

2006-2010 ESCoV
ELECTRICITY DISTRIBUTION PRICE REVIEW
OF
THE ELECTRICITY UTILITIES REVENUE

Response to comments made
regarding the Draft Determination

by

The Energy Users Coalition of Victoria (EUCV)

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CONTENTS

	Page
1. Introduction	3
2. Forecasting	5
3. Revenue	9
4. Operating expenditure	11
5. Capital expenditure	15
6. Inputs for the return on assets	19
7. Service Standards and incentives	22

1. INTRODUCTION

The EUCV interest in the EPDR review

This submission has been prepared by the Energy Users Coalition of Victoria. This organization represents the larger users of electricity in the state. The group includes such companies as Holden, Ford, Toyota, OneSteel, Air International and Unidrive. This submission is also intended to represent the interests of suppliers to these companies as well.

The companies in the group (and their suppliers) have identified that they have an interest in the ESCoV review as the **cost** of the distribution networks services comprises the largest cost element in their electricity bills.

Electricity is now the main source of energy required by each EUCV member in order to maintain their operations. A failure of supply of electricity effectively shuts down each business now operating in Victoria, and EUCV members are no different. Thus the **reliable supply** of electricity is an essential element of each member's business.

With the introduction of highly sensitive equipment required to maintain operations at the highest level of productivity, the **quality** of electricity supplies is becoming increasingly important. The variation of voltage by even small amounts now has the ability to shut down critical elements of many production processes. Thus EUCV members have become increasingly more dependent on the quality of electricity supplies.

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

It is therefore essential that ESCoV addresses the issues which impact on the cost, reliability, quality and the long term availability of their electricity supplies.

EUCV overall assessment of the responses to the ESCoV Draft Decision

The EUCV has viewed the responses to the Draft Decision from the businesses and their supporters. In general, the responses fall into six categories:-

1. Objection to the growth forecasts proposed by the ESCoV

2. Objection to the inclusion of price elasticity due to expected reduction in tariffs on the forecasts of consumption and the resulting impact on revenue
3. Objection to the approach used for setting opex and capex as it results in amounts considered by the DBs to be too low
4. The ability of CitiPower to levy all its consumers for the augmentation of the CBD
5. The input values to WACC should remain as in the draft decision except that the debt premium proposed is considered to be too low.
6. The potential implications of low opex and capex allowances to service standards

These six issues are separately addressed in the following sections.

2. FORECASTING

The distribution businesses have every reason to minimize the growth forecasts used in setting tariffs. Already their profits over the past 7-8 years have shown the benefits of applying forecasts which are unrealistically too low, thereby resulting in inflated tariffs and excessive revenue to the DBs.

Thus the protestations by the DBs to applying more realistic forecasts must be seen in this light and the ESCoV must ensure that consumers are not exposed to the DBs' continued ability to levy additional unearned revenue by "gaming" the forecasts.. This gaming is facilitated by the approach adopted of using price caps for the Review rather than following the practice used in other states of applying a revenue cap.

The NIEIR has provided the ESCoV two submissions which point out why their assessment should be used in preference to the approach used in the Draft Decision. The Draft Decision uses the NIEIR high growth forecast which replicates the State Treasury forecasts modified by the MMA empirical controls which effectively reduce the Treasury forecasts of GSP growth by some 30%.

For the EDPR 01-05, the ORG requested Sinclair Knight Merz (SKM) to review the growth forecasts provided by the DBs. In that report SKM reports on the approaches used by the DBs in the last review.

"4.3 Forecasting Methods

There was a fairly consistent approach amongst the distributors towards forecasting their demand, consumption and customer numbers for the period 2001 to 2005. All but one of the distributors - Eastern Energy engaged National Institute of Economic and Industrial Research (NIEIR) to conduct a "Top Down" macro forecast for Australia, the State of Victoria and the distributors respective sphere of influence in regard to their revenue base. Additional analysis using the output of the NIEIR Model was carried out by the individual distributors to refine their input to the 2001 – 2005 Price Review.

For the past five years distributors have engaged NIEIR to conduct regular economic studies to enable them to monitor and modify their planning forecasts and allowed NIEIR to establish a comprehensive understanding of the electricity distribution business.

Essentially these studies involve developing distributor specific economic models using inputs from NIEIR's national, state, and Victorian regional economic model and the distributors' electricity forecasting model. In essence the industry forecasting models were developed using the ANZIC

categories and relate electricity sales by industry to specific drivers such as electricity prices, industry output and weather conditions. The residential forecasting models were developed using the relationship between number of dwellings and the consumption/demand for these dwellings. The average demand for these dwelling is dependent upon real income growth, real electricity prices and weather conditions. The model output is a distributor regional forecast in as much detail as ANZIC categories and customer groups permit.

NIEIR provide low medium and high economic forecasts. United Energy stated in their submission that they have used the high scenario for demand growth and the medium scenario for consumption growth. CitiPower state that they use the medium growth scenario for consumption and Eastern Energy state that they use a low growth scenario for consumption forecasts. The other distributors do not indicate which scenario they have used.

Subsequent models were developed by the individual distributors using the NIEIR output in order to forecast customer numbers and energy. This process would typically involve the analysis of new and potential projects in the commercial and industrial customer segment, new developments in the residential sector including the churning of commercial buildings into residential. The number of customers involved and the likelihood of project initiation and/or completion was included in the forecast analysis. This data was used to determine the likely increase in customer numbers, additional load and corresponding load and power factor. Some distributors considered that small commercial and residential developments in particular dual occupancies would be hard to estimate given the very short lead-time for connection.

In addition to the raw data on potential development in all customer categories an escalation factor was applied to existing customers. The escalation factor was developed from known usage patterns for each customer class, economic factors, increase usage in electrical goods (airconditioners) and weather conditions.

Eastern Energy developed their own in-house forecasting models based on historical trend analysis. The main input to these models came from the following sources: BIS Shrapnel, NIEIR and the Victorian Treasury Department for the economic and demographic data. The customer and technical data was provided by Eastern Energy's own database. Local councils and government authorities provided additional information with respect to growth in customer numbers. The method adopted by Eastern

Energy is well known and accepted within the electricity industry for it has been tested and applied by the industry over many years.”¹

This report provides the basis under which DBs developed their previous growth forecasts which have been shown to be significantly understated. Of interest is that NIEIR provided the basis for most of the DB forecasts used at the last review (now demonstrated to be grossly understated), and intriguingly, of the NIEIR forecasts provided, United used the high growth forecast, CitiPower the medium growth forecast and Eastern (now TXU) the low growth forecast as the basis for their individual forecasts.

NIEIR was engaged by the DBs to provide its views on the growth forecasts for both this review and the last. As the DBs recognize that it is in their interests for growth forecasts to show low growth in consumption, it is always possible that the forecasts are made to suit the needs of the DBs. On that basis the ESCoV is right to be concerned about the DB forecasts as it was NIEIR that provided the forecasts to the DBs for the current period that have now been shown to be so understated and allowed the DBs to receive a significant level of unearned income.

The ESCoV has subsequently had discussions with NIEIR regarding their approach and what constitutes the reasoning behind the NIEIR forecasts. NIEIR has defended the position it has taken (as would be expected) and attempted to rationalize why its forecasts are more appropriate to use than the State Treasury forecasts.

The State Treasury has forecast a growth in the state² of between 3.2% and 3.5% over the coming years and this is the relevant benchmark for the regulator to use. It should be noted that State Treasury has very real reasons to be as accurate in its forecast as possible.

If there was consistency between consultant views, the DB views and the State Treasury, then there is little reason to dispute the DB forecasts. When there is a clear differential then, based on past performance and a tendency to err in the direction of greater revenue to the DBs, then the DB forecasts have to be seen as of being too conservative, less realistic and therefore less likely to occur.

Equally, when there is a clear differential between the forecasts of the State Treasury and a consultant employed by the DBs, then the forecaster with the most to lose if there is an error should be chosen in favour of one which has a desire to be seen as conservative by those which use the consultancy service.

¹ SKM: Report to the Office of the Regulator General on Electricity Demand Forecasting, May 2000 page 29

² ESC DD page 131

As the NIEIR high growth forecast has a degree of consistency with the state budget papers, as modified by the MMA discounting factor, then there must be some real concern at using the NIEIR base case forecast (which was used with some discounting by the DBs to develop their forecasts).

There is little correlation between the NIEIR medium forecast and any other forecast yet there is a degree of correlation between the NIEIR high growth forecast and the State Treasury forecast. Thus there are two independent forecasts which tend to support each other, and when this observation is compared to the NIEIR forecasts used in the last review, some doubt can be cast on the potential for the medium growth forecast by NIEIR to be closer to the expected outcome than their high growth forecast.

The NIEIR does observe that their high growth forecast has some correlation with the State Treasury forecasts and when the MMA discounting factors are applied to the Treasury forecasts, the outcome is more likely to be correct than the obviously lower estimates provided by the DBs.

The EUCV considers that the ESCoV should use the official State Treasury forecasts for Victorian growth adjusted by the MMA discounting factors as the most appropriate to use for the setting of tariffs by the DBs.

If the ESCoV has continuing concerns about this, then the NIEIR high growth forecast should be used as included for in the Draft Decision.

To use any lower forecast than one which has a degree of independent verification (such as State Treasury with NIEIR's high growth forecast) has the high potential for the DBs to be able to again receive excessive amounts of unearned revenue as they are doing so in the current period.

3. REVENUE

Price elasticity issues

The DBs have taken issue with the ESCoV draft decision by the inclusion of the price elasticity effects of changing the pricing for the distribution tariffs. The ESCoV accounted for this effect as a result of the expected P_0 reduction.

The DBs point out that as the distribution charges are a relatively modest part of the total cost of electricity supply, and there is no requirement for retailers to include the whole cost of distribution charge, then price elasticity should be excluded from the review. They go on to discuss the values of elasticity inputs and the impact of various government programs that may affect the values if demand elasticity is to be applied. They highlight that a KPMG study points out that price elasticity is not symmetric with downward pricing pressures having less impact than upward pricing pressures.

Their conclusion is that the expected reduction in distribution tariffs will not lead to significant increased usage and therefore the assumption by the ESCoV that there will be consumption increases resulting from the EDPR should not be included in the calculations.

Countering this view is the report from SKM for the last price review (where distribution charges rose) that there would be a reduction in consumption and this should be included in the calculation of revenue. History has shown that despite the increases in tariffs, consumption did rise, and therefore there is an expectation that if tariffs fall, then there is every likelihood that consumption may well increase, supporting the ESCoV view.

The SKM report states:-

“2.2.13 Price elasticity

The price elasticity measures the responsiveness of electricity consumption to changes in prices. In the SKM forecasts it is assumed that changes to network prices over the period 2001-2005 will induce a short run response from consumers. That is, the time period over which the forecasts occur is insufficient to induce major substituting of electricity for other fuels.

The price elasticity values used in the model are:

- domestic -0.25
- commercial: -0.25
- industrial: -0.1

These values are consistent with those cited in both Australian and overseas literature (see for example AGA (1996) and DOE (1999)).”³

The DBs did not object to price elasticity being included using these values at the last review but now they are saying it should it be used to adjust allowable revenue, and even alleging that price elasticity is not symmetric.

Further they are stating that price elasticity is inappropriate as it cannot be assumed because distribution tariffs are a small element of the total cost and any way the retailers are not obliged to include the distribution tariff in its entirety in the retail bills.

This raises one fundamental question and one observation of realism.

Firstly, if the DBs do not believe that they can send pricing signals to consumers through tariffs then this creates a view that much of the work by the ESCoV for mandating interval meter roll out is pointless and based on a fallacy. It also highlights that the DBs themselves are propagating this fallacy by the issue of peak/off-peak tariffs and summer based tariffs, and the introduction of time-of-use tariffs. The argument presented by the DBs for the use of such different tariffs has been to pass onto consumers the financial impacts of their electricity usage patterns. As there is no suggestion by the DBs that off peak, ToU and summer tariffs should be eliminated, moving to a flat tariff for all times, then obviously they concur that there are pricing pressures by having higher tariffs at peak demand times. Thus their own actions support the need for price elasticity adjustments to be included in the revenue structure.

Secondly, it is fallacious to assume that retailers do not pass through the total costs for regulated charges. A typical quotation for power to a business will provide a breakdown of the costs, even to the extent of calculating network peak, off-peak, demand and standing charges, along with allowances for ancillary services, NEMMCo pool fees, and renewable energy charges. A typical electricity invoice replicates this break down of charges on a monthly basis. To assume that a consumer will not notice that unit costs have fallen and which element caused the reduction shows that the DBs are either ignorant (which is unlikely to be the case) or are dissembling.

The EUCV believes that as the ORG accepted that there may have been a reduction in consumption resulting from increases in network tariffs in the last EDPR, then it is as equally appropriate for the ESCoV to include for an increase in consumption resulting from a fall in tariffs. The ESCoV is applying sound economic principles!

³ SKM Report to the Office of the Regulator General on Electricity Demand Forecasting May 2000

4. OPERATING EXPENDITURE (OPEX) AND CAPITAL EXPENDITURE (CAPEX)

The submissions from the DBs focus extensively on the proposed adjustments to opex and capex, compared to both their requests made to the ESCoV in this review and the amounts awarded in the current period, set in the EDPR of 2000.

Essentially, the DB submissions point to:-

- Intimate details as to why the proposed levels are insufficient to meet the needs of the DBs
- The expectation that reducing the opex and capex will have a depressing effect on the service performance levels, with the potential for increased network failures
- Basing the opex and capex needs on a single year leads to a statistically flawed outcome
- The needs of each business are different and to assume that a "one size fits all" approach as used by the ESCoV is incorrect.

In the final analysis, the DBs point out that as they are the experts then they best understand the needs of an electricity distribution network, and for a regulator to assume that it understands the needs of the DBs better than they do themselves, is fallacious.

Addressing each of these points in turn, the EUCV makes the following observations.

1. The DBs should know best

This is quite true – the DBs must know best. As the experts in the field the DBs should (and almost certainly do) know better what are the requirements for cash and investment for their electricity distribution networks.

What the DBs fail to recognize is that the ESCoV has not used its views as to what is needed to satisfactorily operate the networks but the DBs' own cost structures reveal as to what is needed. Further, the ESCoV has noted that when it assumed that the DBs did have a better understanding of the cash needs of the networks (such as during the last EDPR in 2000) and granted the DBs the funds requested, the DBs demonstrated quite clearly that they had claimed much higher amounts than were really needed to manage the networks, and to improve on service standards.

It is quite clear that in the last review that the DBs sought funds which would permit them to adequately manage the networks – the issue is that they did not

need all of these funds and so took the difference between needs and the allowed amounts to profit. This approach has had two outcomes

1. Consumers have had to pay an unnecessary premium for the DBs to manage the networks
2. The DBs had no regulatory cost constraint on them in the management of the networks and so the actual expenditure by the DBs reveals the funds really needed by the DBs for their opex and capex.

The result of this approach is that consumers have paid a high price to the DBs in order to establish a reasonable level of expenditure (opex and capex) needed to operate the electricity distribution networks, and it is the amount which the DBs themselves decided was necessary in order to deliver an improved performance and to maximize the profitability of their businesses.

For the businesses to require the ESCoV to add additional funds for aspects identified by them actually introduces the regulator into the intimate details of operating an electricity distribution network. As it is accepted that the ESCoV does not have the necessary skills for this task, it is incumbent on the ESCoV to set an overarching budget and allow the businesses to use this amount to meet the individual needs on each element of the networks.

The ESCoV has used this approach by basing the overarching budget on the actual historical expenditure and adjusting only for those elements which might be construed as new requirements which the DBs could not have been aware of in the historical accounts. This is a common approach used by regulators in Australia.

The EUCV notes that the ESCoV has recognized the past approach used by the DBs to “game” the regulator, but this has come at a major cost to consumers, and provided significant financial rewards to the DBs.

2. The reduction of the opex and capex allowances will reduce service standards.

The risk of providing insufficient opex and capex is the potential to reduce service standards. This proposition is accepted.

What is not accepted is that the DBs are operating at the margin where a reduction in funding will result in a decline in service performance. This is demonstrated by the outcomes of the current period where service standards have improved at a level of funding (opex and capex) which is lower than the levels the ESCoV is proposing in its draft decision.

Thus the DBs have demonstrated that they can improve on service performance at levels of opex and capex which are lower than those proposed by the ESCoV. This is no different to the on-going experience of almost all companies – efficiency gains and productivity growth are attained to obviate cost reductions.

The EUCV is of the view that the levels of opex and capex proposed are still about the minimum amounts at which there will be on-going maintenance of the current levels of service.

3. Basing future levels of opex and capex on one year's performance is statistically risky

The EUCV agrees that using a single year for basing future expenditure does introduce unnecessary risks in setting the reasonable amount required for maintaining or improving the levels of service into the future. As the ESCoV review is a high level review and does not delve into the detail of how the expenditure in any one year was allocated or for what purpose, there is a real risk that in a specific year the amounts actually used by the businesses were either over or understated, or applied in way which is not typical of the normal expenditure pattern.

Following this approach, there is no certainty that the average performance levels in the last year (ie 2004) are a result of the expenditure in that year (of 2004). Similarly there is no certainty that the overall change in performance levels over a period of time were the result of expenditure in that single nominated year. In fact it is quite probable that the improvement in performance over a period of five years is more related to the actual expenditure incurred in the earlier part of the period (ie in years 2000-2003), rather than the last year (2004), as the expenditure in the last year (2004) would not have had to impact on performance to any great extent.

As a result the EUCV is strongly of the view that more than one year's expenditure should be used as the basis for setting the future expenditure. In this way actual expenditure over a period of time replicates measurement of the service performance changes over a number of years.

The EUCV reaffirms the views of its response to the draft decision on setting opex and capex levels. That is, the average expenditure over the past five years should be used as the benchmark for setting of opex and capex. It is the expenditure over a period of time that has resulted in the change in service performance.

4. Each business has different characteristics

This premise is accepted and as a result there have been continuing debates in regulatory reviews over the benefits of benchmarking one business performance with another. Each electricity distribution network does have different characteristics and these will result in differing funding requirements to achieve similar performance standards.

It is therefore important to identify that the ESCoV has in fact benchmarked each business with its own funding and performance over an eight year period. During this time each business has reduced its funding requirements dramatically and at the same time caused service performance to generally improve. It should also be noted that such has occurred when there were effectively no constraints on funding imposed by the regulator – in fact the regulator had provided the DBs with what they requested, and then the DBs used considerably less funds to cause the improvement in service performance.

The EUCV is of the view that the ESCoV has fulfilled the requirements of both the National Electricity Rules and the Tariff Order to provide for adequate benchmarking of opex and capex and that the approach used does permit recognition that each DBS characteristics might be considered unique and that any uniqueness has been accommodated in the setting of future expenditure allowances.

5. CAPITAL EXPENDITURE (CAPEX)

CitiPower request to reinforce the CBD

CitiPower has requested funding so that the CBD can be provided with reinforcement of its existing electricity supply. In its draft decision the ESCoV proposed to examine this request but noted some concern that the approach proposed by CitiPower would result in costs to all other CitiPower customers who would not receive a benefit from this work.

CitiPower has responded⁴ by pointing out that the CBD is effectively an essential element of the State economy and that reinforcement of the CBD supply would provide a benefit to the State as a whole. CitiPower points out that the administrative costs for a CBD based group of tariffs as well as a CitiPower wide group of tariffs will be high and in their view this cost is unnecessary.

Further CitiPower points out that to introduce a separate tariff for customers in the CBD which would result from allocating the reinforcement costs to the beneficiaries would not be in accordance with the principles of consistency and equity (ie equal costs for customers of the same class) implicit in the national electricity rules, nor in accordance with the requirements of the Tariff Order which applies to Victorian electricity customers.

A group of consumers⁵ has echoed these sentiments.

The EUCV would make the following observations regarding the issues of the rules, consistency and equity.

- In Victoria there are already at least five different tariffs applying to the same class of consumers and this was established by the Tariff Order itself when five distribution companies were set up. Equally, there are different tariffs for the same class of consumers throughout the NEM. Thus the issue of consistency and equity has little validity
- The National Electricity Rules (NER) do refer to locational costs as a signal to consumers and to have different tariffs to provide locational signals is in fact encouraged by the NER
- In all other instances where a consumer desires augmentation to provide a higher reliability of supply, the distribution business (supported by the ESCoV) advises that the consumer must pay for this additional feature.

⁴ CitiPower open letter dated 29 August 2005

⁵ Powercor Australia and CitiPower Customer Consultative Committee ("PACCCC") comprising Peter Brown (City of Moreland), Gavin Dufty (St Vincent De Paul), Rob Lorenzon (Australian Industry Group), Christine May (rural consumer), John Pye (Victorian Farmers Federation)

There is no ability for a single consumer to require reinforcement of the electricity supply in order to improve reliability at its premises and have the costs for such reinforcement paid for by all consumers.

Thus for CitiPower to allege that equity, consistency and the Tariff Order all support its view that the costs of reinforcement of the CBD supply (ie the provision of a more reliable supply of electricity to a smaller number of consumers) should be paid for by all other CitiPower customers does not meet the requirements for equity.

CitiPower has some 280,000 customers⁶. Its network area

“...covers 157 square kilometres and is the most concentrated of the five Victorian distribution networks. This area accounts for 25 percent of Victoria's employment and 22 percent of its Gross State Product.

It is also home to virtually all of the major offices of government and the private sector, as well as many of Australia's famous cultural and sporting landmarks ...

In addition to the city of Melbourne [the CBD], some of the inner suburbs covered by CitiPower's distribution network are Armadale, Balwyn, Brunswick, Camberwell, Carlton, Caulfield, Collingwood, Fitzroy, Hawthorn, Kew, Middle Park, North Balwyn, Northcote, North Melbourne, Port Melbourne, Prahran, Richmond, St Kilda, South Melbourne, South Yarra and Toorak.”⁷

The suburbs covered by CitiPower supply include many businesses as well as residential properties. The residential properties provide homes to many elderly pensioners and retired people, and to employed people who do not work in the CBD. What the CitiPower proposal does is to levy the cost of the CBD reinforcement onto many businesses and residential consumers who will receive no benefit from the reinforcement. It could easily be said that these businesses and residents will be contributing for a benefit to others which they themselves do not receive, and if they do want the same benefit, they have to pay for it themselves.

Thus for the consumers in the CitiPower area, there is no equity in levying the cost of the CBD reinforcement on all CitiPower customers. In this case if the CBD requires reinforcement and so receive a higher reliability of supply, then the costs have to be covered in another way.

⁶ ESCoV EDPR DD Fig 4.1

⁷ From CitiPower website

This view of the EUCV should not be taken to imply that EUCV does not accept the merits of reinforcing the CBD. In fact, it is accepted that the reinforcement of the CBD does have merit, for businesses operating in the CBD and for the State as a whole. As CitiPower points out on its website, the CBD provides employment for 25% of all Victorians and is the focus for much of the Victorian GSP.

The issue still becomes one of equity – why should the 280,000 residents and businesses in CitiPower area provide funding for the relatively fewer residents in the CBD. As the PACCCC states in its letter

“We do not regard this proposal as being “CBD-centric”, but one that reflects the primacy of the Melbourne CBD as the strategic economic hub of the entire State – particularly if an extraordinary or calamitous circumstance occurred. As such we believe that the cost for the security of supply project should be funded by all Victorians as it serves to deliver advantages to the whole Victorian community, both directly and indirectly.”⁸

In this EUCV agrees with PACCCC – as it is in the interests of the State as a whole to provide a higher level of reliability to the CBD, it is for the State as a whole to provide the funding for the reinforcement. To leave the funding to the 280,000 CitiPower customers means that just over 11% of all electricity customers in the State would be funding the reinforcement which benefits all Victorians (and not just electricity consumers).

CitiPower makes two other points which need to be addressed.

- To have a separate CBD tariff will increase their costs. This can be adjusted in the allowed opex to accommodate this feature
- That having a separate CBD tariff will be unique in Australia. This is true to an extent, but then having five distribution businesses in such geographically small state is also unique – NSW has three DBs (two of which cover the central urban area), Queensland has two DBs (one of which covers the central urban area) and SA and ACT have one each. The Victorian model has Five DBs – three of which cover the bulk of the urban area, with a fourth (Powercor) having the large urban areas of western Melbourne and Geelong. The unique Victorian model cannot rely on interstate precedents to provide guidance and therefore must find its own solution

There are effectively three ways the CBD reinforcement might be funded under the ESCoV EDPR.

⁸ PACCCC letter 26 August 2005

1. There is a separate tariff for the CBD only. This has the benefit of the beneficiary pays. This may result in increased tariffs for CBD businesses, which can then increase charges to all their customers through out Victoria. This approach does provide some ability for the costs of the upgrade to be spread throughout the State.
2. The costs are levied on all CitiPower customers. In this case the costs are levied over 11% of all electricity customers, most of whom receive no benefit and are also required to pay for a benefit which will go to others.
3. The costs are levied on all electricity consumers throughout the State ie the other four distribution businesses provide a contribution to CitiPower to carry out the reinforcement. This has the benefit of sharing the costs of the reinforcement over all electricity consumers, many of whom will benefit by the reinforcement.

There is a fourth option, but which is outside the purview of the ESCoV. This would require the Victorian government to provide the funds for the reinforcement. In this way all Victorians will contribute for a benefit which affects and will benefit all Victorians. With this option it should be pointed out that the Victorian government is itself a major user of the CBD facilities and will therefore be a beneficiary of the higher reliability afforded by the CBD by the reinforcement.

This fourth option could be included in the EDPR by the ESCoV refusing to allow CitiPower funds to build the reinforcement and recommending to the Government that it provides the funds to CitiPower for the reinforcement.

6. INPUTS FOR THE RETURN ON ASSETS

As consumers, network owners and regulators continue with the debate as to what constitutes appropriate figures to insert into the CAPM formula used to set the WACC for regulated businesses, the more it is becoming obvious that there is little certainty of a long term single figure for each input being considered correct.

What is being seen consistently is that network providers are seeking higher values for inputs to the CAPM whereas consumers are seeking lower inputs to the formula.

In the latest round of debate the DBs have provided “specialist”⁹ comment on the value of:-

- Debt premium and the validity of one survey over another
- Gamma to allow for imputation credits
- Market risk premium
- Equity beta

Even the method for setting the risk free rate has been challenged.

These many and varied commentaries were provided to refute the work carried out by other specialists such as Allen Consulting, SA Centre for Economic Studies, Lally, Wright/Mason/Miles, Mercer, and Hathaway, as well as by the ESCoV itself.

What this extensive written debate on what should be used as the inputs to CAPM shows is:-

- that there are many views on what the value of inputs should be,
- how to adjust for the circumstances applying at any time to develop the value of inputs to suit the proponent
- how to select the best time frame to suit the needs of the proponent
- what should be discarded (or added) to achieve the preferred answer
- how to denigrate the work by another specialist in the nicest possible way

The only issue that all of the specialist seem to agree on is that there is certainty the input values do vary over time and with circumstance.

There is no doubt that there are as many views as to the “correct” values of the inputs to the CAPM as there are specialist economists and academics to provide

⁹ These specialists include Officer/Gray/Hall/Bowman/Brailsford/Faff, KPMG, Frontier Economics, SFG, Prof Officer and S Gray

the specialist input. With such a variety of values for each of the inputs, there are many outcomes which will either increase or reduce the calculated value of the WACC for any given set of circumstances and time frame.

It may be that the original developers of the Victorian Tariff Order and the National Electricity rules identified that there was the likelihood of such an outcome so there was inserted a requirement for comparing the outcomes of the calculated WACC against clearly observed benchmarks for businesses operating in the competitive environment.¹⁰ The purpose of doing so was to ensure that the financial outcomes for the regulated businesses would be such that the regulated businesses would have the financial performance indicators to show that they were commercially viable businesses.

Bearing this in mind, the only way that the ESCoV can reasonably verify that the correct inputs have been used in developing the WACC, is to benchmark the financial indicators resulting from the WACC selected. Such benchmarking is comparatively straight forward as these are the same performance indicators as those used in the competitive sector by investors assessing which businesses they intend to invest in or to move out of. The benefit that a regulated business has over its rival exposed to competition is that its forecast earnings are reasonably well identified whereas in the competitive sector there is greater risk that forecast earnings will not be matched in reality, creating the need for a risk premium to be deducted from earnings expectation.

The EUCV members are just exposed to the capital markets as are the regulated businesses and their shareholders are just as keen to make a reasonable profit as are the shareholders of regulated businesses. The bases for the assessments made by lenders and shareholders for regulated businesses are the same as those made by lenders and shareholders for businesses in the competitive environment. It is therefore quite possible for a regulator to develop and compare the financial outcomes of the decisions that they make for CAPM input values, with those similar financial outcomes observed in the market place as a whole. It is only on this basis that a regulator can ensure that the correct input values to CAPM have been used.

It has been alleged that because it is relatively easy for a business to change its financial outcomes from year to year that accounting data is not sufficiently certain to be used for benchmarking the financial indicators for a regulated business. It is true that a year on year accounting adjustments can be made to modify the accounting outcome for a particular year, as accountants know only too well, to continue this practice for year after year is not possible. Ultimately

¹⁰ Certainly this was the case in the development of the NATIONAL THIRD PARTY ACCESS CODE FOR NATURAL GAS PIPELINE SYSTEMS where the two authors of this report were members of the gas Code development committee.

any decision made to “shade” an outcome has to be ultimately accommodated in the accounts at a later time. Thus over a number of years the financial outcomes for a business must reflect the true financial performance of the business. It is based on accounting data that lenders and investors make decisions about the businesses they deal with.

When benchmarking financial outcomes using a large number of businesses, statistically there will be some businesses increasing returns in one year whilst another will be reducing returns in the same year – others will be providing a realistic view of their financial performance. Thus if benchmarking of financial outcomes based on accounting data is carried out over a number of years using a large number of businesses then the median outcomes will be a close reflection of the true outcomes for all businesses in that year.

The accumulation index is developed from the yield and the change in share value of all businesses included in the index. The yield is derived from the dividend (business earnings after costs, tax and interest are paid less retained earnings) as related to the share value of the business. The share value changes with the investors’ views of future earnings of the business.

The equity risk premium is derived from the accumulation index which in Australia has been based on the dividends and movement “All Ordinaries Index” which has about the largest 270 companies listed on the Australian Stock Exchange. The equity beta adjusts the ERP to reflect the financial performance of the business in relation to all other businesses in the group used to provide the value of the ERP. Gamma provides an adjusting factor to accommodate the extent that franking credits are available to the business and its shareholders.

Ultimately all the values for the inputs for CAPM are derived from financial data provided by all businesses included in the sample used to develop the inputs. Not to benchmark the financial indicators resulting from the development of the WACC against those financial indicators from where the data was originally sourced does not close the loop and so allow true comparisons to be made between regulated businesses and those in the competitive environment.

The ESCoV must benchmark against those of businesses in the “All Ordinaries Accumulation Index” the resultant financial indicators resulting from the calculation of the WACC used for regulated businesses, in order to verify the value of the inputs used in CAPM.

7. SERVICE STANDARDS AND INCENTIVES

The DBs have not objected to the levels of the service standards, except to point out that to achieve these service standards requires the higher levels of opex and capex requested by the DBs. The very fact that the DBs have not commented and the service standard targets supports the EUCV view that there is little challenge in the achievement of the service standards set in the draft decision.

This view is supported by the objections raised by the DBs in a number of areas where they see there is potential to convince the ESCoV to relax the conditions of the draft decision such as the opex/capex levels recommended, and the forecasting of consumption, where the DBs have concentrated their efforts in highlighting the areas where they are convinced the ESCoV draft decision is in error.

The EUCV recognizes that there is a correlation between service standards and opex and capex. Yet in the current period the DBs have consistently achieved an improved outcome for service standards with lower levels of opex and capex than the ESCoV proposes in its draft decision.

As the draft decision does not effectively increase the level of service standards other than for the DBs to report in more detail and to report on the worst served customers, there is no reason for the DBs to require additional funds in maintaining current performance levels.

The EUCV points out that the performance levels proposed by the draft decision are no more onerous than current levels and these were already being met using lower opex and capex than the levels proposed by the draft decision.

Service Standards Incentive – the S-factor scheme

The ESCoV has sought input to its S-factor scheme through the release of an Issues Paper, based on research and analysis by Mercer Finance and Risk Consulting.

The EUCV would make the following comments which recognize the issues raised by the ESCoV and responses made by the DBs to the Issues Paper.

1. The S-factor bonus must result from the DBs actually doing something to earn the bonus, and not be able to “free ride” on the weather, good luck, the network structure, remoteness from exogenous issues (eg dust or salt laden air), the extent (or lack thereof) of monitoring devices in the network, or the type of consumers connected to the network.

2. Bonuses should reflect an overall sustained improvement in service standards, rather than short term changes. Consumers are seeking for their funding to provide a secure supply into the future (long term availability of supply) as well as immediate improvement in quality of supply and its reliability.
3. The targets must be challenging, as there is no benefit to consumers agreeing to pay a bonus for retaining status quo. Currently the Reliability and Network Planning Panel has set the amount of 0.002% as the reliability standard for unserved energy to consumers. The target standards suggested by the ESCoV for the S-factor scheme are much less onerous than this standard.
4. There must be sufficient reward (or penalty) to provide sufficient incentive to the DBs to undertake the work necessary to improve outcomes. The 1% of revenue which is put at risk by the ACCC in recent decisions for incentivising network providers, is not considered adequate by either the network businesses (as a reward) nor by consumers (as a penalty).
5. The outcomes must be focused on the poorest served customers, as to further improve service of supply to consumers already receiving service well above the standards is not necessarily equitable nor in the interests of consumers as a whole.
6. There has been discussion that for the purposes of the S-factor scheme the Value of Lost Load (VoLL)¹¹ could be set at \$30,000/MWh¹². This would then provide a fiscal guide as to the benefits accruing to consumers by the S-factor scheme. As NECA and the RNPP discovered in earlier reviews of VoLL, there are a number of values that can be attributed to VoLL and these vary extensively with the:-
 - a. type of activity of the consumer involved,
 - b. frequency of the loss of supply,
 - c. the timing of the loss of supply, and
 - d. duration of the loss of supply.

¹¹ It should be noted that the Value of Lost Load used by NECA and RNPP in the electricity market is in fact a price cap applied to ensure that electricity prices from generators are constrained. Thus the \$10,000 value normally referred to as VoLL is in fact a price cap, and does not reflect the value consumers place on the loss of electricity supply.

¹² This value has been proposed by VENCORP and others. Examination of the research undertaken to arrive at this value has been criticized by a number of Interested Parties to the debate surrounding the appropriate value for the electricity market price cap.

For example, for a householder to lose supply for 10 minutes at 2 am every night for a week will have a very modest cost impact, whereas for a manufacturing plant working continuously, the cost impact would be much higher, and would vary greatly between the types of manufacturing processes involved.

Thus to apply one figure for the value of lost load across all distribution networks even just for the S-factor scheme is fraught with danger. It should also be noted that the setting of such a value which is so far away from the value of VoLL used in the national electricity market could well lead to unexpected consequences and create extreme concerns throughout the NEM.