows SP AusNet ready access to debt markets both in Australia and offshore. SP AusNet is therefore not reliant on any one capital market or any one source of debt.

Terms of the Issue

The issue of A$250 million has been priced at a margin of 167 basis points over the benchmark swap rate.

Amount	Maturity
A$250m	April 2021

Debt Portfolio (following issue of bond)



Appendix 3

24 February 2011

Solid growth in first-half profit

Envestra Limited, Australia's largest natural gas distribution company, today announced a **Profit after Tax of $35.0 million** for the half-year ended 31 December 2010, a 9% increase on the previous half-year.

On an underlying(1) basis, Profit after Tax increased by 19% to $37.0 million.

(1) The underlying Profit after Tax is after adjustments to one-off tax credits, asset sale, increases in the remediation provision, and acquisition transaction costs associated with the Country Energy acquisition.

The Company also announced that a 2.75 cent interim dividend will be paid on 29 April, supported by a strong cashflow from operating activities of $95.8 million, an increase of 17% on the prior half-year.

Other highlights for the half-year include:

- **Revenue from continuing operations** **Up 9% to $226.0 million**
- **Net borrowing costs** **Up 16% to $85.7 million**
- **Gas volumes transported** **Up 8% to 64.5 PJ**
- **Total consumers(2)** **Up 14,500 to 1,075,500**
- **Dividend (unfranked)** **2.75 cents (paid 29/10/10)**

(2) Excludes impact of Country Energy acquisition (26,000 consumers)

The volume of gas delivered through the Company's distribution networks and transmission pipelines was 64.5 petajoules (59.6 PJ in the prior corresponding period). The volume of gas delivered to domestic and small industrial and commercial consumers was 11% higher reflecting cooler weather in the winter and spring months of 2010. Total operating costs were up $2.0 million, mostly the result of acquisition costs associated with the Country Energy acquisition in October 2010, and increased remediation provision expense, both of which are "non-underlying" items. Net borrowing costs were up 16% in the first-half largely due to higher interest costs arising from the global financial crisis on recently refinanced debt, and also higher indexation costs on capital indexed bonds.

The underlying Profit after Tax is after adjustments to one-off tax credits, asset sale, increases in the remediation provision, and acquisition transaction costs associated with the Country Energy acquisition.

Total dividends paid in the first-half were $38.1 million ($35.9 million in 1H2009-10). Cashflow available to support that dividend was $96.5 million, up 25%, representing a cashflow dividend coverage ratio of 2.5 times for the half-year. This result is impacted by the higher proportion of cash received in the first-half. For the full year, a dividend coverage of around 150% is expected.

Whilst the Country Energy acquisition on 29 October added some 26,000 consumers, a further 14,500 new consumers were connected to the existing distribution networks, 12% more than the previous half-year, reflecting the ongoing demand for natural gas connections in new housing subdivisions. The new consumers (excluding Country Energy) will add about $4.0 million per annum to future revenue. This continued strong organic growth has added substantial value to the Company. Over the past five years, new customer connections have added over $30 million in annual revenues.

The Group continued its substantial capital expenditure program spending $63 million during the period on network extensions, mains and meter replacements and general upgrades to the networks.

A total of 119 kilometres of new mains were laid to accommodate the increase in consumers. The Company now has over 23,000 kilometres of distribution networks and transmission pipelines around the country.

The recent Queensland floods and cyclone, and the floods in Victoria, have to date not had a material impact on the Company's assets, revenues or operating costs.

As previously announced to the market on 17 February 2011, the Australian Energy Regulator (AER) has released its Draft Decisions on the review of Envestra's Access Arrangements, which cover the Company's gas distribution networks in South Australia and Queensland. The Final Decision is expected to be handed down in May 2011.

Outlook

A Net Profit after Tax of around $40 million has previously been foreshadowed for the full-year. Due to the strong revenue outcome in the first-half, a Proft after Tax between $41 million and $45 million is now expected, subject to weather conditions and any other unforeseen circumstances in the second-half.

A dividend of 2.75 cents is to be paid to shareholders on 29 April, in line with previous guidance provided to the market.

The Company's Dividend Reinvestment Plan will apply to the payment, with the new shares to be issued at a 2.5% discount to the 10-day Volume Weighted Average Price (VWAP) commencing on 6 April.

The relevant dates for the dividend are as follows:

15 March Shares trade ex-dividend
21 March Record date

6 to 19 April DRP pricing (VWAP over 10 business days, less 2.5% discount)
29 April Dividend payment

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