CONSUMER CHALLENGE PANEL

Submission to the Australian Energy Regulator (AER)
An overview

Consumer Challenge Panel Sub Panel 3 (CCP3)

Response to AER Preliminary Decisions and revised proposals from Victorian electricity distribution network service providers for a revenue reset for the 2016-2020 regulatory period

Sub Panel CCP3

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1. Introduction

CCP3 previously provided to the AER a detailed assessment of the regulatory proposals of the five Victorian electricity distribution network service providers (DNSPs):

- AusNet Services (AusNet);
- CitiPower (CP);
- Jemena Electricity Network (JEN);
- Powercor (PC); and
- United Energy (UE).

Subsequently, the AER released its Preliminary Decisions on the AER's regulatory proposals, and the five DNSPs have released their revised proposals. CCP3 is providing to the AER a detailed assessment of both the Preliminary Decisions and the revised proposals. The purpose of this document is to provide an ***overview*** of that detailed assessment.

As with its earlier response, CCP3 has only provided input in passing regarding those aspects of the review where the AER has typically carried out its own detailed assessment. Such issues include the approach to the roll forward of the regulatory asset base, escalation and growth factors.

CCP3 instead focused on aspects of the Preliminary Decisions and revised proposals where there are significant issues to be addressed. Those significant issues will have considerable impact on the outturn assessments made by the AER in its role of establishing allowed revenue sufficient for the efficient benchmark DNSP to deliver the services required by consumers.

The Preliminary Decisions by the AER are comprehensive, and the DNSPs' revised proposals address many of the issues raised by the AER. However, not all aspects of the AER's Preliminary Decisions have been accepted by the DNSPs, and there are aspects where the DNSPs seek to increase their revenues by making changes to their initial regulatory proposals.

CCP3 is particularly concerned with three major aspects of the AER Preliminary Decisions, which have significant impacts across all of the AER assessments and of the revised proposals.

1. There is a view that because the outturn prices might lead to a reduction from current levels, then this implies acceptability of the new prices. CCP3 points out that there was an expectation of significant price reductions due to the current very low cost of capital. CCP3 sees that the low cost of capital is masking the reality that in a time of average risk free rates (some 300 basis points higher than now) Victorian consumers would have faced significant price rises as a result of the DNSPs' regulatory proposals and revised proposals, which would be seen as totally unacceptable.

2. CCP3 is concerned that the approach taken by the AER of having specialist teams for each element of its assessments creates a silo effect, where the impacts of a decision made by one team (silo) is not reflected in the assessments made by another team. This is not to assert that there is no coordination between the teams, but that the coordination needs to be enhanced.

   CCP3 highlights two examples where this silo effect has impacted the preliminary decisions:

   - The decision to increase replacement of assets (repex) should manifest in adjustment of the opex, yet the opex analysis makes no adjustment for the repex increases.

   - The opex team and capex team apparently made different decisions as to whether to accept or reject Jemena's maximum demand forecasts.

3. This silo effect has wider repercussions in setting the overall allowed revenue. It seems to CCP3 that each "silo" tends to provide an allowance that is more likely to lead to a higher than needed allowance, rather than a lower than needed allowance. Each allowance is thus conservative. It seems to CCP3 that this transpires because in each component of the total revenue allowance, the AER tends to choose an estimate that ensures that the DNSP will recover at least its efficient costs. This can come about where the AER has a choice within a range of values that it might choose, and the AER chooses the value at one end of the range, rather than the value at the other end of the range or within the range. The result of making a conservative decision on every individual component is that it leads to a substantial overestimation of the total allowance, because of the cumulative effect of a series of such decisions. Examples are given in section 8 below on Rate of Return.

   In saying this, CCP3 recognises that there is a view that overall the AER should be conservative. Such a view would be based on the premise that a slightly higher (i.e. inefficient) revenue allowance is more preferable than the risk of under-recovery of efficient costs. This is because if it were consistent over time, under-recovery of efficient costs would lead to investment that is below efficient levels, and thus could lead to reliability of supply that is lower than the efficient level. However, even this view would not justify the overall substantial overestimation of the total allowance that results from the cumulative effect of a series of conservative decisions.

CCP3 is not convinced that the AER Preliminary Decisions deliver the most efficient outcomes for consumers, and therefore the Preliminary Decisions are not in the long term interests of consumers. The five DNSPs all seek higher revenues than allowed in the AER Preliminary Decisions, and this results in even less efficient outcomes for consumers.

Recommendations:

1.1 The AER should ensure that there is better cross referencing of each of the individual team decisions (silos) to ensure that the impacts of one team's decisions are reflected in assessments made by other teams.

1.2 The AER should ensure that it does not introduce substantial overestimation of the total allowance as a result of the cumulative effect of a series of conservative decisions in its regulatory decision making processes.

2. Consumer Engagement

In its earlier advice, CCP3 stated that it was not convinced that the consumer engagement processes delivered any support for increased costs. The AER Preliminary Decisions reflect this view, and so do the revised proposals.

However, there is one element where consumer engagement has been used, which is in the view that consumers are generally satisfied with current levels of reliability, and do not want to pay more for increased reliability. CCP3 agrees that this assumption is a valid starting point, but also notes that reliability of supply is very subjective. It cannot be seen as determinative, as some consumers get very poor reliability, and others hardly ever see a loss of supply.

Notwithstanding, there are aspects where the AER Preliminary Decisions and the revised proposals would increase reliability. Specifically, an increase in repex above long term averages should improve reliability (as well as reduce opex). Similarly, the proposal on the use of rapid earth fault current limiting devices should address the Victorian Bushfires Royal Commission (VBRC concerns), yet the DNSPs propose additional costs which would overall increase reliability.

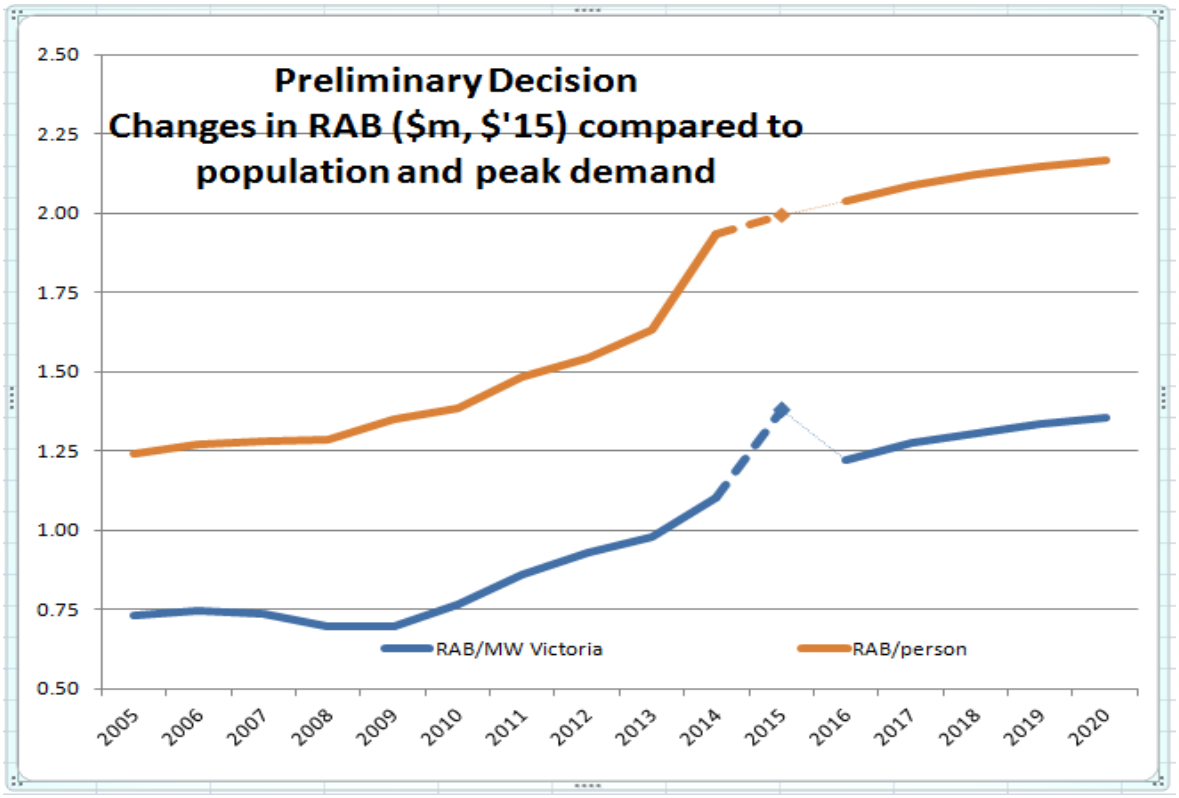
Recommendation:

2.1 Deeper analysis is required of the Preliminary Decisions and the revised proposals, to ensure that there are not added costs which would lead to increased reliability.

3. Benchmarking

Benchmarking is designed to "discover" the efficient and prudent costs of providing the standard control services. The key issues raised by CCP3 are as follows:

- The more recent (2014) data for benchmarking continues the downward trends seen in the 2006-2013 benchmarking. This highlights that action is required to address the declining trends.
- CCP3 does not agree with the AER that the benchmarking supports a view that the base year opex is efficient, as the rate of declining productivity in the Victorian DNSPs is not reflected generally across all DNSPs in the NEM, and certainly not in the competitive sector.
- The continuing decline in productivity seen in DNSPs needs to be arrested through a declared requirement for increased productivity.
- Replacement capex (repex) should be benchmarked over the long term, as it is effectively a recurrent cost, and should be seen in this light. This would allow a closer correlation between repex and opex.
- Utilisation of assets is continuing to decline, yet there is still a requirement for augmentation capex when there is a relatively no increase in peak demand. This leads to even lower utilisation of assets.
- The last three issues have resulted in a major growth in the RAB which impacts both the return on capital and the return of capital, and causes significant increases in the costs of the service. This is seen in the following chart, which tracks the combined growth in the overall regulated assets base (RAB) of the five Victorian DNSPs, relative to population and peak demand.



Source: RIN data, DNSP proposals, CCP3 analysis

- CCP3 sees the growth in RAB as unsustainable, and it will impose a heavy burden on future consumers. It is also resulting in DNSPs seeking ways to increase the rates of depreciation in order limit their future risk.

- The sales of Envestra and TransGrid have resulted in values considerably in excess of the RAB values. Among other possible reasons for this outcome, CCP3 is concerned that the returns on capital are excessive, and this needs more investigation.

CCP3 is concerned that the varying DNSP approaches used to allocate overheads between opex and capex needs to be standardised. CCP3 sees that if there are different bases used in overhead allocation, then this erodes the accuracy and relevance of benchmarking. This point is addressed in more detailed in sections 4.1 and 6.8 below.

Another aspect of benchmarking arises with price impacts seen between each regulatory reset. Consistently, the AER and the DNSPs provide a view of how the change to the new revenue allowance will be seen in transition between regulatory decisions.

The AER's Preliminary Decision provides a significant reduction in prices from those applying in the previous regulatory period. It is concerning that the prime driver of this reduction in prices is from the lower cost of capital rather than from other actions that the AER has taken in the reset process. The cost of capital is inherently an exogenous aspect of the reset process, and one over which the AER has no control. The lower cost of capital that currently applies masks the impact of the massive increase in the RAB that has been observed over the past five years.

To ensure that the underlying cost impacts of capex and opex growth and other financial adjustments (such as depreciation) from the reset process are clearly seen, CCP3 considers that the AER should also provide a view of what the impact of its decision on prices would have been in the absence of the change in the cost of capital. This would highlight the impacts of those decisions over which the AER has control.

Recommendations:

In its earlier advice, CCP3 made three recommendations that it still considers should be implemented. A further two recommendations are now added.

3.1 The AER should conduct a more detailed examination of the trends in the benchmark productivity data, in order to establish if it should accept 2014 expenditures as the basis for their forecasts of allowed expenditures.

3.2 The AER should undertake further analysis of trends in Unserved Energy (USE), reliability, and asset utilisation as part of its assessment of future expenditure requirements.

3.3 The AER should make more use of financial benchmark data to assist it in assessing the rate of return parameters, such as the cost of debt for the benchmark efficient firm.

3.4 The AER should benchmark the change in RAB to identify if its decisions are resulting in further increases, as a continuing increase of RAB in relative terms is not in the long term interests of consumers.

3.5 The AER should carry out a simplistic assessment of its decisions using long term average costs of capital to assess the impact of its decisions under "normal" costs of capital. This would allow benchmarking between periods to identify how decisions compare on a common basis.

4. Operating Expenditure

4.1 Overview of CCP3's advice on operating expenditure (opex)

CCP3 is generally supportive of the AER's approach to assessing efficient forecast operating expenditures (opex) as set out in the AER's Expenditure Forecast Assessment Guideline. That is, CCP3 supports in principle the process of assessing expenditure in the base year, then applying forecasts of "steps" and "trends", adjusted for specific one-off type items not open to trend forecasting.

However, CCP3 estimates that the DNSPs' base year opex, projected forward for the five-year regulatory period, accounts for some 90-95%[1] of the total opex allowance for the forecast regulatory period, particularly in a mature market. Therefore, adoption of the "base-step-trend" approach results in a DNSP's base year expenditure being the major determinant of the forecast outcome over the regulatory period.

Thus, the decision on whether the base year represents an efficient level of opex for a DNSP operating in a mature industry becomes the critical issue for the final opex allowance.

The AER currently assesses the efficiency of this base year very largely by reference to the "revealed costs" in the base year, and the AER's benchmarking analysis. The principal benchmarking tool is the Economic Insights (EI) study of total factor and opex partial factor productivity for the period 2006 to 2013. Each DNSP's efficiency is rated on the basis of its average efficiency score over the 2006-13 period.

Because all the Victorian DNSPs are considered "efficient" based on this average benchmark score, the AER is inclined to accept the 2014 actual opex (the "revealed" costs), after some relatively minor adjustments, as being an efficient base opex on which to forecast 2016-20 opex.

CCP3 is becoming increasingly concerned with this presumption that the base year opex (2014) for each Victorian DNSP represents efficient expenditure and, more specifically, that it is the appropriate reference point to set the forecast path for opex expenditure for 2016-20, given that it accounts for 90-95% of the total opex allowance.

CCP3's concern with the assumption that the base year is efficient is heightened by the AER's most recent Annual Benchmarking Report (November 2015). This report illustrates that the Victorian DNSPs have been through a long period of declining total factor and opex partial factor productivity as measured by EI, in both absolute and relative terms. Figure 4.1 below illustrates this point.

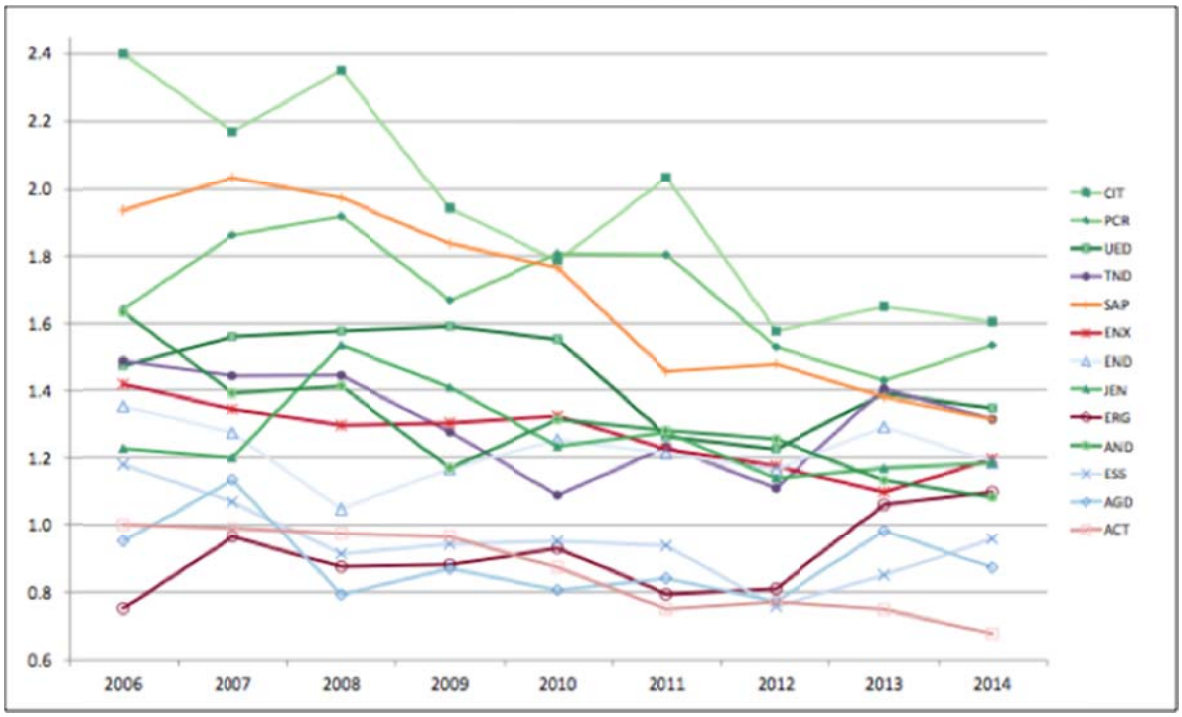
[1] Calculated from the AER's Preliminary Decisions for each Victorian DNSP. See for instance Attachment 7, Figure 7.2 in each Preliminary Decision. The base year figure includes the AER's allowed adjustments for the base year, such as changes in the allowance for provisions and capitalisation policy that the AER applies to the reported opex figure for 2014.

Given the assessment of efficiency is based on the efficiency score for the average of the 2006-2013 years, it is inevitable that the efficiency rating score overstates the actual position of the Victorian DNSPs in the base year 2014.

CCP3 does not consider it likely that factors such as the expansion of the networks in the 2011-15 period or even the bushfire related increases in vegetation expenditures adequately explain this long period of both relative and absolute decline in opex productivity for the Victorian DSNPs.

More particularly, the rate of increase in opex as a result, for instance, of the 2010 bushfire regulations, has a much bigger impact on some DNSPs than others. The relative rates of decline in opex partial factor productivity do not reflect this; nor does the fact that the opex efficiency has continued to decline in 2014 as illustrated in Figure 4.1.

Figure 4.1: Opex Partial Factor Productivity 2006-14



Source: AER, *Annual Benchmarking Report, Electricity distribution network service providers*, November 2015, Figure 6, p. 12.

The assessment of the base year is further complicated by the changes in classification of costs, and the accounting treatment of overhead costs. For example, while the AER has a capitalisation guideline, in practice there is little consistency in how costs such as corporate overheads are allocated by each DNSP between capex and opex, and whether changes to this allocation are reasonable and/or have a significant impact on historical comparisons of efficiency. Both CitiPower and Powercor have proposed, and the AER accepted, that from 2016 all corporate overhead costs would be allocated to opex, rather than shared between capex and opex. This will drive their opex efficiency lower (all other

things being equal), as well as shift the industry opex efficiency frontier downwards. (CitiPower and Powercor are two of the most efficient). For example, the change in capitalisation of overheads adds approximately 30% to CitiPower's allowed opex. For Powercor, it adds approximately 18% to the allowed opex over the regulatory period.[2]

It is equally concerning to CCP3 that while opex efficiency has declined, most of the Victorian DNSPs will continue to receive payments under the opex Efficiency Benefit Sharing Scheme (EBSS). The EBSS for 2016-20 includes a total of some $80m from the 2011-15 period rolled forward into the 2016-20 years. In simple terms, consumers are funding "rewards" for efficiency, even when efficiency is generally declining.

While CCP3 understands there may be various reasons for this apparently paradoxical outcome, it is appropriate that the AER should investigate whether the EBSS is providing a sufficient incentive to the DNSPs to counteract other drivers. CCP3 considers that the AER should revisit its approach of applying a zero value for the trends in industry productivity factor. The reassessment would seek to ensure that the DNSPs are subject to equivalent pressures to improve opex efficiency as would operate in a competitive market.

Further, CCP3 considers that the surge in capex that occurred in the 2011-15 period and will largely continue in the forecast period should also be delivering benefits in opex. The lack of clear and explicit links between historical capex, particularly replacement capex and non-system capex, and future opex savings, appears to be a real gap in the regulatory assessment process.

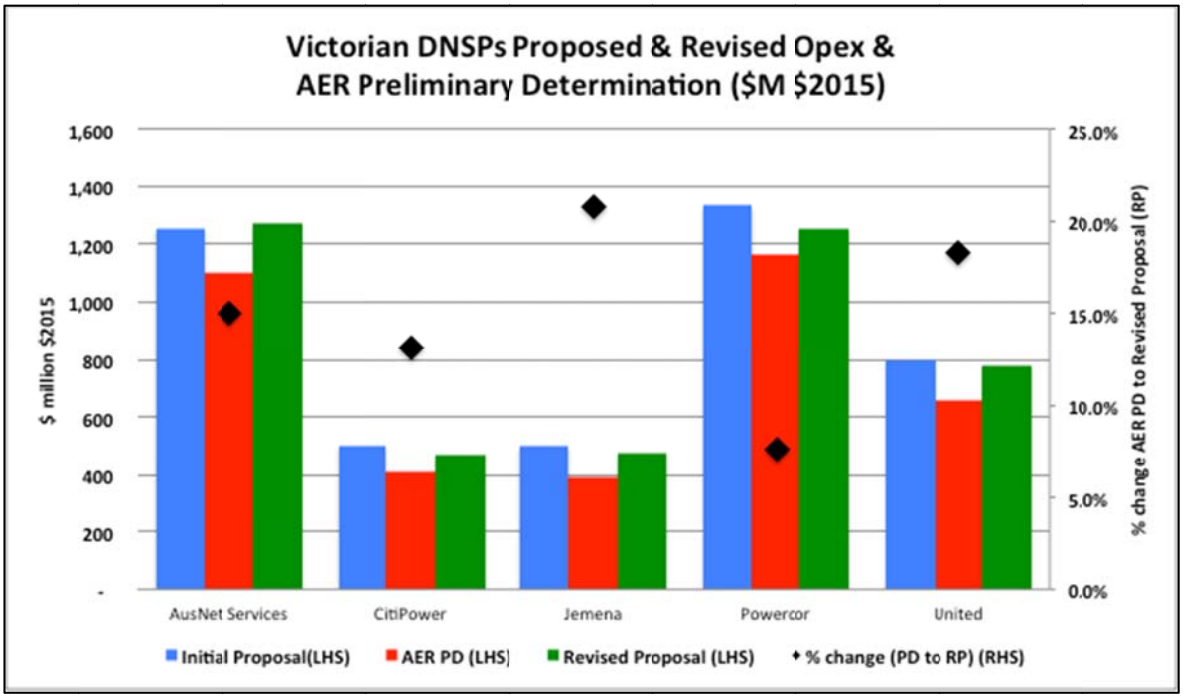
CCP3 would, therefore, welcome the AER demonstrating quantitatively how each of the "causal" factors has influenced the trends shown in Figure 4.1. Such a demonstration would reassure consumers that they are getting long-term value out of their investments, and illustrate how industry productivity growth could be facilitated in the future.

4.2 Specific comments on the Revised Proposals

CCP3 observes that the DNSPs' revised proposals represent a significant increase in operating expenditure over the AER's Preliminary Decisions. Overall, the revised proposals represent around a 14% increase over the AER's Preliminary Decisions. However, as illustrated in Figure 4.2, there are variations in the revised proposals. For example, Powercor's revised opex proposal is around 8% higher than the AER's Preliminary Decision, while Jemena's revised proposal is some 21% higher than the AER's Preliminary Decision opex allowance.

Figure 4.2: Victorian DNSPs' Initial and Revised Proposals & the AER's Preliminary Decisions

[2] Figures for impact on total opex are based on the AER's Preliminary Decisions, Attachment 7, Figure 7.4 for CitiPower and Powercor.



Source: Victorian DNSPs' Revised Regulatory Proposals, AER Prelimiary Decision, CCP3 Analysis.

In the main, the DNSPs justify these increases in opex compared to the AER's allowance in terms of:

- new regulatory obligations;
- higher output growth;
- high allowances for labour/contract costs and non-labour costs; and
- the allocation of some AMI costs to standard control services (SCS).

CCP3 advises as follows on each of these proposed changes:

- While acknowledging that there are some important regulatory changes impacting the 2016-20 regulatory period have occurred. However, CCP3 is not convinced that in most instances these changes impose significant incremental costs compared to the base year. In addition, the detailed opex implications of some rule changes are not yet understood.
- The revised Victorian Vegetation Clearance Regulations (ECR [2015]) should lead to significant cost reductions given the increases in opex that the AER allowed for ECR [2010]). The DNSPs argue that there is no net reduction. This warrants further investigation by the AER particularly as the DNSPs' claims appear to be based on their advice that Energy Safe Victoria granted some DNSPs an exemption from the strict application of the ECR [2010] prior to 2014. The DNSPs then state that the additional ECR [2010] costs are not part of the 2014 base year costs. If that is the case, CCP3

considers that the AER's allowed expenditures for 2013 and 2014 should be adjusted downwards when assessing the EBSS.

- CCP3 accepts output growth increases to the extent they are based on independent third party forecasts; AEMO has increased its forecast for peak demand growth in Victoria since the AER's Preliminary Decisions and other forecasters have increased their forecasts for population growth in Victoria. CCP3 considers that some allowance should be made for these revised forecasts in the AER's opex growth trend assessment.

- CCP3 does not agree with the DNSPs' revised proposals for increases in labour and labour contract costs above CPI. CCP3 supports the AER's assessment in the Preliminary Decisions. That is, the AER has taken the average of a historically high forecaster and historically low forecaster of labour price growth. Given the difficulties in forecasting labour costs over five years, this seems a reasonable approach, and generates an average real increase of 1% per annum. While this is lower than historical increases in the utility sector, it is consistent with current record low wage increases, and the contraction of mining and manufacturing industries.

- CCP3 generally supports the AER's position on Enterprise Bargaining Agreements (EBAs), namely that they should not be accepted as the basis for the forecast of labour costs, as this effectively treats labour costs as pass-through cost. However, CCP3 considers that the "efficiency" of the existing EBAs should be considered in the light of the labour market at the time the EBAs were agreed rather than just against current labour prices. Despite this caveat, CCP3 considers that the AER's approach is reasonable, as the existing EBAs are already part of the "base year" 2014 costs for each DNSP, and so are, implicitly, part of the forecasts of future expenditure.

- CCP3 agrees with the AER's Preliminary Decisions with respect to non-labour costs of an average CPI annual increase, based on the ABS producer price indices. Some DNSPs are seeking increases above CPI, and CCP3 does not see a real basis for such a forecast. Some non-labour cost components may increase above CPI, and some less than CPI, and the AER's forecast provides a better balance of these factors. The bigger concern is whether the very significant decline in non-labour commodity costs (55% since 2011 according to the RBA) is adequately captured in the "revealed" base year opex costs and in the forward projections of these costs.

- CCP3 supports the AER's interim treatment of AMI costs, that is, allocating all AMI related costs to alternative control services (ACS) until the completion of the AER's Distribution Ring-fencing Guideline in December 2016. However, CCP3 encourages the AER to commence that process as soon as possible, given the possibility that it may lead to significant changes in SCS prices, and has impacts on the contestable metering outcomes. As a caveat, the Victorian Government has not yet committed to adopting competition in metering from 2017 (at the completion of the current OIC).

4.3 Summary

CCP3 supports many aspects of the AER's Preliminary Decisions for opex. While the DNSPs identify important changes to their operating environment, CCP3 does not consider that most of these justify the increases that they are proposing in their revised proposals.

However, there remains considerable uncertainty about the net impact on opex of the Victorian Government's regulatory changes, and the potential costs of implementing new rules under the AEMC's Power of Choice program and the Essential Services Commission's changes to Guaranteed Service Level payment scheme (GSL). Some thought needs to be given to how legitimate incremental costs could be recovered during the course of the regulatory period in preference to incorporating estimated costs into the current revenue proposal.

Notwithstanding its support for the AER's general approach and the decisions in the AER's Preliminary Decisions, CCP3 highlights its growing concern with the assumptions made about the efficiency of the base year expenditure for the Victorian DNSPs, given the long decline in opex productivity since 2006. Changes in cost allocation (such as changes in overhead cost allocation) will have further and untested implications on this.

CCP3 is also concerned that the AER's productivity factor, based on movements in the "efficient frontier" that is set by the performance of the Victorian DNSPs, is not effective in driving improvements in productivity that are needed now, and is most unlikely to be effective in the future under the AER's regulatory regime. This applies to all electricity DNSPs, not just the Victorian DNSPs.

Further, CCP3 considers that the decision to apply zero productivity growth does not recognise the impact of the significant increase in replacement capex (repex) and non-system capex such as IT and communications. These investments should lead, over time, to declines in maintenance, service and corporate overhead operating costs. CCP3 believes that the regulatory process should be better able to reflect these cost interactions over time and tack these across regulatory periods.

CCP3 would welcome further discussion on this important issue with the AER.

Recommendations:

4.1 The AER should undertake a comprehensive review of the mechanisms available to it to drive productivity improvements for Victoria and elsewhere including the use of benchmarking to set the base year, the productivity factor in the trend analysis and the interaction of these two factors with the EBSS.

4.2 Separate to 4.1, the AER should provide more detailed analysis of the 2014 base year given that it benchmarking reveals a continued decline in multifactor and partial opex factor productivity.

4.3 The AER should require the DNSPs to explicitly identify the opex savings to consumers (and other benefits) from past expenditures on AMI, replacement capex, bushfire related asset augmentation, IT and communication systems.

4.4 The AER should revisit the operation of the step change component of the opex forecast and defines clear parameters around what is and what is not a step change.

4.5 The AER should revisit its 2008 Capitalisation Policy Guideline with the aim of progressively adopting a consistent approach across all NSPs in the allocation of costs, including overhead costs. Current differences between NSPs, and regular changes in capitalisation of costs such as overhead costs undermine the value of benchmarking.

4.6 The AER should proceed as soon as possible with the development of the new Ring-Fencing Guideline and ensure opportunities for community consultation as the outcome may have a significant impact on network prices and competitive metering.

5. Forecasting – customer numbers, peak energy demands, and total energy to be distributed

In general, CCP3 agrees with the AER's approach to basing its forecasts on AEMO forecasting which is independent and unbiased. CCP3 recognises that the DNSPs have access to additional information in the distribution business to which AEMO does not have access. However, CCP3 considers that the information that AEMO has is sufficient for forecasting purposes, and the DNSPs have not shown why the additional information to which they have access makes their forecasting superior to that of AEMO.

5.1 Customer numbers

CCP3 agrees with the AER's approach to forecasting customer numbers in its Preliminary Decisions.

5.2 Peak energy demands

CCP3 agrees with the AER's approach to forecasting peak energy demands based on forecasts from AEMO.

CCP3 is however concerned that in its Preliminary Decision the AER accepted Jemena's peak energy demand forecast for capex purposes, but did not accept Jemena's peak energy demand forecast for opex purposes. CCP3 would expect to see consistency in the AER's decision making within a single Preliminary Decision. The issue here may be related to CCP3's concern regarding AER staff working in "silos" which was discussed in section 1 above.

In their revised proposals, the DNSPs are now proposing higher maximum energy demand forecasts. CCP3 would support the AER if it were to update its energy demand forecasts based on the latest information available from AEMO. However, CCP3 does not otherwise support higher peak energy demand forecasts in the DNSPs' revised proposals that result from differences in methodology rather than updating of AEMO forecasts.

5.3 Total energy consumption

In its Preliminary Decisions, the AER supported the use of AEMO forecasts of total energy consumption. However, total energy consumption was not a direct driver of expenditure and regulated revenue for the Victorian DNSPs.

CCP3 would support an approach to forecasting energy consumption based on forecasts from AEMO.

Recommendation:

5.1 AER should maintain its approach of basing forecasts on those from AEMO which are independent and unbiased.

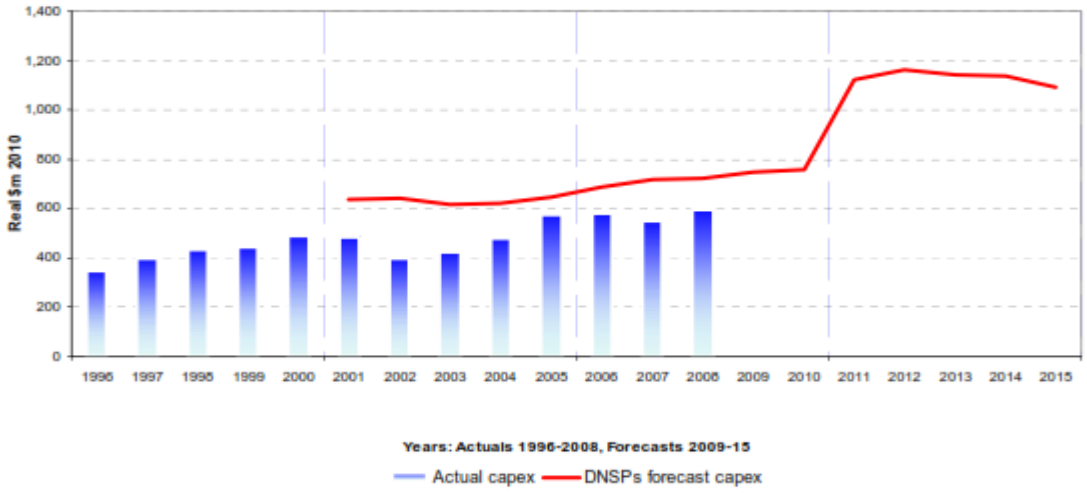
6. Capital Expenditure (capex)

CCP3 has a concern that capex allowed over the years has been excessive. Even in these current Preliminary Decisions, the AER has granted more capex than was used in the 2011/15 period. Further, the DNSPs have rejected the AER Preliminary Decisions, and as a group have only marginally reduced the forecast capex from the actual levels of the 2011/15 period. What is seemingly overlooked by the AER and the DNSPs is that the capex in the 2011/15 period was a 60% increase on the previous period.

Augex $m ($'15)	2006-2010 actual +50% ESL	2011-2015 Actual	Initial proposal 2016–20	AER Preliminary Decision	Revised proposal 2016-20
AusNet	$224	$460	$314	$267	$329
CitiPower	$67	$186	$203	$119	$202
Jemena	$80	$115	$141	$93	$104
Powercor	$155	$217	$362	$242	$311
United	$197	$183	$167	$127	$124
Total	**$724**	**$1,161**	**$1,187**	**$848**	**$1,070**

CCP3 points out that over the long term, capex was reasonably constant in real terms. The capex in 2011/15 was an aberration, as the following chart from the AER reset review for 2011/15 shows.

Figure 8.1 Capital expenditure trend analysis

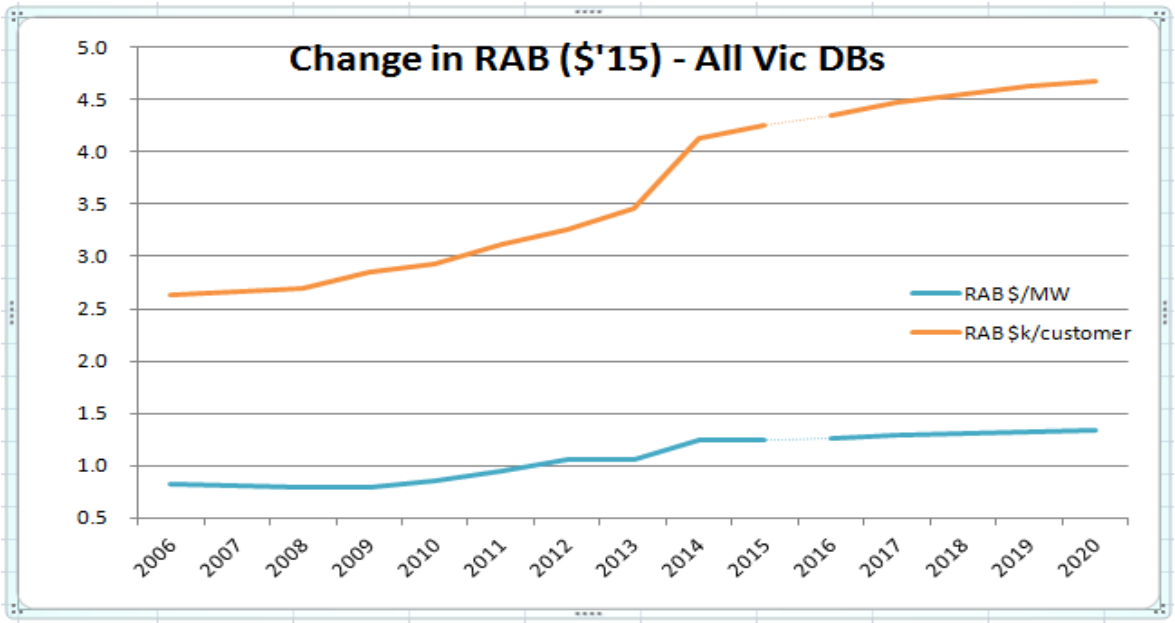


Source: AER internal analysis.

CCP3 has plotted the increase in RAB over time, and this reinforces the view that capex in 2011/15 is an aberration. However, if it is not an aberration, then it is establishing a major issue for future consumers.

The following chart reflects the RAB of all the Victorian DNSPs, related to their number of connected customers, and the non-coincident peak demand in each of the DNSP

networks. The forecasts for customer numbers and 10% PoE for demand are from the DNSP proposals. The RAB and customer numbers are from actual RIN data, and for the forecast period, from the AER Preliminary Decisions and DNSP proposals.



Source: AER Preliminary Decisions, RIN data, DB proposals, CCP3 analysis

The chart highlights that the value of the assets needed to meet the expected peak demands has continued to increase. It also shows that the cost to add new customers is considerably greater than the value to the already connected customers of adding these new customers. In theory, adding new customers to the network should only occur if the additions are efficient – i.e. that the addition of the new customers does not result in increased costs for existing customers.

Across all DNSPs since 2006 to the end of the 2016/20 period, the increases in RAB are 61% relative to peak demand, and 78% relative to customers connected.

The AER has a suite of tools available to assess capex claims yet despite the use of these tools, capex continues to rise. To assess this anomaly, CCP3 carried out some investigation into the inputs used in the models and found significant inconsistencies.

6.1 Augmentation capex (Augex)

The following table comprises data from the AER Preliminary Decisions and the networks' revised proposals. It also sources data from the AER draft decision in 2009 for the actual expenditure for the 2006/10 period to assist in comparing the longer term needs for each category.[3]

[3] The data in the AER draft decision for 2011/15 reset is not exactly comparable to the current assessments, as in addition to the augex/load/reinforcement and repex/RQM categories, there is also an Environmental, safety and legal (ESL) category of capex. CCP3

Augex $m ($'15)	2006-2010 actual +50% ESL	2011-2015 Actual	Initial proposal 2016–20	AER Preliminary Decision	Revised proposal 2016-20
AusNet	$224	$460	$314	$267	$329
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United	$197	$183	$167	$127	$124
Total	**$724**	**$1,161**	**$1,187**	**$848**	**$1,070**

The table highlights that that the claims for augex for 2016/20 are much the same as the actual augex incurred in the 2011/15 period. It is striking that the 2011/15 period commenced with a large allowance for augex based on an expected significant increase in peak demand, driving a need for augex in the early years of the period. In stark contrast, the 2016/20 period is commencing with a forecast of little growth in peak demand, such that the expected peak demand by the end of the period is still below the actual peak demands seen in the past.

The actual augex between 2001 and 2010 was based on forecasts of significant increases in peak demands which eventuated (demand increased by 40% between 2001 and 2010 with a peak in 2009). Thus, that period is reflective of real increases in peak demand, yet the actual augmentation capex was modest compared to augex in 2011/15 and forecast for 2016/20.

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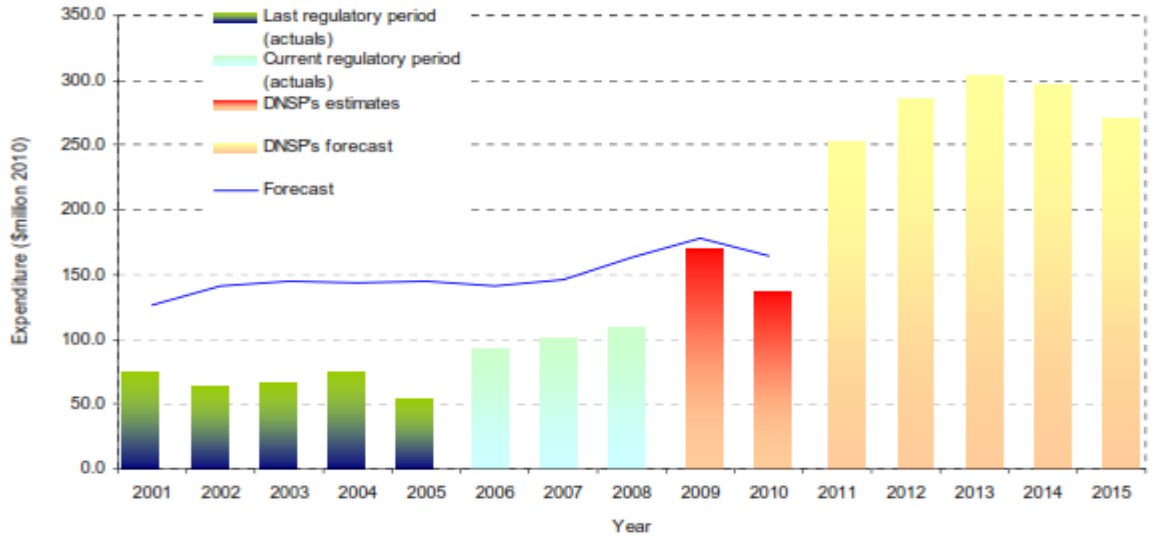
therefore has allocated ESL capex between augex/load and repex/RQM on a 50/50 basis. While this might not be accurate, it does assist in identifying long term trends.

Figure 8.2 Total reinforcement expenditure - all Victorian DNSPs



Note: The expenditure amounts in this figure are on a fully absorbed basis.

CCP3 examined the connection point demand forecasts developed by AEMO, and is of the view that perhaps only five connection points (Cranbourne and South Morang (AusNet), Fishermans Bend (CP), Altona West (PC), and Tyabb (UE)) demonstrate a need for augmentation. This supports a view that little augex is needed.

The DNSPs do not accept the AEMO forecasts, and propose instead that their forecasts are more accurate. As discussed in section 5 above, CCP3 does not accept these assertions. CCP3 considers that AEMO has no vested interest in overstating forecast peak demands.

6.2 Customer connections

The amount of capex involved in new customer connections is significant. As noted above, there are questions about the efficiency of the new connections, as they increase the cost to all customers rather than reduce these costs. It is also concerning that the different DNSPs all have different outcomes (in percentage terms) for the amount of the capex recovered from customers, implying that the different DNSPs have differing approaches to calculating the customer contributions despite them apparently applying the same guideline.

In their revised proposals, the DNSPs have an increased forecast of new customers. CCP3 considers that only independent assessments should be used for such forecasts.

6.3 Replacement capex (Repex)

CCP3 is very concerned at the extent of repex that the AER has provided in its Preliminary Decision allowances to the DNSPs. The DNSPs have all rejected the AER allowances in their revised proposals, and sought more than the AER allowed in the Preliminary

Decisions. Overall, the amount of repex sought in the revised proposals is only marginally lower than that initially sought.

The following table comprises data from the AER Preliminary Decisions and the DNSPs' revised proposals. It also sources data from the AER draft decision for 2011/15 summarising the actual expenditures in each category[4] for the 2006/10 period. The allowed amounts for 2011/15 were drawn from the AER Final Decision.

Repex $m ($'15)	2006-2010 RQM +50% ESL actual	2011-2015 allowed RQM + 50% ESL	2011-2015 Actual	Initial proposal 2016–20	AER Preliminary Decision	Revised proposal 2016-20
AusNet	$270	$552	$687	$901	$758	$804
CitiPower	$205	$300	$153	$260	$199	$260
Jemena	$96	$196	$163	$224	$224	$256
Powercor	$314	$558	$443	$722	$609	$672
United	$146	$350	$406	$585	$424	$564
Total	$1,031	$1,956	$1,852	$2,692	$2,214	**$2,556**

The table highlights that the 2011/15 actual repex is a massive increase from that used in the previous (2006/10) period. Longer term trends in repex show that historic (but lower) levels of repex maintained the supply reliability levels. CCP3 questions why higher levels of repex are required now to provide the same level of reliability. As with augex, CCP3 notes that repex in 2011/15 was about twice what was used in the 2001 to 2010 period.

Such excess amounts in 2011/15 have resulted in RAB increases for no discernible benefit to consumers, yet the 2016/20 forecasts are even greater than seen in 2011/15. Reliability of supply has been maintained in the past with much lower levels of repex.

CCP3 was concerned as to why the AER models generated such high levels of repex. Deeper investigation shows that there are a considerable number of anomalies in the input data. For example, in the repex model, a 22kV wood pole is replaced every 64.7 years, yet a 22 kV concrete pole is replaced every 43.2 years, and a 22kV steel pole every 15.4 years. The cost for concrete and steel poles is significantly more than for wood poles. CCP3 would expect that the materials of the concrete and steel poles would give a longer life than wood poles.

Overall, CCP3 considers the AER has erred in increasing the amount of repex to each of the DNSPs from historical levels, as it appears that lower levels of repex would deliver the same levels of reliability as now and as sought by consumers. The basis for this CCP3 view is that the AER models have used input data that is suspect, and the AER has not

[4] The data in the AER draft decision for 2011/15 reset is not exactly comparable to the current assessments as in addition to the augex/load/reinforcement and repex/RQM categories, there is also an Environmental, Safety and Legal (ESL) category of capex. CCP3 therefore has allocated ESL capex between augex/load and repex/RQM on a 50/50 basis. While this might not be accurate, it does assist in identifying long term trends.

considered trend data over a sufficiently long period and compared this to the outputs achieved in terms of reliability.

6.4 Non-network capex (IT)

CCP3 is concerned that IT capex is showing ever increasing claims. CCP3 points out that this IT capex is not delivering better outcomes for consumers, although DNSPs assert that the newer and better available IT allows them to carry out their tasks better. Consumers are seeing higher costs and no improvement in reliabilities (which they state they do not want to pay for).

Overall CCP3 considers that the proposed IT programs are still excessive based on long term trends and add to the overall concern that the DNSPs, with the support of the AER, has allowed the RABs to increase to excessive levels.

6.5 Victorian Bushfires Royal Commission (VBRC) capex

CCP3 accepts that the Victorian Government decision to implement the recommendations of the VBRC will increase costs.

The apparent dichotomy of views as to what is required to implement recommendation 27 (preventing falling lines from starting a fire) is of concern to CCP3. A low cost solution has been developed using rapid earth fault current limiting (REFCL) devices, yet the DNSPs propose also to implement replacement of all surge devices, to maximise the benefit of the REFCL devices, so that supply can continue even when a powerline has fallen, thereby enhancing reliability. As noted in section 2, consumers do not want to pay more for enhanced reliability, so CCP3 considers that the proposed surge diverter replacement program should only be applied to those surge diverters that are essential to maintaining the existing reliability of supplies.

6.6 Regulatory depreciation

The DNSPs have proposed a change to the calculation of depreciation from the historic approach used by the AER (and hitherto accepted by DNSPs) to one called the year-by-year approach. CCP3 accepts that the year-by-year approach probably complies with the NER, but points out that it appears to increase the amount of depreciation incurred by current consumers. Further, CCP3 comments that the backdating of the year-by-year approach to the start of the 2011/15 regulatory period changes the structure of the notional contract between DNSPs and consumers entered into in 2010. CCP3 considers that if it is implemented, the year-by-year approach should only apply forward, and should not be backdated.

CCP3 questions why current consumers should incur a greater share of the depreciation allowance for the benefit of future consumers, and whether this complies with the NEO. CCP3 accepts that faster depreciation will benefit the DNSPs, as it reduces the risk of their shareholders incurring a write down at a point in the future. More particularly, CCP3

comments on the apparent dichotomy that allowing increased depreciation rates effectively offsets the increased capex that is sought.[5]

The year-by-year approach is more complex, and will increase costs to consumers. As there is an acceptable approach to depreciation that has been used for the last 15 years without concern, which is much less complex and lower cost, the additional costs to implement the change must be borne by the DNSPs.

CCP3 also notes that some of the DNSPs have changed their approach to depreciation between initial and revised proposals, and now all DNSPs have a similar approach to depreciation. It concerns CCP3 that the approach to depreciation was not an issue that was discussed in depth prior to the submission of the initial proposals, and certainly it was not discussed with consumers impacted by the decisions of those DNSPs that changed their approach to depreciation in their revised proposals.

6.7 Asset lives

CCP3 considers that asset lives used for depreciation purposes should be consistent across all DNSPs. CCP3 notes the AER view that

> "…we must allow for some variation in standard asset lives … reflecting the specific nature of each distribution network"[6]

CCP3 does not agree, and points out that the AER approach has allowed significant variation between different DNSPs which are well beyond any that comes from differing environmental issues.

Asset class	Standard asset life					% variation highest/lowest
	Ausnet	Citipower	Jemena	Powercor	UE	
Subtransmission	45	50	45.8	50	60	33%
Distribution system assets	50	49	48	51	35.6	41%
Metering	n/a	n/a	n/a	n/a	n/a	
Public lighting	n/a	n/a	n/a	n/a	n/a	
SCADA	10	13	10	13	10	30%
Non network - IT	5	6	5.3	6	5	20%
Non network - other	5	10	24.2	15	7.5	384%
SCADA (5-year asset)					5	
Land	n/a	n/a	n/a		n/a	
VBRC		49		51		4%
Equity raising costs	47.9			42.7	40.4	19%

Source: AER Preliminary Decisions, DNSP proposals

[5] In a competitive environment, a firm facing price pressures would scale back its capex program and would write off redundant assets at shareholder expense. In contrast, the DNSPs are seeking to increase capex and write down redundant assets at consumer expense.

[6] See for example note 30 page 5-13 Attachment 5 CitiPower determination

This shows that the variation of asset lives between each of the DNSPs exhibits significant variation. CCP3 considers that this variation is much greater than needed to reflect "the specific nature of each network".

CCP3 reiterates its earlier advice that there is a need for consistency, recognising that the AER has established a fundamental approach that its regulation is based on a notional efficient standalone energy network. This implies there should be much more consistency in the inputs used in developing the efficient revenue allowance.

6.8 Regulatory accounts

CCP3 considers that the variations permitted in the regulatory accounts between DNSPs need to be eliminated by the imposition of a standard approach. Specifically, this applies to capitalisation of overheads, depreciation rates for assets of the same class, and asset life expectancy of the same class otherwise the value of benchmarking is eroded.

6.9 Conclusions

Neither the DNSPs nor the AER has explained why there has been a need to increase the RAB (in relative terms), while the reliability and quality of supply has and will remain essentially constant. The massive increase in RAB is a direct result of the major increases in capex used by DNSPs and allowed by the regulator at each regulatory reset, but most importantly at the 2010 reset. It is of concern that the DNSPs are still seeking to increase the RABs in relative terms, but at the same time looking to find ways to decrease the RAB though significant increases in depreciation. This is due to the fear that DNSPs (and TNSPs) have of being required at some time in the future to accept that the RABs they have generated are just too great for consumers to manage. The cost to consumers of asset write downs at consumers' expense rather than at shareholder expense[7] at this time of disruptive innovation is driving some consumers to seek solutions for themselves that are more cost effective to them personally than continuing to use the traditional electricity supply structure. This is unlikely to be the most efficient outcome.

It is even more concerning that increases in capex coupled with accelerated depreciation is imposing on consumers considerable increased costs for no discernible benefit and significant hardship to many consumers of electricity services.

Recommendations:

6.1 The amount of augex allowed in the Preliminary Decisions is too high based on long term trends and connection point data. Alternative methods (such as incentive tariffs) need to be investigated to avoid the need for augex.

6.2 The amount of repex allowed in the Preliminary Decisions and claimed in the revised proposals are too high and do not reflect the longer term trends which provided acceptable levels of reliability.

[7] In a competitive industry, shareholders carry the risk of assets being made redundant not consumers.

6.3 The claims for IT capex need to be examined more closely, as they too are contributing to the increasing RAB, and they do not impact on the reliability consumers see. CCP3 considers that a long term view on IT capex needs to be implemented to see what the increasing capex allowances have delivered to consumers in terms of the cost of the service and the benefits received by consumers.

6.4 The proposed REFCL implementation program should be implemented replacing only those surge diverters necessary to maintain existing levels of reliability.

6.5 The AER should implement the year-by-year depreciation approach from 2016 and not backdate it. Further, the additional costs to implement the change should not be passed onto consumers as there is a more efficient approach available at lower cost.

6.6 Greater consistency in asset lives across DNSPs is necessary and so is there a need for greater consistency in other aspects such as capitalisation of overheads and depreciation.

6.7 The AER needs to bring the capex and the depreciation process into a single analysis of efficient investment.

7. Incentive Schemes

CCP3 recognises that the AER has taken to heart the recommendations it made regarding the incentive schemes, and agrees with the AER Preliminary Decisions regarding its approach to the incentive schemes but with two caveats:

- The increase in repex and augex and the decision to assume the 2014 year opex is efficient all have an impact on the incentive schemes and the over allowance in this areas will provide the basis for the DNSPs to gain bonuses out of the STPIS.
- The AER reports provided regarding the outcomes of the DMIA projects funded by consumers are inadequate, and do not demonstrate there are positive outcomes of form the funds provided. These reports are essentially focused on compliance rather than on explaining why the funds invested are efficient.

Recommendations:

7.1 The AER should address more carefully the allowances for opex and capex

7.2 The AER should generate reports on the use of the DMIA which demonstrates the value of the DMIA funding to consumers.

8. Rate of Return (RoR)

8.1 Overview

In August 2015, CCP3 provided an extensive paper setting out its advice to the AER on the best estimate of the rate of return (RoR) that was appropriate for the regulated network businesses. The paper formed part of CCP3's overall response to the Victorian DNSPs' initial regulatory proposals for the 2016-20 regulatory control period.

Having considered the AER's Preliminary Decisions and the DNSPs' revised proposals, CCP3 is of the view that much of the material provided in its original paper on RoR is still relevant, and forms part of its response to the AER's Preliminary Decisions and the DNSPs' revised proposals.

The focus of the current advice on the RoR is, therefore, to reinforce elements of CCP3's initial proposal, particularly where CCP3 considers that the AER has not provided an adequate response to the issues raised by CCP3.

CCP3 highlights again that the AER's Preliminary Decisions on the RoR rest on a series of conservative decisions. By conservative decisions, CCP3 means that where there is a range of feasible outcomes for a given parameter, the AER will tend to select a value that favours the DNSP. For example, the AER could have selected a 7-year bond period which is close to the observed average tenor, but chose 10 years.

The cumulative effect of this series of conservative decisions is likely to be a consistent overestimation of the total RoR that is required by an efficiently financed efficient network operating in a favourable regulatory framework. In other words, the AER needs to consider the overall effect of its decision making to avoid the risk of consistent bias in the final result.

CCP3 also provides additional evidence on the equity beta. Notwithstanding that the AER's equity beta is lower than that proposed by the Victorian DNSPs, it remains above the empirical evidence provided in the first instance by the AER's own expert consultant.

CCP3 provides further evidence to support its contention that the equity beta should be in the range of 0.5-0.6 in order to reflect appropriately the asset and cash flow protections afforded by, inter alia, the indexation of the RAB and the revenue cap form of control.

The current advice also addresses "new" RoR issues that have been raised in the DNSPs' revised proposals.

In particular, the DNSPs have all revised their initial proposal with respect to the transition from the previous method of calculating the return on debt (the "on-the-day" method) to the 10-year trailing average methodology.

The result of this proposed change in approach to transition is a significant uplift in the return on debt (RoD) of about 250-260 basis points. The DNSPs are now proposing a RoD of around 7.8%. This in turn implies a debt risk premium of around 5.1%.

CCP3 considers that such an outcome has no basis in terms of the efficient current costs of debt to the businesses, and regards the revised proposal as without merit. CCP3 advises the AER to reject this approach to the RoR, and reminds the AER that the reforms to the Rules were designed to allow the AER to consider the overall outcomes of the process and whether it best delivers on the rate of return objective.

Notwithstanding its concerns with some elements of the AER's approach (which CCP3 would ask the AER to reconsider), CCP3 considers that the AER's final determination should be based on the approaches to the return on equity and the return on debt set out in the AER's Rate of Return Guideline.

As a general principle, CCP3 considers there must be a relatively high standard of proof provided to the AER and other stakeholders that the RoR Guideline will not deliver outcomes consistent with the rate of return objective; it is not sufficient simply to propose an alternative approach, however elaborate that might be. CCP3 did not see such proof.

8.2 Summary of CCP3 advice to the AER on the DNSPs' initial proposal

As explained above, CCP3 regards the extensive initial advice provided to the AER as largely relevant to its response to the AER's Preliminary Decisions and the DNSPs' revised proposals. For this reason, summarised below are the key points of this initial advice.

- CCP3 generally supported the AER in applying the approach to the RoE and RoD, including the transition process set out in the AER's RoR Guideline.
- However, CCP3 noted the risk of error in the overall RoR as a result of the cumulative impact of the AER's conservative assumptions. These included the parameters set in the RoR Guideline for the market risk premium (MRP), equity beta, gearing ratio, 10-year debt tenor, effective BBB credit rating, reference to funds raised in Australia only. Each of these factors represents a conservative assessment compared to the reality of the businesses' operations.
- CCP3 also noted its specific concern that the AER's RoR Guideline did not sufficiently reflect the empirical findings on the equity beta that consistently pointed to a best equity beta estimate below the AER's 0.7. CCP3 considered that the AER's decision to rely on the theory of the Black CAPM to select an equity beta at the top of the observed range did not sufficiently recognise the practical and theoretical limitations of the Black CAPM, particularly in defining a reliable and unbiased zero beta value.
- CCP3 strongly opposed the DNSPs' proposed approach to the RoE. CCP3 highlighted that the DNSPs' proposed "multi-model" approach:

- lacked transparency and regulatory precedence for the application of the models and the combination of models into a weighted average;
- the lack of precedence effectively puts Victorian electricity consumers in the role of "guinea pigs" in an econometric experiment. This is not acceptable regulatory practice;
- the models greatly increased the complexity of the process and relied on many assumptions about input parameters and model specifications. CCP3 considered that this approach produced inconsistent outcomes, introduced the potential for bias and added to the areas of potential dispute.

- CCP3 considered that the AER's transition approach was to be preferred over the hybrid transition approach proposed by the DNSPs. Under the hybrid approach the transition would apply to the risk free rate to reflect (inter alia) typical DNSP hedging strategies. However, the debt risk premium would be derived from 10-year average BBB bond yields and immediately implemented without transition;
- CCP3 also highlighted the need to take into account the special protections provided by the Australian regulatory framework. In particular, CCP3 noted the additional reduction in risks to the businesses arising from:
  - the introduction of a revenue cap which removes volume risk;
  - the indexation of the RAB which protects the value of the underlying assets even when they might otherwise be written down in a commercial environment; and
  - the progressive transition to a 10-year trailing average, including annual updating of the RoD.
- CCP3 urged the AER to develop a data base of information on the financial and operational status of the DNSPs as reported to shareholders, owners, the ASX etc (e.g. reported profits, returns on assets, announcements on debt and equity raising) in order to better assess:
  - the claims made by the DNSPs about the potential negative impacts of the AER's decisions;
  - the AER's decisions against the actual outcomes.

CCP3's view is that these comments listed above are all relevant to the AER's final determinations, particularly given the DNSPs' revised RoR proposals as discussed below.

8.3 Specific advice to the AER on the DNSPs' revised proposals

8.3.1 Summary of the DNSPs' revised proposals

In their revised proposals, the DNSPs have largely repeated their claims with respect to the RoE and greatly increased their claims regarding the RoD. Table 8.1 summarises the

outcomes of the revised proposals, and demonstrates the very significant increase in the proposed Rate of Return despite applying the same risk-free rate.

Table 8.1: Summary of Rate of Return for Victorian DNSPs

		AusNet	CP & PC	Jemena	United	Comment
Cost of Equity	Initial Proposal	9.90	9.90	9.87	9.95	Multi-model approach
	AER Preliminary	7.3	7.3	7.3	7.3	S-LCAPM foundation model
	Revised Proposal	9.8	9.89	9.89	10.05	Multi-model approach
Cost of Debt	Initial Proposal	5.39	5.39	5.39	5.67	Hybrid transition
	AER Preliminary	5.30	5.16	5.16	5.33	10-year staggered transition
	Revised Proposal	7.83	7.76	7.77	7.8	Immediate transition
Overall Rate of Return	Initial Proposal	7.19	7.20	7.18	7.38	
	AER Preliminary	6.10	6.02	6.02	6.12	
	Revised Proposal	8.66	8.61	8.62	8.70	
Previous Rate of Return		9.75	9.49	10.33	9.49	

Based on the risk free rate of 2.76% as used in the AER's Preliminary Decisions, using 10-year CGS yields and the placeholder averaging period of 20 business days to 30 September 2015.

It is clear from table 8.1 that the DNSPs' revised proposal would, if accepted by the AER, result in a significant increase in the overall RoR of some 150 basis points compared to the DNSPs' initial proposals. The revised RoR proposals are also some 250-260 points above the AER's Preliminary Decisions.

In summary, the DNSPs generally propose to:

- Continue to use the multi-model approach to assess the RoE;
- Increase the proposed equity beta and market risk premium compared to their initial proposals;

- Move directly to the 10-year trailing average in preference to the AER's transition process and in contradiction to their previous support for a "hybrid' transition process.

The revised RoR proposal has, in turn, a major impact on the electricity network prices proposed by the DNSPs, particularly in 2017 as it appears the DNSPs' proposed 2017 prices also involve the "recovery" of 2016 revenues. This raises the very real risk of significant price shock in the electricity market – much of it centred around arcane debates on efficient transition process.

CCP3 therefore is very concerned that the AER firmly reject the revised RoR proposals. CCP3 is providing this advice in two parts, first with respect to the return on equity (RoE) and second with respect to the return on debt (RoD).

8.3.2 Return on equity (RoE)

The AER's Preliminary Decisions provided a substantive body of evidence to demonstrate that the DNSPs' proposed approach to the RoE did not result in a preferable outcome in terms of the rate of return objectives, the National Electricity Objective (NEO) and the Revenue and Pricing Principles (RPP).

More specifically, the DNSPs have not provided sufficient reasons for the AER to vary from its RoR Guideline. CCP3 therefore encourages the AER to continue to apply the RoE methodology set out in the Guideline.

However, the AER should take more note of CCP3's concern with the overall conservative bias and empirical data provided in the CCP3's advice regarding the equity beta in particular.

CCP3 has provided additional empirical evidence that supports a range of 0.5 to 0.7 for the equity beta, an outcome that is very consistent with CCP3's previous advice to the AER. Given this latter study, the AER now has before it, some four separate empirical analyses covering the period from 2008-09 to 2013 and including the Australian component of the SFG Consulting study of equity beta. All point to a similar conclusion that the best estimate of the true beta value is less than 0.7. CCP3 does not think the AER can reasonably continue to ignore this consistent body of empirical evidence.

8.3.3. Return on debt (RoD)

The revised proposal raises new issues with respect to the RoD. Perhaps influenced by the current appeals by the NSW DNSPs and other DNSPs to the Australian Competition Tribunal, the Victorian DNSPs have changed their proposed approach to transition to the new RoD methodology.

In doing so, they have relied on more esoteric and legalistic arguments than empirical support for a higher RoD. The argument appears to go along the lines that (a) the AER has identified that a 10-year trailing average with annual updates represents an efficient debt portfolio management practice; and (b) therefore the AER must adopt the efficient

practice immediately with no transition. Coincidentally, this reasoning leads to an uplift of some 250-260 basis points in the RoD.

Again, CCP3 considers that it is appropriate for the AER to make its final determination based on the transition approach set out in the AER's RoR Guideline as this was developed after extensive consultation with stakeholders and best represented the AER's view that it was important to minimise the risks of windfall gains for both service providers and consumers arising from a change in methodology. Importantly, the RoR Guideline approach was written in advance of knowledge of actual commercial bond rates. The DNSPs' proposed approach applies a retrospective revision based on knowledge of the direction of interest rates have gone since 2013.

CCP3 provides this advice to the AER based first on the principle that there needs to be good reason to vary from the RoR Guideline including the transition process. The DNSPs must demonstrate that their proposal is preferable in terms of the long-term interests of consumers. CCP3 believes they have not done so.

Second, it is acknowledged by the AEMC, AER and others that there are multiple "efficient" debt portfolios and what is most efficient for any one company will vary from another and over time. The purpose of moving to a 10-year trailing average was not because it represented the "most efficient" portfolio, but rather it would provide greater stability and predictability for businesses and for consumers over the life-time of the regulated assets. It follows that the same principles of regulatory predictability apply to the question of transition. It would be a violation of this principle of predictability, consistency and absence of bias if the AER departed from its Guideline approach.

CCP3 also provides more specific responses to the DNSPs' revised transition proposal. They include the following:

- The overriding obligation on the AER is to consider the impact of the RoD transition process on the overall RoR. That is, the AER must decide this issue on the basis of what approach best meets the rate of return objectives in the NER. CCP3 considers the DNSPs' proposed transition approach fails this test;

- The DNSPs' revised approach will generate windfall gains including a DRP of some 5.1% over the CGS 10-year bond yield. This is well in excess of the debt premium required by lenders for a low risk, stable cash flow, asset indexed regulated network business. If it was an issue, lenders would not support buyers of the Transgrid assets at a 1.6 RAB multiple. CCP3 also points to a variety of other evidence including data that suggests historical average DRP was in the order of 2.35% for BBB rated companies. Even during the GFC, the DRP was less than 4.5%.

- There are significant issues around the quality and consistency of data on commercial BBB debt yields for the 10-year historical period. This is not a problem for the AER's transition approach but is a significant issue if the RoR is based immediately on the historical yield information, as proposed by the DNSPs.

- The AER must have regard to the impact of their RoR decision on capex incentives. Given that the DNSPs' revised proposal is significantly above current costs of capital for BBB/BBB+ rated companies, there will be perverse incentives to overinvest in the network.

- The AER must also have regard to the impact of their decision on consumer and investor confidence. The RoR Guideline is intended to provide such confidence and for this reason the AER should not depart from it unless there are substantive reasons to do so. In particular, the significant impact on consumers of the DNSPs' proposed departure from the RoR Guideline risks a collapse in consumer confidence in the regulatory process. The DNSPs' revised proposals for the RoD appear to be extremely short-sighted in this respect.

- The DNSPs' proposed changes to the transition process are being made with the benefit of hindsight about the direction of interest rates and bond yields since the RoR Guideline was finalised. Whether intended or not, this raises the perception of bias. As with the "averaging periods" for future years, decisions on the optimal unbiased approach must be made in advance of the relevant information, not after it.

To conclude, CCP3 generally supports the approach adopted by the AER, and advises the AER to continue to adhere to the Rate of Return Guideline with respect to both the RoE and the RoD, including the transition to the new RoD methodology. With respect to the RoD transition, for instance, the CCP3 notes the Victorian Government's comment:[8]

> *"The Victorian Government is extremely disappointed with the opportunism demonstrated by the DNSPs … particularly through the significant increase in the proposed rate of return".*

CCP3 shares this concern that the DNSPs' RoD proposals will be seen as opportunistic. Moreover, the RoD proposals, and the impact of these proposals on the price paths, represent a substantial change from the pricing proposals that the DNSPs' put to their customers as part of their original customer engagement programs. CCP3 is not aware whether this new approach has been canvassed by the DNSPs with their consumers and whether the DNSPs have established a consensus with their customers that this increase (well above market rates) is in the consumers' long-term interests.

However, CCP3 considers that there is increasingly compelling data to suggest that the AER may overestimate the rate of return because of its selection of point estimates at the top of the range, particularly the equity beta. CCP3 provides further empirical evidence to support a lower equity beta than 0.7 for the AER's consideration.

[8] Victorian Government, "Submission on the Victorian electricity distribution network service providers' revised regulatory proposals for 2016-20", February 2016, p 1.

Recommendations:

8.1 The AER should review the additional material on the equity beta provided to it by its own expert consultants, CCP3 and others since the publication of the Rote of Return Guideline to assess whether the Guideline's equity beta estimate of 0.7 remains appropriate. The AER should do so taking into account the risk that applying a series of conservative assumptions will lead to an overestimation of the RoE.

8.2 The AER should also consider the extent to which the changes in the regulatory regime, such as the revenue cap form of control and the annual updating of the cost of debt improve the risk profile of the DNSPs relative to their historical exposures and the market as a whole.

8.3 The AER should continue to build up its knowledge base concerning the actual financial performance and representations of the regulated networks to their investors and debt providers with the aim of testing whether these financial outcomes are consistent with the expectations under the regulatory regime. This provides an opportunity for the AER to benchmark its own decisions.

8.4 With specific reference to the revised proposals from the DNSPs, CCP recommends that the overall rate of return objective is best satisfied as follows:

- *The AER should not accept the DNSPs' proposed methodology for assessing the RoE. The AER should continue to apply its foundation model as set out in the AER's RoR Guideline.*
- *The AER should not accept the DNSPs' revised proposals for transitioning to the new RoD 10-year trailing average. The AER should continue to apply the RoD transition model set out in the RoR Guideline.*

9. Pricing

In its earlier advice, CCP3 stated that it was concerned that if there is a move to peak demand based tariffs, that the peak demand for each consumer should be related to the times of expected peak network demand as this is the driver for augmentation. If the new demand tariff is an "anytime" peak demand tariff, this will do little to drive change. If the peak demand tariff is based on usage at peak times in the network (e.g. between 3 pm and 7 pm on summer work days or similar to that used by AEMO for transmission pricing), then this will result in a more equitable arrangement for allocation of costs.

This advice now gives further views of CCP3 on the Tariff Structure Statements (TSS).

The first step is to establish what the right fundamentals are. Then the individual Victorian TSS and those from other jurisdictions can be compared to see what constitutes best practice, in order to achieve the intent of setting cost reflective tariffs.

The whole change comes out of the AEMC's Power of Choice report. If consumers do not get the benefits identified in the Power of Choice report, then it is an opportunity lost. Quoting the AER's Issues Paper (page 10):

"Achieving improved tariff cost reflectivity is not an end in itself. Rather it is a means to achieve efficient usage of and investment on the network and in electricity services to power appliances (e.g. solar panels, electric vehicles, battery storage etc), in the long term interests of consumers as guided by the NEO."

Promoting efficient investment and consumption decisions

CCP3 advises that the setting of tariff structures should be with a view not just to cost-reflectivity and equity, but rather to promote efficient investment and consumption decisions. Setting tariff structures and prices simply to be cost-reflective may be appropriate where consumers are just price takers. However, consumers have choice, and can react to tariff structures and prices not just by changing usage levels and times, but also through investment in on-site technology including on-site generation, storage systems and home / business smart energy management systems. The main objective really should be about efficient investment and consumption decisions. It is about meeting the objectives of the Power of Choice review. It is about being consumer centric and about consumer investment and consumption decisions. It is not just about cost reflective pricing and equity.

Put another way, the objective of tariff structures should be to give consumers incentives so that the consumers' investment and consumption decisions limit network investment requirements, and thus provide better and more efficient outcomes to the ultimate benefit of the consumers themselves. TSS proposals should be assessed against this objective to see how well they perform.

Signals of cost drivers

The AER must address the following:

How well do the proposed tariff structures reflect network cost drivers? How well will they reflect them in the future? To what extent do TSS proposals reflect effective and equitable recovery of network costs?

How will storage that may be deployed on the network affect cost drivers?

As the cost of storage decreases, is differentiated pricing signalling to customers that they should invest in their own on-customer-site storage when it might be more cost effective for network deployment at scale?

Quoting from the AER's Issues Paper (page 8):

"If we don't improve price signals to guide investment and use of new and emerging technologies such as electric vehicles, batteries and solar panels, we may face excessive network investment or customer expenditure when there are lower cost alternatives to meet customers' needs."

Consideration of the impact of changing tariff structures

Pragmatically, consumers are not going to be influenced by different electricity tariff charges between the DNSPs. Consumers will not generally select a location or relocate based on network costs. However, user behaviours may be influenced by tariffs.

To what extent will consumers understand the tariffs and react to them? Consumers have varying capability and willingness to engage to invest in appliances / devices / insulation to help them manage their electricity usage, based on the price signals that they receive.

How will consumers be affected? How will vulnerable consumers be affected?

How will new tariff structures affect choice of fuel (electricity vs gas), and how will changes in gas vs electricity consumption affect network cost drivers?

Consistency across DNSPs

Lack of consistency across DNSPs (nationally; not just in Victoria) increases retailers' costs and makes it more difficult and costly to design and implement demand side programs, because they have to be designed and tailored to fit each DNSP. With so much variation between DNSPs, this risks the realisation of the benefits of meeting the objectives for the tariffs. The AER should consider rejecting the tariffs if it believes that the disparity between the tariffs could realistically lead to jeopardising the realisation of benefits from better signalling of costs to consumers and giving consumers realistic opportunities to react to those signals.

Alternatively, a Rule change may be required to focus the DNSPs on producing consistent TSS. Perhaps that might be achieved through a AER Guideline?

Use of LRMC

What is the value of setting tariffs based on LRMC when the signals to consumers could be significantly moderated by retailers?

While DNSPs are required to set tariffs based on LRMC, it is the allocation of the residual costs (which are the greatest contributors to the final tariffs) which will have the greatest impact on the tariffs finally developed. Therefore the TSS have to explain how the residual costs have been allocated.

The focus on LRMC rather than on residual costs may be a major failure of the Rules.

Design of demand based tariffs

Peak demand is the driver of capex, but there is a need to recognise that it is the time that the peak demand is recorded that is most important. What drives the capex is the coincident peak demand on the network, i.e. the peak demand of each specific user at the time of peak network demand at the particular part of the network relevant to the customer.

There is relevant discussion in the AER's Issues Paper (page 8): "…it is not necessarily the maximum demand on the entire network that matters …"

The AER's Issues Paper (page 17) also notes: "The proposed tariff statements contain insufficient information to definitively examine how closely the proposed charging windows correlate to periods of highest demand for each network …"

CCP3 shares the AER's concern in this regard.

AEMO picks this up in transmission where it measures peak demand that is incurred in the times of 11 am to 7 pm on the ten system peak demand days in the year.

Thus if a consumer has a greater peak demand in the middle of the night, this should not be the peak demand for which they are charged.

There is also need for tariffs that recognise that some users (probably industrial loads) can and will shed load at call. This has a significant benefit to the network, and all networks should have discounted tariffs available as standard tariffs to encourage such activity.

Fixed charges

Increased fixed charges as against variable charges impact on low usage customers, and reduce the drivers for demand side response.

While there are some fixed costs associated with each connection point, fixed charges should be only those costs that are actually incurred rather than, as has occurred in some jurisdictions, just ramped up to a level that destroys any benefits from network costs of any DNSP proposal.

Recommendations:

9.1 The first step is to establish what the right fundamentals are. Then the individual Victorian TSS and those from other jurisdictions can be compared to see what constitutes best practice, in order to achieve the intent of setting cost reflective tariffs.

9.2 The whole change comes out of the AEMC's Power of Choice report. If consumers do not get the benefits identified in the Power of Choice report, then it is an opportunity lost. The objective of tariff structures should be to give consumers incentives so that the consumers' investment and consumption decisions limit network investment requirements, and thus provide better and more efficient outcomes to the ultimate benefit of the consumers themselves. TSS proposals should be assessed against this objective to see how well they perform.

9.3 Lack of consistency across DNSPs (nationally; not just in Victoria) increases retailers' costs and makes it more difficult and costly to design and implement demand side programs, because they have to be designed and tailored to fit each DNSP. The AER should consider rejecting the tariffs if it believes that the disparity between the tariffs could realistically lead to jeopardising the realisation of benefits from better signalling of costs to consumers and giving consumers realistic opportunities to react to those signals.

9.4 While DNSPs are required to set tariffs based on LRMC, it is the allocation of the residual costs (which are the greatest contributors to the final tariffs) which will have the greatest impact on the tariffs finally developed. Therefore the TSS have to explain how the residual costs have been allocated. The focus on LRMC rather than on residual costs may be a major failure of the Rules.

9.5 While there are some fixed costs associated with each connection point, fixed charges should be only those costs that are actually incurred rather than, as has occurred in some jurisdictions, just ramped up to a level that destroys any benefits from network costs of any DNSP proposal.

10. Pass through events

The arguments provided for the inclusion of the pass through events are based on the assumption that the return on investment provided the DNSPs reflects the lesser risk profile DNSPs have relative to the market in general.

On balance, CCP3 accepts (other than for the insurer insolvency event) the AER Preliminary Decisions regarding pass through events.

11. Metering

11.1 Classification of smart metering as standard control services or alternative control services

In its Preliminary Decisions, the AER decided to retain the proposed classification and reasons set out in its Framework & Approach in regard to metering services, for all the Victorian DNSPs. CCP3 supports this decision.

In revised proposals, DNSPs are further proposing departures from the Framework & Approach. CCP3 continues to support the AER's decision to retain the proposed classification and reasons set out in its Framework & Approach in regard to metering services, for all the Victorian DNSPs.

11.2 AusNet Services costs

CCP3 separately advised the AER in regard to a decision by AusNet to transition from WiMAX to mesh radio as the communications network to support its AMI rollout.

CCP3 set out the background to the AusNet decision. CCP3's main advice to the AER was that the AER should stand by its finding in 2013 that a reasonable business in the circumstances would have switched communications technology in early 2011, and that the allowance it originally approved for 2011 would have been more than sufficient to cover the costs of switching to the alternative technology in that year. Customers should not pay more for cost overruns because of AusNet's choice of communications technology.

All these additional costs should be removed from the AusNet regulatory proposal. They should not be recovered from customers who have already paid sufficiently for a full roll-out as would be implemented by a reasonable business.

In its Preliminary Decision on AusNet's regulatory proposal, the AER found that the efficient forecast for the 2016-20 period should be based on expenditure for business-as-usual metering services only, and not provide for an additional $100.7 million in switching costs that had been proposed by AusNet.

CCP3 supports this position.

CCP3 is concerned that AusNet's revised proposal indicates that it now intends further not to act prudently, by not replacing WiMax and waiting instead for fully anticipated faults, failures, and stability. Not only might this incur even more costs (which should not be borne by customers), but it might also impact negatively on AusNet's levels of service to customers, and thwart the capturing of benefits from AMI by customers.

CCP3 suggests that the AER should consider carefully not just the cost implications of AusNet's revised proposal but also any possible negative impacts on customers in service provision, and should take appropriate steps to prevent customers being disadvantaged.

Recommendations:

11.1 The AER should retain the proposed classification and reasons set out in its Framework & Approach in regard to metering services, for all the Victorian DNSPs.

11.2 Additional AusNet AMI rollout costs should not be recovered from customers who have already paid sufficiently for a full roll-out as would be implemented by a reasonable business.

11.3 The AER should consider carefully not just the cost implications of AusNet's revised proposal but also any possible negative impacts on customers in service provision, and should take appropriate steps to prevent customers being disadvantaged.

12. Public lighting and ACS

CCP3 commented in its earlier report about its concerns on the rates that were being applied to public lighting (and other ACS deliverables) without any assessment that they are still reflective of the costs involved with provision of the service. The AER Preliminary Decisions accepts that the current rates be escalated in a specific manner, elements of which the AER clearly identifies are conservative. If such conservatism has been applied over several years and there has been no recognition for improvement in productivity, it is clear that the forecast rates will be significantly in excess of the actual costs to deliver the service.

CCP3 observes that comparing ACS rates between the DNSPs is not efficient comparative benchmarking as when rates were set initially they would have been consistent and as the same approach to escalating the rates has been used for all DNSPs then comparing rates between the five DNSPs would not identify whether the current rates are efficient or not.

Recommendations:

12.1 DNSPs should be required to demonstrate that the rates for ACS are reflective of the costs that are incurred in providing the service rather than just be benchmarked against the other four DNSPs.