

16 February 2010

**By email: [aerinquiry@aer.gov.au](mailto:aerinquiry@aer.gov.au)**

Mr Chris Pattas  
General Manager  
Network Regulation South  
Australian Energy Regulator  
GPO Box 520  
Melbourne VIC 3001

Dear Mr Pattas

**Submission to the Review of initial Distribution Network Service Providers' Proposals for the 2011 - 2015 Regulatory Period**

The Consumer Action Law Centre (**Consumer Action**) welcomes the opportunity to make a submission to the Australian Energy Regulator's (the **AER**) review of initial Distribution Network Service Providers' (**DNSP**) Proposals for the 2011 - 2015 Regulatory Period (the **Review**).

Consumer Action is concerned with the proposed increases by the DNSPs to their capital expenditure (**capex**) and operational expenditure (**opex**). Our submission, including a report by Orion Economic Services (**Appendix 1**), explores the patterns that have evolved over the past two - three regulatory periods and demonstrates how the DNSPs do not always forecast accurately.

In particular, if we were to reduce current forecasts by the proportion that DNSPs inaccurately forecasted in 2001-2007, it would reduce current forecast capex by 11.12%, or \$648m, and opex by 26.75% or \$850m, as shown in the tables below.

Actual Total Capex 2006-2010	Forecast Total Capex 2011-2015	Increase over 2006-2010 \$ %	Average Percent Under Spending Against Capex forecasts 2001-2007	2011-2015 Capex Forecast After Under Spend Adjustment
\$3.385bn	\$5.650bn	\$2.265bn 67%	11.12%	\$5.02bn

Actual Total Opex 2006-2010	Forecast Opex 2011-2015	Increase Over 2006-2010 \$ %	Average Percent Under Spending Against Opex forecasts 2001-2007	2011-2015 Opex Forecast After Under Spend Adjustment
\$2.110bn	\$2.850bn	\$0.740bn 35%	26.75%	\$2.09bn

Note: We use 2001-2007 data only because distributors failed to give the necessary data for 2006-2010 in their public submissions.

^ Prices provided in 2010 figures.

The AER should apply leanings from the past in scrutinising the DNSPs' proposals, including to adjust forecasts downwards as appropriate.

In our response we have proposed a number of mechanisms that we believe would assist the AER to significantly reduce the impact on consumers from the forecast average increase in distribution prices of 49%, which leads to an average increase of 14% on an average consumer's bill. These measures would help the AER to examine the proposals carefully and ensure more efficient and fairer prices, helping to mitigate the extent of price increases.

### Publication of data

The results of the Review have significant impacts on consumer bills and as such, both the DNSP proposals and the AER's decision making must be subject to adequate scrutiny at this time. The provision of a full and meaningful set of data, both publicly and to the AER, is essential in determining the appropriate regulatory approvals for DNSPs.

Currently the form and content of the data made publicly available is peppered with inconsistencies, data is missing or incomplete and data is provided in an incomparable manner, making comparison across DNSPs extremely difficult. Data provided in this manner that has been available suggests that the data provided to the AER is of a similar quality. This seriously undermines the AER's ability to effectively do its job in line with its legislative obligations, and undermines what should be a robust review process. We recommend that DNSPs be required to provide a full set of data in consistent prices.

### Proposed increases

The DNSPs have proposed an aggregate increase of a substantial 67% in capex and 35% in opex in the upcoming regulatory period, resulting in an impact on consumer bills of an average 49% increase in distribution prices, but up to 68% for those in the SP Ausnet distribution area.

The analysis in our appended report has highlighted the inability of DNSPs to accurately forecast their revenue, capex or opex in historical regulatory periods. If the regulator had accepted those forecasts, it would have resulted in DNSPs receiving almost \$600m more

than appropriate for capex and opex alone, resulting in an additional and unnecessary cost burden to consumers.

In relation to capex forecasts we are concerned that the increased amounts requested by the DNSPs may indicate inefficient management of capex, at least in some instances. Some DNSPs have over-spent on capex, which may indicate a need for increased capex this period but also indicates a need for extra scrutiny to ensure “gold-plating” is not occurring. Some DNSP proposals base a large proportion of the capex forecast on a need for asset replacement due to aging infrastructure, resulting in a bow wave effect. We understand that efficient use of capex should result in ongoing replacement of assets, co-ordinated through an effective and responsible asset management plan. It is unrealistic to expect that DNSPs are all waiting until this regulatory period to perform major works on their networks. We encourage the AER to look more closely at the proposals to determine the efficiency of forecast capex expenditure and also to implement a process for tracking the progress and completion of capital projects that will enable adequate scrutiny of capex claims in the future.

Further, we understand that DNSPs have a poor record when it comes to forecasting customer contributions. In the 2001-2007 period we found that they underestimated customer contributions by \$327M, with actual customer contributions more than double the forecasts. This results in large benefits to revenues based upon the investment of unspent capex. We urge the AER to critically assess the customer contribution forecasts by DNSPs and take into consideration the under forecasting in previous periods.

The forecast opex figures, when compared to previous actual spend for regulatory periods, highlights that the AER should evaluate operational costs closely (especially those of CitiPower) to ensure that they are efficient and effective and therefore operate as a fair efficiency carryover amount.

### **Smart meters**

Smart meters are going to be rolled out in Victoria within the 2011 - 2015 regulatory period, including having interval data available by 1 January 2012 and the full use of the communications network by 2013. On this basis we strongly urge the AER to review the regulatory proposals with a view to identifying any benefits that could accrue to consumers through reduced expenditure, especially opex, thus resulting in reduced prices. Further, we urge the AER to pay close attention to proposals to ensure that expenses included in capex and opex forecasts do not cover costs already accounted for in the separate metering charge derived from the Order in Council, paying attention to its scope.

### **Market Risk Premium**

Victorian DNSPs are unanimously pushing for the Market Risk Premium (MRP) to be increased from 6.5 to 8 for the 2011 -2015 regulatory period. Evidence from the international wholesale markets and bond and interest rate markets is that this is unnecessary, and in fact, that the MRP should probably be reduced to 6.0 again. We note, with significance, the impact of an increased MRP which, we understand, would further increase DNSP revenues by 10 - 15% and would consequently have a significant impact on the end pricing to consumers.

## About Consumer Action

Consumer Action is an independent, not-for-profit, campaign-focused casework and policy organisation. Consumer Action provides free legal advice and representation to vulnerable and disadvantaged consumers across Victoria, and is the largest specialist consumer legal practice in Australia. Consumer Action is also a nationally-recognised and influential policy and research body, pursuing a law reform agenda across a range of important consumer issues at a governmental level, in the media, and in the community directly.

Thank you again for the opportunity to make a submission to the Review. Should you have any questions in relation to this submission, please contact Janine Rayner on 03 9670 5088.

Yours sincerely

**CONSUMER ACTION LAW CENTRE**



Janine Rayner  
Senior Policy Officer - Energy



Nicole Rich  
Director – Policy and Campaigns

\* Attach.

**Appendix 1.**

**Orion Economic Services  
for the  
Consumer Action Law Centre**

**Review of the Initial Victorian Distribution Network  
Service Providers Proposals for the 2011-2015  
Regulatory Period**

**February 2010**

## Table of Contents

Chapter One – The Victorian Distributors and Pricing Proposals .....	3
1.1    Aggregate Proposals of DNSPs .....	3
1.3    Impact on DNSP prices and Retail Prices .....	4
Chapter Two - Can the DNSPs Forecast Accurately? .....	6
2.0    Introduction – Aggregate Analysis .....	6
2.1    Individual Capex and Opex Forecasts and Actuals by Distributors.....	9
Operational Expenditure.....	12
Distributor Financial Returns .....	14
Chapter Three – An Analysis of Customer Contributions .....	17
3.1    The Drivers of Customer Contributions .....	17
Regulatory Requirements to Connect Customers .....	17
What are the Customer Contribution Arrangements? .....	17
Customer Contributions.....	18
Chapter Four – Actual Capital and Operational Expenditures for 2006-2010 and Forecasts for 2010-2015 .....	23
4.1    Operational Costs 2006-2010 .....	23
4.2    Actual Capital Costs 2006-2010 and Forecasts 2011-2015.....	26
4.3    Some Benchmarking of Capital Costs .....	29
Chapter Five- The Market Risk Premium .....	33
5.1    Introduction .....	33
5.2    Are There Improvements in Access to International Wholesale Debt Markets .....	34
5.3    The Importance of the London Interbank Rate (LIBOR) as a Measure of International Debt Markets .....	35
5.3    The Evidence from Bond Markets.....	37

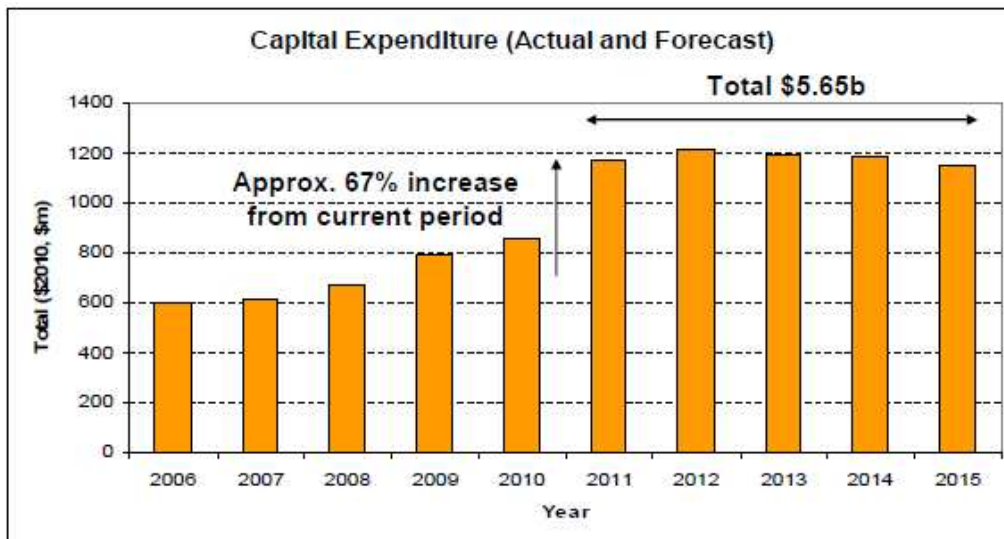
# Chapter One – The Victorian Distributors and Pricing Proposals

## 1.1 Aggregate Proposals of DNSPs

In aggregate the Victorian Distribution Network Service Providers (DNSPs) have proposed a substantial 67% increase in capital expenditure (capex) from the average of the last period's capex spend which was some \$3.385b, to a new level of \$5.65b<sup>1</sup>.

**Table 1.1 Proposed Capex Increases**

### Preliminary observations – capex



It is difficult to believe that the distributors' work forces or the independent contractors' work force would be able to cope with such an expansion as proposed especially by Jemena and CitiPower. This is particularly the case with the anticipated economic growth rates over the period as the world picks up from the GFC and the boom in mineral prices in the west. It is also difficult to argue for an increase when under-spending has been the order for some distributors in current and past regulatory periods as shown below.

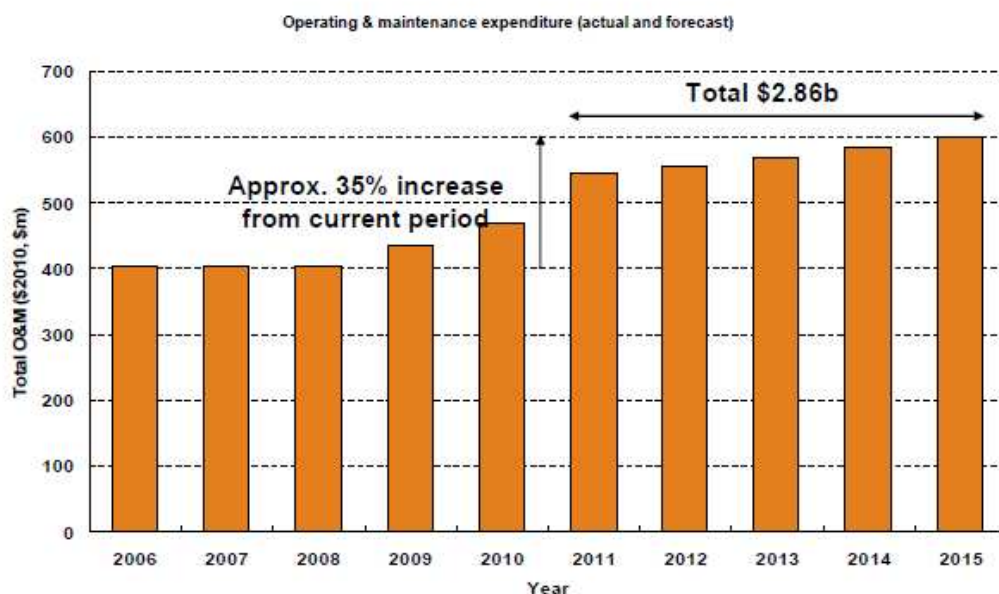
### Recommendation 1.0

**Given the significant increase in capex proposed by the distributors the AER should look closely at the labour and capital cost escalations to ensure that the build up in costs may be reduced by reducing the distributor's capital forecasts.**

<sup>1</sup> Both capital and operational cost increases are taken from the AER Presentation to the Public Forum on 17 December 2009.

**Table 1.2 – Proposed Opex Increases**

## Preliminary observations – opex



The operational cost increases are almost half of the capital cost increases and increase from \$2.11b in the last regulatory period to a forecast \$2.85b in the 2011-2015 regulatory period. This also raises the question as to whether such an increase can be delivered especially in light of the proposed capital increase.

### **Recommendation 1.1**

**The AER should consider whether such an expansion of both Opex and Capex can be efficiently delivered by the distributors' work forces.**

**In addition, the AER should carefully consider the capital/operational costs ratio to determine if this has changed from previous regulatory periods.**

### **1.3 Impact on DNSP prices and Retail Prices**

The Victorian DNSPs have proposed total real network price increases as follows:

- CitiPower has proposed a 10.1% increase in the first year and an 8% increase in the remaining four years. (Total price increase of 42.1%)
- Jemena has proposed a 39.6% increase in the first year and a 3% increase in the remaining four years. (Total price increase of 57.6%)



- Powercor has proposed a 22.3% increase in the first year and a 5% increase in the remaining four years. (Total price increase of 42.3%)
- SP AusNet has proposed a 46.2% increase in the first year and a 5.5% increase in the remaining four years. (Total price increase of 68.2%)
- United Energy has proposed a 16.8% increase in the first year and a 4% increase in the remaining four years. (Total price increase of 32.6%)

On the basis of the total price increase in nominal terms the cheapest is United Energy, an urban utility, and the most expensive is Powercor, a rural utility. On the basis that distribution prices represent around 40% of a typical customer's bill the proposed X factor results in 2011 retail price increases ranging from 4% for CitiPower customers to nearly 20% for SP AusNet retail customers.

**Table 1.3 – Impact on the Average Consumer of the Average Increase**

	Current Bill	New Bill	%Change
<b>Generation</b>	\$200	\$200	
<b>Transportation</b>	\$100	\$100	
<b>Distribution</b>	\$290	\$431	Average 49%
<b>Retail</b>	\$360	\$360	
<b>AIMRO</b>	\$70	\$70	
<b>Total Bill</b>	\$1,020	\$1,161	Bill increase =14%

In Table 1.3 above the impact of the average proposed distributor price increase over the regulatory period on an average consumer is shown. This shows an average price increase for an average consumer of around 14% over the 2011-2015 period.<sup>2</sup>

## **Recommendation 1.2**

**The AER should ensure that the price increases proposed are efficient given the introduction of interval meters in Victoria and the potential price increases likely to come from this other separate metering charge which is not considered in this price review.**

<sup>2</sup> The Sample prices for an average consumer are taken from the United Energy Regulatory Proposal for Prices and Services 3011-2015, Table E4. P. xxv.

## Chapter Two - Can the DNSPs Forecast Accurately?

### 2.0 Introduction – Aggregate Analysis

It is important to review the past regulatory decisions to determine if there are any lessons to be learnt for the present. It can help ask whether any distributor has:

- Over-recovered revenue on a consistent basis so the AER can consider current submissions of the distributor with some scepticism.
- Over-spent capital and hence may need a higher amount in the next regulatory period or it raises the question of whether such spending is efficient.
- Consistently under spent on operational expenditures which may indicate to the AER that such a distributor needs to be more closely analysed to determine if its benchmarks are efficient and effective.
- Reasonably accurately forecast all variables to indicate to the AER that such a distributor needs lower order of review by the AER.
- Poorly forecast some areas which may suggest a different forecasting methodology is required.

Table 2.1 below shows the forecasts of the Victorian DNSPs and their actual performance across the seven years from 2001 to 2007. The data is taken from revenue, operational cost (Opex), capital costs (Capex) and Customer Contributions, which are capital funded by businesses that want electricity expansions. The Graphs 1 to 4 show each of the above areas separately in terms of forecast and actual.

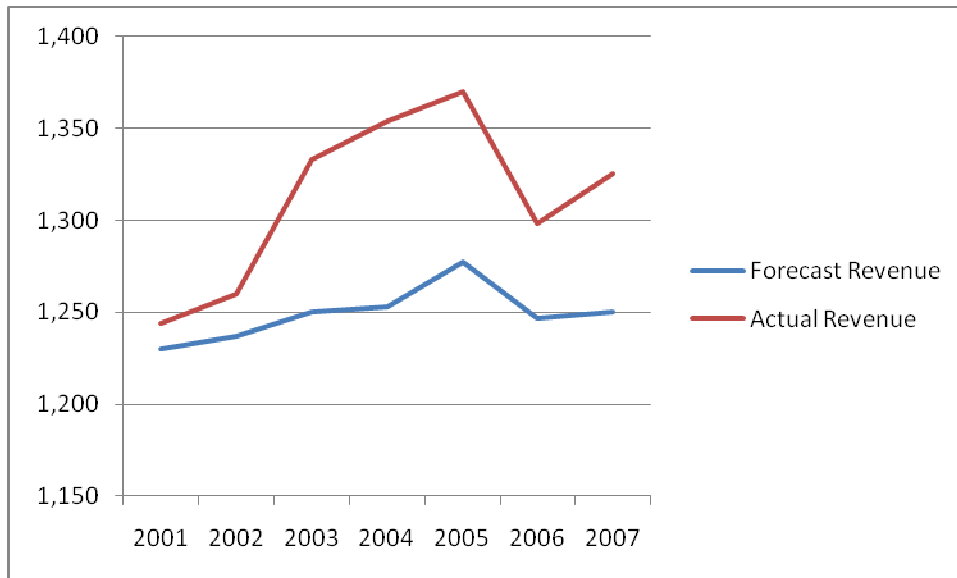
**Table 2.1 Victorian DNSP Forecasts and Actuals 2001-2007<sup>3</sup>**

	Year ending 30 December						
Network Expenditure (\$M)	2001	2002	2003	2004	2005	2006	2007
<b>Forecast Revenue</b>	1,230	1,237	1,250	1,253	1,277	1,247	1,250
<b>Actual Revenue</b>	1,244	1,260	1,333	1,354	1,370	1,298	1,325
<b>Forecast Opex</b>	433	413	415	414	416	430	441
<b>Actual Opex</b>	376	350	366	385	364	378	390
<b>Forecast Capex</b>	517	482	470	475	487	563	576
<b>Actual Capex</b>	483	416	449	490	480	511	502
<b>Forecast Customer Contributions</b>	35	35	36	37	38	53	54
<b>Actual Customer Contributions</b>	72	81	92	85	84	82	118

<sup>3</sup> All data in Chapters 2, 3 and 4 which uses the 2001-2007 data sets are from the Essential Services Commission, Electricity Distribution Businesses, Comparative Report 2007, October 2008, Appendix B, Financial Information Tables. This shows the ESC's consistent series of financial data from 2001 to 2007. The data is based on 2004 prices while data for 2006-2015 is from the distributor's submissions and is in 2010 prices.

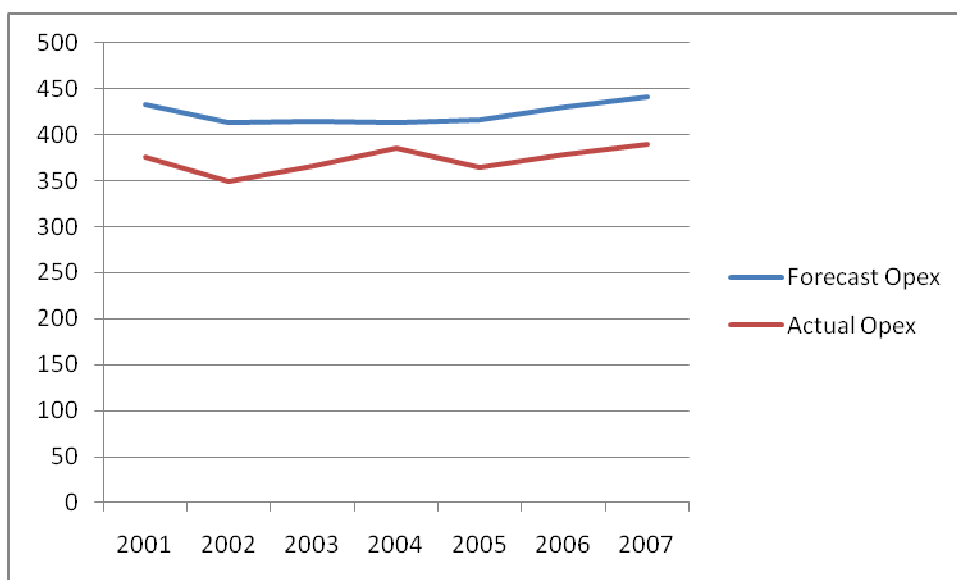
Note in this analysis that distributor “forecasts” are different from regulator determined “benchmarks” and “forecasts” will usually be higher than “benchmarks”.

**Graph 2.1 - Distributors Revenue – Forecast vs. Actual 2001-2007**



It is a particularly serious matter for Victorian consumers that there is a growing gap over the period from 2001 to 2007 and across parts of three regulatory periods. It is important to ensure that consumers do not pay more than is required from a regulated energy sector. Consumers trust that the new regulator of the energy sectors, the AER, takes a greater interest in ensuring that regulated benchmarks of revenue and financial returns are much closer to actual benchmarks over the 2011-2015 regulatory period.

**Graph 2.2 - Distributors Operational Expenditures –Forecast and Actual**



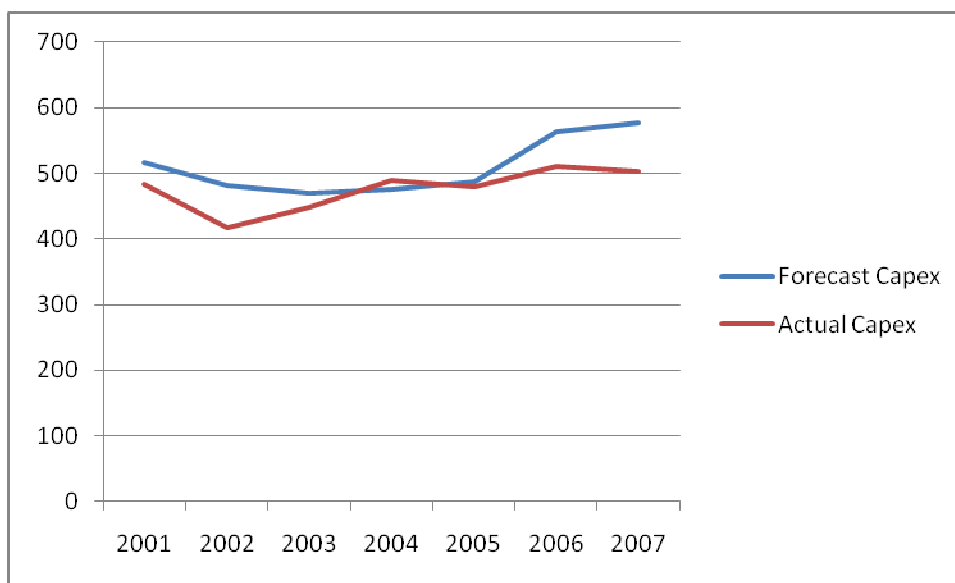
This graph suggests that the distributors are either good at setting higher benchmarks than are efficient and effective or that distributors are good at working efficiently against a

particular benchmark or it may be a combination of both aspects. In terms of which distributor is more efficient the AER should look at this issue in more detail as the more efficient the distributors are the cheaper the prices for consumers.

## Recommendation 2.0

**The AER should undertake an analysis of the distributors to determine which businesses have a cheaper cost per unit in operational and capital works. Consumers can gain from the industry becoming more efficient and hence the AER should look closely at the different models used by the distributors to undertake works and determine which should be adopted more widely.**

**Graph 2.3- Distributors Capital Expenditures –Forecast and Actual 2001-2007**



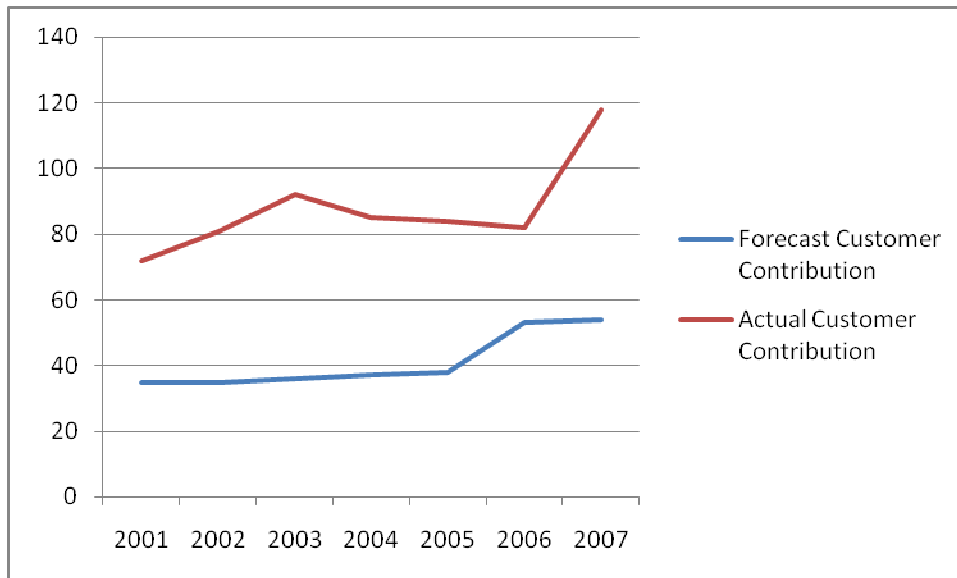
The comparison of Capital expenditure in the above graph is quite different with forecasts and actuals quite close and crossing over. Distributors face offsetting incentives in capital expenditures, to over-recover and to spend additional capex:

- An incentive to over forecast to use the capex funds which are not required to invest in money markets and gain additional revenue.
- An incentive to use capital to “gold plate” the network to increase the value of the asset base to increase revenue via the CAPM model which multiplies the asset base by the rate of return.
- An incentive to spend capex to maintain service standards or as a result of the service incentives scheme.

It appears, from the evidence, that the incentives are reasonably well balanced in aggregate to produce an overall case where capex forecasts are close to actual ones over the period analysed, although individual distributor results may differ.

Distributors can gain additional expenditure through an increase in the level of customer contributions, which may reduce the distributor’s capital expenditure requirement. Graph 2.4 below shows that distributors are very poor at forecasting customer contributions over the period and that the AER should look closely at a more accurate way of forecasting such a variable.

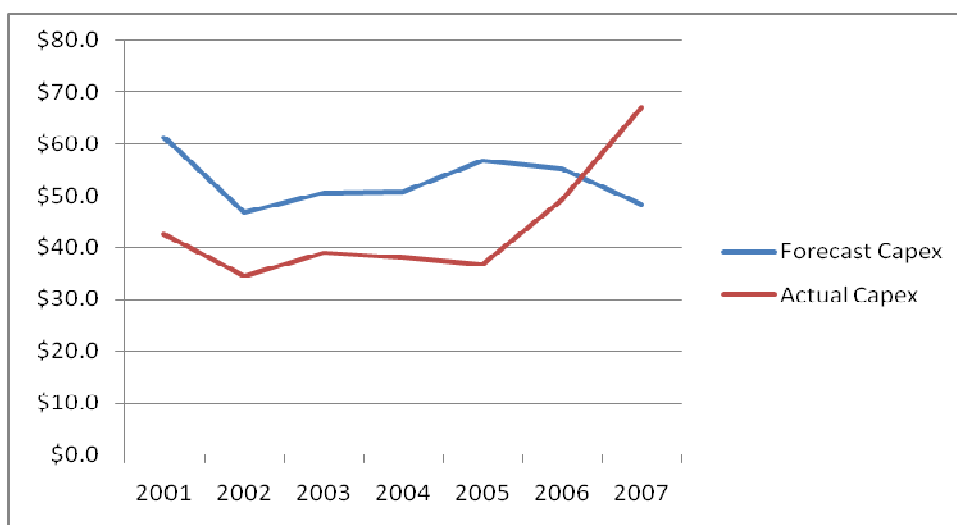
**Graph 2.4 Customer Contributions –Forecast and Actual 2001-2007**



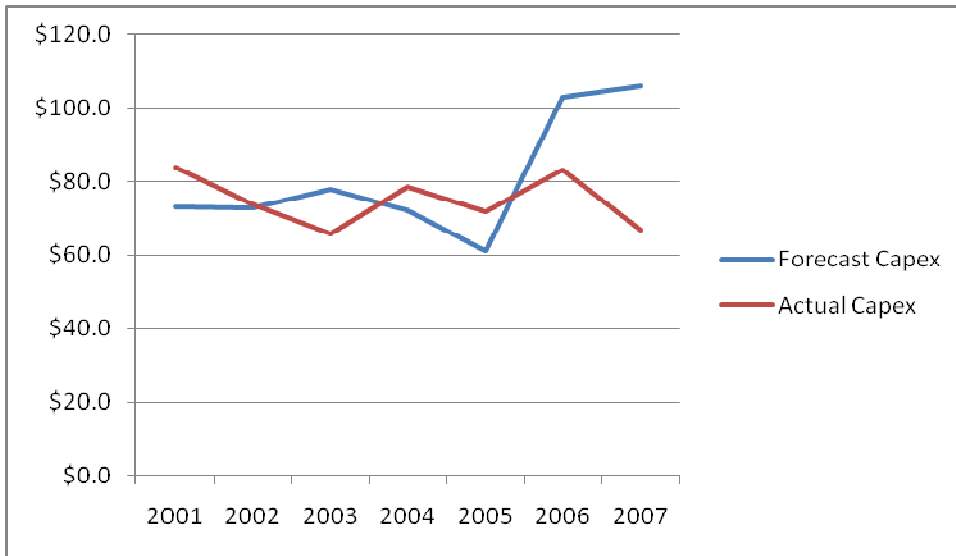
## 2.1 Individual Capex and Opex Forecasts and Actuals by Distributors

The graphs below represent the individual distributors on Opex and Capex variables as assessed above. The graph for Jemena shows that actual capital expenditure only exceeded forecasts once in 2007, while graph 2.9 below for United Energy shows they under-spent capex over the whole period. The graphs for the predominantly rural distributors, 2.7 and 2.8, show they exceeded forecasts on a number of occasions.

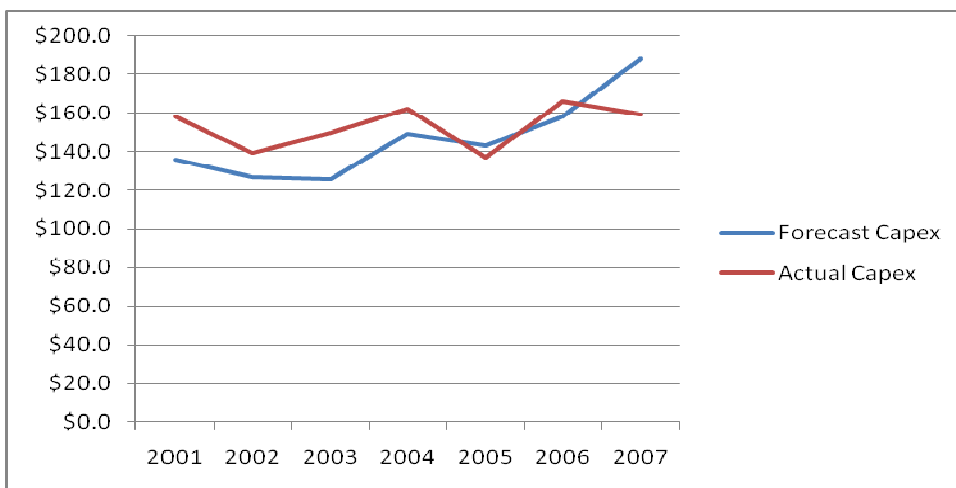
**Graph 2.5 - Jemena Capex Forecasts versus Actuals 2001-2007**



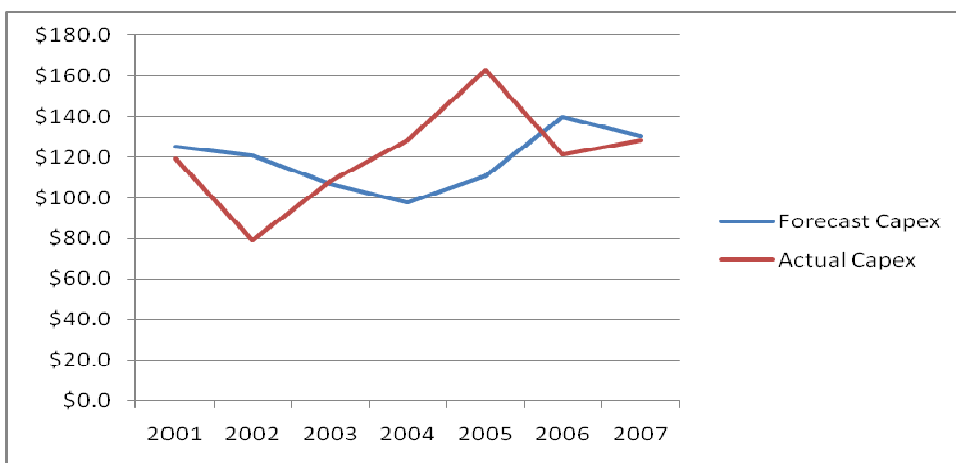
**Graph 2.6 - CitiPower Capex Forecasts and Actuals 2001-2007**



**Graph 2.7 – Powercor Capex Forecasts versus Actuals 2001-2007**

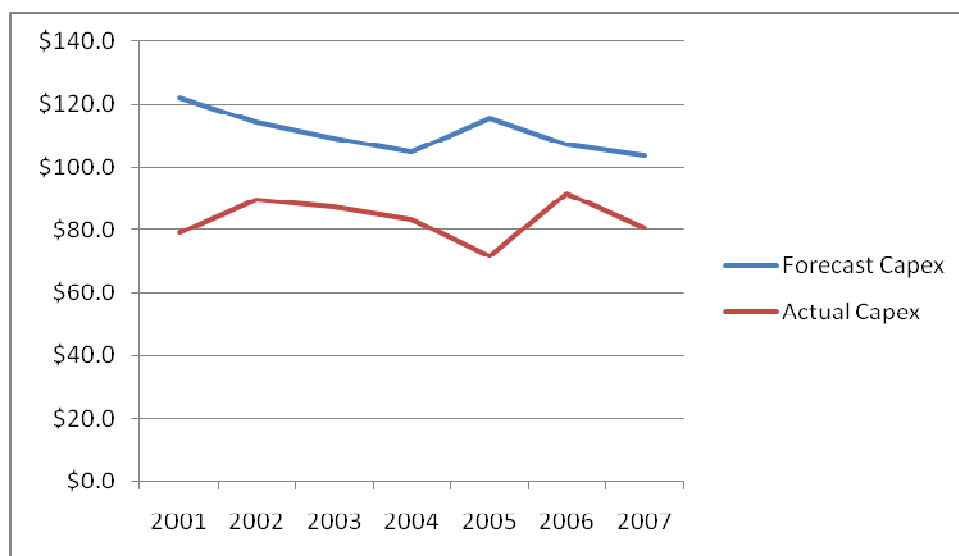


**Graph 2.8 – SP AusNet Capex Forecasts and Actuals 2001-2007**



It is not surprising that the rural distributors have a lower ability to forecast forward than the predominantly urban distributors given the greater areas covered, the lower population densities and the greater number of long feeders, and the impact of bushfires. However, the question remains whether such over-spends are efficient.

**Graph 2.9 – United Energy Capex Forecasts and Actuals 2001-2007**



**Table 2.2 – Extent of Over Forecasting of Capex by Distributors 2001-2007**

Distributor	Capital Over Forecasting \$m	% Over Forecasted Compared to Actuals
<b>Jemena</b>	\$62.4	20.3
<b>CitiPower</b>	\$42.5	8.1
<b>Powercor</b>	-\$43.6	-4.1
<b>SP AusNet</b>	-\$16.0	-1.89
<b>United Energy</b>	\$193.3	33.2

Table 2.2 shows some interesting results, namely, that United Energy and Jemena are the most serious cases for overestimating capex and therefore may need to be closely analysed in this AER price review. It also shows that the predominantly rural distributors could be given additional capital as they have had to fund the capital investment in the 2001 to 2007 period, if the over-spend was efficient of course.

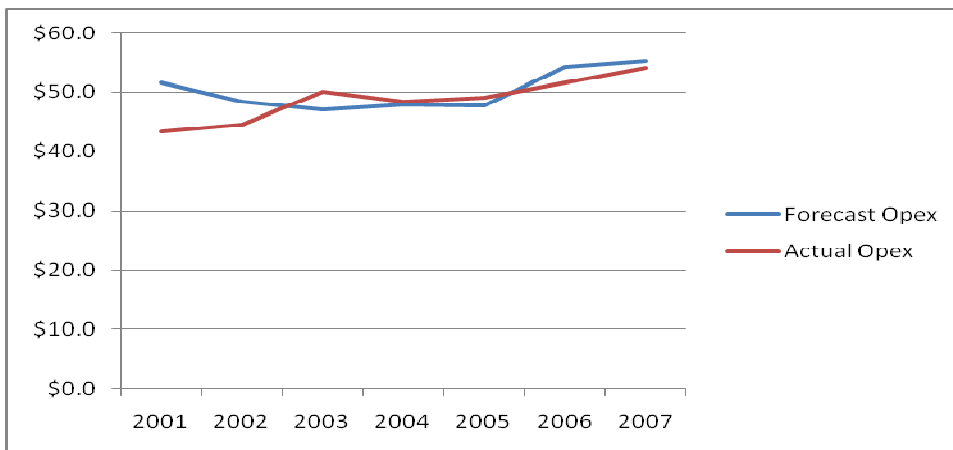
### **Recommendation 2.1**

**The AER should take into account any under-spending of capex in current or past regulatory periods to determine efficient benchmarks for those distributors in the 2011-2015 regulatory period.**

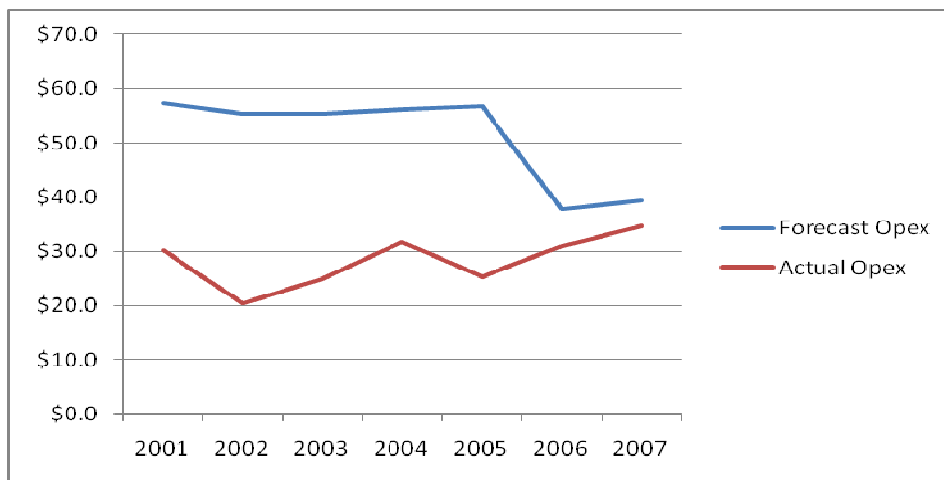
## Operational Expenditure

The graphs below show the different distributors' performance on forecasting operational costs over the 2001 to 2007 period. The key incentive driving distributors is to have enough operational expenditure to cover repairs and maintenance and to ensure the benchmarks are high enough to obtain an efficiency gain in the following regulatory period.

**Graph 2.10 – Jemena Opex - Forecasts and Actuals 2001-2007**

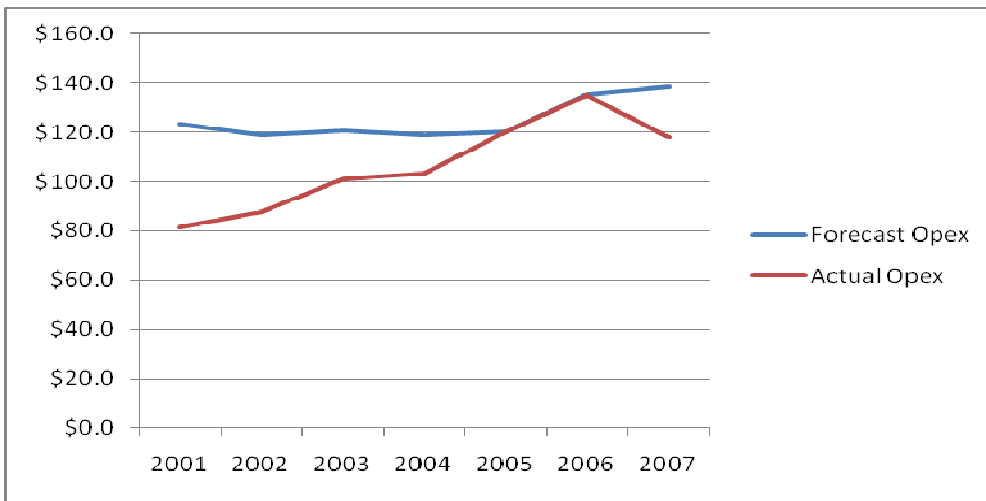


**Graph 2.11 - CitiPower Opex - Forecasts and Actuals 2001-2007**

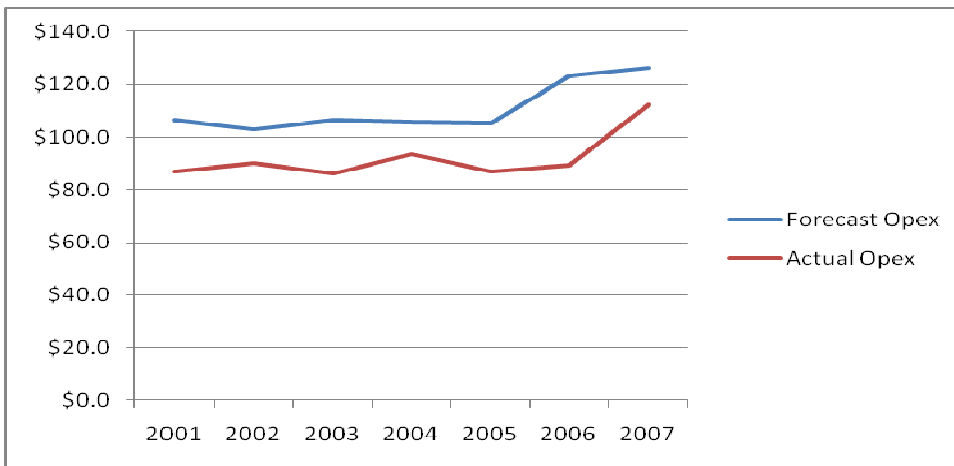




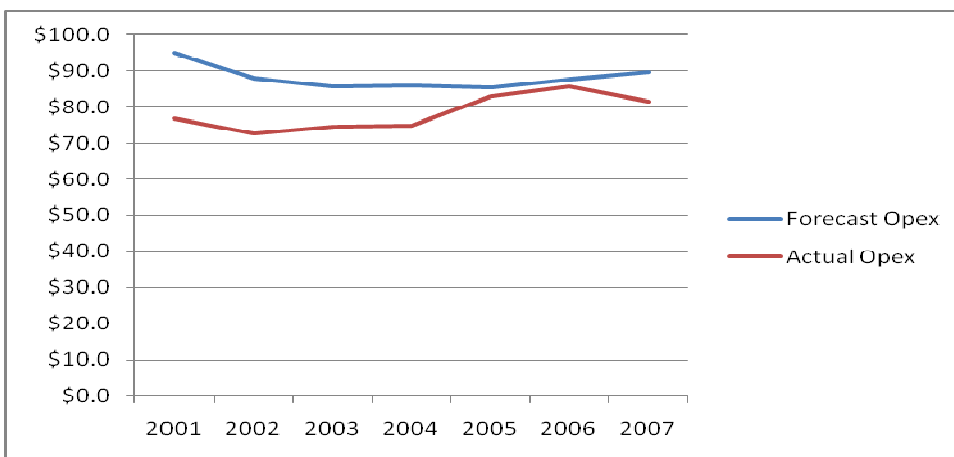
**Graph 2.12 – Powercor Opex - Forecasts and Actuals 2001-2007**



**Graph 2.13 – SP AusNet Opex -Forecasts and Actuals 2001-2007**



**Graph 2.14– United Energy Opex - Forecasts and Actuals 2001-2007**



**Table 2.3 – Extent of Under Forecasting of Operational Expenditures 2001-2007**

Distributor	Opex Under Recovery \$m	% Under Forecast
<b>Jemena</b>	\$11.4	3.3
<b>CitiPower</b>	\$159.6	80.5
<b>Powercor</b>	\$128.5	17.2
<b>SP AusNet</b>	\$130.5	20.2
<b>United Energy</b>	\$68.0	12.4

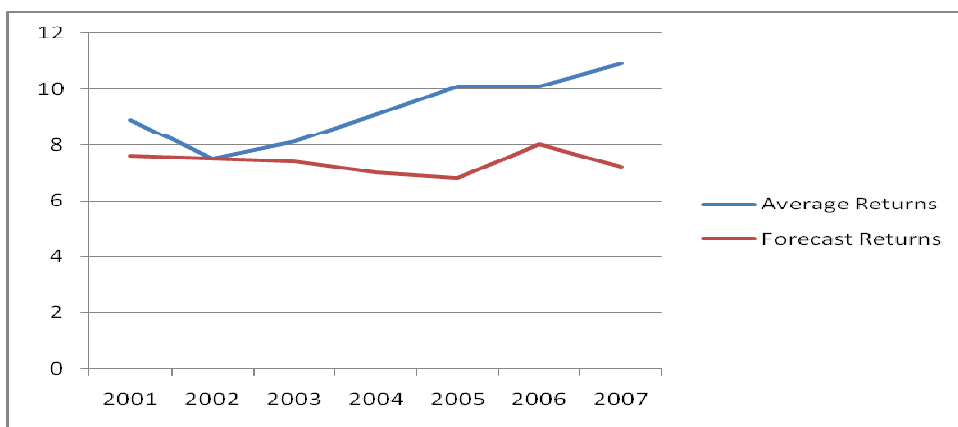
Table 2.3 shows that most distributors had a significant under-recovery of forecast operational expenses over the period, with CitiPower the largest and Jemena the smallest.

**Recommendation 2.2**

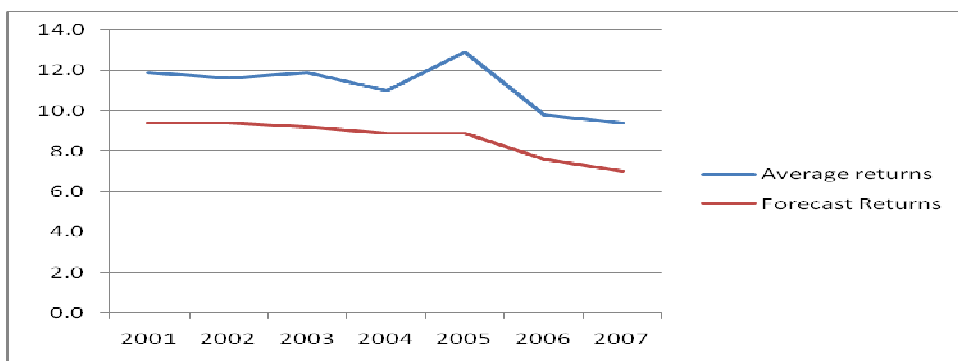
The AER should evaluate operational costs closely (especially those of CitiPower, SP AusNet and Powercor) to ensure that they are efficient and effective and therefore operate as a fair efficiency carryover amount.

**Distributor Financial Returns**

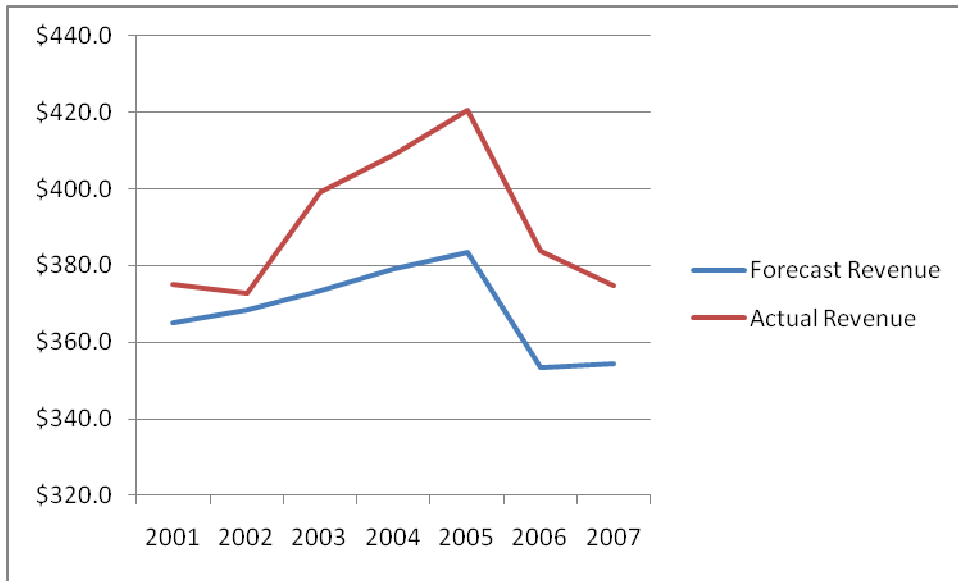
**Graph 2.15 – Jemena - Forecast Financial Returns and Actuals 2001-2007**



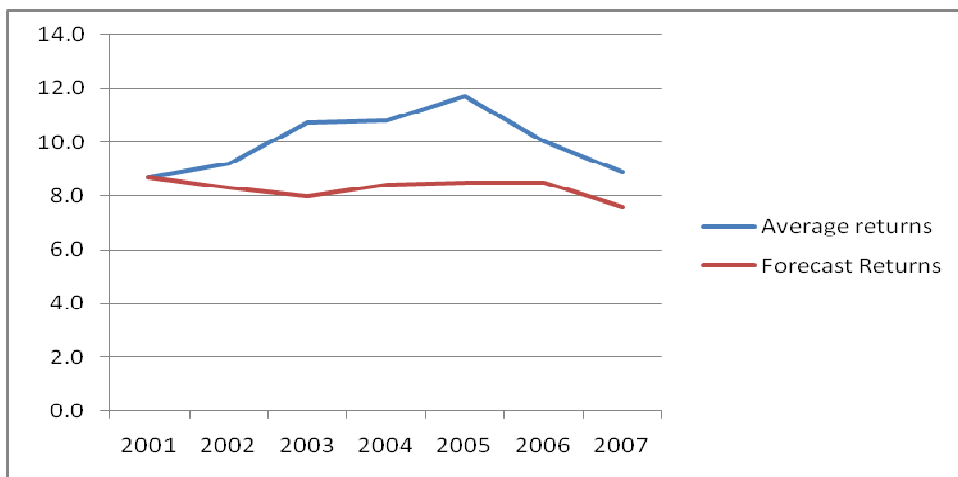
**Graph 2.16 – CitiPower Forecast Financial Returns and Actuals 2001-2007**



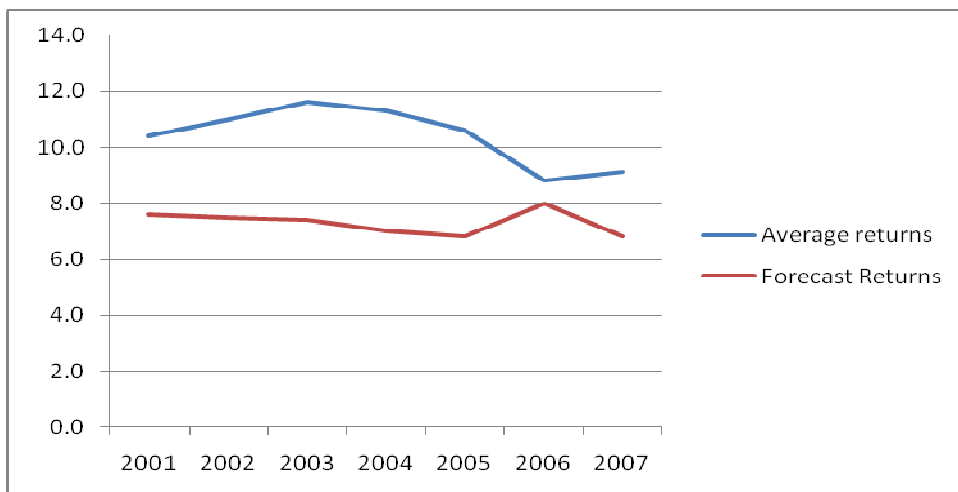
**Graph 2.17 – Powercor Forecast Financial Returns and Actuals 2001-2007**



**Graph 2.18 – SP AusNet Forecast Financial Returns and Actuals 2001-2007**



**Graph 2.19– United Energy Forecast Financial Returns and Actuals 2001-2007**



**Table 2.4 – Extent of Over Recovery on Forecast Financial Returns 2001-2007**

Distributor	Over Recovery of Returns	% Over Recovery
<b>Jemena</b>	13.2	25.6
<b>CitiPower</b>	18.1	23.1
<b>Powercor</b>	15.1	20.9
<b>SP AusNet</b>	12.0	17.1
<b>United Energy</b>	21.7	29.8

Table 2.4 above shows that all the distributors exceeded their forecasts by a major amount with the greatest being United Energy and the smallest being SP AusNet.

The AER should implement a range of measures to ensure that distributors more closely follow benchmarks including monitoring capital works to ensure that deferrals are efficient, basing forecasting on general conditions instead of trying to cater for unpredictable or extreme events while allowing future pass throughs for events that cannot be forecast with some certainty, and ensuring that distributors become as efficient as possible. Consumers will get cheaper prices if benchmarks are more closely followed and if the industry becomes more efficient.

The partial efficiency data set out by United Energy and other distributors in their Pricing Submissions is not a best practice economic study as dividing by customers disadvantages rural distributors with low customer densities. The only way to study productivity is to undertake a Multi-lateral approach where time series can be used to compare TFP levels between firms and can also go a large part of the way to adjusting for customer and energy density differences.<sup>4</sup>

Efficiency is important as it promotes cheaper prices for consumers, and a feature of UK regulation is giving the most efficient firms the benefit of having their forecasts accepted with minimal review.

### **Recommendation 2.3**

**The AER should scrutinise forecast revenue carefully to ensure that it is not being understated and the AER should more closely ensure that distributors follow their benchmark revenue and financial returns to ensure consumer prices remain fair by:**

- 1. Using efficient pass throughs to limit the uncertainty of forecasting (e.g. climate change).**
- 2. Undertaking the proposal to more effectively monitor capital works as set out in Chapter 4.**
- 3. Undertaking the review to make a more efficient industry and developing an appropriate method to undertaking comparative productivity studies.**

<sup>4</sup> Meyrick and Associates, Scoping Study into Data Collection Issue for Incentive Regulation, Report prepared for the ACCC, 19 November 2003.

## Chapter Three – An Analysis of Customer Contributions

### 3.1 The Drivers of Customer Contributions

#### Regulatory Requirements to Connect Customers

Distributors are currently required by the following instruments to connect customers, although not all connections result in contributions:

- Licence conditions
- Electricity Distribution Code – Connection of Supply
- Electricity Guideline No. 14 – Provision of Services by Electricity Distributors
- Customer Contribution Policies as required by Guideline 14

Economic growth is the main determinant of customer connections and contributions and according to the National Institute of Economic and Industry Research (NIEIR) data on Gross Victorian State Product (VGSP) growth rates are expected to decline marginally during the next regulatory period, which implies that new customer connections should be similar to the actuals of the previous regulatory period. For example SP AusNet notes that:

This has determined that average economic growth in GSP for Victoria is expected to decline marginally from 1.86% over the current regulatory control period to 1.76% over the forthcoming regulatory control period.

Growth rates in customer connections for the forthcoming regulatory period are similar to those experienced during 2006-10, specifically averaging around 2.15 per annum. The ratio of contributions to total capex is expected to remain stable over the forthcoming regulatory control period.<sup>5</sup>

Customer contributions are usually business customer related but can also arise from other developments some of which are unrelated to economic growth, including:

- Powerline Relocation Scheme
- Wind power developments
- Bush fire related customer connections
- Underground connections

#### What are the Customer Contribution Arrangements?

In terms of Customer Contributions distributors can obtain a monetary contribution from customers towards the cost of capital works. This applies when the works are required to enable a customer use of the network (for example an industrial customer expanding operations), or to connect a new subdivision to the electricity grid.

An increase in the level of customer contributions will reduce the distributor's capital expenditure requirement and distributors can then invest the additional capital in money markets. The incentive to under forecast customer contributions is one of obtaining a higher capital amount which is then reduced by a higher level than forecast of customer

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<sup>5</sup> SP AusNet Distribution, Regulatory Proposal for Prices and Services, January 2011 to December 2015, p.165

contributions, thus reducing capex and enabling the distributor to increase revenue by investing the excess on money markets.

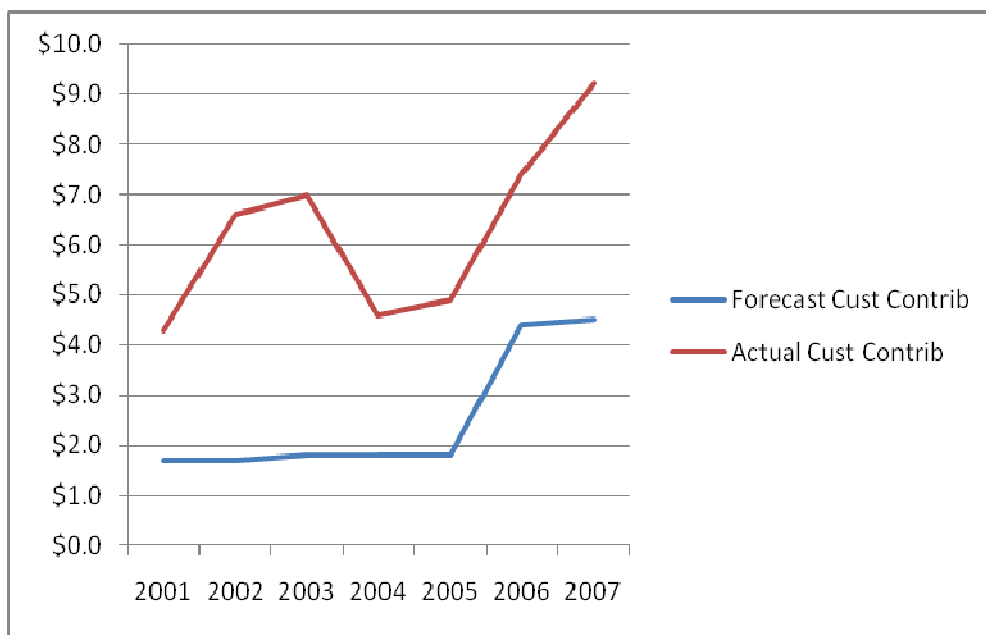
Under the Essential Services Commission Victoria (ESCV) approach customers are required to pay only the difference between the incremental costs of the works and the incremental distribution network tariff revenue arising from those works.

Distributors also adhere to Guideline 14 in calculating customer contributions in terms of the issue of “deep” and “shallow” connections. The customer contribution takes into account all augmentation in the distribution network required for a particular customer connection (shallow) but excludes any changes to the transmission system (deep).

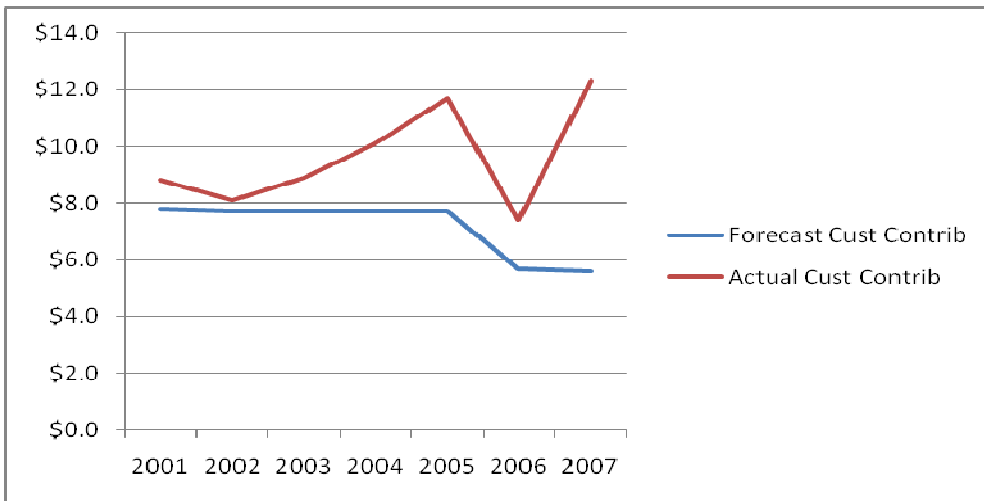
### Customer Contributions

In the analysis of the Victorian distributors in Chapter 2 the area of customer contributions showed as a major problem in terms of forecasting accurately. This analysis below looks at the individual distributors to indicate any differences between them over the 2001-2007 period.

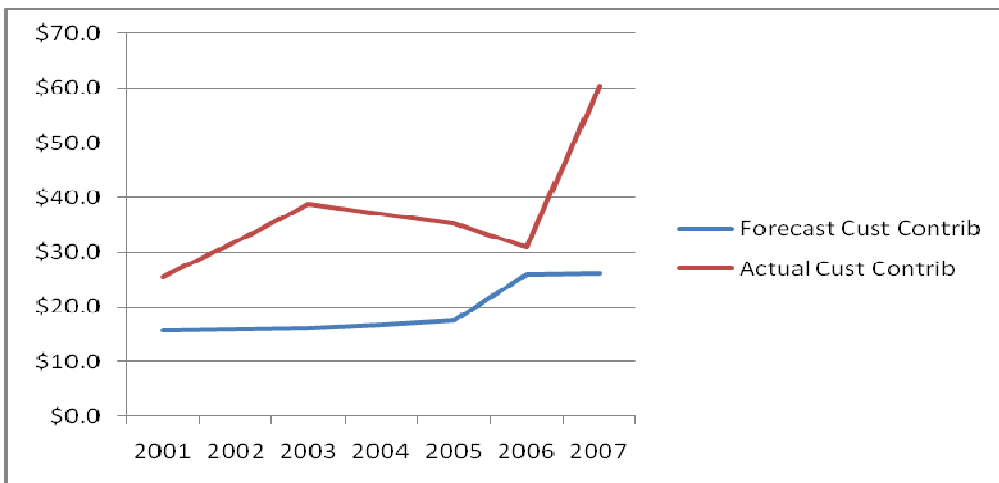
**Graph 3.1 – Jemena – Forecast and Actual Customer Contributions  
2001-2007**



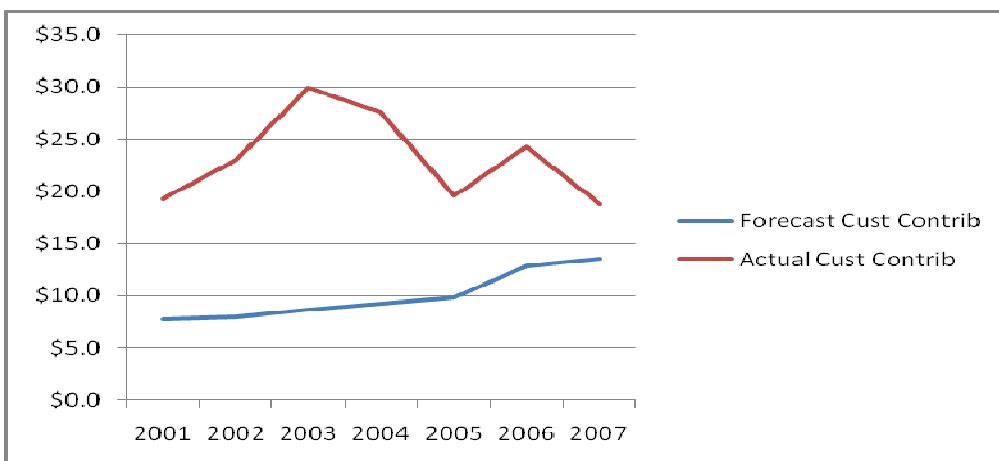
**Graph 3.2 – CitiPower Forecast and Actual Customer Contributions  
2001-2007**



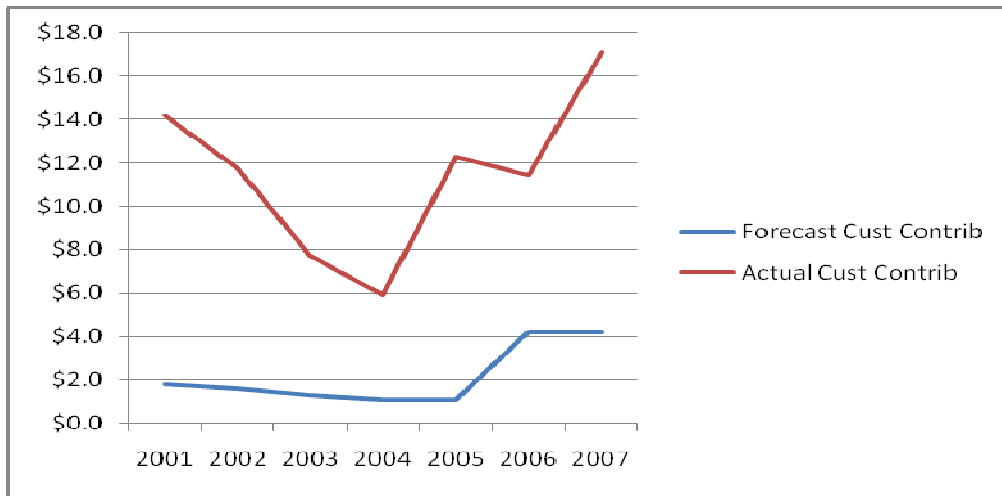
**Graph 3.3 – Powercor Forecast and Actual Customer Contributions  
2001-2007**



**Graph 3.3 – SP AusNet Forecast and Actual Customer Contributions  
2001-2007**

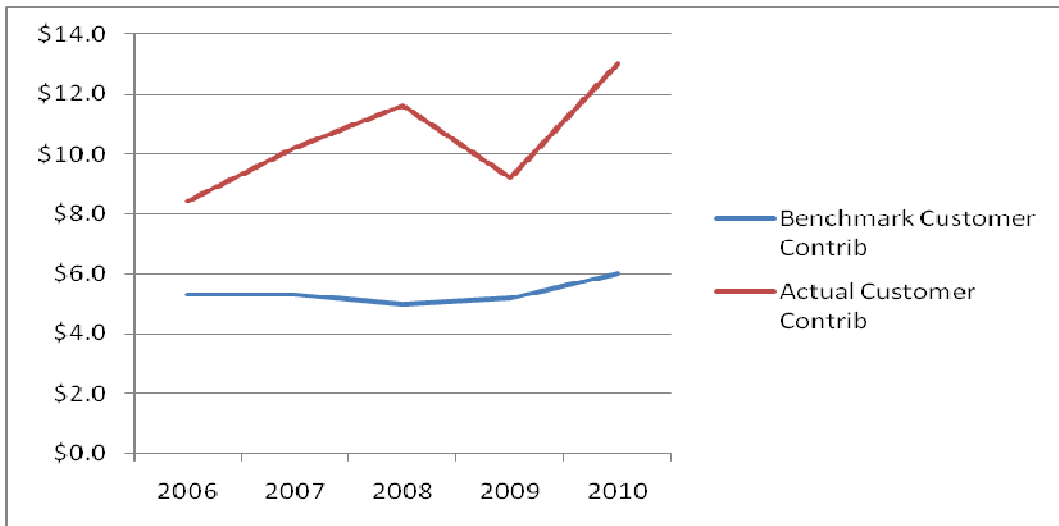


**Graph 3.4– United Energy Forecast and Actual Customer Contributions  
2001-2007**



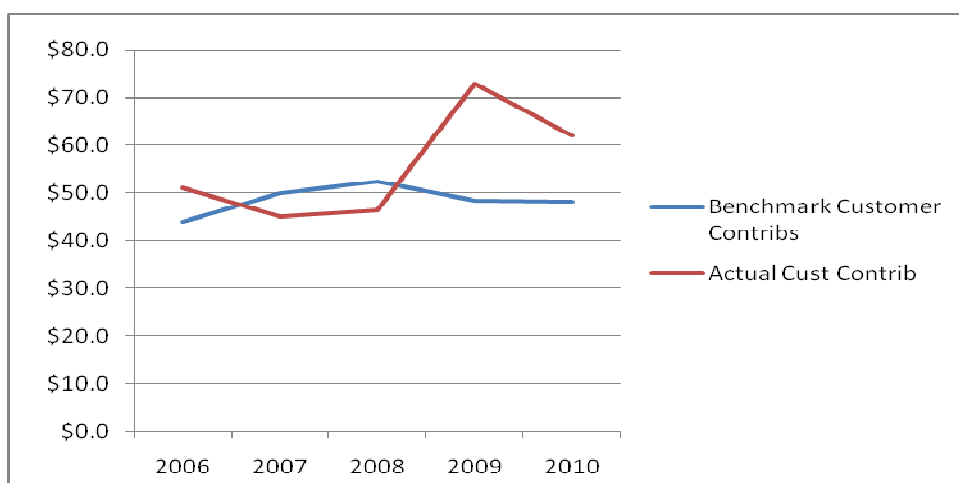
The graphs below are from the 2006-2010 regulatory control period and look at the difference between actual customer contributions compared to regulatory benchmarks. The graphs are only for Jemena and SP AusNet as these were the only distributors to provide the data necessary for the analysis.

**Graph 3.5 – Jemena Actual and Forecast Customer Contributions 2006 -2010**





**Graph 3.6 – SP AusNet Actual and Forecast Customer Contributions 2006 -2010**



**Table 3.1 – Extent of Under Forecasting of Customer Contributions 2001-2007**

Distributor	Under Forecasting \$ m	% Under Forecasting
<b>Jemena</b>	\$26.3	59.8
<b>CitiPower</b>	\$17.4	34.9
<b>Powercor</b>	\$125.9	48.4
<b>SP AusNet</b>	\$92.5	56.9
<b>United Energy</b>	\$65.0	80.9

The above graphs and Table 3.1 indicate the poor performance by all distributors in forecasting Customer Contributions. Over the 2001-2007 period, CitiPower performed the best while United Energy was easily the worst.<sup>6</sup>

As stated above the performance of the distributors in forecasting this area is pitiful and some better methodology must be determined by the AER in this area, which may be subject to gaming. Set out below is a proposed different methodology.

Table 3.2 below looks at forecast capex divided by forecast customer contributions for 2010 -2015 and the extent of under forecasting for the 2001-2007 period. It would be more appropriate to use the 2006-2010 period for these latter estimates but the data was unavailable in most of the Distributors’ proposals. The AER should have the necessary data to use the preferred data set.

To estimate the new level for customer contributions we add the Forecast Capex divided by Customer Connections for 2011 to 2015 to the extent of under forecasting over the previous period (2001-2007). We note that this involves two different price sets in the analysis below but as this is not the preferred data the approach is indicative only.

<sup>6</sup> The 2001-2007 period was chosen as it was the only consistent series of data available to analyse important issues with the distributors’ proposals.

The better data set would be to take the capex divided by customer contributions for 2011-2015 and add this to the extent of under-forecasting for the 2006-2010 regulatory period to obtain the new estimate for 2011-2015.

Such an approach would encourage distributors to more accurately forecast customer contributions and give a more accurate picture of the required level of contributions than the forecasting methodologies currently used by distributors. Unless the continual level of under-forecasting of customer contributions can be fixed distributors will not follow their pricing benchmarks. This approach set out below to estimating customer contributions will be better providing economic growth is similar over the two regulatory periods which it is forecast to be.

**Table 3.2 – A New Model to Estimate Customer Contributions**

<b>Distributor</b>	<b>Forecast Average Capex divided by Customer Contributions for 2010-2015 2010 prices (\$m)</b>	<b>Extent of Under Forecasting Customer Contributions 2001-2007 (\$m) 2004 prices</b>	<b>Recommendation for Customer Contributions 2011-2015 \$m</b>
<b>Jemena</b>	9.7	26.3	36.0
<b>CitiPower</b>	5.7	17.4	23.1
<b>Powercor</b>	5.1	125.9	131.0
<b>SP AusNet</b>	15.5	92.5	108.0
<b>United Energy</b>	6.4	65.0	71.4

### **Recommendation 3.1**

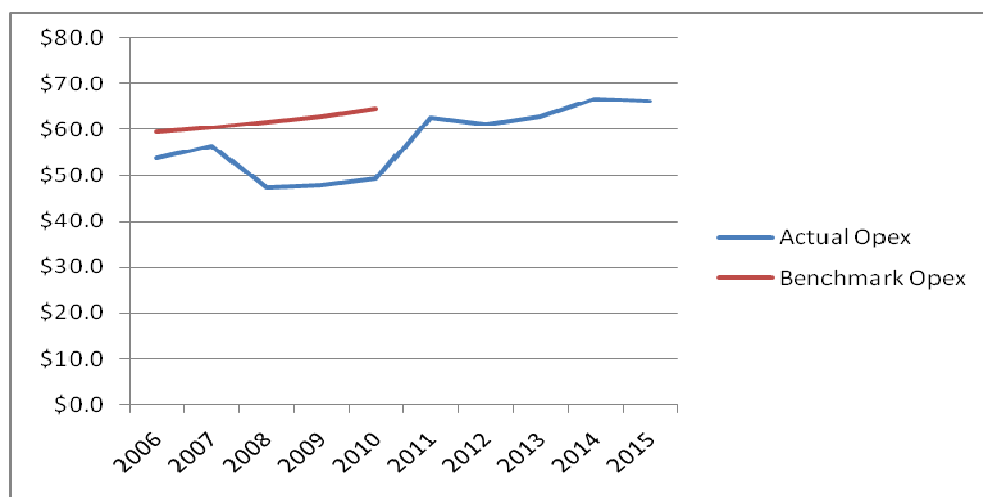
**The AER should replace the distributors' forecasting of customer contributions with the type of model set out above and using the latest data.**

## Chapter Four – Actual Capital and Operational Expenditures for 2006-2010 and Forecasts for 2010-2015

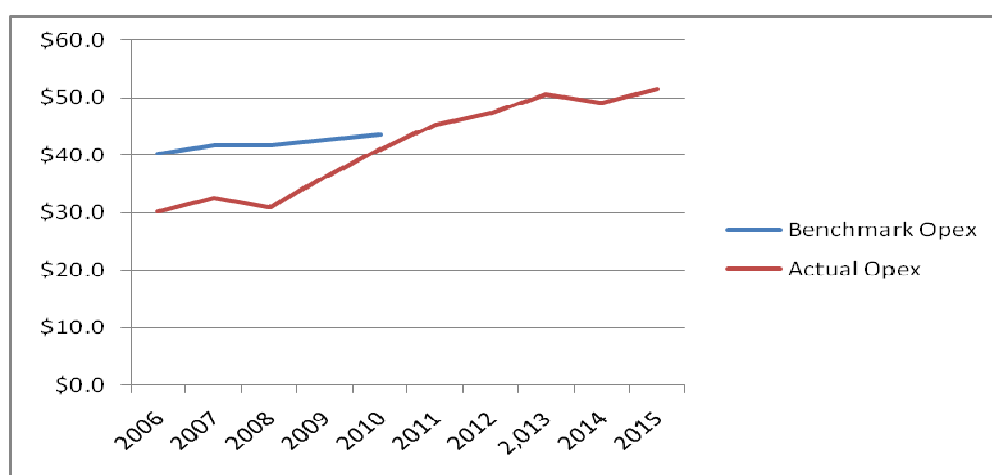
### 4.1 Operational Costs 2006-2010

The graphs below show the Operational Costs benchmarks against actuals for the 2006-2010 regulatory period and the forecasts for 2011-2015 for each of the distributors. The difference between the 2001-2007 and the 2006-2010 graphs is that the latter are based on benchmarks as set by the ESCV and the former are measured against the distributors' own forecasts.<sup>7</sup> However, forecasts by the distributor would most likely be higher than regulatory set "benchmarks".

**Graph 4.1 – Jemena Forecast and Actual Operational Costs 2006 -2015**

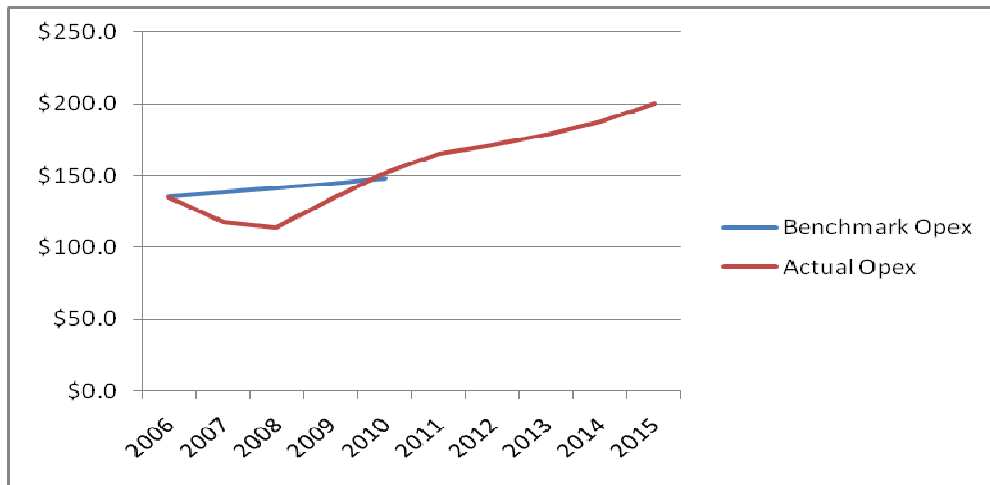


**Graph 4.2 – CitiPower Forecast and Actual Operational Costs 2006 -2015**

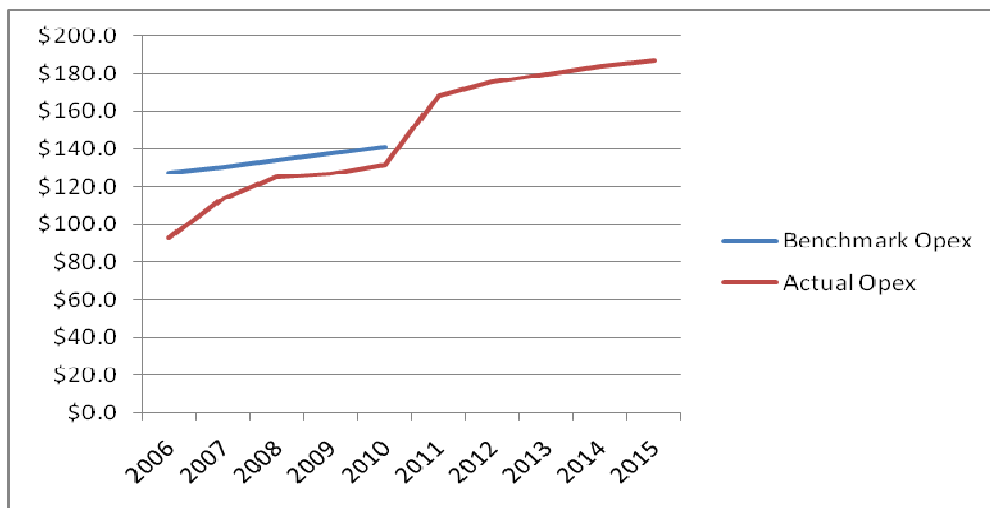


<sup>7</sup> The data for the period 2011 - 2015 is from the distributors' proposals and is in 2010 prices. Data for the 2001 - 2007 period is in 2004 prices. The purpose of analysing the 2001-2007 graphs in Chapter 2 is to determine if the distributors can forecast accurately, hence, the use of forecasts rather than benchmarks.

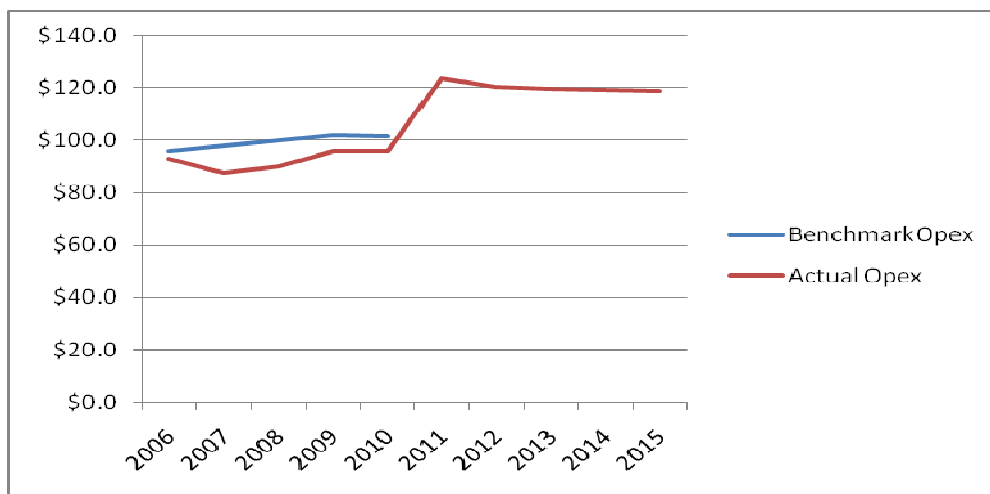
**Graph 4.3 – Powercor Forecast and Actual Operational Costs 2006 -2015**



**Graph 4.3 –SP AusNet Forecast and Actual Operational Costs 2006 -2015**



**Graph 4.4 – United Energy Forecast and Actual Operational Costs 2006 -2015**



The operational expenditure graphs show some interesting trends:

- All distributors beat the benchmarks established for operational expenditures in 2006-2010.
- United Energy has a steep increase between the end of actual and start of forecast and is then relatively flat over 2011-2012 which suggests that it is the steep increase that needs close analysis. A similar pattern exists for SP AusNet and Jemena in terms of a steep increase between 2010 and 2011.
- Jemena has a bow wave effect in its 2007 to 2011 period which should be carefully examined in light of its increase over the next few years.
- Other distributors show increasing amounts of operational expenditure over the period which is quite different to United Energy.

**Table 4.1 – Actual Operational Expenditures 2006-2010 Compared to Benchmarks**

Distributor	Actual Opex Under Recovery over the period \$m	% Under Recovery amount divided by total actual Opex.
<b>Jemena</b>	\$53.9	21.2
<b>CitiPower</b>	\$39.3	23.0
<b>Powercor</b>	\$55.1	8.5
<b>SP AusNet</b>	\$80.5	13.6
<b>United Energy</b>	\$35.3	7.6

Table 4.1 above shows that most distributors had significantly lower actuals in comparison with benchmarks of operational expense as set by the Regulator over the 2006-2010 period with CitiPower the largest, closely followed by Jemena and with United Energy the lowest.

This result implies (and in Table 2.3 above for 2001-2007) that the AER should evaluate operational costs closely (especially by CitiPower and Jemena) to ensure that they are efficient and effective and therefore operate as a fair efficiency carryover amount. In addition, given the incentive to try to increase benchmarks they could be reduced by an amount to limit this incentive.

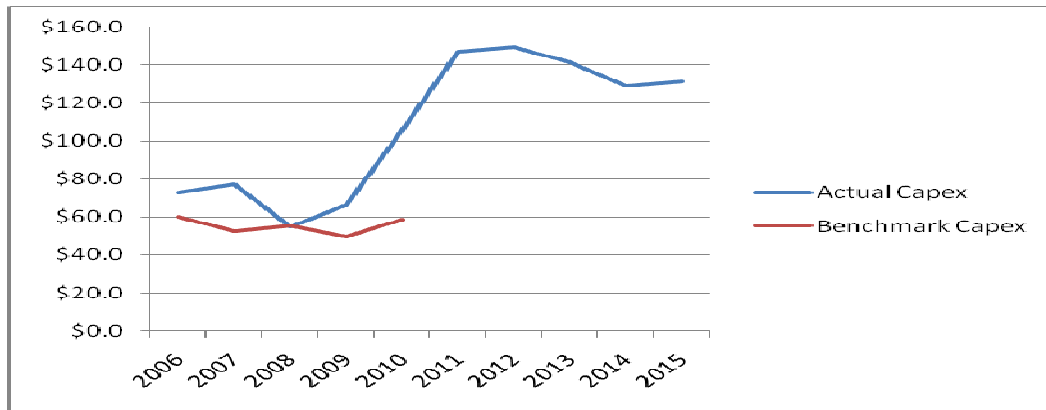
#### **Recommendation 4.0**

**The AER should evaluate distributor forecasts and determine the operational costs for an efficient business and then reduce those by 7.6% (the lowest under recovery percentage) in total given the distributors are incentivised to over forecast operational costs and because of the information asymmetry issue.**

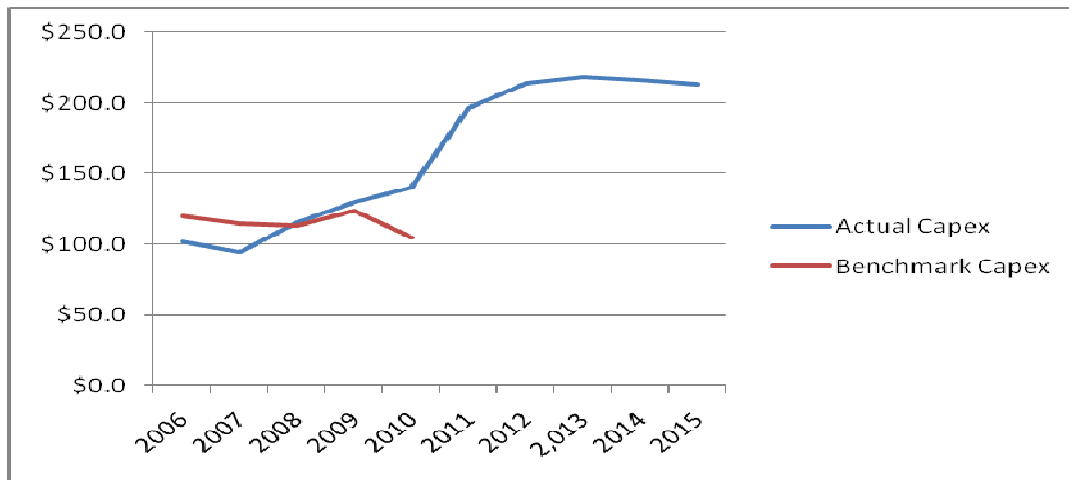
## 4.2 Actual Capital Costs 2006-2010 and Forecasts 2011-2015

The graphs below show the Capital Costs benchmarks against actuals for the 2006-2010 regulatory period and the forecasts for 2011-2015 for each of the distributors. No benchmark comparison is available for 2006-2010 for United Energy as they did not provide the data in their Public Submission.

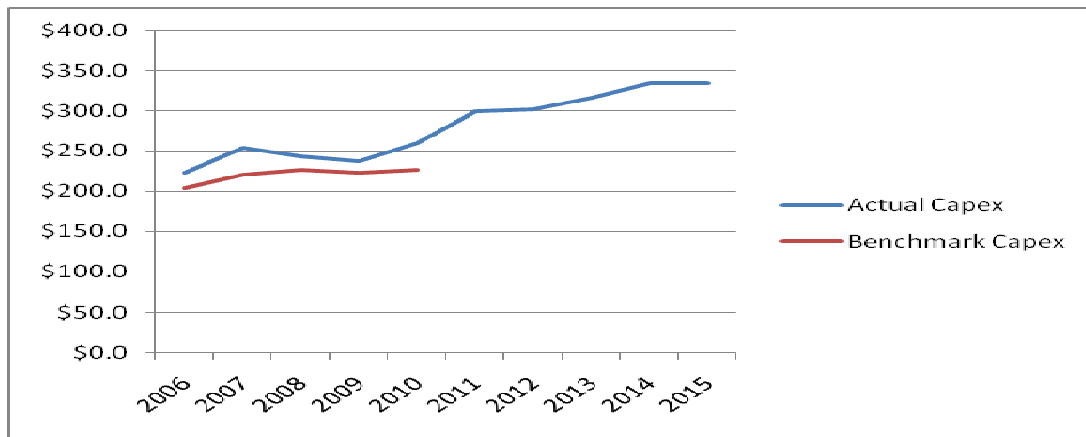
**Graph 4.5 – Jemena Actual Capital Costs 2006 -2010 and Forecasts 2011-2015**



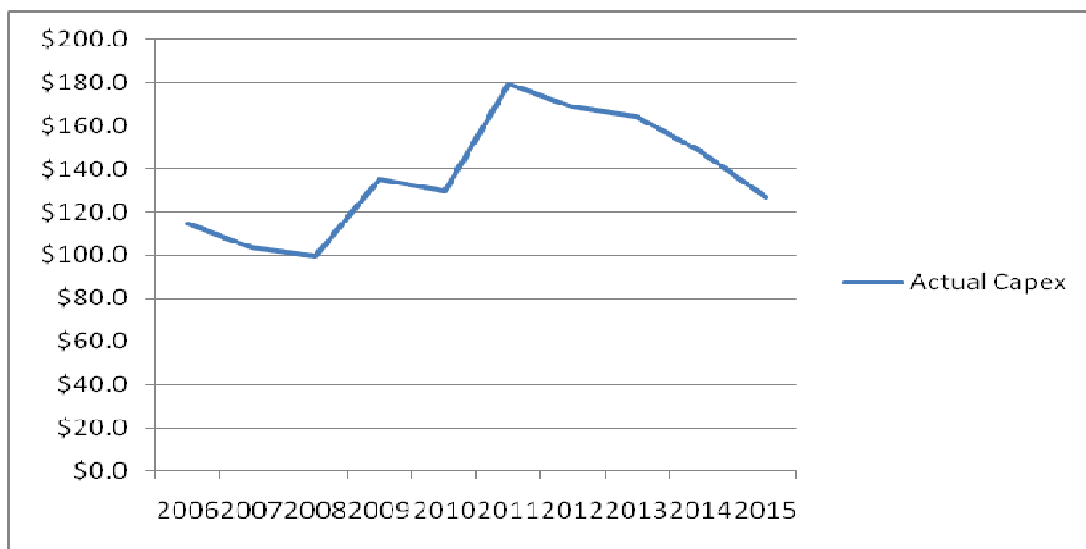
**Graph 4.6 – CitiPower Actual Capital Cost 2006 -2010 and Forecasts 2011-2015**



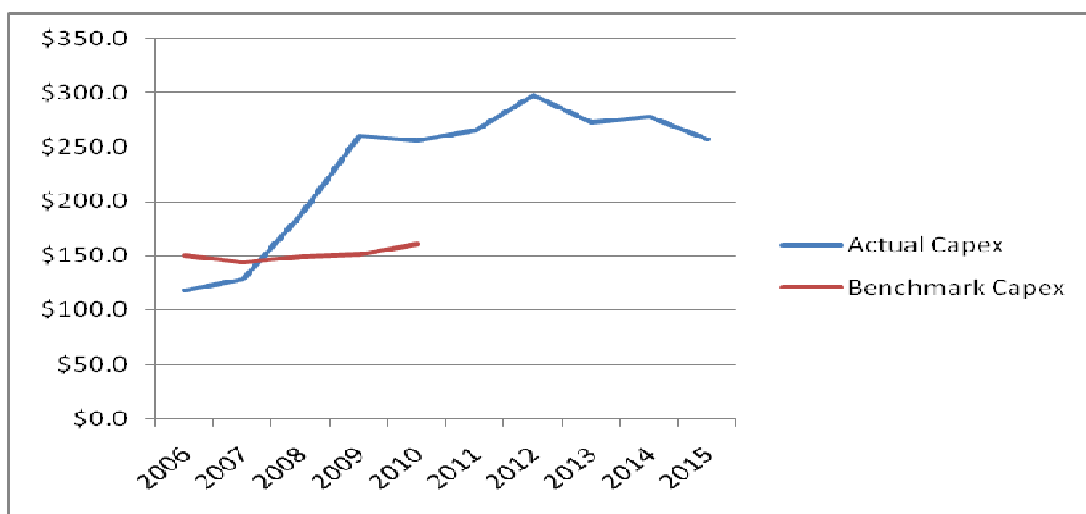
**Graph 4.7 – Powercor Actual Capital Costs 2006 -2010 and Forecasts 2011-2015**



**Graph 4.8 – United Energy Actual Capital Costs 2006 -2010 and Forecasts 2011-2015**



**Graph 4.9 – SP AusNet Actual Capital Costs 2006 -2010 and Forecasts 2011-2015**



There are a number of comments that can be made on this data:

- SP AusNet, Jemena and Powercor have significantly exceeded 2006-2010 benchmarks and may need more capital for the next regulatory period but not necessarily to the levels proposed and not if the previous over—run was inefficient.
- Powercor is requesting a smooth increase on its actuals for 2006-2010 and has spent more than the benchmark for 2006-2010 which may represent an efficient capital proposal, if its previous over-run was efficient;
- Jemena and SP AusNet have quite steep capital requirements which require greater scrutiny by the AER.
- United Energy actuals and forecasts have the greatest decline in later years and this may signify an efficient proposal although as shown in Table 2.2 they have over forecast capex over the 2001-2007 period significantly.

One of the most common ways of reducing capex is to defer investment and this may be an efficient approach where it can be achieved at no impact on customers. A distributor could;

- inflate its capex proposal taking advantage of the information asymmetry between the regulator and the distributor.
- reduce capex for cash flow or other reasons and this may have an impact on customers and outputs.
- defer an investment in one regulatory period and seek to have it funded in the next regulatory period so consumers pay twice for the same asset.

Similarly consumers are concerned at capital overspends if they are a result of wasteful expenditure or attempts at “gold plating”. Such outcomes may also be efficient and the AER should assess which of these outcomes might apply in terms of any over—spend of capex in the current regulatory period.

Consumers consider that the information asymmetry problem requires the AER to assess whether any over-spending of capital benchmarks is efficient and to ensure that if it is not efficient it should not be able to be included in the distributor's asset base. In terms of under-spending of benchmarks the AER should assess whether it is gaming or efficient operations.

#### **Recommendation 4.1**

**The AER should assess any over-spend of capital and if the distributor cannot justify that it is efficient it should not be included in the asset base of the distributor. With under-spending the AER should also assess whether it is a case of deferral.**

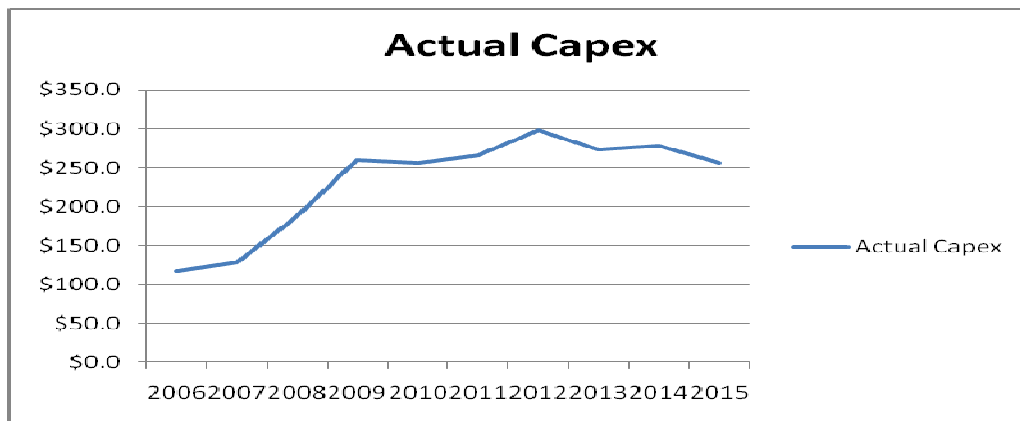


### 4.3 Some Benchmarking of Capital Costs

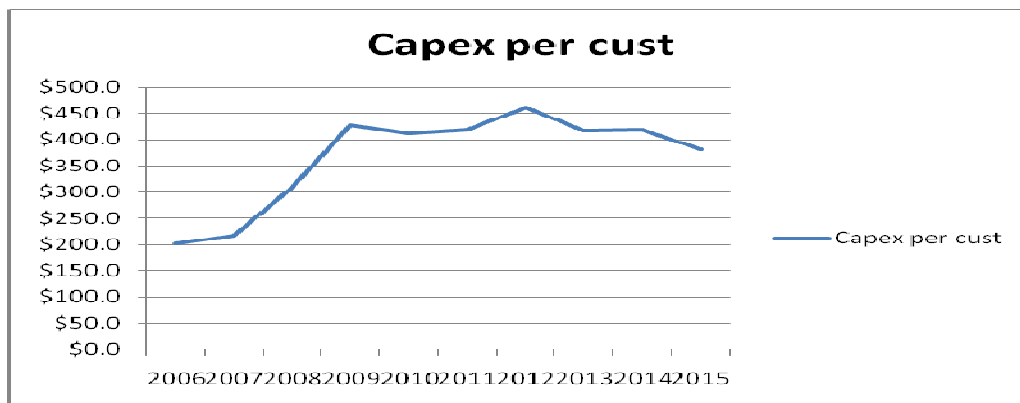
The graphs below give the actual capex for 2006-2010 and the forecast for 2011-2015 and for capex / customer numbers and for capex / electricity consumed, where the last two graphs show actuals and forecasts as for the actual capex graph.

This is only provided for two distributors, SP AusNet and Powercor, as they were the only distributors that provided the full range of data.<sup>8</sup>

**SP AusNet Actual and Forecast Capex 2006-2015**

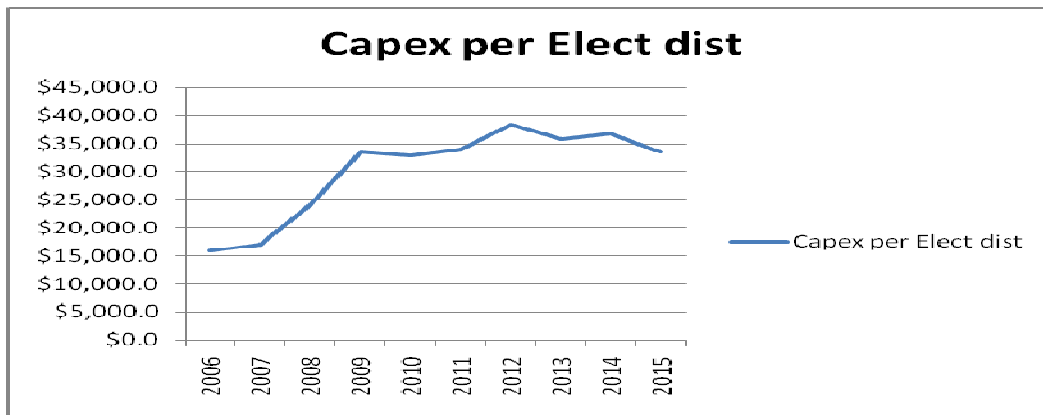


**SP AusNet Actual and Forecast Capex/Customers 2006-2015**

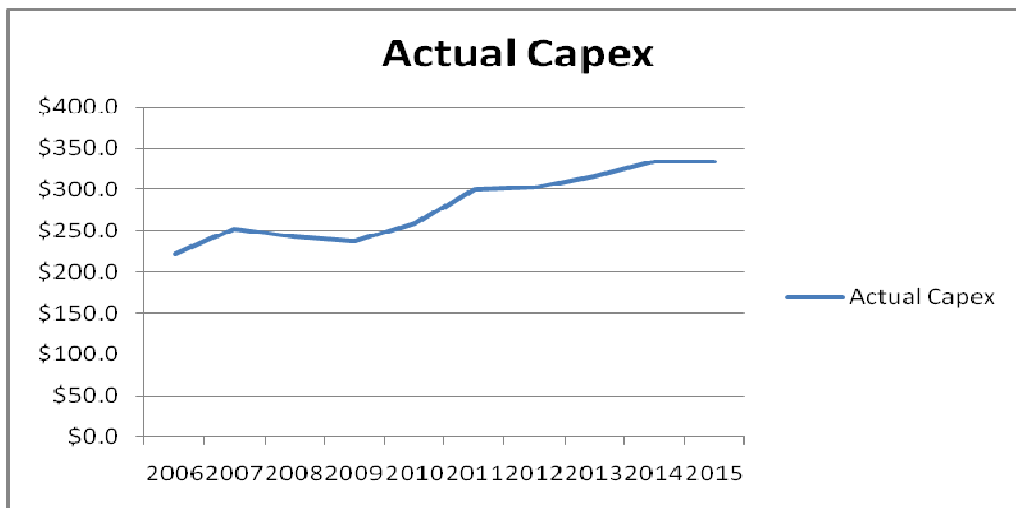


<sup>8</sup> The gap in the Powercor graph Capex per GW Consumed below is due to Powercor failing to provide the necessary data

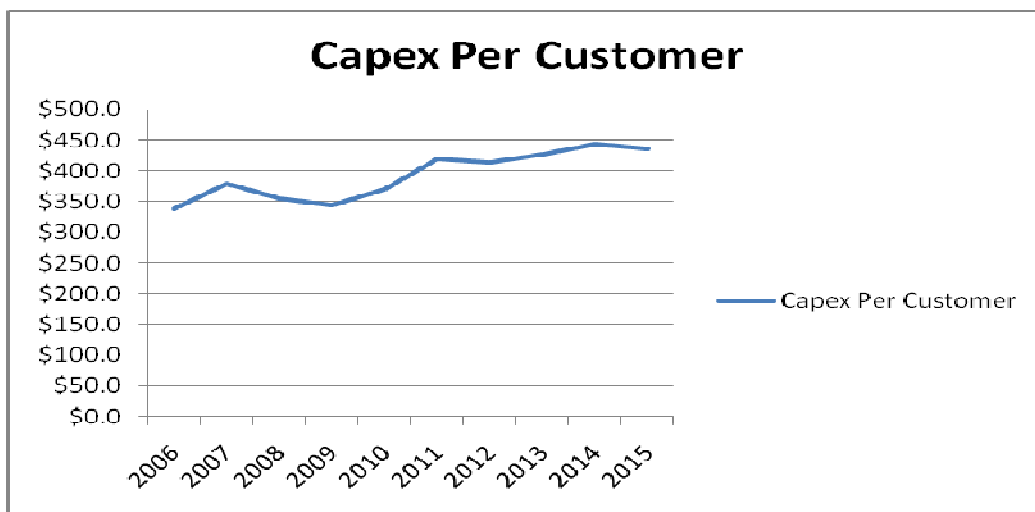
**SP AusNet Actual and Forecast Capex/ Electricity Consumed 2006-2015**



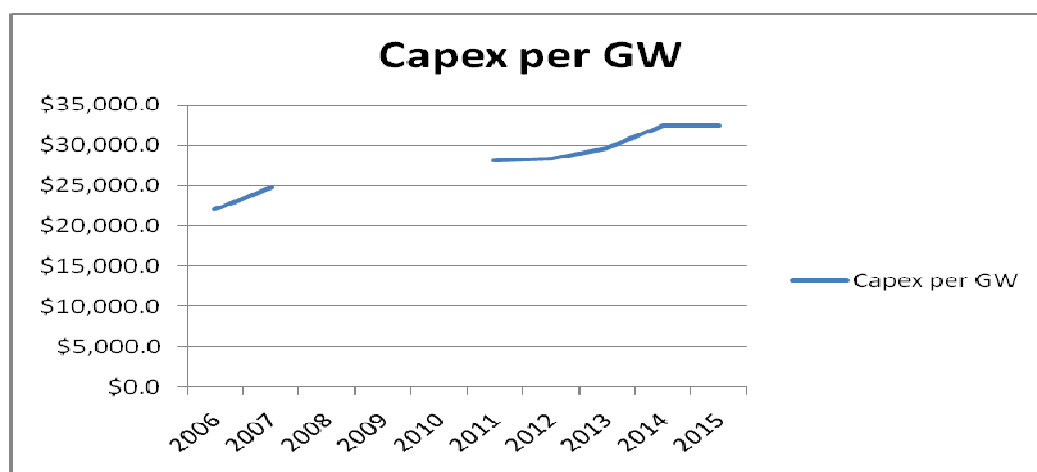
**Powercor Actual and Forecast Capex 2006-2015**



**Powercor Actual and Forecast Capex/Customers 2005-2015**



## Powercor Actual and Forecast Capex/Electricity Consumed 2005-2015



The above set of graphs for SP AusNet and Powercor indicates that if we consider the measures of “capex by customers” or “capex per electricity consumed” the shape of the graphs do not change which suggests that the expenditure is directed towards something else.

If the shape of the curves does not change by dividing with different variables means that these variables are having no effect on the capital expenditure which is somewhat odd as most commentators would have thought that customers and electricity consumed were likely to be important drivers of capital expenditure. The distributors all have claimed in their submission to the AER that funds are required for asset renewal given the age of their networks.<sup>9</sup>

This result implies that the distributors have allocated all the expenditure to asset renewal and the “bow wave” effect. Consumers consider that this effect must be in some doubt given:

- That spending on asset renewal must have been an issue in the past and therefore there was sufficient spending in the past to ensure that matters don’t become critical now.
- Two distributors, namely Jemena and United Energy, substantially under spent on capital over the 2001-2007 period suggesting that the “bow wave” was not on the horizon as late as 2007.
- A proper asset management plan should tell distributors when assets get too old to maintain and need replacement suggesting that some more orderly process should have occurred in the past regulatory period compared to an urgent “bow wave” impact now. The distributors have all requested a significant increase in operational expenditure which raises questions about the significant increases in capital expenditure in terms of Capex/Opex ratios.

<sup>9</sup> The other distributors also exhibited a similar trend on the data analysed although they are not presented here as they did not provide the necessary data to be able to undertake the full range of benchmarks.

Consumers are concerned that some distributors may be requesting capital for the same project across different regulatory periods and this may be the reason some distributors don't spend their capital benchmarks.

#### **Recommendation 4.2**

**The AER should establish a data base of each significant capital project (say above \$3m) for each distributor to show designated code, estimated costs, timing and project description. When projects are completed the distributor should notify the AER of the actual costs and explain any difference in timings. The AER should, via this methodology, be able to monitor distributors to ensure that projects are not funded more than once across regulatory periods.**

#### **Recommendation 4.3**

**The AER should ask distributors to clearly demonstrate if the “bow wave” is a realistic problem and why the issues raised above are not a relevant response to it.**

#### **Recommendation 4.4**

**A critical part of the ability to comment effectively on the distributors' proposals is that a full set of data is provided in clearly marked tabular form for both the 2006-2010 period and the 2011-2015 period all in consistent 2010 prices:**

- **Benchmark revenue and actual revenue for 2006-2010 and forecasts for 2010-2015**
- **Benchmark net capital expenditure (excluding consumer contributions and disposals) and actuals 2006-2010 and forecasts for 2010-2015**
- **Benchmark operational expenditure and actuals 2006-2010 and forecasts for 2010—2015**
- **Benchmark customer contributions and actuals 2006-2010 and forecasts for 2010-2015**
- **Average Customer numbers for 2006-2010 and forecasts for 2010-2015.**
- **Electricity Consumption 2006-2010 and forecasts for 2010-2015**
- **Asset Values 2006-2010 and forecasts for 2010 -2015**

**The AER should ensure that such a data set is made available as soon as possible so stakeholders can more effectively comment on the distributors' proposals.**

## Chapter Five- The Market Risk Premium

### 5.1 Introduction

The Market Risk Premium (MRP) is a measure to capture the difference between the market return on a portfolio and the risk-free rate derived from government bonds used in determining appropriate returns for regulated distributors. The MRP is a forward looking variable and is therefore not easily measured and many assumptions must be made as to its calculation, such as that historical evidence is a good predictor of future value. It is also the case that the MRP changes over time given changes in debt and equity markets.

A number of distributors have argued that the Global Financial Crisis (GFC) has resulted in:

- Material increases in the cost of capital across both debt and equity markets.
- General declines in the level of investor risk appetite.
- Reductions in liquidity and access to capital across virtually all markets; and
- Change in market views on acceptable gearing levels.<sup>10</sup>

In the proposed Statement of Regulatory Intent (11 December 2008) (SRI) the AER found that a MRP of 6.0 met the conditions of the National Electricity Law (NEL). However in light of the GFC the AER issued the final SRI on 1 May 2009 and increased the MRP to 6.5. However all distributors in their pricing proposals have proposed a MRP of 8.0 based on the work of Bishop and Officer. For example UED argues that:

Based on this analysis, Bishop and Officer estimate that the implied MRP is currently 12.2 per cent per annum, which is substantially above the long term historical average MRP of 7.0 per cent per annum. However they acknowledge that the MRP is not stationary and changes over time. Further analysis conducted by Bishop and Officer led them to recommend an MRP of 8.0 over the 2011 to 2015 regulatory period.<sup>11</sup>

#### **What are the differences between debt and equity markets?**

The debt market is the market where debt instruments are traded. Debt instruments are assets that require a fixed payment to the holder, usually with interest. Examples of debt instruments include bank loans and bonds (government or corporate) and housing mortgages.

The equity market (often referred to as the stock market) is the market for trading equity instruments. Stocks are securities that are a claim on the earnings and assets of a corporation. An example of an equity instrument would be common stock shares, such as those traded on the Australian Stock Exchange.

#### **How are debt instruments different from equity instruments?**

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<sup>10</sup> United Energy Distribution, Regulatory Proposal for Prices and Services, January 2011 to December 2015, p.136

<sup>11</sup> Ibid, p.145

There are important differences between stocks and bonds which include:

1. Equity financing allows a company to acquire funds (often for investment) without incurring debt. On the other hand, issuing a bond does increase the debt burden of the bond issuer because contractual interest payments must be paid— unlike dividends, they cannot be reduced or suspended.
2. Those who purchase equity instruments (stocks) gain ownership of the business whose shares they hold (in other words, they gain the right to vote on the issues important to the firm). In addition, equity holders have claims on the future earnings of the firm paid as dividends.
3. In contrast, bondholders do not gain ownership in the business or have any claims to the future profits of the borrower. The borrower's only obligation is to repay the loan with interest.
4. Bonds are considered to be less risky investments for at least two reasons. First, bond market returns are less volatile than stock market returns. Second, if the company runs into financial trouble, bondholders are paid first, before other expenses are paid out. Shareholders are less likely to receive any compensation in this scenario.
5. The size of the debt market is around twice that of the equity market so debt is more widely available.

### **Why are these markets important?**

Both debt and equity markets are of central importance to economic activity. The bond market is vital for economic activity because it is the market where interest rates are determined. Interest rates are important on a personal level, because they guide decisions to save and to finance major purchases (such as houses, cars, and appliances, to give a few examples). From a macroeconomic standpoint, interest rates have an impact on consumer spending and on business investment. As interest rates rise the value of equities tends to fall reflecting the additional costs companies must pay to borrow.

Financial markets play a critical role in the accumulation of capital and the production of goods and services. The price of credit (debt market) and returns on investment (equity market) provide signals to producers and consumers. Those signals help direct funds (from savers, mainly households and businesses) to the consumers, businesses, governments, and investors that would like to borrow money by connecting those who value the funds most highly (i.e., are willing to pay a higher price, or interest rate), to willing lenders. So debt and equity markets are linked and both are important in determining the MRP as the MRP is estimated in respect of the risk free interest rate.

## **5.2 Are There Improvements in Access to International Wholesale Debt Markets**

The effects of the GFC have now reduced and since the Bishop and Officer paper was written in October 2009 world financial markets have nearly fully recovered, which given

the interconnections between debt and equity markets would suggest that the MRP has also declined.<sup>12</sup>

The Australian states of Queensland and New South Wales are testing investor sentiment toward shorter-maturity debt without a federal guarantee for the first time since the government began backing their bonds last year. The Queensland Treasury Corporation is currently seeking to sell a new line of bonds maturing in November 2014, while New South Wales Treasury Corporation is reportedly talking to investors about issuing on an unguaranteed basis. The Australian and New Zealand Bank recently raised \$1.8b in the largest non-guaranteed bank funding deal of the year and had a four year term and was much larger than the initial \$500m target.<sup>13</sup>

In the United States MarketWatch reports that General Electric Co. unveiled a plan on the 27 January 2010 to exit the program that helped its financial services business issue more than \$50 billion in government-guaranteed debt. GE stated that they won't issue any more commercial paper under the Federal Deposit Insurance Corporation's Temporary Liquidity Guarantee Program, TLGP.

These moves imply the global financial system is returning to normal and that the costs of the Commonwealth Government's guarantee scheme is now higher than available from international debt markets.<sup>14</sup> Debt markets and equity markets are closely linked due to the fact that equity competes with debt on pricing and through interest rates.

### **5.3 The Importance of the London Interbank Rate (LIBOR) as a Measure of International Debt Markets**

The important interest rate that applies to international wholesale funds is the London Interbank Offered Rate (LIBOR) which is the rate at which banks offer to lend money to one another in wholesale money markets in London. It is also a standard financial index used in U.S capital markets. It is calculated each day by asking a panel of major banks what it would cost them to borrow funds for various periods of time and in various currencies, and then creating an average of the individual banks' figures.

It's an index that is used to set the cost of various variable-rate loans. Lenders use such an index, which varies, to adjust interest rates as economic conditions change. They then add a certain number of percentage points called a margin. When this index goes up, interest rates on any loans tied to it also go up. Although it is increasingly used for consumer loans, it has traditionally been a reference figure for corporate financial transactions.

Interbank lending forms a critical part of modern financial markets. In normal times banks lend to each other in large volumes at a low cost for periods ranging from one night to a few months. These interbank loans are the marginal source of funds for many banks, including Australian banks. Even for banks that are mostly funded by deposits, interbank loans may be

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<sup>12</sup> On 12 October 2008, the Australian Government announced guarantee arrangements for deposits and wholesale funding of eligible deposit-taking institutions. The arrangements were due to end in October 2010 but the Government recently announced it would close in March suggesting that wholesale markets have recovered.

<sup>13</sup> Reported in the Australian Financial Review, Friday 12 February 2010, p.53.

<sup>14</sup> To access the federal guarantee, AAA-rated firms pay 30 basis points for new issuance and 15 points for existing debt, while those with a AA+ rating pay an additional 5 basis points.

a critical source of additional funds. Confidence in interbank loans is critical as shown in the GFC where some banks would not lend despite the rises in the rate of interest.

Aside from the market for short-term U.S government borrowing, the interbank market is usually one of the most liquid. The rate on interbank loans also is an important guide for other loans and for the pricing of bonds and equities. In normal times, the interest rates for interbank loans are lower than for other customers as banks are seen as low risk and hence investors require a smaller risk premium compared to other riskier loans.

**Table 5.1- LIBOR and FNMA interest rate indexes 2009-2010<sup>15</sup>**

	Week of 25 January	Month ago	Year ago
<b><u>FNMA 30 yr Mtg Com del 60 days</u></b>	4.80	5.03	4.63
<b><u>1 Month LIBOR Rate</u></b>	0.23	0.23	0.41
<b><u>3 Month LIBOR Rate</u></b>	0.25	0.25	1.18
<b><u>6 Month LIBOR Rate</u></b>	0.39	0.43	1.68
<b><u>1 Year LIBOR Rate</u></b>	0.86	0.98	1.92

Table 1 above shows the LIBOR rates for different terms for the week starting 25 January 2010 compared to the same week a year ago and the Federal National Mortgage Association (FNMA) 30 year rate on the same comparison basis.

The LIBOR rates show a decline from a year ago which implies the wholesale market is becoming more liquid compared to the 2009 GFC. Especially important is that the long-term rate (1 year LIBOR) has declined by 55% from a year ago.

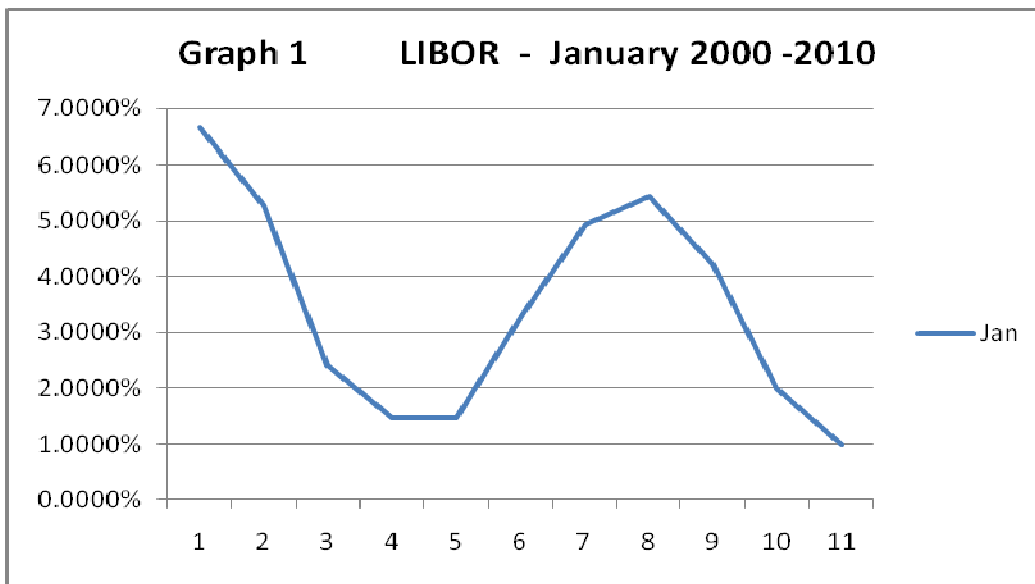
Fannie Mae is a corporation created by US Congress to support the secondary mortgage market. It purchases FNMA, Veterans Affairs and conventional mortgages from primary lenders and sells them to investors. The index measures mortgage commitments for delivery within 30 to 60 days; that is the required net yield on mortgage loans that lenders sell to FNMA, which in turn sells them to investors. It's an index that is used primarily by lenders that sell their loans to Fannie Mae. The lenders use it to price their loans and it has little direct impact on ordinary investors.

The LIBOR long term rate (annual) is shown in Graph 5.1 below from January 2000 to January 2010 annually. The graph shows the recent peak as a result of the GFC for the LIBOR was in 2008-2009 and that it has declined since that time to reach levels consistent with 2003-2004. This suggests as debt and equity markets are closely connected that the MRP may have also declined to be more consistent with the AER's proposed estimate of 6.0 for the MRP.

<sup>15</sup> Source: [www.bankrate.com/rates/interest-rates/libor.aspx](http://www.bankrate.com/rates/interest-rates/libor.aspx)

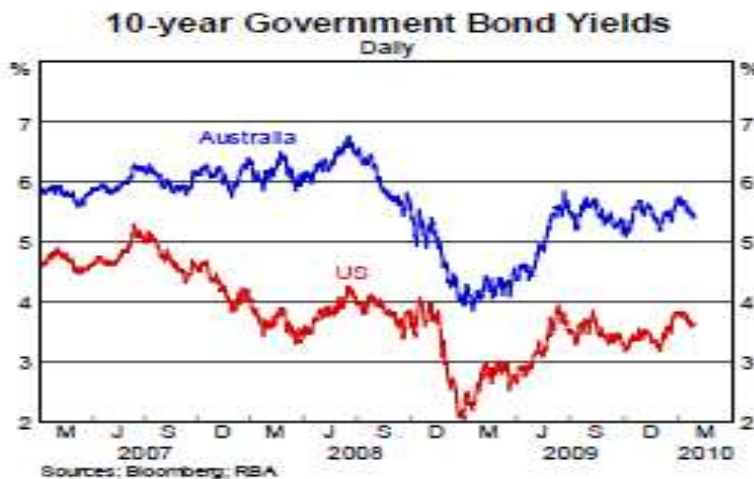


**Graph 5.1- The LIBOR January 2000 to 2010**



Graph 5.2 below shows the yield on 10 year bonds from the US and Australia which are taken as a measure of the risk free rate. The graph shows the increases from the GFC in 2008 – 2009 and the subsequent decline. So from the perspective of debt markets the evidence of the LIBOR and the 10 year Government bond yields suggest a move to easier and more liquid markets.

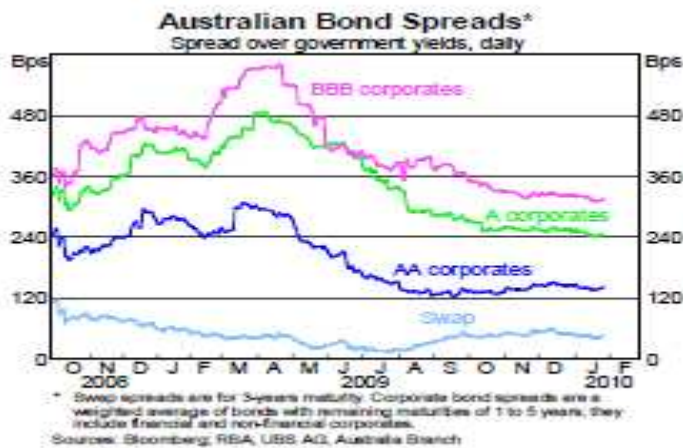
**Graph 5.2 = Australian and US 10 Year Bond Yields**



### 5.3 The Evidence from Bond Markets

The Australia Reserve Bank Interest Series graph 5.3 below shows that the spreads between the Australian Government Bond (a risk free rate) and various corporate bonds of different risks have declined over recent times also suggesting that the MRP has declined. This graph can be viewed as the MRP for risky assets but usually a lower risk than the Market MRP which cover all assets in the economy weighted by their individual value.

**Graph 5.3 – Australian Bond Spreads 2006-2010**



So the evidence from the latest data does not support the position of the distributors that the MRP should be 8.0%, rather the latest evidence supports a return to 6.0% for the MRP.

### **Recommendation 5.0**

**The AER should reduce the MRP to 6.0% in light of the latest evidence from international wholesale debt market and from bond and interest rate markets.**