Comment on Essential Services Commission Draft Decision Victorian Electricity Distribution Price Review 2006-2010

A submission to the Essential Service Commission on behalf of:

Australian Industry Group
Energy Action Group
Energy Users' Association of Australia
St Vincent De Paul
Victorian Council of Social Service
Victorian Employers' Chamber of Commerce and Industry

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Acknowledgements:

This submission to the Essential Service Commission is made on behalf the Australian Industry Group, Energy Action Group, Energy Users' Association of Australia, St Vincent De Paul, Victorian Council of Social Service and Victorian Employers' Chamber of Commerce and Industry.

The submission was prepared with the assistance of Marsden Jacob Associates, whose contribution is gratefully acknowledged.

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The views and interpretations expressed in this paper are those of the sponsoring consumer groups.

Summary

1. This submission from the Victorian Consumer Groups (VCG) comments on key issues for consumers arising from the Essential Services Commission's (ESC) *Electricity Distribution Price Review 2006-10 Draft Decision.* This is the second submission to the ESC's current review by the VCG.

2. The VCG represent a coalition of consumer groups comprising:

   - Australian Industry Group (AiG)
   - Energy Action Group (EAG)
   - Energy Users Association of Australia (EUAA)
   - St Vincent De Paul
   - Victorian Council of Social Services (VCOSS); and
   - Victorian Employers' Chamber of Commerce and Industry (VECCI).

3. As noted in the VCG's initial submission, the resources provided to the VCG are modest in comparison to those available to the distribution businesses (DBs) and the ESC. Given this circumstance, it was hoped the ESC would seriously consider, and make a concerted effort to address, all issues raised in the initial submission.

4. While it was pleasing to see the ESC has generally given due consideration to the issues raised by the VCG. However:

   - in some cases the ESC has been unable to do so because it did not collect the required information from the DBs.
   - in some cases the ESC has also failed to address an issue raised in the VCG submission.
   - in one or two instances the ESC has also misinterpreted the VCG position.
   - the VCG is concerned that the ESC has also, at times, offered a token response to a serious issue, such as demand management.

5. Continued limitation of resources prevents the VCG dealing with all issues raised in the ESC Draft Decision. Once again, this submission by the VCG focuses on key issues that are judged to be of critical importance to, and will impact on costs borne by, consumers. But the submission does not cover all issues of importance to consumers.

PASSING EFFICIENCY GAINS TO CONSUMERS - SUPPORT FOR THE GENERAL THRUST OF THE ESC'S PROPOSED POLICIES AND APPROACH

6. The VCG support and endorse the ESC's approach to ensuring that consumers benefit from the considerable efficiency gains achieved by the distribution businesses (DBs) in the current regulatory period. Sharing the benefits of efficiency

gains is explicitly required by the legal framework and therefore should be facilitated wherever possible.

7. In particular, the VCG fully endorse the ESC's reliance on accurately reported costs, accurately reported service outcomes and reasonable growth forecasts that are consistent with actual reported growth as the basis for establishing service standards, cost forecasts and prices for the next regulatory period. Adopting this approach is reasonable and fair, and goes a long way toward ensuring consumers gain access to benefits they paid the DBs to achieve in the current regulatory period.

8. The VCG also fully endorse the principle behind the ESC's proposals to shift the responsibility for delivering adequate service standards more clearly to the DBs. Specification of meaningful service standards, and strong and effective incentives to ensure they are delivered by the DBs, is a fundamentally sound proposition – provided it is supported by sound oversight by the ESC, including a robust and audited performance reporting regime.

QUALIFICATIONS OF SUPPORT FOR THE ESC'S PROPOSED METHODOLOGY AND APPROACH

9. However, the VCG has some qualifications in relation to support for the ESC's general policies and approach.

PERFORMANCE REPORTING

10. It is of considerable concern that the ESC has been required to waste resources in order to interpret performance data reported by the DBs in accordance with regulatory Guidelines. It is also profoundly disturbing that the ESC still has material concerns about financial information provided by Citipower at this late stage of the review process.

11. The total value of the differences between costs reported in the ESC's Performance Reports and the efficient cost baselines adopted by the ESC for the first four years of the current regulatory period amounts to some $310 million (2004$).[1] This adjustment to the reported values represents a substantial part of the ESC's estimate of total 'efficiency gains' of $532 million (Net Present Value) during the entire 5 years of the current regulatory period and raises serious doubts about the credibility of the performance reporting regime.

12. The fact that the DBs appear able to abuse the discretion allowed in the ESC's reporting Guidelines to present financial data that does not accurately reflect their actual performance is totally unacceptable. Failure of the elaborate (and presumably costly) regulatory reporting regime to produce robust outcomes on an ongoing basis is a matter that the ESC must address urgently and effectively. Removing the discretion allowed to the DBs when reporting performance data would considerably improve this problem.[2]

[1] $195 million in Opex and $115 million Capex.

[2] The VCG notes that these difficulties are not unique to Victoria. Similar problems with reported data were obvious in IPART's 2004 electricity distribution price review. The VCG also notes that specific limitations on

13. The ESC must also ensure that non-financial performance data is robust and that there is transparent disclosure of the standards of service actually received by consumers. This is particularly important given the ESC's proposals to use service performance outcomes as input to incentive mechanisms that are intended to maintain (or improve) service standards and reward (or penalise) DBs in the next regulatory period.

14. To that end, the VCG urge that the ESC strengthen monitoring and reporting arrangements in relation to non-financial performance, particularly in relation to reliability of supply.

RELIABILITY MEASURES

15. The VCG has serious reservations about whether the ESC's proposed S-Factor and Guaranteed Service Level (GSL) service incentive mechanisms will actually deliver improved reliability.

16. Even though average supply reliability, as measured by total SAIDI (excluding load shedding), improved significantly over the 10 years from 1995 to 2000, improvements over the current regulatory period have been patchy. Thus overall, it cannot be concluded that reliability of supply has consistently improved over the current regulatory period.

17. It is not clear to the VCG, based on current information, that customers are satisfied with the current level of supply reliability. Further, the question of how much poorly served consumers are willing to pay to improve the reliability of their supply has not been established. The VCG believes that the ESC should commission its own consumer research. The role of the ESC is particularly important given that there is no reasonable prospect for consumer groups gaining access to the resources necessary to undertake a robust consumer survey.

18. The VCG has three reasons for expressing a lack of confidence in the potential for service incentive arrangements to deliver these outcomes.

19. The first reason relates to the level of incentives established through the arrangements. Even assuming that there have been improvements to reliability of supply, no evidence has been provided – either by the ESC or by the DBs – to link improved performance to incentives arrangements. With reference to the Guaranteed Service Level (GSL) payments schemes, the ESC Performance Reports show total GSL payments averaged just under $1.2 million/year in the 2001 to 2004 period, of which around 98% were made for slow restoration time and low reliability. This represents less than 0.1% of total DB revenue. It is inconceivable that payments set at this level will act as major incentives for the DBs to deliver improved reliability of supply to the relevant group of customers. Yet the ESC makes the dubious claim that "*the annual cost of making these* (GSL) *payments to customers* (who experience poor reliability) *will provide* (DBs) *with the incentive to continue to seek ways of addressing the issues more efficiently*". This seems to be highly unlikely.

discretion in allocating costs, combined with a robust audit program, is a common characteristic of regulatory reporting regimes in the UK and US.

20. The second reason the VCG lacks confidence in the potential for service incentive arrangements to deliver improved reliability of supply relates to an apparently confused approach to incentives established by the ESC. For example, the ESC's response to reliability outcomes, discussed earlier, appears confused in respect of GSL payments. The better performing DBs (AGLE, Citipower and United) are permitted nominal increases in revenue allowance for GSL payments of no more than $15,000/year (or less than 0.001% of revenue), while the worse performing DB, TXU, is rewarded with a revenue allowance approaching $6.0 million/year. The revenue allowance for TXU is more than 700% higher than average total GSL payments made by TXU in the period 2001 to 2004. The impression created by the ESC's approach is that poor performance is rewarded with additional revenue, and better performance is not rewarded at all. This seems inimical to effective incentive regulation.

21. The third reason the VCG lacks confidence in the potential for service incentive arrangements to deliver improved reliability of supply relates to a lack of transparency and quality of information provided by the ESC and the DBs. The VCG has grave reservations about the details of the ESC's proposed S-Factor and GSL service incentive mechanisms. In particular, significant gaps in the information provided by the ESC makes it virtually impossible for consumers to understand the proposed service standard incentive mechanisms, estimate the cost of the scheme, determine the impact on consumer of possible changes in the service standard measures, or assess the impact on prices of S-Factor payments/penalties.

22. The proposed S-Factor incentive scheme arrangements, for example, are incomprehensibly complex and incapable of being understood by consumers. As a minimum therefore, the ESC should provide worked examples that show how consumers would be affected, both on average and in the worse served case, by realistic changes in the S-Factor parameter values; and demonstrate what economic impacts would result and how the DBs total revenue would be affected.

23. It could be that the most effective incentive in the ESC's proposals will come from imposing an obligation on DB directors to "*sign off on an annual basis that the underlying risks of a deterioration in reliability are not materially increasing*." This will ensure the DBs' directors are held accountable for the overall integrity of the network and be exposed to scrutiny by financial markets. It may also prove to be the most cost effective for consumers. If this turns out to be the case, maintenance of service quality consumers may be better served by the ESC:

    - extending the obligation n DB directors beyond "at least the next twelve months"; and

    - simplifying the incentives for DBs to provide acceptable service by increasing the level of compensation payments and requiring the DBs to meet this cost directly.

SUPPLY QUALITY

24. The ESC maintains an overly simplistic view of what happens currently when (one or more) consumers seek service quality enhancements as an excluded service.

25. Several large consumers from different parts of Victoria were interviewed about service levels (by Marsden Jacob Associates) during the preparation of this submission. Key observations from this survey are summarised in this submission.

26. The difficulties experienced by large consumers suggest the ESC should do more to provide information that would enable consumers, individually or collectively, to negotiate effectively with DBs. The ESC should also implement changes to regulatory instruments to establish an enduring guarantee (or property right) that would require the DBs to maintain service standards at the level achieved through the excluded service arrangement; and require DBs to recognise the value (in the excluded service agreement) created for others through excluded service augmentation. This could be achieved by modifying existing Guidelines to enable negotiation over such matters on a more level playing field and provide for disputes/delays to be resolved by the ESC.

COST OF CAPITAL

27. The VCG notes that the ESC has failed to explain why Victorian DBs should benefit from a higher Weighted Average Cost of Capital (WACC) than allowed by all other jurisdictional regulators, or why DBs should gain the benefit of a higher cost of capital than the Victorian water sector.

28. This aspect of the Draft Decision imposes a cost of approximately $42 million/year on consumers (or about $200 million over the next regulatory period), which is nothing more than a 'free kick' to the DBs. The ESC needs to do much more to explain to consumers what differences exist between the water and electricity sectors and between DBs in Victoria and other States to justify any value of Equity Beta above 0.75.

29. This outcome is imposing significant costs on Victorian electricity users and providing 'regulatory windfall gains' to the DBs for no apparent reason. In the process, electricity prices in Victoria are higher then they should be and the competitiveness of Victorian businesses is adversely impacted.

INTERVAL METER ROLL-OUT

30. The ESC's Draft Decision in relation to costs of the interval meter rollout is clearly excessive and remains well above published cost levels achieved overseas. The ESC proposes to allow the DBs a total of $382 million in Capex for the interval meter roll-out, and a further $206 million in Opex. These costs appear to be substantially different to those assumed in the cost-benefit model that underpins the ESC's interval meter decision (comparable costs over the first five years in the ESC's "Interval meter cost model" appear to be $293.9M and $221.6M for Capex and Opex respectively).

31. Perhaps worst of all, around 40% of consumers would still have accumulation meters at the end of the next regulatory period and the ESC also proposes to allow three of the DBs to replace around 50,000 accumulation meters that have an anticipated life in excess of 35 years. These consumers would be denied access to the benefits that the ESC assumes would be available from interval meters – even though they will be forced (by the ESC) to bear part of the cost of the interval meter

roll-out through application of an Excluded Service meter charge to all small consumers.

32. The VCG can see no justification for the highly inflated interval meter installation costs accepted by the ESC. The VCG notes that information on installation costs of communications-enabled ("smart") interval meters is included in a submission by Jeff Beal (who also happens to be a senior metering engineer at Energex) to the Productivity Commission's Energy Efficiency enquiry.[3] Given the author's background, the ESC should seek substantiation of his estimates of the cost of rolling out intelligent, potentially communications enabled (i.e. smart) interval meters, which he estimates would cost only $110/meter.

33. It is also concerning that the ESC shows no inclination to provide information to consumers on the potential impact on electricity bills of implementing time-of-use tariffs that reflect the cost of increasing peak load. This is not an academic, or hypothetical, matter. Widespread application of time-of-use tariffs, similar to those introduced by United Energy in 2001, will adversely impact on the electricity bills of large numbers of air conditioner-using consumers; and possibly on any consumer who is not a large user of off-peak electricity.

34. The VCG remains of the view that the fairest way to introduce cost-reflective tariffs is to also roll-out automatic load control capability – providing it is cost effective to do so. This would give AC users real choice and possibly avoid the need for consumers to deny themselves use of air conditioners altogether – in an effort to avoid substantially higher bills.

35. The VCG are also concerned that adverse consumer reaction to punitive time of use tariffs, which is very likely, would move the ESC to impose transitional arrangements or tariff design constraints on the DBs (and even retailers) in its (yet to be published) *interval meter reassignment requirements.* Imposition of such constraints would drag out achievement of the benefits of interval metering over even longer time frames than already anticipated. This would be a very poor outcome for consumers forced (by the ESC) to bear:

    - the higher costs of the interval meter roll-out; and
    - costs of increasing peak demand growth.

36. It is essential that the ESC:

    - review priorities for the interval meter roll-out, and specifically target air conditioner users;
    - more closely scrutinise the costs of the proposed interval meter roll-out;
    - more closely examine how the impact of punitive, cost-reflective time-of-use tariffs can be managed; and

[3] See Submission No 64, http://www.pc.gov.au/inquiry/energy/subs/sublist.html.

- most importantly, be open with consumers about the impact of this policy initiative.

37. In addition, the VCG is concerned that the ESC's interval meter "targeting policy" will leave a significant number of "high cost" air conditioning users in the same consumer cohort as "low cost" consumers who do not have air conditioning. These "low cost" consumers would be denied access to the benefits that the ESC assumes would be available from interval meters – even though they will be forced (by the ESC) to bear part of the cost of the interval meter roll-out through application of an Excluded Service meter charge to all small consumers. Given the large numbers of "low cost" consumers involved, the VCG is opposed to the ESC's decision to mandate the "smearing" of the interval meter roll-out costs through application of a uniform Excluded Services interval meter charge.

INCENTIVES FOR DEMAND MANAGEMENT

38. The ESC's proposals for demand management remain totally unsatisfactory and noticeably out of step with programs supported by regulatory authorities in both NSW (IPART) and South Australia (ESCoSA).

39. The VCG notes that the ESC has acknowledged issues raised in the initial VCG submission. But the proposal to only allow a nominal amount of just $120,000/year (approximately 0.05% of total revenue) for each DB to "*provide additional revenue for the trial of demand management initiatives during the 2006-10 regulatory period*" will do nothing to address the market failure that limits DB acceptance of demand management opportunities.

40. The ESC is urged to reconsider each of the suggestions included in the VGC's initial submission and implement arrangements similar to those adopted by IPART and ESCoSA.

1. Introduction

Marsden Jacob Associates (MJA) has assisted a consortium of Victorian Consumer Groups (VCG) prepare a submission to the Essential Services Commission's (ESC) review of electricity distribution prices for the 2006-2010 period. This is the second submission to the ESC's current review on behalf of the VCG.

The VCG represent a coalition of consumer groups comprising:

- Australian Industry Group (AiG)
- Energy Action Group (EAG)
- Energy Users Association of Australia (EUAA)
- St Vincent De Paul
- Victorian Council of Social Services (VCOSS)
- Victorian Employers' Chamber of Commerce and Industry (VECCI)

The VCG's initial submission dealt at some length with the need for the ESC to demonstrate conclusively that consumers would gain access to the efficiency benefits that the DBs had achieved in the current regulatory period. Other issues covered in that submission included comment on the impacts on consumers of:

- costs of the various "incentives" created by the ESC that are intended to encourage the DBs to achieve efficient operation and provide appropriate standards of service;
- the ESC continuing to set a Weighted Average Cost of Capital at the high end of the range adopted by Australian regulators;
- the DBs costly proposals for an interval meter roll-out mandated by the ESC; and
- the ESC adopting policies that might assist in stimulating development of demand management in Victoria.

This submission provides comment on key issues for consumers arising from ESC *Electricity Distribution Price Review 2006-2010 Draft Decision.*[4]

The VCG acknowledges that the ESC has proposed a reasonable approach that should succeed in transferring efficiency benefits to consumers.

However, while it was pleasing to see the ESC has, generally, given due consideration to the issues raised by the VCG in the initial submssion, in some cases the ESC has been unable to do so because the DBs were not forthcoming with all required information. For example, the draft determination does not address:

- the impact of S-Factor performance incentives on total cost; or
- the forecast and actual cost of each of the incentive/compensation mechanisms.[5]

[4] As noted in the previous submission, the resources provided to consumer groups to assist participation in the ESC's review are modest in comparison to those available to the distribution businesses (DBs) and the ESC.

[5] The VCG understands why the ESC is unable to respond to this request. The current S-Factor incentive scheme "rewards" DBs through a complex mechanism that adjusts factors applied to the weighted average tariff basket. This mechanism provides no direct means to estimate the annual value of the S-Factor benefit (or penalty). But

In some cases the ESC has failed to address issues raised in the VCG submission, for example by:

- continuing adoption of an Equity Beta value of 1.0 when recent regulatory precedent in Australia, and the finance market data quoted by the ESC, shows that a value no greater than 0.9 is the highest value that would be appropriate; and when the ESC has deemed it appropriate to adopt an Equity Beta value of 0.75 for the water sector;
- failing to indicate the potential financial impact on customers of the ESC's proposed change in tariff setting principles to promote the greater adoption of distribution tariffs that "*signal the impact of additional (peak) usage on future investment costs of serving distribution customers"*;[6]
- failing to indicate the magnitude of the financial impact on consumers of the proposal to remove constraints on compulsory reassignment to new cost-reflective network tariffs following installation of interval meters; and
- failing to include any estimate of the potential cost impact on consumers (or property owners) that might arise if installation of an interval meter identifies defective wiring.

In one or two instances the ESC has also misinterpreted the VCG position, for example, by stating that the "*VCG referred to previous submissions to the Commission, as part of the interval meter rollout project, advocating the installation of interval meters with two-way communication and facilities to remotely control loads*"[7] – when those previous submissions, and the VCG submission, argued that two-way communication and facilities to remotely control loads should be trialled before a decision to roll-out interval meters across the customer base was confirmed.

The VCG is concerned that the ESC has also, at times, offered a token response to the serious issue of demand management by proposing to include an amount of just $120,000/year (approximately 0.05% of total revenue) for each DB to "*provide additional revenue for the trial of demand management initiatives during the 2006-10 regulatory period.*"[8]

Continued limitation of resources prevents the VCG dealing with all issues raised in the ESC Draft Decision. Once again, this submission by the VCG focuses on key issues that are judged to be of critical importance to, and will impact on costs borne by, consumers. But the submission does not cover all issues of importance to consumers.

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rather than simplify the S-Factor scheme so that it is capable of being understood by consumers, the ESC is proposing an even more complex and incomprehensible mechanism – using different versions and values of parameters in the current S-Factor formulae – that will lead to adjustments to the Weighted Average Cost of Capital (WACC).

[6] p 382, *Electricity Distribution Price Review 2006-10 - Draft Decision*, ESC, June 2005.

[7] p 448, ESC *Draft Decision*. The ESC also says that "t*hese submissions* (referred to in the VCG initial submission) *were considered in the Commission's decision on the rollout of interval meters*" (pp 448-449).

The VCG notes that this statement is not correct. The ESC makes no mention at all of the submissions referred to by VCG in any of the documents related to the interval meter roll-out decision.

[8] p 411, ESC *Draft Decision*.

The ESC says "*given the strong views expressed by consumer representatives and the materiality of the expenditure proposed, the Commission has incorporated the step change proposed by AGLE in the revenue requirement, and has also included the same amount for the other distributors, in the Draft Decision. The Commission will require distributors to report on an annual basis the demand side activities that have been undertaken and the outcomes that have been delivered*."

Section 2 of this submission examines the issue of passing "efficiency gains" to consumers and gives broad support to the general thrust of the ESC's proposed policies and approach.

Section 3 sets out area of concern in relation to the ESC's policies and approach, focussing in particular on:

- performance reporting;
- reliability measures – service incentive mechanisms;
- supply quality improvements;
- costs of capital;
- Interval meter roll-out; and
- incentives for demand management.

2. Passing "efficiency gains" to consumers

The VCG's initial submission asked the ESC to clearly demonstrate that efficiency gains achieved by the DBs in the current regulatory period were passed onto consumers. The ESC has made a credible attempt to do so in the Draft Decision.

However, the VCG is concerned that the ESC should have been able to use costs reported by the DBs and published in the annual ESC Performance reports to calculate the efficiency gains, rather than rely on "best guestimate". This was not possible for several reasons, which the ESC describes at length in Chapter 5 of the Draft Decision. The approach adopted by the ESC has been to estimate the costs actually incurred by each DB to deliver distribution services to consumers.

The impact of the process that the ESC undertook to estimate efficient actual costs is illustrated in the diagrams below. These show comparisons of both capital expenditure (Chart 1) and operating maintenance expenditure (Chart 2) and for each year since 1996. It should be noted that the diagrams exclude expenditure forecast for the next regulatory period (from 2006 through 2010) for the interval meter roll-out.

These diagrams compare:

- total expenditure forecast by all DBs (shown in Red);
- total expenditure allowance approved by the ORG in the 2000 Final Decision and proposed by the ESC in the current Draft Decision (shown in Green); and
- total actual expenditure:
  - reported by the DBs (taken from information contained in the ESC annual Performance Reports – shown in 'dashed' Blue);
  - as estimated by the ESC as the 'efficient baseline expenditure' in the Draft Decision (shown Blue); and
  - as an 'efficient trend' line fitted to the ESC's 'efficient baseline expenditure' (shown Black).[9]

[9] The "efficient trend line" is based on a simple linear regression curve fit, which may only reasonably approximate a forecast efficient trend. The VCG notes that:

- more complex econometric analyses techniques have been used by UK regulators to forecast cost trends from historic (actual) data.
- ORG rejected suggestions that approaches similar to those adopted by UK regulators be employed in Victoria, when these suggestions were made by consumers in the 2000 electricity distribution price review.

CHART 1 : TOTAL CAPITAL EXPENDITURE - ALL DBS

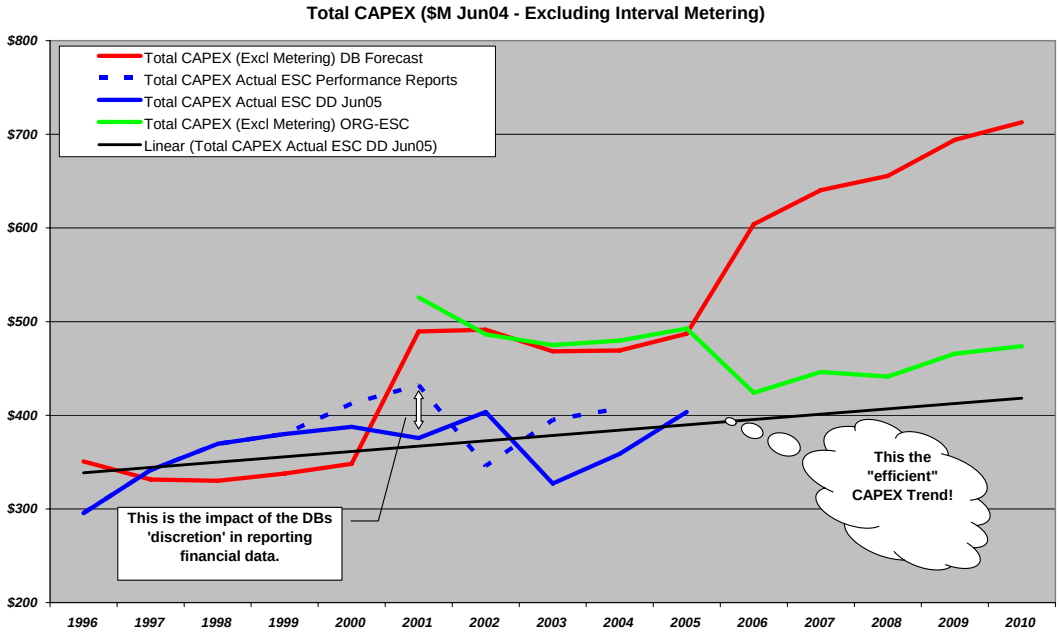
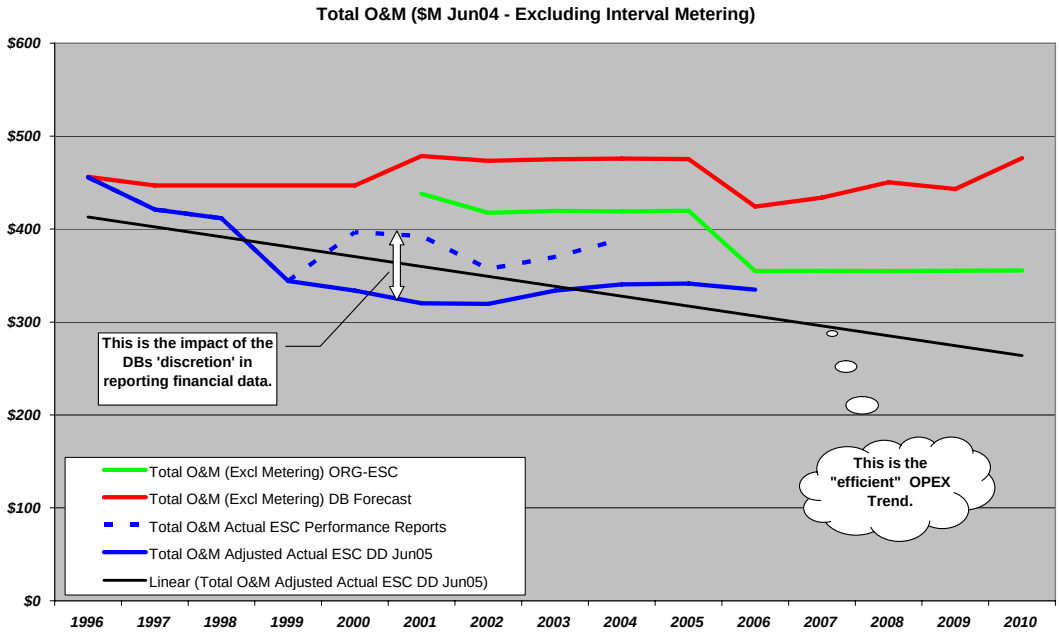


CHART 2 : TOTAL OPERATING AND MAINTENANCE EXPENDITURE - ALL DBS



These diagrams show that the "exercise of discretion" by the DBs in reporting financial data resulted in under-reporting of total costs by some $310 million in the first four years of the current regulatory regime, comprising:

- $115 million for capital expenditure; and
- $195 million for operating and maintenance expenditure.

The VCG welcomes the ESC's recognition that the DBs have attempted to "game" the regulatory process over the past 10 years and found a means to deliver additional efficiency benefits worth around $200 million to consumers.[10]

However, the levels of expenditure approved by the ESC in the Draft Decision still remains above the trend expenditures by a total of:

- $215 million for capital expenditure; and
- $350 million for operating and maintenance expenditure.

This is partly because the ESC has used its own estimate of expenditure in 2004 as a "base level" and then added "step change" amounts that it deems appropriate for DBs to incur where they (the DBs) have identified changes in obligations or service standards. This approach ignores the possibility that further efficiency gains are possible in the "base level" expenditure after 2004,[11] although it appears the ESC attempts to address this later in the determination process by imposing an arbitrary "X-Factor" to the price control formulae, which allows for some sort of future efficiency gain.

The VCG accepts that it is reasonable to adjust actual expenditure for changes in obligation and service standards going forward, which is the purpose of the ESC's "step change" amounts. However, the information intensive nature of the ESC's approach to estimating "step change" amounts on a line by line basis makes it impossible to estimate how much "fat" has been retained in the expenditure allowances.

The VCG is aware that the ESC's expenditure allowances almost certainly retain some "fat" but considers the ESC's approach to be a reasonable "first cut", that will deliver an acceptable result for consumers.

Accordingly, the VCG support and endorse the ESC's approach to ensuring that consumers benefit from the considerable efficiency gains achieved by the distribution businesses (DBs) in the current regulatory period. Sharing the benefits of efficiency gains is explicitly required by the legal framework, underpins the intended outcomes of incentive regulation as practiced by the ESC and should, therefore, be facilitated wherever possible.

[10] The value of efficiency gains represented by under-reported costs can be estimated by adding:

- the total value of under-reported operating and maintenance expenditure; and
- accumulated return on capital and depreciation that the DBs would have received over the next regulatory period (and beyond) if under-reported capital expenditure had not been quantified by the ESC.

[11] The ESC has used its own estimate of expenditure in 2004 as a "base level" and then added "step change" amounts that it deems appropriate for DBs to incur where they (the DBs) have identified changes in obligations or service standards. This approach ignores the possibility that further efficiency gains are possible in the "base level" expenditure.

The approach adopted by the ESC to ensuring that consumers benefit from the efficiency gains has been implemented in a manner that appears consistent with the approach proposed by the ORG in the 2000 electricity distribution price review Final Decision. On that basis, the VCG agree with the ESC that "*this is well understood by the distributors and capital markets, and has been consistently articulated by the Commission and its predecessor over many years*."[12] Accordingly, the DBs and financial markets should have little cause for concern about, and no valid arguments pertaining to, about regulatory risk. Nor should the DBs have any grounds for appeal on the basis of bias or material error of fact.

In particular, the VCG fully endorse the ESC's reliance on accurately reported costs, accurately reported service outcomes and reasonable growth forecasts that are consistent with actual reported growth as the basis for establishing service standards, cost forecasts and prices for the next regulatory period. Adopting this approach is reasonable and fair, and goes a long way toward ensuring consumers gain access to benefits they paid the DBs to achieve in the current regulatory period.

The VCG also fully endorse the principle behind the ESC's proposals to shift the responsibility for delivering adequate service standards more clearly to the DBs. The VCG agrees with the ESC that, "*irrespective of how much money is made available through the price controls, there is no guarantee that the distributors will undertake the investment necessary to secure and enhance network reliability*".[13] Specification of meaningful service standards, and strong and effective incentives to ensure they are delivered by the DBs, is a fundamentally sound proposition – provided it is supported by sound oversight by the ESC, including a robust and audited performance reporting regime.

However, the VCG is concerned that the ESC is considering amending that proposed levels of expenditure to account for the fact that its consultants (McLennan Magasanik Associates and Wilson Cook) undertook their respective assessment of DB proposals independently. In an "open letter" to stakeholders issued on 25 July 2005, the ESC says:

> *The Commission notes that the Wilson Cook and Co report was finalised prior to the Commission's draft decision on the growth forecasts. Accordingly there is an inconsistency in the Draft Decision between the forecasts of growth and forecasts of capital expenditure.*
>
> *The Commission recognises that its final decision on capital expenditure forecasts will need to be consistent with its final decision on growth forecasts. The Commission anticipates that, by ensuring this consistency, the forecasts of capital expenditure for growth-related purposes (reinforcements and new customer connections) may need to be amended accordingly.*

The VCG notes that the ESC has taken a consistent approach in the Draft Determination that seeks to reconcile growth forecasts with historical trends (supplemented by Treasury economic forecasts). This is similar to the approach used to develop expenditure forecasts in that the ESC placed emphasis on ensuring it could establish an "efficient base level" of expenditure that was directly related to a reasonable estimate of actual expenditure. By

[12] p 4, ESC Draft Decision.

[13] p 5, *Ibid.*

adopting a similar approach for both expenditure and growth forecasts, the ESC has achieved a logical link between both sets of forecasts.

Given that expenditure levels already appear to be well above both the efficient baseline estimated by the ESC, the VCG is not convinced that there is any justification for any upward revisions to expenditure forecasts. Nor is the VCG convinced that the forecast do not contain a significant element that will again allow the DBs to game the ESC's proposals throughout the next regulatory period. The VCG therefore believe that the ESC needs to confirm these estimates before it reaches a final decision and assure end users that they are reasonable and will not be susceptible to gaming.

3. Qualifications of Support for the ESC's Proposed Methodology and Approach

Despite strong endorsement for key aspects of the ESC's approach to assessment of efficiency cost benchmarks and the transfer of efficiency gains to consumers, and the impact of the decision on average distribution price falls, the VCG support is qualified, based on the content of the Draft Decision.

3.1. Performance Reporting

In particular, it is extremely disappointing that the ESC has been required to waste considerable resources in order to interpret performance data reported by the DBs in accordance with regulatory Guidelines. It is also profoundly unsatisfactory that the ESC still has material concerns about financial information provided by Citipower at this late stage of the review process.

As noted in section 2 above, the total value of the differences between costs reported in the ESC's Performance Reports and the 'efficient' cost baselines adopted by the ESC for the first four years of the current regulatory period amounts to some $310 million (2004$), or some 11% of total expenditure. This adjustment to the reported values represents a substantial part of the ESC's estimate of total "efficiency gains" of $532 million (Net Present Value) during the entire 5 years of the regulatory period and raises serious doubts about the credibility of the performance reporting regime.

The fact that the DBs appear able to 'mistreat' the discretion allowed in the ESC's reporting Guidelines to present their financial data that does not accurately reflect their actual performance is totally unacceptable. Failure of the elaborate (and presumably costly) regulatory reporting regime to produce robust outcomes on an ongoing basis that transparently disclose the DBs' performance is a matter that the ESC must address. As a minium the ESC should remove (or explicitly prescribe) discretion currently permitted the DBs in allocation and reporting of costs.[14]

In addition, the ESC must ensure that non-financial performance data is robust and that there is transparent disclosure of the standards of service actually received by consumers. This is particularly important given the ESC's proposals to use service performance outcomes as input to incentive mechanisms that are intended to both maintain / improve service standards and reward (or penalise) DBs in the next regulatory period.

To that end, the VCG urge that the ESC strengthen monitoring and reporting arrangements in relation to non-financial performance, particularly in relation to reliability of supply (see section 3.2). Measures required include:

- improved auditing of information, including through the use of physical quality of supply measurement on a continuous basis particularly near the end of lines (with a

[14] The VCG notes that these difficulties are not unique to Victoria. Similar problems with reported data were obvious in IPART's 2004 electricity distribution price review. The VCG also notes that specific limitations on discretion in allocating costs, combined with a robust audit program, is a common characteristic of regulatory reporting regimes in the UK and US.

desirable goal of achieving continuous quality of supply measurement at every distribution transformer within the timeframe of the interval meter roll-out);

- more specific definition of the method for formulating performance parameters;
- DBs reporting on their technique for determining reliability of supply parameters;
- urban feeders being subdivided into 'residential', 'commercial / industrial' and 'mixed' usage for reporting of reliability of supply parameters; and
- review of reporting parameters regarding customer complaints.

3.2. Reliability Measures

A key issue for the ESC is to ensure that efficiency gains that have been achieved by the DBs in the current regulatory period will ultimately benefit consumers in terms of improved reliability of service. However, the VCG has serious reservations about the ability of the ESC's proposed S-Factor and Guaranteed Service Level (GSL) service incentive mechanisms to actually deliver improved reliability.

3.2.1. Has reliability of supply improved?

The VCG acknowledges the ESC's Performance Reports suggest that most DBs have improved average supply reliability somewhat in the current regulatory period,[15] which is a better outcome than achieved by distributors in NSW and Queensland over the same period. The ESC is being disingenuous, however, in stating that the "*broadest indicator of reliability, average customer minutes off supply per annum (or SAIDI), has fallen from 199 in 1997 to 132 in calendar year 2004. The proportion of customers experiencing more than five hours of supply outages (or 300 minutes-off-supply) has reduced from 20.5 to 11.6 percent over the same period.*"[16]

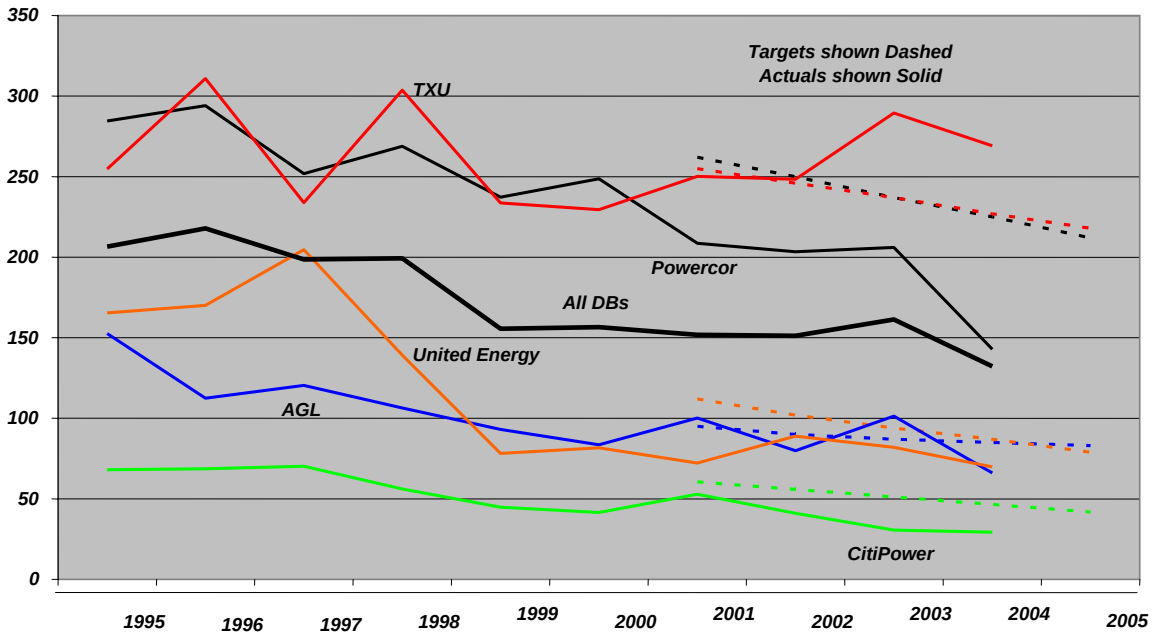
As indicated in Chart 3 below, although average supply reliability, as measured by total SAIDI (excluding load shedding), improved significantly over the 5 years from 1995 to 2000, improvements over the current regulatory period have been patchy. Averaged across all of the DBs, total SAIDI improved only marginally between 2001 and 2004, with most of that improvement reported in a single year (2004); and only Powercor has reported[17] a significant improvement in average reliability, and this again was only on one year out of four. TXU's reliability actually worsened over the period. This is a disappointing outcome and calls into question the value of the S-Factor and GSL components.

[15] The ESC is correct in stating (see p1 ESC Draft Decision) that "*In the time since the industry was restructured, privatised and placed under formal economic regulation in 1995, all key indicators of network reliability have shown significant improvement.*" However, most of that improvement occurred in the first regulatory period up to 2000. Improvements have been much more modest since then. In the case of TXU, reliability performance has actually declined in the current regulatory period.

[16] p 2, ESC Draft Decision.

[17] Given the ESC's concerns about reporting of financial information, the VCG remains to be convinced that Powercor's reported supply reliability performance has actually been achieved.

CHART 3 : AVERAGE SUPPLY RELIABILITY (TOTAL SAIDI, EXCLUDING LOAD SHEDDING)



At first glance, based on information provided in the ESC's 2004 Performance Report, reliability of service to worst served consumers over the current regulatory period may also have experienced some improvement, with a reduction across all DBs in the percentage of customers experiencing supply interruptions in the range 5-10 hours and more than 10 hours off supply. However, this improvement overall does not show a consistent or uniform trend. For example, a reduction in the percentage of customers experiencing supply interruptions in the range 5-10 hours and more than 10 hours off supply in 2004, followed two years in which the percentage of customers experiencing significant minutes off supply (i.e. 5-10 hours or > 10 hours) increased[18]. Similarly, although there has been an improvement over the current regulatory period in the average minutes off supply for long rural customers serviced by Powercor, the average minutes off supply experienced by SPI/TXU customers has significantly worsened. Further, a study of the 2004 Performance Report shows that supply reliability has become steadily worse on feeders supplied from a number of small rural Zone Substations[19].

Thus overall, it cannot be concluded that reliability of supply has consistently improved over the current regulatory period. This factor, combined with concerns about monitoring and reporting (discussed in section 3.1) suggests that it is ineffective to allow money for DB's to carry out work to improve reliability unless the ESC has in place adequate monitoring systems to ensure that reliability has indeed improved.

[18] p.51, ESC 2004 Performance Report.

[19] Given, that DB's have underspent Capex to improve supply reliability in rural areas calls into question their commitment to doing so.

3.2.2. Are customers satisfied with current level of supply reliability?

Equally important as the question of reliability of performance, is the question of whether existing customers are satisfied with the current level of supply reliability.

The ESC notes that in submissions and at public information sessions "*... many stakeholders, particularly customers experiencing poor reliability expressed dissatisfaction with the levels of reliability currently experienced*".[20] Given the nature of this response, it is of concern to the VCG that the ESC has apparently dismissed customer concerns about supply reliability on the grounds that "… *they* (the consumers) *did not indicate they were prepared to pay more for the proposed improvements in reliability*".[21]

The VCG accepts that "*customers should not pay more for the service improvements than they value them*", that "*service incentive arrangements* (should only) *provide additional revenue to the distributors when service improvements are delivered*"[22] and also that "*very little customer research on service standards or willingness to pay has been undertaken in Victoria*."[23] The VCG also accepts that the ESC should exercise caution in accepting consumer survey results obtained by DBs particularly given that the DBs have a 'built in' incentive to produce results that suggest customers want to pay more for better service and given concerns about the accuracy of performance data that impacts on financial benefits received by the DBs.

However, it is not clear to the VCG, based on current information, that customers are satisfied with their current level of supply reliability. Further, the question of how much poorly served consumers are willing to pay to improve the reliability of their supply has not been established. Nor has the question of how much consumers generally are prepared to pay to improve supply reliability – either for themselves or for consumers experiencing poor reliability of supply.

Thus, rather than reject consumer feedback on the willingness to pay for service improvements outright, the ESC should – at the very least – be proactive in ensuring that consumer research is undertaken. Although the DBs have given 'informal indications' that they will undertake research to determine consumer's WTP for improvements to reliability, the VCG believes that this level of commitment is inadequate in that the DBs have a vested interest in producing certain results (see above) and that the ESC should, therefore, commission its own consumer research. It is inappropriate just to rely solely on DBs to present evidence "*on the preparedness of customers to pay for improvements in reliability above the average value of reliability incorporated in the service incentive scheme*".[24]

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[20] p 43, ESC Draft Decision.

[21] *Ibid*.

[22] p 45, ESC Draft Decision.

[23] p 40, ESC Draft Decision. It is of some concern that the ESC refers extensively to a willingness to pay survey commissioned by ESCoSA, but has taken no similar action to make its own informed decision about consumer preferences in Victoria.

The VCG accepts that Victorian and South Australian consumers may have similar views about reliability of supply or willingness to pay for improvements. But it would be much more satisfactory for the ESC to base its decisions on the informed views of Victorian consumers that to refer to ESCoSA's analysis of the views of South Australian consumers.

[24] p 46, ESC Draft Decision.

The role of the ESC is particularly important given that there is no reasonable prospect for consumer groups gaining access to the resources necessary to undertake a robust consumer survey. The research needs to be robust and independent. This means that it should be carefully designed to ensure that questions of consumer satisfaction with supply reliability are separated from the related, but distinct, question of willingness to pay for improved reliability. Further, the sample size needs to be substantial enough to enable disaggregation and analysis of results by customer class, location, income and current reliability of supply.

The ESC should also critically review the methodology adopted by CRA to estimate the Value of Customer Reliability for VENCorp. As noted elsewhere in this submission, the EUAA has previously expressed concern about the robustness of this methodology. It is of concern to the VCG that the ESC concludes on the one hand that consumers are not willing to pay for improvements in reliability and on the other hand adopts the very high values of Value of Customer Reliability that have been accepted by VENCorp, which imply consumers are prepared to pay handsomely for supply reliability improvements.[25]

3.2.3. Achieving improved performance in 2006-2010

Based on a perceived (but as yet unsubstantiated) view that customers are unwilling to pay for improvements to the reliability of supply, the ESC has determined that to achieve improvements to reliability of supply it will "*rely upon the service incentive arrangements (the S-factor scheme and the reduction in GSL payments under the GSL payments scheme) to provide revenue to distributors"*.[26]

It is not at all clear however, that these service incentive arrangements will actually deliver improved reliability of supply over the course of the 2006-2010 regulatory period, either to consumers currently experiencing poor reliability or to consumers generally. The VCG has three reasons for expressing a lack of confidence in the potential for service incentive arrangements to deliver these outcomes.

Level of incentives

The first reason relates to the level of incentives established through the arrangements. It is by no means clear that GSL payments, or the S-Factor scheme, act as real and effective incentives for DBs to improve service levels.

As discussed previously, there are significant doubts as to whether reliability of supply has improved over the current regulatory period. Certainly, any improvements that have been achieved are far from consistent or uniform. However, even assuming that there have been

[25] The ESC notes (p 89 of the Draft Decision) that "*the study was undertaken by Charles River Associates (CRA) for VENCorp and indicates that the value that Victorian customers place on reliability is the state-wide VCR of $29 600 per MWh (CRA 2002). Its results remain current, and they are similar to a Monash study conducted in 1997 at a state-wide level.*"

However, the VCG notes that segmented results obtained by CRA differed dramatically to the VPX-Monash survey. For example, the value of VCR attributed to the Residential sector was 15 times higher in the CRA study than the Monash study carried out just three years earlier (see Tables 3 and 4, pp 5-6, *Assessment of the Value of Customer Reliability (VCR*), Charles River Associates (Asia Pacific) Pty Ltd, December 2000. It is inconceivable that Residential consumers' perceptions of value would be so volatile, which is in itself reason to question to robustness of the CRA/VENCorp report (and the general methodology).

[26] p 45, ESC Draft Decision.

improvements to reliability of supply, no evidence has been provided – either by the ESC or by the DBs – to link improved performance to incentives arrangements.

With reference to the Guaranteed Service Level (GSL) payments schemes, the ESC Performance Reports include information on payments made to those customers the DBs have identified as receiving poor service. This shows total GSL payments averaged just under $1.2 million/year in the 2001 to 2004 period, of which around 98% were made for slow restoration time and low reliability. This represents less than 0.1% of total DB revenue. It is inconceivable therefore, that payments set at this level will act as major incentives for the DBs to deliver improved reliability of supply to the relevant group of customers. Yet the ESC makes the claim that "*the annual cost of making these* (GSL) *payments to customers* (who experience poor reliability) *will provide* (DBs) *with the incentive to continue to seek ways of addressing the issues more efficiently*".[27] This seems to be highly unlikely.

Further, on an individual payment basis, the proposed new GSL payments will still represent negligible economic value when compared with the real economic loss borne by most of the recipients due to the bad service. On this issue, the VCG further notes that although the ESC proposes to increase GSL payments slightly for the next regulatory period, they are still set at levels that, for most consumers who receive the payments, represent very bad service.

These problems are compounded by the fact (based on documented evidence) that DBs are often tardy in meeting their GSL payment obligations.[28]

Confused approach to incentives

The second reason the VCG lacks confidence in the potential for service incentive arrangements to deliver improved reliability of supply relates to an apparently confused approach to incentives established by the ESC.

As previously discussed, for example, although supply reliability (indicated by the Total SAIDI measure) has improved on average for all DBs, significant improvements have been reported only by Powercor, and to a lesser extent CitiPower, in the current regulatory period.[29] Reliability has been maintained at about the same level for AGLE and United and deteriorated significantly for TXU.

The ESC's response to these outcomes appears confused in respect of GSL payments. The better performing DBs (AGLE, Citipower and United) are permitted nominal increases in revenue allowance for GSL payments of no more than $15,000/year (or less than 0.001% of revenue), while the worse performing DB, TXU, is rewarded with a revenue allowance approaching $6.0 million/year. The revenue allowance for TXU is more than 700% higher than average total GSL payments made by TXU in the period 2001 to 2004.

The VCG endorses the ESC's decision to provide only nominal amounts for the GSL revenue allowance; and understands the method used by the ESC to estimate these revenue

[27] p 45, ESC Draft Decision.

[28] This indicates that the ESC should require of DBs that consumers get automatic payments if a GSL is breached.

[29] Given concerns expressed by the ESC about the robustness of Citipower/Powercor's financial performance data, the VCG would need to be assured by the ESC that service performance data is robust before being convinced the improved reliability performance is "real".

allowances.[30] However, the impression created by the ESC's approach is that poor performance is rewarded with additional revenue, and better performance is not rewarded at all. This is opposite to the reward/penalty approaches adopted by UK regulators,[31] and seems inimical to effective incentive regulation. The VCG is firmly of the view that the ESC should strengthen the incentive for TXU by reducing the GSL revenue allowance to a nominal value of no more than that allowed for Powercor (i.e. $200,000/year).

Transparency and dependability of information

The third reason the VCG lacks confidence in the potential for service incentive arrangements to deliver improved reliability of supply relates to poor transparency and dependability of information provided by the ESC and the DBs. The VCG has grave reservations about the details provided on the ESC's proposed S-Factor and GSL service incentive mechanisms.

S-Factor incentive scheme

The ESC approach to linking system augmentation expenditure to actual improvements in the standard of service appears to be logical and appears to provide a more robust response to the risk that DBs would continue to exercise 'strategic behaviour' with forecast investment intended to address service level performance. However, significant gaps in the information provided by the ESC makes it difficult for consumers to understand the proposed service standard incentive mechanisms and the impact on consumer prices.

There is a lack of information on the linkages between the various components of the incentive scheme and the consequent impacts on consumer prices and service standards. There is a need for a user guide that explains to consumers how the scheme payments operate and how they should engage DBs to initiate improvement in service standards. In particular the ESC should:

- explain to consumers how the S-factor formula works including key intermediate steps (Section 3.1.1 of the Draft Decision);
- explain how of the SAIDI, SAIFI and MAIFI measures used to monitor the S-Factor scheme and set performance targets relate to end user service standards (Tables 3.3 and 3.4 of the Draft Decision);
- provide a justification for the incentive rates and the linkage to Value of Customer Reliability (VCR) and augmentation costs (Table 3.1 an 3.2 of the Draft Decision);[32]

[30] The ESC's method for estimating the DBs' GSL revenue allowances is based on continuing recent past performance adjusted for differences in the value of the performance measure and GSL payment.

[31] For example, Ofwat did this by setting higher X values in the RPI-X price controls in 1994. This had the effect of reducing prices at a faster rate for relatively poor performing water companies relative to the better performing companies and was intended to provide stronger incentives for the poorly performing companies to improve efficiency (in this case).

[32] The VCG notes that Pareto Associates commented on the methodology used by CRA for the VCR study in a submission by EUAA to the ACCC's consultation on the initial proposal to change that value of VoLL (See: *National Electricity Code VoLL Review - Response to Draft Determination - An End-Use Customer Perspective*, EUAA, August 2000). Pareto's comment in the EUAA submission was supplemented by analysis and input from an expert in market research. Pareto concluded that the computational approach adopted by Monash was appropriate, but the values used as input to the formula were derived from a poorly designed (and supply-side focused) "market survey". Examination of the CRA report to VENCorp suggests that CRA repeated the poorly-designed Monash survey leading to the conclusion that the values of VCR adopted by VENCorp are likely to be based on biased market research survey output.

- explain how the service standard investment cost-benefit analysis operates: there are clearly missing assumptions and intermediate data steps in the cost benefit analysis that is presented in "*Attachment 1 Example of Worst Served Feeder*"; and
- set out the criteria the ESC will use when accepting or rejecting evidence on consumer willingness to pay for changes to service standards.

Considering the VCG's limited resources such an initiative would be of great assistance to consumers and ensure that transparency is provided to all parties. In this way, the VCG could develop an informed view of the potential value of the proposed S-Factor scheme.

The VCG notes that none of these concerns are addressed in the ESC S-Factor Issues paper released on 19 August 2005.[33] The Issue Paper contains little additional information to that contained in the Draft Decision; and no information on the cost of the S-Factor scheme to consumers, or the impact on them of changes in the S-Factor parameter values.

The proposed S-Factor incentive scheme arrangements are incomprehensibly complex and incapable of being understood by consumers. It may be that the revised S-Factor formulae produce realistic incentives for significant changes in performance outcomes. But, this is impossible for consumers to easily confirm. Intuitively, it would appear the incentives are more likely to 'encourage' DBs to commit as few resources as possible to maintaining reliability service standards at current levels. This would have the effect of maximising benefits to the DBs, while minimising their exposure to penalties under the S-Factor formulae.

The ESC should also provide worked examples that show how consumers would be affected, both on average and in the worse served case, by realistic changes in the S-Factor parameter values, and demonstrate what economic impacts (on consumers) would result and how the DBs' total revenue (and consumers' total cost) would be affected. This would seem to be the only way that the VCG (and other consumer groups) could be expected to develop an informed view of the potential value of the proposed S-Factor scheme.

In addition, to ensure that the revised S-Factor scheme actually works, the ESC should ensure that all interruptions to supply are reported by the DBs and that the rules for exemptions are tightened.

GSL incentive scheme

As far as the GSL scheme is concerned, the ESC has failed to fully disclose how the benefits of the existing scheme have been distributed. No information is provided in any of the ESC documents to show what benefits (from the GSL scheme) were retained by the DBs in the current regulatory period (or for the appliance damage scheme or the S-Factor scheme that consumers also fund directly). Nor is any economic justification provided for continuing

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The VCG accept that this is "the best" information available to the ESC, but it only has credibility because it has been accepted by VPX then VENcorp, not because it is based on a robust and unbiased methodology.

[33] The ESC S-Factor Issues Paper contains a summary of results in the Mercer consulting reports; which show that "on average" that no DB would be worse off if they achieve "on average" the same levels of frequency and duration of unplanned outages as they achieved in the current regulatory period. The magnitude of swings appears to be significantly higher than for the current scheme, but there is nothing in the Issues Paper that indicates what the financial impact might be (on DBs or consumers) and no mention at all about anything to do with the "flow on" costs to consumers – other than confirmation that the ESC has adopted the incentive rates based on the Value of Customer Reliability as determined by Charles River Associates in a study for VENCorp.

performance and payment thresholds in a modified GSL scheme that, though increased slightly for the next regulatory period are, as previously noted, still set at standards that represent very bad service and negligible economic value. This same comment is relevant to the appliance damage scheme and the S-Factor scheme that consumers also fund directly.

Without information on the costs and benefits of the GSL scheme, the VCG is unable to form a robust view about its likely effectiveness, the relationship to the value consumers place on poor service or indicate any informed opinions about the proposed changes.

It could be that the most effective incentive in the ESC's proposals will come from imposing an obligation on DB directors to "sign off on an annual basis that the *distributors' plans and processes* (and the) *available … financial resources and facilities and management resources will … ensure that the reliability of the network will meet or exceed the targeted reliability levels … and that the underlying risks of a deterioration in reliability (that is, an increase in the probability of an interruption) are not materially increasing*."[34] This will ensure the DBs' directors are held accountable for the overall integrity of the network and be exposed to scrutiny by financial markets. It may also prove to be the most cost effective for consumers. If this turns out to be the case, maintenance of service quality consumers may be better served by the ESC:

- extending its application beyond "*at least the next twelve months*"; and
- simplifying the incentives for DBs to provide acceptable service by increasing the level of compensation payments and requiring the DBs to meet this cost directly.

3.3. Can consumers 'negotiate' supply quality improvements?

The ESC position also continues to emphasise achievement of efficient outcomes through negotiation of service quality enhancements as excluded services. For example, the ESC says "s*pecific groups of customers may still pay to have the level of their reliability improved. Customers can pay for improvements to reliability as an excluded service rather than through the price control arrangements. Under this scenario, the customers who benefit from the improvement would pay for the improvement rather than the cost of the improvement being spread across all of a distributor's customers*."[35]

However, the ESC also maintains an overly simplistic view of what happens currently when (one or more) consumers seek service quality enhancements as an excluded service.

Several large consumers from different parts of Victoria were interviewed about service levels (by Marsden Jacob Associates) during the preparation of this submission. A brief report from this survey has been provided to the Energy Users' Association of Australia for separate submission to the ESC as a supplement to this submission. Key observations from this survey were:

- Most consumers reported a significant improvement over the last five years in the response of DBs to expressions of concern about local quality of supply issues and their willingness to offer solutions.

[34] p 80, ESC Draft Decision.

[35] p 46, ESC Draft Decision.

- Individual consumers who took an assertive and proactive position and established a formal process of active dialogue with both their retailer and distributor were more likely to achieve a satisfactory response from the DB and associated improvements in quality of supply – even though they may have had to pay for the improvements (as excluded services).[36]
- Those consumers who had entered into (excluded services) agreements found they could get no guarantee (or property right) that paid for service quality improvement would be maintained in future. 'Negotiation' with the DBs was limited to the price required to achieve a once off improvement in the level of service at an instant in time, which was considered a matte of concern that fell well short of what is needed.
- Some consumers paying for the excluded service were aware that other consumers benefited (or obtained a free ride) from the augmentation and DBs had (on occasion) connected other consumers to augmented assets – without any recognition that the excluded service consumer had paid for added capacity (or value) that was subsequently captured by the DB (and other consumers). [37]
- Large consumers operating continuous production processes reported on-going difficulties due to 'circumstances beyond the control of the DBs' – even when they had paid for service enhancements. For example, strong storms, perambulatory possums, cremated crows and drunk drivers were still taking out supply to Zone Substation feeders (or dedicated consumer lines); and DBs were unwilling to fix these problems or unable to offer any realistic or affordable remedy or augmentation.[38] These problems were occurring even in highly meshed parts of distribution networks with concentrated loads (relatively) close to transmission Terminal Stations where the DBs should be expected to provide high levels of supply quality.

The difficulties experienced by large consumers suggest the ESC should do more to provide information that would enable consumers, individually or collectively, to negotiate effectively with DBs.[39] The ESC should also implement changes to regulatory instruments to establish an enduring guarantee (or property right) that would require the DBs to maintain

[36] One respondent reported that significant improvement in quality of supply had been achieved at several sites (operated by different end users) without having to make any additional payment to the DB. This respondent had a long established relationship with the DB's staff and a good understanding of the DBs processes and procedures. It was not clear how much influence these attributes contributed to the outcomes.

Several others acknowledged that the DBs had provided information that 'explained' the Distribution Code service standards. In general, this information confirmed that specifications for performance of the distribution network (e.g. for voltage variation) are less stringent than specifications for major items of plant and equipment connected to the network. This mismatch between the distribution system capability and customers' equipment had led most respondents to install in-house protection for critical items such as control systems and the like.

[37] It is a matter of debate about whether a consumer satisfied with the pre-augmentation service level would accept they get a "free ride" from an excluded service augmentation investment funded by another consumer. However, it does appear reasonable for the consumer who pays for an augmentation investment to expect "compensation" if the DB connects a new customer to an augmented asset funded by the consumer. The relevant point for the ESC is that it appears to be virtually impossible for consumers to "negotiate" sharing of such benefits in an excluded services agreement, which may have the effect of limiting opportunities for efficient investment in service quality improvements.

[38] Information obtained in this survey also confirmed that (at least) two large consumers had bypassed DB assets in the last five years and achieved direct connection to the transmission system. One of these was in response to extremely poor supply quality (at the end of a long rural feeder) and the other a mix of supply quality and cost. Both were fortunate to be located not far from Powernet's transmission assets.

[39] This is not just an issue for large consumers. Small consumers face similar obstacles in negotiating any excluded service arrangement. The "take it or leave it" or "the regulator says so" responses are still commonly offered by retailers and distributors in response to enquiries from small consumers.

service standards at the level achieved through the excluded service arrangement; and require DBs to recognise the value (in the excluded service agreement) created for others through excluded service augmentation. This could be achieved by modifying existing Guidelines to enable negotiation over such matters on a more level playing field and provide for disputes/delays to be resolved by the ESC.

3.4. Cost of Capital

The initial VCG submission contained an extensive commentary on issues related to the ESC's treatment of the Weighted Average Cost of Capital (WACC). The ESC appears to have ignored this material, which is extremely disappointing. The ESC should explicitly address each of the issues raised in the Final Determination.

In particular, the VCG notes that the ESC has failed to explain why Victorian DBs should benefit from a higher WACC than allowed by all other jurisdictional regulators or why DBs should gain the benefit of a higher WACC than the Victorian water sector.

The ESC has adjusted the WACC compared to the value set for the current regulatory period only to reflect changes in debt market benchmarks. This means that the ESC continues to set the WACC above a level recently established by Australian regulators for electricity distribution in other jurisdictions.

It is notable that the ESC refers in the Draft Determination to recent regulatory decisions for electricity distribution in the ACT, NSW, Queensland and South Australia where regulators have adopted an Equity Beta value of 0.9 (either explicitly or as a mid-range value) and then says "*It is clear… that there has been substantial convergence in Australian regulatory decisions on the equity of regulated gas and electricity infrastructure at around 1.0, which the Commission has adopted in its two most recent price reviews.*"[40] This assertion by the ESC is at odds with information on regulatory decisions in other jurisdictions presented in the Draft Determination, which clearly shows that other regulators have adopted a lower equity beta. The VCG fail to see why that ESC cannot do the same.

It is clear that recent regulatory decisions of other jurisdictional regulators have settled at a value very much closer to 0.9 rather than 1.0. The VCG are also aware that the ESC used an Equity Beta value of 0.75 in its recent Final Decision for the water sector. This aspect of the Draft Decision imposes a cost of approximately $42 million/year on consumers (or about $200 million over the next regulatory period), which is nothing more than a 'free kick' to the DBs. The ESC needs to do much more to explain to consumers what differences exist between the water and electricity sectors and between DBs in Victoria and other States to justify any value of Equity Beta above 0.75.

This outcome is imposing significant costs on Victorian electricity users and providing 'regulatory windfall gains' to the DBs for no apparent reason. In the process, electricity prices in Victoria are higher then they should be and the competitiveness of Victorian businesses is adversely impacted.

[40] p 300, ESC Draft Decision.

3.5. Interval Meter Roll-out

The ESC's Draft Decision in relation to costs of the interval meter rollout is clearly excessive and remains well above published cost levels achieved overseas. The ESC proposes to allow the DBs a total of $382 million in Capex for the interval meter roll-out; and a further $206 million in Opex. These costs appear to be substantially different to those assumed in the cost-benefit model that underpins the ESC's interval meter decision (comparable costs over the first five years in the ESC's "Interval meter cost model" appear to be $293.9M and $221.6M for Capex and Opex respectively).[41]

The ESC also proposes to allow three of the DBs to replace around 50,000 accumulation meters that have an anticipated life in excess of 35 years. Given that the ESC has mandated this roll-out, the VCG believe it is duty bound to ensure that the DBs apply efficient costs to it.

The VCG believe that the ESC's Draft Decision in relation to costs of the interval meter rollout is clearly excessive and remains well above published cost levels achieved overseas. The ESC ignores international cost benchmarks and argues that the "*Draft Decision is 42 per cent less than the revenue requirement proposed by the distributors*."[42] However, the average capital cost of interval meters over the whole regulatory period is $360/meter, which is still 200% to 300% higher than average costs in Italy and Ontario, Canada.

The VCG can see no justification for the highly inflated interval meter installation costs accepted by the ESC. The VCG notes that information on installation costs of communications-enabled ("smart") interval meters is included in a submission by Jeff Beal (who also happens to be a senior metering engineer at Energex) to the Productivity Commission's Energy Efficiency enquiry.[43] Given the author's background, the ESC should seek substantiation of his estimates of the cost of rolling out intelligent, potentially communications enabled (i.e. smart) interval meters, which he estimates would cost only $110/meter.

It is also concerning that the ESC shows no inclination to provide information to consumers on the potential impact on electricity bills of implementing time-of-use tariffs that reflect the cost of increasing peak load. This is not an academic, or hypothetical, matter. Widespread application of time-of-use tariffs, similar to those introduced by United Energy in 2001, will adversely impact on the electricity bills of large numbers of air conditioner-using consumers; and possibly on any consumer who is not a large user of off-peak electricity. The ESC should be aware of this since it was the subject of a submission made to the ESC on behalf of CUAC (Consumer Utility Advocacy Centre) in 2003.[44]

The 2003 CUAC submission shows that retail tariffs that pass through United's time-of-use network tariffs, and reasonably reflect retail energy tariffs (for peak and off-peak energy

[41] It is presumed costs in the ESC's model are in 2002 dollar terms, although this is not stated in the Assumptions Worksheet of the model. The equivalent value in the 2004 dollars of the EDPR Draft Decision are: $309.3 for Capex and $233.2 for Opex.

[42] p 424, ESC Draft Decision.

[43] See Submission No 64, http://www.pc.gov.au/inquiry/energy/subs/sublist.html.

[44] The ESC says in the Draft Decision that "*these submissions were considered in the Commission's decision on the rollout of interval meters*". But there is no reference at all to these submissions in any of the documents prepared by the ESC that relate to the interval meter decision.

similar to current retail tariffs) produce bill impacts that are very substantially different to constraints implied in the ESC's price controls. For example (for Residential consumers):

- The total annual bill can vary substantially for consumers with similar total energy consumption. For instance, the bill for consumers with total consumption around 4,500kWh (slightly below average household consumption) could vary by up to $150/year (or 18%).
- The total bill for moderate consumers (around 7,000kWh) with a 4kW air conditioning load, without Off-Peak hot water could increase by up to $470/year (or 40%); and the impact on large consumers with higher air conditioning loads would be much higher.
- Yet the ESC is still proposing to impose a re-balancing constraint of CPI+2% on the annual increase in individual distribution tariffs, while DBs will have no constraint on developing cost-reflective tariffs similar to United's.

It should be noted that the bill impacts quoted above are in dollar values at 2003 and have been re-interpreted from the 2003 CUAC submission to reflect information in United's recent Tariff Reports that clarifies United's policy for application of the time-of-use interval meter tariffs. United's current policy, clarified in the 2003 Tariff Report that was published after the CUAC submission, makes it clear that only the United "*Reverse cycle airconditioning time of use*" tariff applies to Residential consumers. The 2003 CUAC submission examined the impact of all three of United's ToU tariffs, two of which (the "KWhToU" and the "KWhToUHOT") apply only to large consumers.

It should also be noted that the results presented in the 2003 CUAC report show that all 12 Residential consumers in the sample analysed would have faced higher total annual bill on United's "*Reverse cycle airconditioning time of use*" tariff, even the households without air conditioning. This is because United's Residential ToU tariff offsets higher summer period charges with significant discounts during an extended "off-peak" winter period. The only Residential consumers who would benefit from this ToU tariff design would be those who uses electric heating during winter – probably without air conditioning in summer. This suggests that the overwhelming majority of consumers would face higher bills under time of use "*tariffs and tariff structures that reflect a customer's impact on peak demand at peak times*"[45] that the ESC sees as being desirable.

The role and impact of peak demand is critical to understanding the potential impact on consumers from the introduction of time-of-use pricing.[46] It is particularly critical given the ESC's decisions to encourage DBs to develop prices that reflect increased demand and to remove constraints that prevent DBs from compulsorily assigning consumer to new, cost-reflective, time-of-use tariffs. Both of these proposals are likely to impact on small consumers in a manner that has not been quantified by the ESC.

It is worth noting that documents pertaining to the electricity distribution price review contain very little information on peak demand forecasts. For example:

- the peak demand forecasts submitted by the DBs were total coincident network demand;

[45] p 146, ESC Draft Decision.

[46] Forecasts of sales volumes is also a key determinant of the allowable revenue and distribution use of system (DuOS) prices). Appendix A contains a brief comment on the ESC treatment of this critical aspect of the review.

- the peak demand values reported in the ESC draft determination are the DB submission values adjusted using a factor to get the non-coincident peak demand summed (presumably) across all zone substations;
- the forecasts for peak demand used by the ESC imply a deterioration in the load factor across all DBs; and
- there is no way of confirming if the forecasts in peak demand adopted by the ESC are consistent with the peak demand assumptions used to derive unit tariffs in the DBs tariff submissions.

In terms of the impact on customer bills of time-of-use and interval meter tariffs, the impact will vary depending on the actual usage patterns. If would have been useful for the ESC to do some utility bill scenario modelling using typical load shapes and United Energy's time-of-use tariffs. The VCG could then assess the extent to which customers would have to adjust in order to be better off.

The VCG is not opposed *per se* to consumers facing cost-reflective tariffs. Retail tariffs that reflect United Energy time-of-use network tariffs would, presumably, deliver a benefit to consumers who do not contribute significantly to peak summer demand. Cost-reflective tariffs with impacts of the above magnitudes also clearly have potential to produce more equitable outcomes (in the sense that consumers imposing higher costs would face higher bills). Cost impacts of this magnitude would also appear to have potential to change consumer behaviour. But it is unfair for the ESC to proceed with policy initiatives that could have such large financial impacts on individual consumers without making this known to the affected groups.

The VCG remains of the view that the fairest way to introduce cost-reflective tariffs is to also roll-out automatic load control capability – providing it is cost effective to do so. This would give AC users real choice and possibly avoid that need for consumers to denying themselves use of air conditioners altogether – in an effort to avoid substantially higher bills.

The VCG also notes that priorities established by the ESC for the interval meter roll-out target large volume users. Yet the ESC correctly notes that "*Victorian consumers may only utilise their air conditioning systems on a few days of the year.*"[47] This suggests the ESC should understand that air conditioner use consumes relatively little energy, while at the same time contributing substantially to increasing, coincident peak demand growth. Failure to specifically target AC users will leave a substantial number of air conditioner users with accumulation meters, and in the same consumer cohort as small consumption households without air conditioners. The introduction of accumulation meter tariffs that reflect increasing peak load will, therefore, impose higher costs on households without air conditioners even though they are not contributing to increasing peak demand.

The VCG are also concerned that adverse consumer reaction to punitive time of use tariffs, which is very likely, would move the ESC to impose transitional arrangements or tariff design constraints on the DBs (and even retailers) in its (yet to be published) *interval meter reassignment requirements.* Imposition of such constraints would drag out achievement of the benefits of interval metering over even longer time frames than already anticipated. This would be a very poor outcome for consumers forced (by the ESC) to bear the higher costs of the interval meter roll-out and bear costs of increasing peak demand growth.

[47] p 403, ESC Draft Decision.

It is essential that the ESC:

- review priorities for the interval meter roll-out, and specifically target air conditioner users;
- more closely scrutinise the costs of the proposed interval meter roll-out;
- more closely examine how the impact of cost-reflective time-of-use tariffs can be managed; and
- be open with consumers about the impact of this policy initiative.

Not only is the roll-out period excessively lengthy, but limited criteria for targeting interval meter installations will result in less than 50% of consumers having interval meters by 2011. Even when the program is complete in 2012, a large number of consumers will not have interval meters and many of those consumers without interval meters are likely to be air conditioning users who contribute most to increasing summer peak demand.

That is, the ESC's "targeting policy" is certain to leave a significant number of "high cost" air conditioning users in the same consumer cohort as "low cost" consumers who do not have air conditioning. These "low cost" consumers would be denied access to the benefits that the ESC assumes would be available from interval meters – even though they will be forced (by the ESC) to bear part of the cost of the interval meter roll-out through application of an Excluded Service meter charge to all small consumers. Given the large numbers of "low cost" consumers involved, the VCG is opposed to the ESC's decision to mandate the "smearing" of the interval meter roll-out costs through application of a uniform Excluded Services interval meter charge.

3.6. Incentives For Demand Management

The ESC's proposals for demand management (DM) are unsatisfactory and out of step with programs supported by regulatory authorities in both NSW (IPART) and South Australia (ESCoSA). This is a very disappointing aspect of the Draft Determination and the VCG urge the ESC to rethink all of the suggestions made in the initial VCG submission, which are repeated below.

The ESC would do well to follow the example of other, more consumer-focussed, regulators such as IPART and ESCoSA on this issue.

Many years ago IPART recognised the role of DM in relieving network congestion and improving the utilisation of network assets, both of which would reduce upward pressure on costs. It has taken a pro-active stance on DM in its latest Determination and introduced a number of incentives to promote network DM.[48] These include the introduction of a 'D-Factor' to the weighted average price cap formula, to recover costs and revenue foregone arising from DM programs, up to a maximum value equal to the avoided distribution costs.

IPART also set up a Network DM Consultation Working Group, comprising members from distributors, Government, industry and user/consumer groups to develop guidelines for

[48] *Determination of NSW Network Prices for the 2004/05 to 2008/09 Period*, IPART, June 2004.

distributors on various aspects DM.[49] The group has now completed this role and IPART has recently published its final guidelines.

A document entitled "*DM for Electricity Distributors Code of Practice*" ("the NSW DM Code") has also been prepared and published for use by the NSW distributors. The DM Code provides an additional impetus to DM at the distribution level and has recently been reviewed and improved.

The ESC is urged to examine IPART's programs for implementation in Victoria.

In addition, in its final determination for ETSA Utilities distribution network in South Australia, ESCoSA has provided some incentives for DM in the form of adopting a DM Guideline that is similar to that adopted by IPART and allowed specific provision for ETSA Utilities to commit approximately $20 million over the five year regulatory period to trial a number of demand management initiatives which may result in less need for peak-driven network expansion.

The range of initiatives to be trialled by ETSA Utilities include:

- "power factor" improvements in business and manufacturing premises;
- trials of Voluntary Load Curtailment (VLC) programmes for large customers;
- Direct Load Control (DLC) of domestic equipment such as air-conditioners and pool pumps;
- use of standby generation, and
- the use of incentives for customers to reduce demand at times of peak demand.[50]

These actions by IPART and ESCoSA shows that the ESC needs to provide some additional 'positive' incentives for DM as part of the next regulatory period. If it does not do this, the ESC leaves itself open to the accusation that it is out-of-touch with the latest developments in regulation, out-of-step with other regulators and out of touch with actions that could assist in protecting the long-term interests of consumers. Victoria, which badly needs a more active DM response to help it meet the challenge of growing peak demand, will be left more exposed to the consequences, including unfettered growth in peak demand, higher Capex and higher electricity costs.

The VCG notes that the ESC has acknowledged issues raised in the initial VCG submission. But the proposal to only allow a nominal amount of just $120,000/year (approximately 0.05% of total revenue) for each DB to "*provide additional revenue for the trial of demand management initiatives during the 2006-10 regulatory period*" will do nothing to address the market failure that limits DB acceptance of demand management opportunities.

In effect, the ESC's approach relies on the development of costly price signals, implemented as part of the interval meter roll-out, to provide incentives for demand management by consumers. The VCG's view is that this will either be:

[49] The Energy Action Group and EUAA are members of the IPART DM Group.

[50] See p(v) and pp54-60, *2005 - 2010 Electricity Distribution Price Determination, Part A - Statement Of Reasons*, Essential Services Commission of South Australia, April 2005.

- effective, but only because small and or low income consumers will be "priced out of the market" for summer peak load; or
- ineffective if consumers chose to continue use of air conditioners, or are unable to respond effectively to price signals that are transmitted only through bills that arrive after the event (see for example the United Energy time of use tariffs introduced in 2001).

In addition, only United Energy will have time-of-use tariffs in place; as no other DB has proposed introduction of time-of-use tariffs in the next regulatory period. Even if the ESC is successful in getting DBs to develop time-of-use tariffs, it is difficult to see how retailers can respond constructively when a substantial number of small consumers (without interval meters) will not be able to select a time-of-use product from which they may gain a benefit. And those consumers without interval meters and without air conditioning will be left to share increasing costs of air conditioner users through cost-reflective accumulation meter tariffs.

The VGC acknowledge that the ESC's approach may provide opportunities for large industrial and commercial customers to access "market-based" opportunities for demand response. The VCG accepts even that this could be a useful development. However, there is no clear guarantee that demand response from large users will be effective in materially impacting on the peak demand growth that is being driven by residential (and small business) air conditioner users. As the results of the EUAA's DSR Trial and follow-up case studies showed, these customers require a commercial incentive to undertake DSR and there is little in the ESC Draft Decision that suggests this will be forthcoming in the next regulatory period.

The ESC seems to be predominately relying on a 'stick' approach to obtain the appropriate long-term level of investment in the network and to curb the growth in air conditioner use. The VCG believes that time of use pricing is only one tool available to the ESC and the DBs to better manage demand in peak periods and defer the need for costly investment.

Prices can also be used to provide 'carrots' as well as 'sticks' to customers who are prepared to avoid using the network during peaks in demand. The VCG is aware that such pricing has been used to good effect in both the south island of New Zealand and also in California.

While the VCG do not oppose the use of time of use pricing, evidence shows that pricing 'carrots' can have a beneficial impact. The VCG are in no doubt that DBs in Victoria have supported the ESC's pricing 'sticks' as they know that the low elasticity of demand of their customers (combined with the muted signals provided by network tariffs due to their delayed impact and their proportional share of the total energy bill) will ensure that they can use such prices to increase their revenue rather than moderate demand. The VCG are certain that this has already happened where DBs have introduced such tariffs.

Appendix A: Demand and consumption growth forecasts

The ESC's price control formula sets a fixed price level for the duration of the price determination based on:

(a) building block revenue; and

(b) an assumed rate of growth in sales volume.

Growth forecast in sales volumes are required at a number of levels including an overall aggregate level for each DB and individual forecasts for each component of the available tariff. The growth assumptions for the tariff used to set prices comprise:

- energy consumption: growth at the DB level and for each relevant tariff class, typically (watt-hour);
- customer numbers: growth at the DB level and for each relevant tariff class, typically (number) and
- energy demand: for peak demand tariffs, which apply currently only to large consumers with suitable peak demand metering.

The growth forecasts are set at the beginning of the price control period and remain un-changed until the next price reset. Inevitably errors arise in the forecasts and actual rates of growth differ from projected values. This variation between actual and forecast values or errors gives rise to revenue and price risks affecting both DBs and consumers. The impact of forecast risk on DBs and customers under the price control are set out in the Chart 4 below. When actual growth rates exceed the forecast value the price is set to high and DBs recover more revenue than is required. Conversely overly optimistic forecasts result in under recovery of revenue by the DBs.

CHART 4 : ALLOCATION OF RISK – SALES FORECASTS

	Actual < Forecast	Actual > Forecast
Growth in volume of electricity sales (customer numbers, consumption, peak demand)	DBs - under recover revenue Customers – benefits from lower then required prices	DBs over recover revenue Customers – pay unnecessarily high prices

The performance of the ESC in assessing forecast growth can be assessed by reference to actual revenue outcomes in the previous price determination. Chart 5 provides a summary of the actual and forecast growth in customer numbers and energy consumption for the five DBs over the period 2001 to 2004.

CHART 5 : FORECAST AND ACTUAL GROWTH IN CUSTOMER NUMBERS AND ENERGY SALES 2001 TO 2004

DB	Customer Numbers (No.)		Energy Consumption (eg MWh)	
	Forecast - 2000 Determination	Actual 01-04	Forecast - 2000 Determination	Actual 01-04
AGL	1.2%	2.3%	2.6%	1.3%
CitiPower	1.7%	1.9%	2.3%	2.8%
Powercor	1.7%	2.5%	1.7%	2.4%
TXU	1.3%	2.6%	1.4%	3.5%
United	0.4%	1.7%	1.8%	2.3%

From the data in the table above it appears the forecasts for the 2000 determination were skewed in favour the DBs. In the case of customer numbers, the actual growth rate exceeded forecasts for all five DBs with errors exceeding 100% of the forecast value. For energy consumption four of the five DBs outperformed the forecast values, the exception being AGL.

The 1996-2000 period produced a similar skewed outcome (see Chart 6). From 1996 to 1999 four of the five DBs outperformed the forecasts for energy consumption by a significant margin. Only United Energy underperformed, and then by a relatively small amount in comparison with the upside error in the other four DB forecasts.

CHART 6 : FORECAST AND ACTUAL GROWTH IN ENERGY SALES 1996 TO 2000

DB	Energy Consumption (MWh)	
	Forecast – 96 to 00	Actual 96-00
AGL	2.29%	3.6%
CitiPower	1.38%	3.1%
Powercor	2.62%	4.2%
TXU	2.04%	3.8%
United	2.39%	2.2%

The examination of past forecast performance above suggests the forecasts have been systematically skewed in favour of the DBs and to the cost of customers (by comparison a random pattern of over and under forecasts would indicate non bias in the forecast methodology).

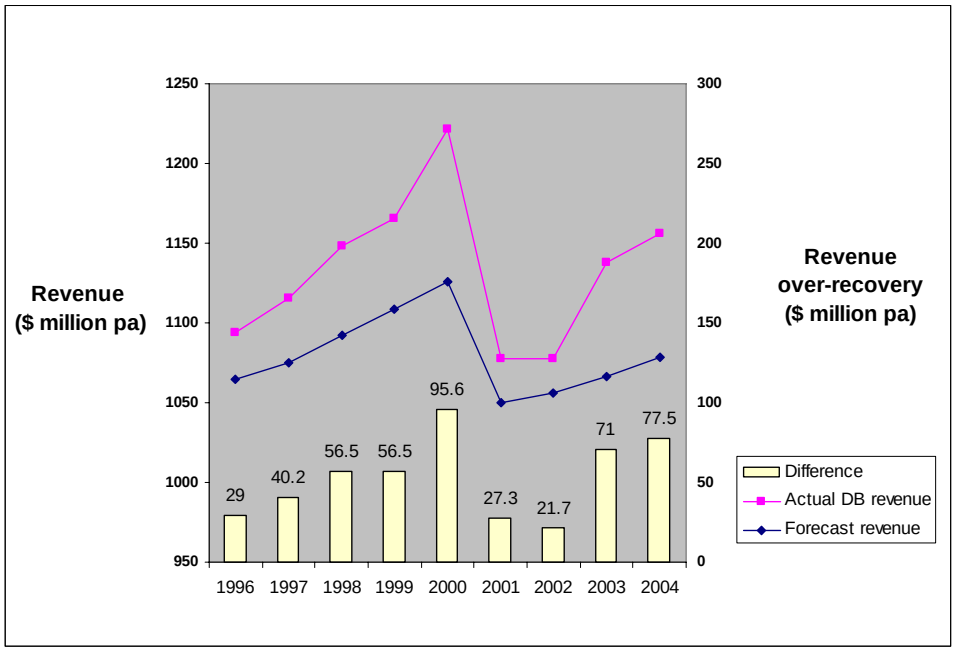
The apparent bias in the forecasts is not altogether surprising given that the primary supplier of forecasts for both the current and past price determination (NIEIR) specialises in forecasting for traditionally conservative engineering decision making and is well known for

its pessimistic views on Australia's economic growth prospects. In contrast the VCG view is tariff setting exercises need to place greater weight to actual historic growth trends and demand side considerations.

Errors in tariff segment or customer class forecasts also impact on overall revenues. AGL, for example, distributed less energy in total over the period 2000 to 2004 than forecast. Despite a lower than forecast energy total, AGL reported revenue higher than forecast due to a change in customer mix. Specifically, while the energy sales to large businesses had fallen below the forecast level, sales to residential and small business customer segments were above forecast, leading to an increase in the network revenue because the average price per MWh for residential and small business customers was higher than that for large business customers.

The ESC's performance reports contain historic data from 1996 to 2004 on the financial performance of DBs which permits, at least at a cursory level, an analysis of the impacts of forecasting errors in past determinations. As can be seen in Chart 7 below the regulator's consistent acceptance of under forecast growth in both consumption and customer numbers has resulted in higher than expected levels of revenue in all years. MJA's preliminary analysis suggests that as a result of forecast error from 1996 to 2004 the DBs have achieved additional revenue of $475.3 million above the cumulative forecast value.

CHART 7 : OUT PERFORMING THE REVENUE TARGET: 1996 TO 2004



Given the propensity in past determinations for the forecasts to be skewed in favour of the DBs, the VCG fully supports the ESC approach in the current price determination to adjust the DB's submitted consumption and customer number forecasts upwards. The upward adjustment results in forecasts that are a more accurate reflection of the historic trend and that also provide greater consistency with other independent forecasts of the Victorian economy going forward.