Submission by Consumer Challenge Panel 2 to the AER in response to SA Power Networks Regulatory Proposal for 2015-2020

Introduction

The Consumer Challenge Panel subgroup (CCP2) has reviewed a considerable amount of material provided by South Australian Power Networks (SAPN) as part of its regulatory proposal to the AER for the regulatory control period 2015-16 to 2019-20 (2015-20).[1]

However, given the proposal includes many thousands of pages of supporting attachments and spreadsheets, the analysis herein does not purport to have considered all aspects of SAPN's proposal for 2015-20.[2] Indeed, as discussed further in this paper, we believe that the sheer volume of material presented by the networks and by the AER in response to this, is making meaningful participation by consumers in general in the process increasingly difficult.

The CCP believes a large part of this relates to the "propose-respond" model of regulation and its intrinsic adversarial nature. A major rethink of the regulatory processes that have led to such an explosion of material, without commensurate benefits to consumers' long-term interests, is required.

Given the volume of material provided, therefore, the CCP2's focus is on the broad issues around the expenditure proposals submitted by SAPN. However, we would welcome further discussion with the AER and with SAPN on the details of SAPN's proposal prior to and following the AER's Draft Determination. The current paper considers the following aspects of SAPN's proposal for the next regulatory control period (RCP3):

- SAPN's capital expenditure (capex) proposal, with a particular focus on the significant increase in SAPN's capex proposal compared to capex in the current regulatory control period (RCP 2);

- SAPN's operating expenditure (opex) proposal, again with a focus on the significant increases in SAPN's proposed opex compared to RCP2;

- A number of general issues/principles, that apply to the CCP2's review of SAPN's capex and opex proposals, including:
    - The role of consumer engagement in SAPN's proposal;
    - The obligation of SAPN to comply with various regulatory standards;
    - SAPN's approach to vegetation management and bushfire risk;
    - Undergrounding of powerlines for safety and environmental reasons;
    - SAPN's response to the Power of Choice, AEMC rule changes and competition in meter services; and
    - The forecasts of energy usage and peak demand

1 SA Power Networks, Regulatory Proposal 2015-20, November, 2014. [SAPN, Regulatory Proposal].

2 In addition to the proposal, SAPN has submitted 150 attachments and multiple spreadsheets.

This paper will not include an assessment of SAPN's proposal for the weighted average cost of capital (WACC), or of dividend imputation, although these are clearly important and contentious aspects of SAPN's proposal.

The CCP2 is providing a separate, and more wide-ranging paper, on our views of cost of capital for the network service providers (NSPs). However, the content of the paper has direct relevance to SAPN's proposal for WACC and the value of imputation credits.

Further, we believe that the issues raised by SAPN with the proposed WACC and imputation credits have already been canvassed on multiple occasions, most particularly, during the development of the AER's Rate of Return Guideline (RoR Guideline)[3] in 2013 and the application of this Guideline to the AER's Draft Decisions on the NSW distribution and transmission networks.

Therefore, in addition to the CCP2's separate paper on the WACC, and the previous all of CCP advice to the AER Board on the WACC[4], we refer the AER to the many submissions by consumer advocates during the development of the RoR Guideline and in response to the NSW networks proposals for the assessment of WACC and imputation credits.

We regard all these papers as being relevant to the assessment of SAPN's WACC proposal.

We also highlight that to our knowledge, at no point since the RoR Guideline was developed have the networks engaged with the consumer representatives or their own consumer consultation bodies on their proposal to adopt a different approach to the WACC than set out by the AER Guidelines. In the instance of the WACC and imputation credits, the NSPs appear to prefer arcane theoretical arguments than test their proposals in the real world or explain to their constituents the reasons for the very substantial increases in profits (well above the levels expected by the regulator in setting the WACC) and their justifications for these profit levels to continue.[5]

While NSPs, including SAPN, have done extremely well out of the most recent regulatory determinations, consumers have carried the heavy burden of substantial prices rises which are in part, the result, of excessive WACC allowances. It appears the networks, including SAPN, are seeking the continuation of this situation.

What reductions there are in NSPs' proposed WACC are little more than a reflection of the much lower risk free interest rates that now prevail. They are not, in our view, a reflection of efficient financing or even of actual financing costs.

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3 AER, *Rate of Return Guideline*, December 2013, *Rate of Return Guideline – Explanatory Statement*, December 2013.

4 Consumer Challenge Panel, Smelling the roses and escaping the rabbit holes: the value of looking at actual outcomes in deciding WACC, July 2014

5 The CCP2 paper on WACC provides a number of examples of the excessive profit levels (compared to the regulatory assumptions) being earned by government and privately owned businesses.

It is little wonder, therefore, that productivity has declined, including SAPN's productivity, and energy use has fallen across the National Energy Market (NEM). The NSPs' proposals, including SAPN's, risk further exacerbating the problem of declining demand on a much expanded network.

This paper will examine a number of the issues relating specifically to SAPN's proposed additional expenditure, growth in the regulated assets, prices above efficient prices, and declining productivity. We emphasise that SAPN's proposed price path of minus 4% in 2015-16 and 0% (real) thereafter, should not be accepted as "reasonable", however mild it might appear compared to previous price rises.

The initial reduction in prices of some 4% is something of an illusion. In fact, it is no more than a correction of the over-recovery in revenue that SAPN managed to achieve in the last year.

There is no "fat" in the 0% proposal for rising interest a rate because of the underling significant increases in expenditures[6] and the significant risk of further downturns in demand that will drive prices higher than the CPI.

In undertaking this review, the CCP2 emphasises the harm that has been done to consumers by the recent price rises, and by the expansion of the regulated asset bases beyond that needed to provide network services (and which will have a long term impact on prices). We argue that that there is an urgency to redress this harm by ensuring that the NSPs, including SAPN, receive no more than the efficient and prudent financing, capital and operating costs of providing network services in the future.

We believe that in an environment of declining demand and excess capacity, the industry can no longer rely on growth in demand to fill the "capacity gap" over time. The issues facing the networks and consumers can only be resolved by the AER adopting a presumption of a return to more "normal" (pre 2010) levels of opex and capex expenditure unless there is a clear and compelling case to vary from this presumption; that is, an onus of proof on the network to establish why it is in the long-term interests of consumers to take on even greater levels of expenditure such as SAPN has proposed.

The case for strict control on expenditure is now even more critical because the large increases in the regulatory asset base have driven "fixed" capital related costs to well over 50% of the networks asset base.

In summary, the great increase in expenditures allowed in the last period was a reaction to the view that energy use and, more particularly, peak demand would continue to grow at historical rates and investment must be encouraged through generous WACC allowances.

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6 See Table 1 below for detailed explanation of these estimated increases in expenditure.

This growth has not occurred. It is now time for an adjustment to reflect the new market realities and a new focus on the long-term interests of consumers.

1 Summary of Recommendations.

Throughout this submission, CCP2 has made a number of recommendations for the AER's consideration. They are listed below for convenience.

1. Given the level of profit reported by SAPN's shareholders, along with their expectations of capital growth, we urge the AER to look very critically at SAPN's WACC and capex proposals. (section 2.2)

2. While SAPN is performing at relatively efficient levels compared to its peers on the benchmark measures, the CCP2 has noted a downward trend in this efficiency. We therefore propose that the AER not accept SAPN's 2013-14 base year operating costs until it has investigated this trend. (section 4.1)

3. We encourage the AER to "stress test" SAPN's proposal against the benchmarks established for the period 2006 – 2013. We are concerned that there may be a significant deterioration in SAPN's relative efficiency over the 2015-20 period which should be challenged. (section 4.2)

4. We are concerned that despite the very significant increases in SAPN's proposed expenditure, network performance outcomes, such as reliability (overall, and at subgroup leve), system losses and customer service levels are all forecast to be static. Only the average age of the some assets declines. We ask the AER to investigate why consumers do not receive greater benefits from this expenditure. (section 4.4)

5. We have noted that consumer engagement research by NSPs is in its infancy, although SAPN has provided a useful starting point. Therefore we recommend that the AER adopt a very cautious approach to relying on the outcomes of the research when it comes to assessing new levels of investment in long-life assets (section 5.1)

6. We have noted the consumer engagement and willingness to pay (WTP) research conducted for IPART and for ACTEW/ACTEWAGL which is specifically targeted to the unique situation of WTP research for long-life investment decisions. We commend this as most relevant research to the AER to assist in evaluating SAPN's proposed use of WTP research. (section 5.1)

7. The CCP2 recommends that the AER engage expert advice on the design and use of WTP research by the NSPs to ensure NSPs develop best practice in this difficult research area. We believe that AEMO's experience is relevant as is AEMO's expert advisor. (section 5.2)

8. We encourage the AER to look “beyond the veil” of SAPN’s claims about its obligations to comply with, for instance, its asset management plan (SRMTMP plan). Although the plan must be approved by the relevant regulators, it is part of a light-handed regulatory approach where SAPN sets its own targets within broad parameters. (section 6)

9. The CCP2 suggest that the AER should not approve the substantial additional expenditure proposed by SAPN for safety activities (such as bushfire mitigation and road safety), as these costs should not be recovered only from electricity consumers. These activates require multi-disciplinary and multi-organisational participation and funding akin to the approach adopted by the Victorian Government in response to the Royal Commission into the Victorian 2009 bushfires. (section 7)

10. We propose the AER adopt a similar approach to SAPN’s proposals for additional funds to underground more powerlines (section 8).

11. The CCP2 urges the AER to adopt a very cautious approach to approving SAPN’s proposal for additional expenditure on IT and communications in anticipation of rule and policy changes on demand tariffs for mass market customers, competitive metering services and the rollout of “smart ready” meters. There is a great deal of policy uncertainty about these areas and it may be better to wait for more clarity, and encourage SAPN to seek a pass through at that time, or classify the additional IT expenditure as “contingent project”. (section 9.1)

12. The CCP2 is increasingly concerned about the use of “pockets of growth” to justify additional expenditure on augmentation, when there is already excess capacity. In addition, there is a history of poor spatial forecasting across many DNSPs. We request the AER investigate these arguments in some detail, perhaps be sampling historical spatial forecast performance. (section 10.3)

2 Overview

Aside from SAPN's WACC proposal, there are a number of distinctive features of the proposal that the CCP believes should be critically examined by the AER. In addition, the SAPN proposal raises a number of matters of more general concerns. Both these areas will be discussed in the CCP's submission to the AER.

2.1 The big picture – A Review of SAPN's past performance

The CCP2 has observed that SAPN is one of the more efficiently operated distribution network service providers (DNSPs) in the NEM in terms (for example) of the various productivity benchmarks developed by the AER (such as the multilateral total factor productivity (MTFP)). SAPN, together with its associated companies in Victoria,[7] have scored relatively highly on the AER's measures of productivity[8] and on SAPN's own measures of productivity.[9]

We also note that in current regulatory period, RCP2, SAPN's opex is close to its allowed expenditure and its actual capex is only 10 % below its allowed capex. While the CCP2 would have preferred SAPN to demonstrate a saving on its allowed capex, we also note that SAPN appears to have responded sensibly to the downturn in forecast energy sales and demand.

That is, having a relatively old network, it was reasonable for SAPN to increase its replacement capex while reducing its augmentation capex, in response to the change in actual energy use and demand compared to SAPN's approved forecast. We agree that such a response is consistent with the AER's view that the regulator should not "micro-manage" expenditure choices by the DNSP; this is the role of the DNSP management and Board to allocate priorities to achieve their objectives and meet there regulatory obligations.

SAPN has also demonstrated that during this period it was able to operate within the AER's capex and opex allowances while maintaining the reliability of the network and achieve "best endeavours" compliance with regulatory requirements. SAPN's reliability performance is comparable with the average performance of distribution businesses in the NEM after removing the impact of "major event days" (MEDs).[10] The CCP2 has also examined the annual reports and other data from SAPN's two jurisdictional regulators, the Office of the Technical Regulator (OTR) and the Essential Services Commission of South Australia (ESCoSA), and finds no evidence of any systemic compliance failures by SAPN.

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7 SAPN, and CitiPower and Powercor in Victoria are owned by the same holding companies in a partnership structure.

8 See, AER, Electricity distribution network service providers annual benchmarking report, November 2014.

9 SAPN uses an analysis by Huegin Consulting, *An indication of how sAP Power Networks will benchmark against other DNSPs with in the National Electricity Market, September*, 2014. Using a similar approach to assessing MTFP, the study concluded that at 2013, SAPN scored highest in the NEM.

10 See, for example, AER, *State of the Energy Market*, 2014, 2014, Figure 2.9, p 84.

SAPN was also an early mover in the consumer engagement process (the outcomes of which will be discussed in a separate section) and has long been an important contributor to the SA community.

Overall, therefore, there are many good points about SAPN's current investment decisions and the service it provides to the South Australian community, at least compared to some other networks in the NEM.[11]

In addition, we are cognisant of the fact that SAPN faces some particular challenges in terms of the growing "peakiness" of its load profile, high penetration of solar PV, the low density of its consumer base, particularly outside the urban areas, and its vulnerability to economic forces and extreme weather events, including extended heat waves, storms and bushfires (although it is not unique in these latter factors).

Given this, and given the AER's adoption of benchmarking in evaluating the base year in the AER's assessment of the efficient opex costs in its NSW draft determinations, the CCP2 would not expect the AER to significantly reduce SAPN's "base year" opex (i.e. the extent to which the actual opex in 2013/14 can be used as an efficient base year for SAPN's regulatory proposal).

However, in saying this, the CCP2 highlights a number of more recent developments that we believe the AER should take account of when assessing SAPN's current proposal for 2015-20. Aside from the relatively high WACC allowed by the AER, these negatives include:

- As indicated in Table 1 below, SAPN's capex and opex increased significantly in RCP2 compared to RCP1 following the more generous allowances by the AER in 2010;

- This has, in turn, resulted in a significant growth in the Regulated Asset Base (RAB) over the period (in the order of 33% in nominal dollars);[12]
- SAPN has successfully sought approval from the AER for a number of pass through amounts which further increased its opex and capex above the original allowance;[13]

- The AER's benchmarking study indicates that overall multilateral total factor productivity (MTFP) for SAPN has declined consistently since 2009, albeit SAPN still outperforms most other network as seen in Figure 1 below; and

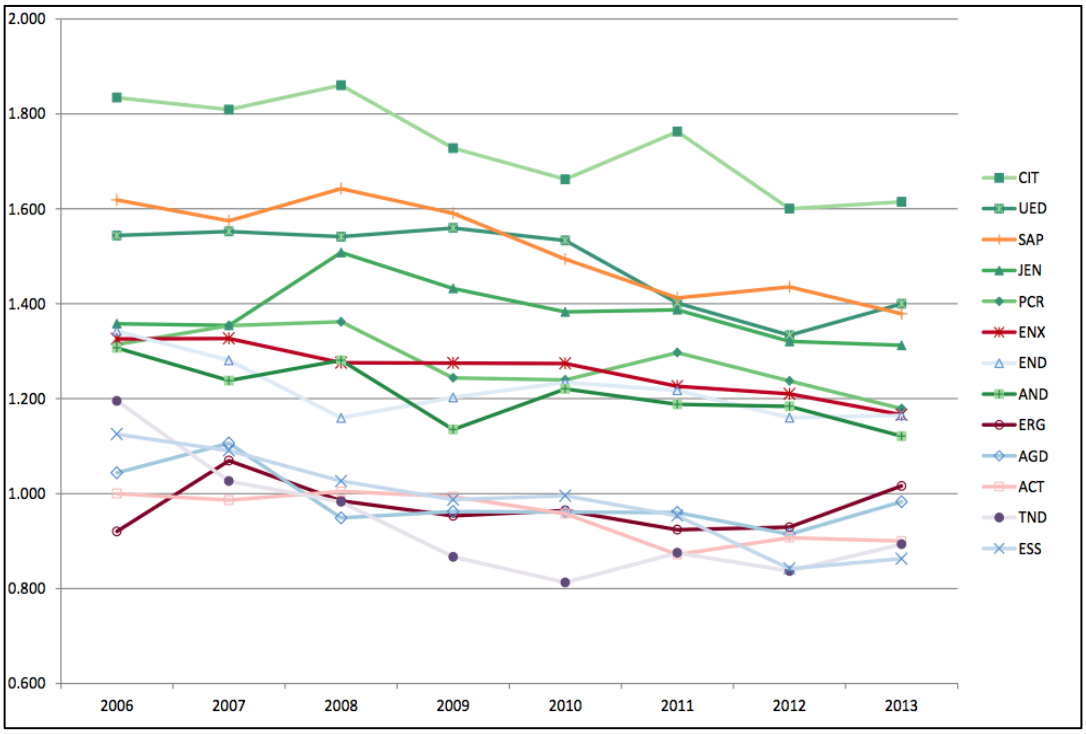
11 While noting the CCP's view that SAPN's profits are excessive, this appears to be largely a factor of the rate of return (actual versus allowed), which is discussed in the separate paper submitted by the CCP2.

12 This increase in the RAB was slightly below that allowed by the AER, as SAPN did not spend all its capex allowance, due to delays caused by reprioritizing projects from growth to replacement capex and the subsequent need to retrain inspectors and other staff. For example, see SAPN *Regulatory Proposal*, p 183.

13 For example, SAPN was allowed an additional $35M ($40M in NPV terms) for greater than forecast vegetation management costs.

- SAPN's network prices have increased significantly since the end of RCP1. SAPN's own data indicates a 55% increase in real $ terms for residential consumers (excluding Feed-in-Tariff increases).[14]

Figure 1: Multilateral total factor productivity for each DNSP



Source: AER, *Electricity distribution network service providers annual benchmarking report*, November 2014, Figure 16, p 31

It is important to emphasise this last point to the AER. In its proposal, SAPN states: "*we have [historically] managed to keep distribution network prices for residential customers* ***relatively stable in real terms***".[15] [CCP2 emphasis]. While SAPN's charges are not the only cause of the increases in SA retail electricity prices, it cannot claim that network prices have been "stable" in the face of this 55% real increase in average network prices.

The CCP2 has met on several occasions with the advocates for residential consumers and small and large business consumers. They have all expressed great concern with the rate of increase and the **overall level of electricity prices as at 2014-15.** The increase of 55% in real network prices was a major contributor to the overall retail price increase of 39% real. [16]

As will be discussed in later sections, we are most concerned that SAPN's proposal for 2015-20 will effectively "lock in" these real price increases. So while the "harm"

14 See SAPN, *Regulatory Proposal*, Figure 2.3, p 14.

15 Ibid.

16 ibid. Note, this is the change from 2009-10 to 2014-15, and therefore does not include the spike in retail prices in 2012-13.

may not increase, these high prices will continue to be a drag on the SA community and businesses competitiveness. The CCP2 considers that continuation of these high prices through the proposed CPI increases does not serve the long-term interests of consumers. The period of low interest rates provides a rare opportunity to restore network prices to more reasonable levels.

2.2 Recent developments – a cause for concern?

The CCP2 is rather concerned with the more recent trends emerging in RCP2, and the impact of these on network prices (see above), particularly in the context of the very significant increases in SAPN's overall profit and return to its owners in both dividends and capital growth.

A detailed breakdown of SAPN's recent profit outcomes is provided in the CCP2's separate submission on the rate of return. We also highlight herein, that Spark Infrastructure (who have a 49% equity stake in SAPN) announced that in the three years from 2010, the RAB of their asset companies has grown by 8.6% per annum, which includes the impact of "outperformance" of the regulatory benchmarks.[17] That is, SAPN's security holders have been able to enjoy both a growing distribution rate[18] and significant capital growth based on the AER's determinations. As stated in the 2013 Annual Report:[19]

> *Funding of this capital expenditure in line with the AER's assumptions will lead to long term growth in the Asset Companies' RABs, in which Securityholders are expected to benefit via their investment in Spark Infrastructure.*

We do not disagree that SAPN's owners are entitled to a reward for "outperforming" the regulatory allowances. However, we do not see how this comment is consistent with the data presented in SAPN's regulatory reports as these suggest that SAPN's expenditure has been reasonably aligned with the regulatory allowances (unless it refers to "outperforming" the cost of capital – which SAPN does not discuss in its proposal). We would like to understand this outcome better.

What it does suggest, however, is that the AER needs to take a careful look at the expenditure and rate of return allowances in the SAPN proposal for 2015-20. Consumers should fund efficient levels of return to SAPN's owners (given the risks), but not excess returns. Any excess returns above the regulatory assumption, should come only from improving efficiency.

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17 Spark Infrastructure, *Annual Report 2013*, Directors Report, Regulatory Update, Growth in Regulatory Asset Bases, p 18. The growth rate applies to the total of the three regulated asset companies (SAPN, CitiPower and Powercor). However, it is clear that SAPN is an important contributor to these outcomes.

18 Ibid, p 12 – the distribution per security increased by 4.8% in the last year.

19 Ibid. The commentary notes both the AER's determination and their capacity for "out-performing the regulatory allowances". The comments apply to the three regulated asset companies (SAPN, CitiPower and Powercor). However, it is clear that SAPN is an important contributor to these outcomes.

2.3 The big picture – The paradox of SAPN's 2015-20 proposal

We have noted above, our concerns with a number of the trends in SAPN's expenditure patterns over the last few years and the related growth in profits and equity value for SAPN's owners.

SAPN's proposes a further substantial growth in expenditures in RCP3 as illustrated in Table 1 below (these figures are estimates from different sources). Taking the two regulatory periods together we are looking at compound growth of over 100% in expenditures in 10 years, in real dollar terms

Table 1: Estimated growth in expenditure and RAB over two regulatory periods

Category	RCP1 (Actual 2009-10) to RCP2 (allowed 2014-15)	RCP2 (Actual @2014-15 to RCP3 (proposed @ 2019-20)
	% increase	% increase
Operating cost ($real)	41%	35%
Capital Expenditure ($real)	96%	52%
Regulated Asset Base ($nom)	41%	43%
Revenues ($real)	35%	8%

Sources: For RCP1 to RCP 2: Growth in opex, capex & revenue is taken from AER, *State of the Energy Market*, 2014, Figure 2.4, Figure 2.6 & 2.8. The growth in the RAB is based on SAPN's Economic Benchmarking - Consolidated Information, Table 4, using average RAB for year. For RCP2 to RCP3, growth in opex and revenue comes from SAPN's Regulatory Proposal, Tables 29.2& 29.8 (combines ACS to capture meter costs); the RAB comes from Table 25.1 - 25.4, Revenue is based on unsmoothed revenues in Table 29.2 & 29.8 and uses the actual revenues for 2014-15, which are substantially above the allowed revenues and, therefore, above the revenue proposed for 2015-16. The capex estimate is derived from SAPN's regulatory proposal, Tables 20.2 (adjusted to be in real $2015), 20.4 and 20.5.

Note: The figures in the table are estimated from a variety of sources. While all effort was made to ensure comparisons are made on a like for like basis, the % change figures may be influenced by differences in the in the data sources. Nevertheless, the CCP considers the general direction of the findings is reasonable. In particular, the analysis for CCP2 – CCP3 includes alternative control service costs and revenues because of the movement of metering costs out of the SCS. Removing the ACS costs, however, makes little difference to the overall conclusions.

This rapid expansion of expenditure and the RAB has little to do with any forecast of growth in peak demand, energy use or customer growth. Demand is forecast to be flat and energy use is forecast to decline while forecast customer growth is no more than 1% per annum.

Nor is this rapid expansion explained by any urgent requirement to restore reliability outcomes, comply with other regulatory requirements or restore customer service standards. All of these are currently operating within the targets set by the relevant regulators. Similarly there are no extraordinary increases in unit opex input cost

trends, although we note (and do not agree with) SAPN's forecast for labour costs to increase in real dollar terms at around 1.5% - 2% per annum.[20]

Analysis of SAPN's proposal suggests that the rapid increase in expenditures (above the already substantial increases allowed by the AER in RCP2), is driven by SAPN's plans to significantly increase the rate of replacement of assets (because of average age profile and enhanced "condition assessment") and by significant increases in capex on "safety" (relating primarily to bushfire prevention investments and road traffic safety, such as undergrounding) and non-system capex.

Increases in SAPN's proposed opex above the "base" expenditure included base year cost adjustments, enhanced vegetation management, additional opex to support the expanded capex program and increases in labour and contract costs above CPI.

This submission will examine in greater detail a number of these aspects of SAPN's proposal. At this point, however, we would highlight below the following outcomes if SAPN's proposal for RCP3 is adopted. They include:

- The additional costs will drive further declines in SAPN's productivity;
- There will be a significant increase in the size of SAPN's RAB (by around 55%) and, therefore, SAPN's long term return on capital and depreciation costs;
- The proposal will lock in the current high, and unsustainable network prices, when there is an opportunity to achieve real reductions in prices due to the decline in the WACC by some 200 basis points (from 9.76% to 7.62%.[21])

We are particularly concerned that by the end of RCP3, SAPN will find itself in the position of the NSW NSPs following the massive growth in their expenditure in the 2009-2014 regulatory period.[22] These expenditures have resulted in very significant very large increase in the size of the RAB and, therefore "fixed" capital costs,[23] over a short period. This growth in fixed capital costs is occurring at the same time as SAPN is forecasting continued stagnation or decline in energy use, placing considerable ongoing pressure on unit (c/kWh) prices.

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20 See for example, SAPN, *Regulatory Proposal*, Table 20.3, p 178.

21 The 7.62% is based on SAPN's proposal. The CCP2 notes that if the AER applies their Rate of Return Guideline approach, the WACC is likely to be lower than this. The CCP2 also notes its views that the Rate of Return approach is still conservative and puts recovery of the cost of uncertainty (priced into the WACC) in the DNSPs hands without recognizing that the risk, and therefore the benefit should be shared with consumers. For instance, the regulatory beta is 0.7, when empirical evidence suggests a range from 0.4 to 0.7, and a median outcome of 0.5.

22 Albeit the expenditure forecast was so large, the networks could not acquire the resources to undertake the additional expenditures. State Government intervention also reduced actual capex.

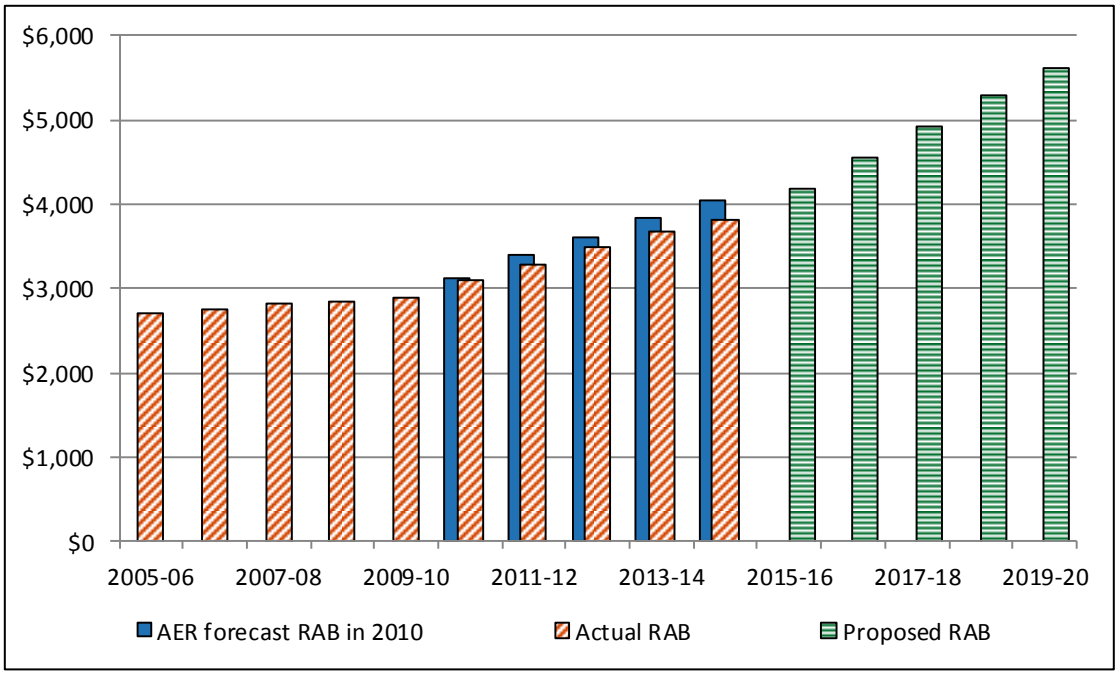
23 We assess these costs as "fixed costs" on the assumption that there will be no write-down of the asset base. That is, the recovery of capital costs are independent of the utilisation of the assets.

In the first regulatory period under the AER, these NSW DNSPs undertook a vastly accelerated capital investment program. The cost of this accelerated expansion of the RAB must now be recovered over a declining energy consumption base. Had interest rates not fortuitously declined in the last few years, NSW consumers would be facing real price increases that reflect a cost base where over 65% of costs are "fixed". This is the reverse of what customers would face in a competitive market (where overcapacity would lead to lower prices to increases usage – and/or a write down of the assets).

Figure 2 below illustrates the projected growth path in the RAB. If SAPN were allowed to get into this same position by the end of RCP3 as the NSW NSPs are in now, then it will have an impact on consumer prices for the next decade or so. We urge the AER to protect consumers' long-term interests by very critically examining SAPN's expenditure proposals.

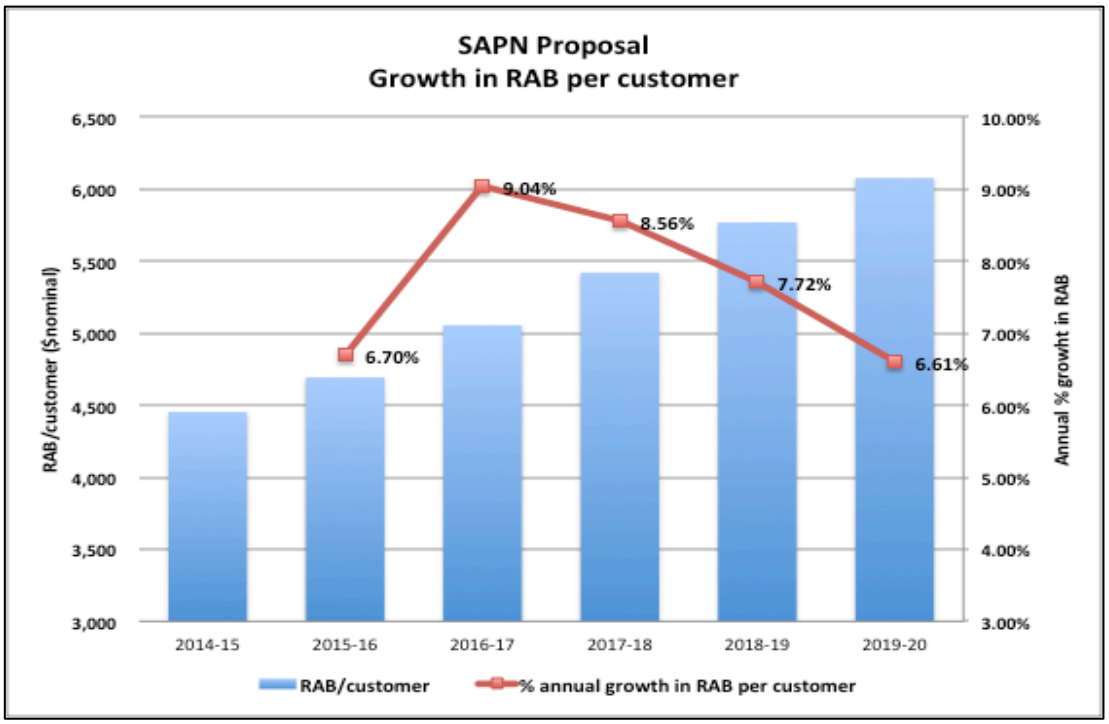
Figure 3 illustrates the impact of this growth in RAB in terms of the RAB per customer. RAB per customer is a very useful guide to future prices, as they indicate the change in "fixed capital costs" per customer, and the vulnerability of prices to declining energy usage (as the DNSP will still need to recover these costs). It also increases consumers' exposure to upward movements in interest rates and consequent changes in the WACC.

Figure 2: Regulatory asset base values ($nominal)



Source: AER, Issues paper for SA Power Networks, December, 2014, Figure 5, p 16.

Figure 3: SAPN's Proposal and Projected Growth in RAB per Customer in SAPN's



Source: SAPN Reset RIN.

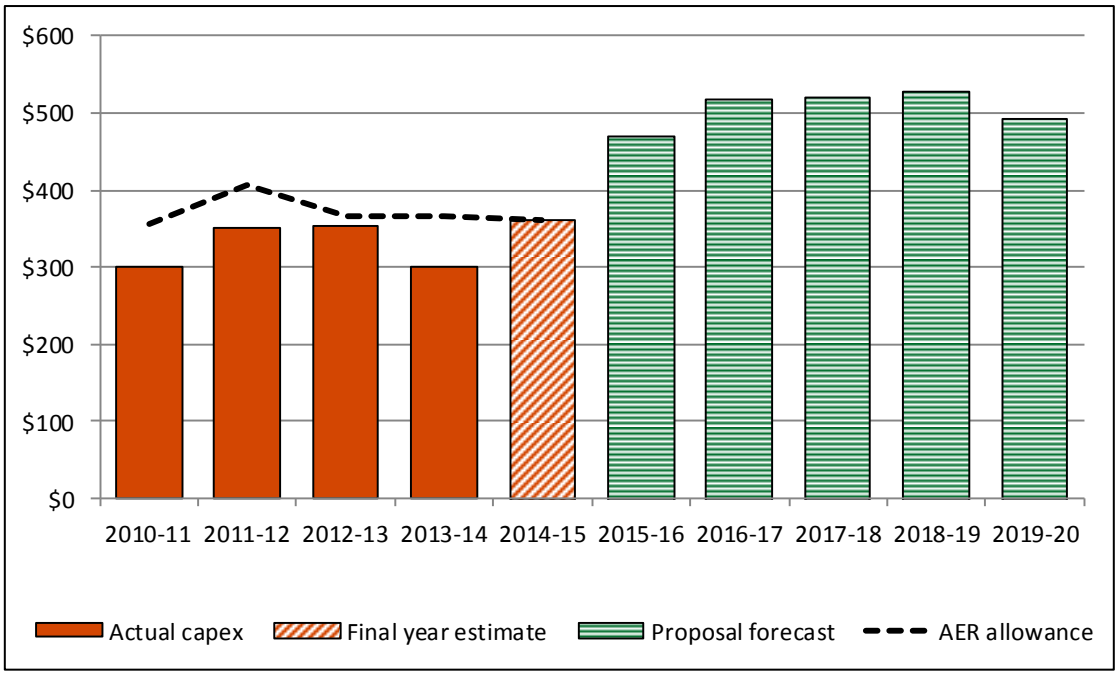
The CCP2 is concerned with the long-term impact of this growth in RAB. We therefore seek a very critical examination of the SAPN's capital expenditure plans. This is discussed in the next section.

3 SAPN's Capital Expenditure Proposal

Figure 4 sets out SAPN"s proposed capital expenditure by expenditure category. The total capex forecast is $2,486 million ($June 2015) and an additional $49 million ($June 2015) for alternative control services (ACS). This is is an increase of over 50% in real dollar terms over capex for RCP2 as highlighted by the AER in its Issues Paper.[24]

24 AER, Issues paper, SA Power Networks electricity distribution regulatory proposal 2014-16 to 2019-20, December 2014. [AER, *SAPN Issues Paper, 2014].*p 12.

Figure 4: SAPN Capital expenditure ($million, 2014-15)



Source: AER, Issues Paper, 2014, Figure 2, page 12.

The significant growth in capital expenditure is driven by large real dollar increases in SAPN's proposed expenditure in three categories, replacement expenditure (94% increase), augmentation capex (49% increase) and non-system capex (57%). Figure 5 below illustrates the different areas of growth in capex.

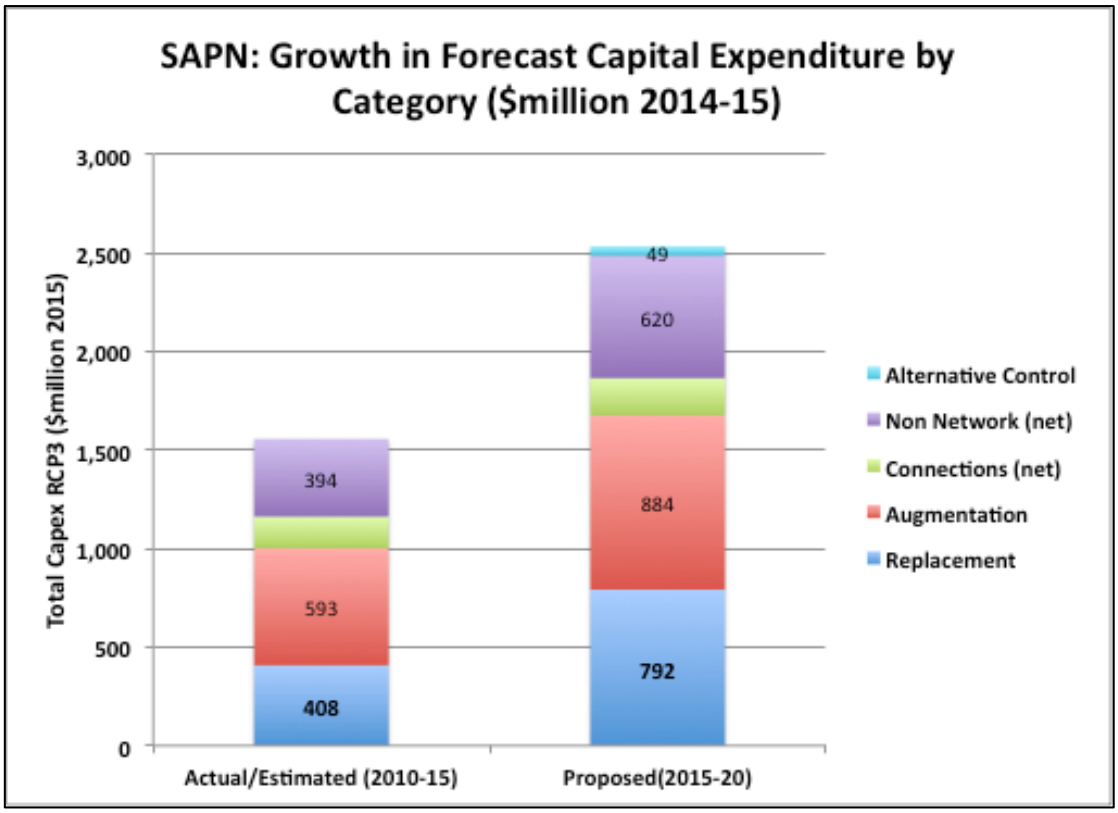
On first examination, the CCP2 is surprised at the level of increase SAPN is seeking, particularly as demonstrated in Table 1 above, it comes on top of significant increases in RCP2. Over 10 years, expenditures have increased in real terms by more than 100%.

Moreover, network capacity utilisation has declined, reliability performance is still within the required parameters, and there is no evidence in the reports from the regulators of OTR and ESCoSA of non-compliance with other regulatory requirements. We are not aware that ESCoSA has been held liable for damage due to bushfires as has occurred in Victoria (for SP Ausnet).

Consumers have also expressed their satisfaction with SAPN's performance. Given these outcomes it is very difficult to see why SAPN would be seeking such significant real dollar increases in its capex allowance, over and above the amounts of capex that have been allowed in the past regulatory periods.

SAPN's explanations for these capex increases are discussed in the following sections.

Figure 5: Growth in forecast capital expenditure RCP2 (actual) – RCP3 (forecast)



Source: Proposed capex is from SAPN Regulatory Proposal, Tables 20.4 and 20.5. Actual capex is extracted from a variety of sources, but is consistent with the AER's Issues Paper, Tables 3 & 4. Non-network expenditure is calculated from SAPN Regulatory Proposal.

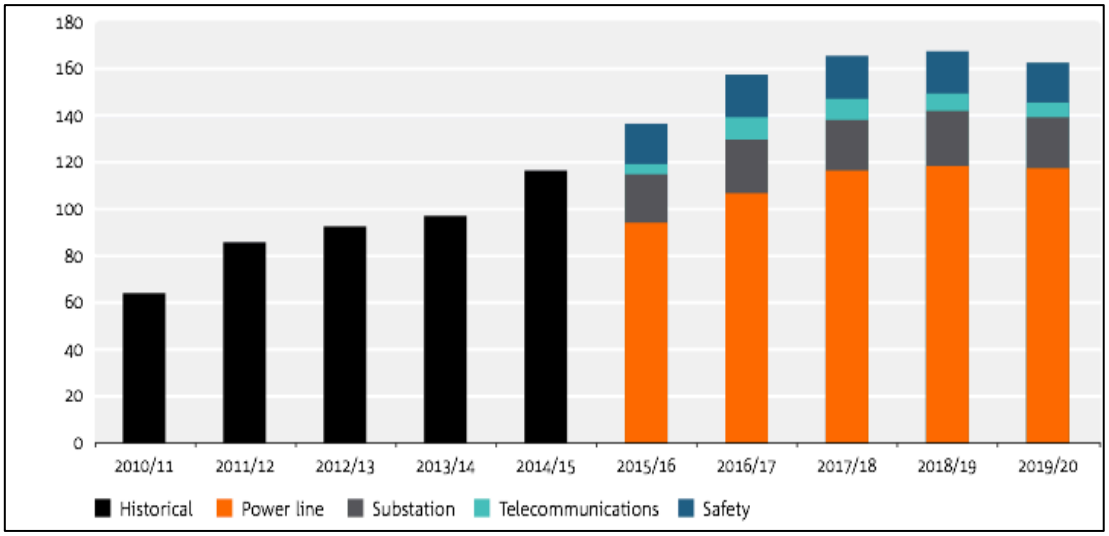
3.1 Replacement capex:

SAPN explains the increases be citing an accelerated program of age related replacement and increased defect detection as a result of an expanded asset inspection program and compliance with its plan for safety, reliability and maintenance.

The focus is on an intensive program of replacement of defective "at risk" power poles, as indicated in Figure 6 below from SAPN's regulatory proposal. It should be noted that SAPN's focus is on replacement of poles rather than the considerably less expensive plating.[25]

25 SAPN, *Regulatory Proposal*, p 189. SAPN states that refurbishment of poles is approximately 15% of replacing the pole and can extend pole life by up to 50%.

Figure 6: Replacement expenditure by key components (June 2015, $ million)



Source: SAPN Regulatory Proposal, Figure 20.14, p 187.

Figure 7 below, illustrates the extent to which SAPN is replacing rather than plating defective poles. When the overall rate was relatively small, this was understandable as it is likely that only poles with major defects would be recognised and replaced.

However, it is clear that under the new asset inspection and management regime, SAPN has identified many more poles (compared to RCP2) whose risks are rated at "P2" or "P3" in accordance with SAPN's Maintenance Risk Value (MRV). This is illustrated in Figure 8.

SAPN defines the risk category, P2, as non-urgent defects as "no failure has occurred" but "there is a potential to deteriorate/fail", with defects to be remedied within 180 days.[26] P3 are classified as "unlikely to fail" but "degradation may slowly continue". Defects should be rectified within 720 days.

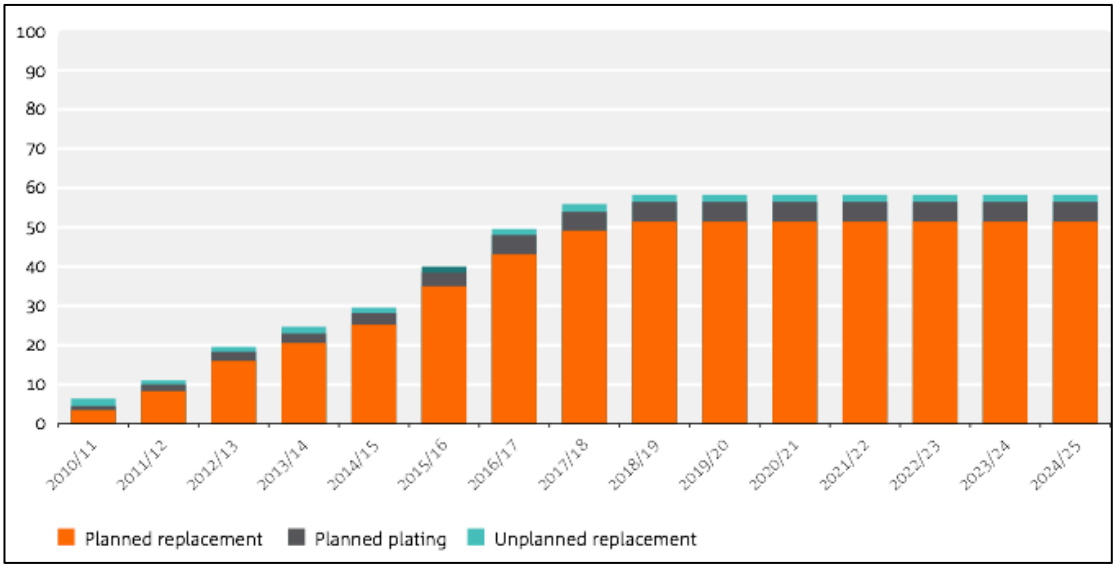
It is reasonable to conclude from (a) the significant increase in replacement rates (Figure 6) and the fact that the growth is in "P2" and "P3" categories of risk (see Figure 7), that much of SAPN's additional replacement capex is directed at replacing poles that where "no failure has occurred" but rather, have a "potential to fail", or are "degrading slowly". This appears to be a very conservative approach to the assessment of risk and the CCP2 suggests the AER take a careful look at whether there is a need for such a surge in replacement activity for P2 and P3 risks. .

The CCP2 has concerns with SAPN's proposition that these expenditures are justified by both their customer engagement program and obligations to comply with the requirements of the Safety, Reliability, Maintenance and Technical Management Plan (SRMTMP), as approved by ESCoSA. We discuss our concerns with SAPN's use of customer engagement and asset management risk in some detail in separate sections of this submission (as they touch on more than replacement capex).

26 Ibid, p 184.

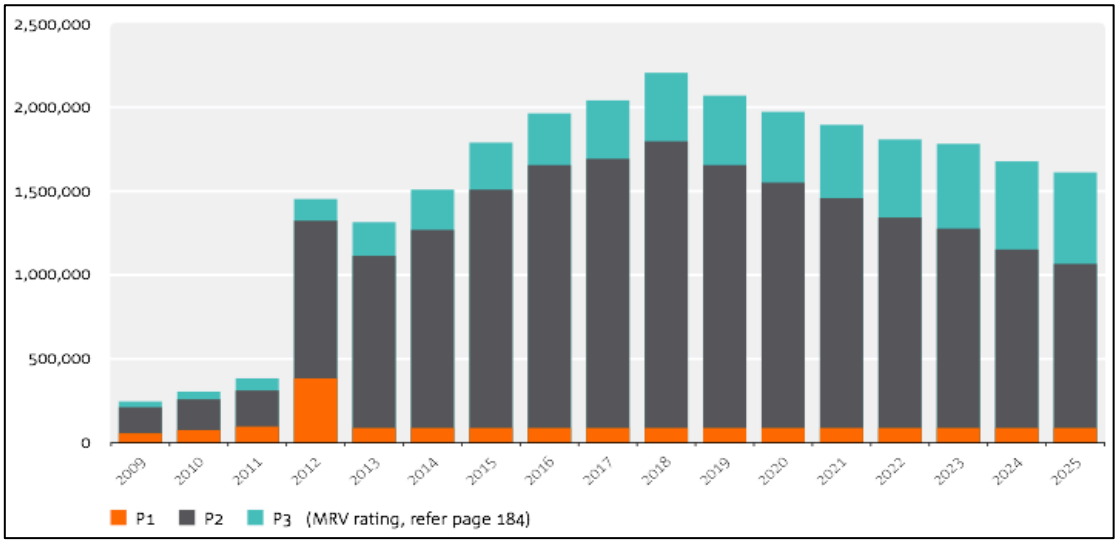
In brief, however, we believe that SAPN overstates the extent to which customer engagement can be used to justify expenditure increases, and misconstrues its obligations under the SRMTMP process as SAPN defines the details of its activities. The function of the SRMTMP is largely to monitor compliance with SAPN's own proposal.

Figure 7: Historic and forecast pole replacement and refurbishment profile (June 2015 $ million



Source: SAPN Regulatory Proposal, Figure 20.19, p 192

Figure 8: Maintenance Risk Value (MRV) for 2009-2025 – Stobie poles



Source: SAPN Regulatory Proposal, Figure 20.18, p 191.

3.2 Augmentation capex

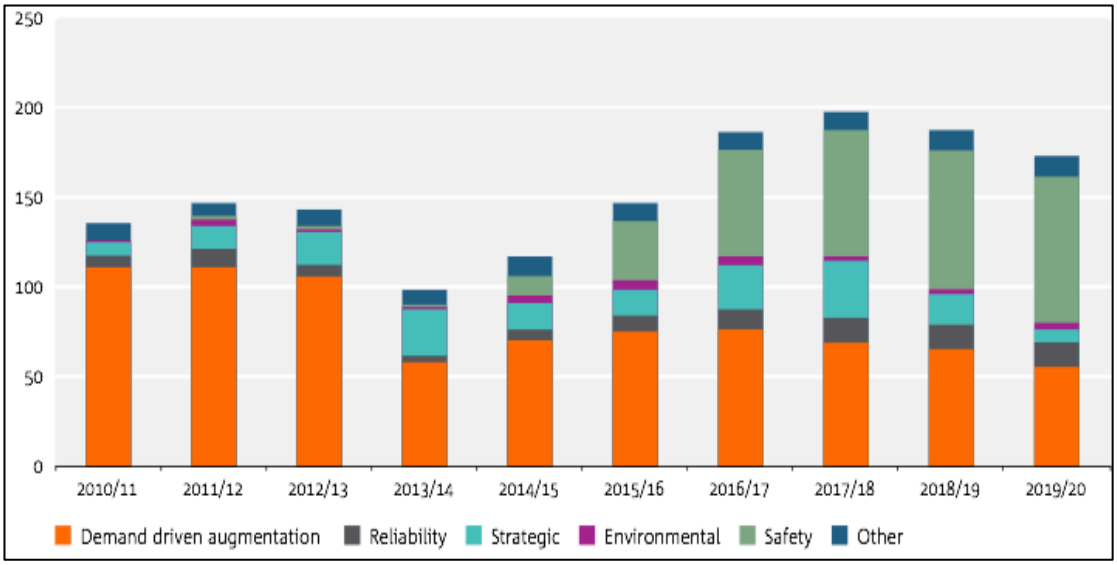
Expenditure in this category is normally dominated by expansion of the network; however, this is not the case in SAPN's proposal.

Figure 9 below (from SAPN's Regulatory Proposal) illustrates the significant changes in both the total augmentation expenditure and its composition. The CCP2 notes:

- Demand driven augmentation, while declining, is still quite significant particularly given the lack of growth in demand and declining energy usage. SAPN states that In part this is driven by the anticipated growth in solar PV systems (from 22% to 40% by 2020[27]). Other factors include areas of growth, areas where planning criteria are exceeded.

- The largest area of growth is in the "safety" category, a category of capex that was negligible in the past. Around 2/3rd of the new safety expenditure is for enhanced bushfire risk management and additional amounts for addressing road safety.

Figure 9: Augmentation expenditure by key components ($June 2015, million)



Source: SAPN, *Regulatory Proposal*, Figure 20.28, p 207

The CCP2 has substantial concerns with SAPN's approach to both the additional bushfire mitigation expenditure and road safety. Again, we provide a detailed response in a separate section of this submission.

In brief, however, we consider SAPN is proposing a "unilateral" response to these issues when in fact, if they are to be addressed, they should be done so as part of a broader government and community strategy. An example of this would one that SAPN refers to often in its proposal, and that is the program of risk mitigation

27 SAPN, *Regulatory Proposal,* p 215.

developed by the Powerline Bushfire Safety Taskforce, a multi-disciplinary Taskforce that was put in place in 2009 to develop the most cost effective response to the recommendations of the Victorian Bushfire Royal Commission and the state government's response to that.

The Taskforce developed a comprehensive and coordinated plan with input from many different stakeholders. The electricity distributor (SP Ausnet) was a key player on the Taskforce, but not the only one. Progress on the plan was monitored via an annual report to Government.

Funding for the recommended bushfire mitigation strategies was obtained from the two rural Victorian DNSPs (SP Ausnet and Powercor), but also from the Government and a number of other parties. The DNSPs were able to apply to the AER for a pass through of the additional costs.

We believe that this is a much more coherent and equitable approach, and more acceptable to all consumers, than adopting SAPN's unilateral approach through the economic regulation process. The careful vetting of options by the Taskforce ensured that projects were selected on an objective cost-benefit basis.

An example of this is to compare SAPN's mitigation strategy with the Taskforce recommendations. In a number of areas, SAPN's proposal overlaps with the Taskforce's plan. However, SAPN is suggesting fairly extensive undergrounding of assets in bushfire prone areas. The Taskforce had this option available to it, but chose on cost benefit grounds to rely on the cheaper option of aerial bundled cable.

In summary, the CCP2 recognises that communities need to consider investments in enhanced bushfire risk mitigation. However, we do not agree with an approach that hands over additional funds to SAPN in isolation of a broader based approach. In particular, we do not accept that the SAPN's consumer engagement findings (which supported bushfire mitigation) is the appropriate basis to determine the who/how and what are the best strategies.

SAPN's proposal for additional investment in undergrounding to improve road safety raises similar issues. Road safety is an important goal, and a "motherhood statement" - it is not surprising that SAPN's consumer research suggested people were willing to pay more in their electricity bills for safer roads.

Our strong view, however, is that road safety is another areas where there are multiple parties involved; councils, roads department, tourism etc. If SAPN is to invest additional funds into undergrounding, it should be as a result of a comprehensive plan agreed to by all stakeholders – it is not an economic regulatory matter, there is no compliance requirement involved. It is a community issue of which SAPN is one part.

It is also worth noting, that if the undergrounding projects have merit, there is already a forum, the Power Line Environment Committee (PLEC) with broad representation and a structured process to prioritise and approve projects.[28]

3.3 Non-Network capex:

SAPN is proposing to increase their current expenditure on non-network capex to a total of $620 million.[29] Over half of this expenditure is a result of SAPN's IT plan.

The CCP2 recognises that businesses must periodically upgrade their systems. We also recognise that there is value from a security and cost point of view in consolidating the IT platforms, both of which SAPN is proposing.

SAPN also demonstrates that their historical expenditure on IT has been low compared to some of the DNSPs, [30] although we note that it is unlikely to remain so if SAPN's proposal succeeds with an average annual new spend of over $70 million.

It seems that SAPN's IT plans are already well developed. Our caution would be that the sheer volume of additional projects[31] would not only require additional resources (which SAPN recognises), but would be high risk to the business.

For example, SAPN forecasts overall IT related opex to increase by $65.1M, offset by savings of $21.2 within the regulatory control period, in order to manage the capital investment in IT.[32] As part of this, SAPN predicts that implementation of the IT program will lead to substantial increases in staff and contractors, from a total of 194 (2013/14) to 360 by 2019/20.[33] Consumers require that this investment have a net payoff over the life of the investment (5-10 years); it is not clear that this will be the case.

Moreover, some of SAPN's expenditure relates to projects such as the implementation of back office IT capabilities to handle 'smart ready" meters,[34] new network demand tariffs for all consumers and competition in the provision of metering services.

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28 We recognise that the current budget for PLEC projects is quite small (some $9 million dollars, and that this is set in legislation. If, however, SAPN has a valid case, it might be worth pursuing additional funds through the PLEC mechanism than unilaterally determining which projects proceed.

29 SAPN, *Regulatory Proposal*, Table 20.4, p 179

30 See SAPN, *Regulatory Proposal*, Figure 20.36, p 238.

31 SAPN lists some 24 new "IT non-recurrent initiatives for 2015-20, as well as 7 recurrent expenditure programs. See SAPN, *Regulatory Proposal*, Tables 20.44 (p 236-238) and 20.43 (p 235) respectively.

32 SAPN, *Regulatory Proposal,* p 259.

33 SAPN, *Regulatory Proposal*, Figure 20.42, p 249.

34 Smart ready meters are meters that can measure electricity flows on an interval basis and are set up to have wireless of other communication facilities attached some time in the future – at which point they will be re- classified as Smart Meters (Type 4)

The CCP2's concerns are that the government and regulatory decisions on these matters are in flux as is the timing of any implementation. For instance, the while the AEMC has completed its Rule changes to oblige networks to introduce cost-reflective tariffs from 2017, the AEMC's rule change draft determination on meter competition has been delayed because of the complexity of the task. Similarly, the SA Government has stepped back somewhat from its original policy brief on the roll out of smart ready meters and has yet to issue a final policy advice.

Given this uncertainty, the CCP is reluctant to see the AER approve all the IT expenditure proposed by SAPN to support these potential market developments. We believe a better solution may be to limit IT expenditure in the determination, but allow SAPN to seek a pass through of any incremental costs once the policy parameters are clearer. The CCP2 emphasises incremental costs – IT expenditure is a normal part of business and SAPN has had to adapt its processes to many regulatory and market changes in the past. New IT is not, per se, a reason for doubling the expenditure compared to RCP2.

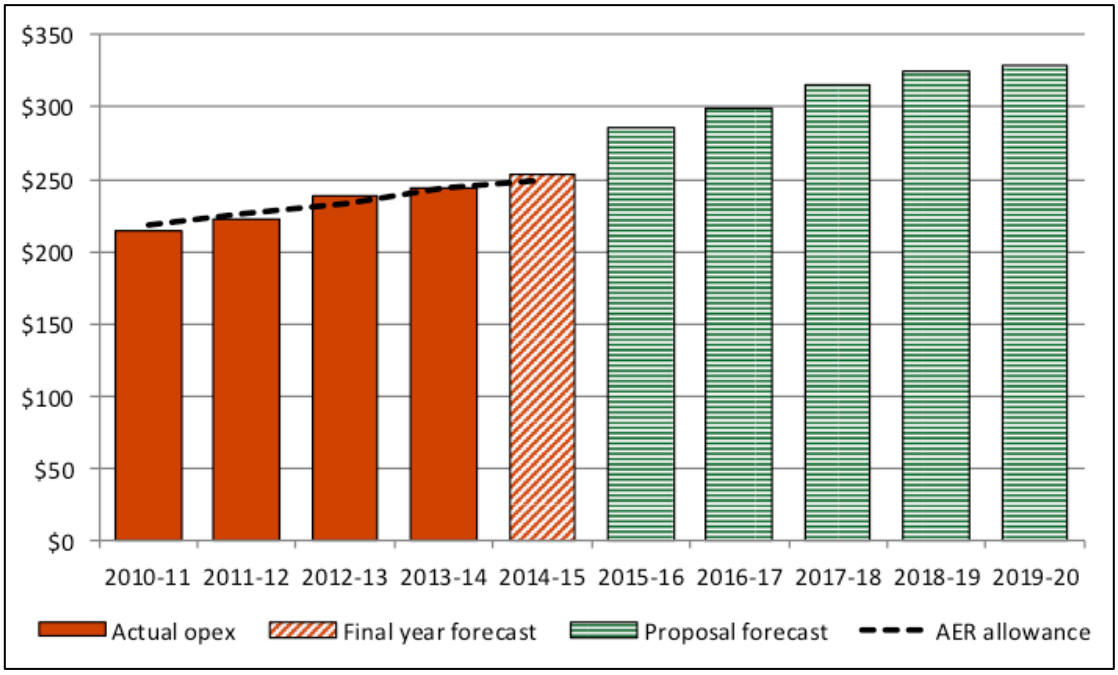
As a further comment on this, the CCP2 believes SAPN's proposed 'exit fees', to apply if/when there is competition in metering services, are excessive and will inhibit competition developing. We seek assurance that the AER will not approve these fees as part of the current determination, but allow a separate consultation on the matter.

4 SAPN's Operating Expenditure Proposal

Figure 10 sets out SAPN's opex proposal for 2015-20. The CCP2 is most concerned that in a mature market with declining demand, SAPN is still proposing significant increases of around 35% real, in operating expenditure. This increase follows on an estimated 41% increase between RCP1 and RCP2, a 77% real increase over 10 years.

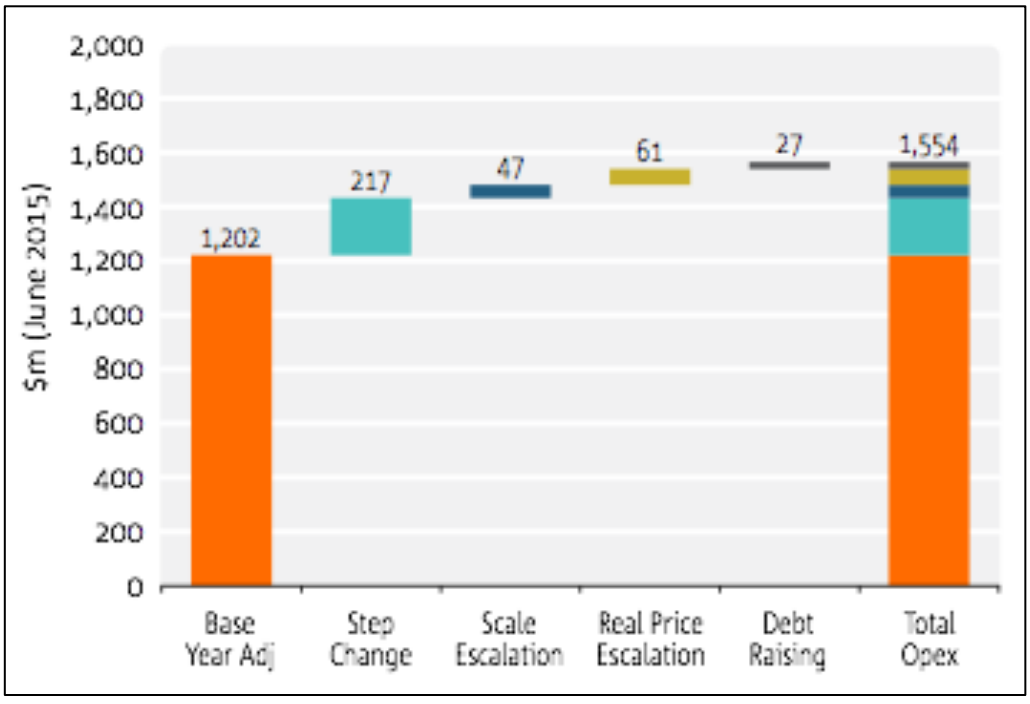
We also note that SAPN has applied the AER's base-step-trend approach to assessing their opex. SAPN's waterfall diagram, as set out in Figure 11 below, provides a useful starting point to assessing whether this 35% real increases is reasonable, and satisfies the NER's operating expenditure criteria of efficiency and prudent

Figure 10: SAPN's Operating expenditure ($million, 2014-15)



Source: AER, *SAPN Issues Paper*, 2014, Figure 6, p 18

Figure 11: Operating expenditure for standard control services 2015-20 ($million, June 2015)



Source: SAPN, *Regulatory Proposal*, Figure 21.3, p 253.

4.1 Assessing the base year opex

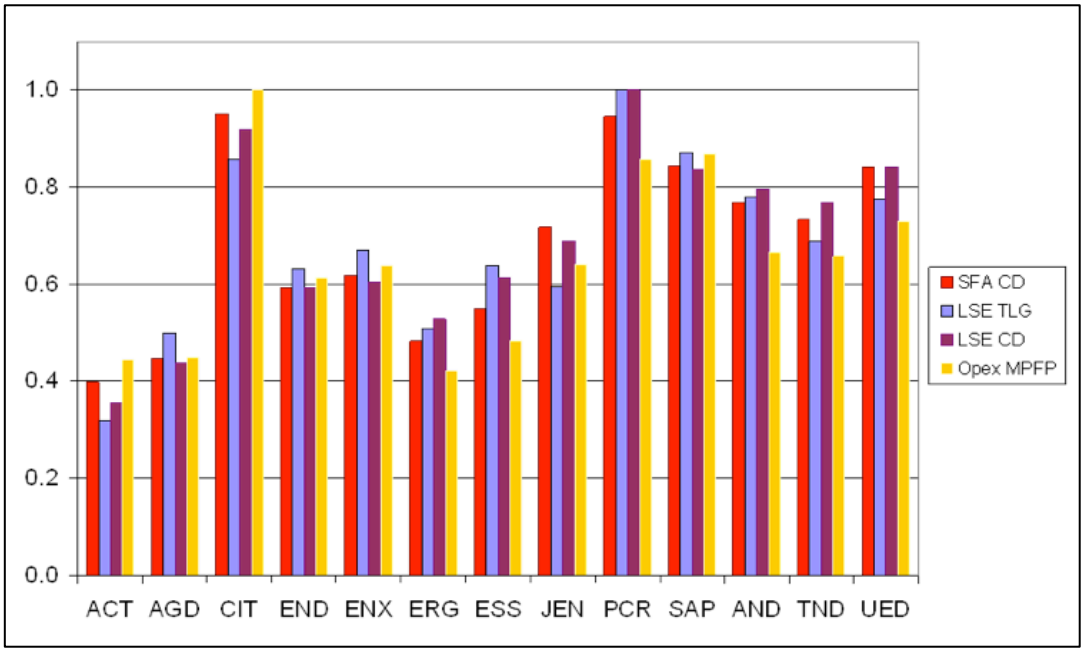
The AER's first consideration is whether the base year (2013-14 in this case) is efficient. In practice the AER has adopted the test of whether the base year opex is "materially inefficient".[35]

The study by Huegin Consulting for SAPN on comparative MTFP, and the AER's MTFP all suggested that SAPN was in the top quartile of productivity on this measure. The AER has also provided an assessment of a number of partial factor productivity measures, in particular, the DNSPs' average opex efficiency (2006-2013) and the trend in this over time.

Figure 12 illustrates that using a variety of measures of opex efficiency, SAP and its associates (Citipower and Powercor) are performing at the top of the DNSPs. Figure 13, however, points to a concerning corollary of the increase in opex between RCP1 and RCP2. SAPN appears to have experienced one of the steepest declines in opex partial factor productivity. By 2013, its opex productivity score was close to the average for all DNSPs. The benchmarking research supported this conclusion. It found that the average rate of growth for SAPN was -2.29% pa for MTFP and - 4.48% for opex multilateral partial factor productivity.[36]

Does this suggest there is scope for setting the base year at a level of expenditure that is lower than the actual expenditure? We encourage the AER to explore this issue further.

Figure 12: NEM distributors' average opex efficiency scores 2006-2013.



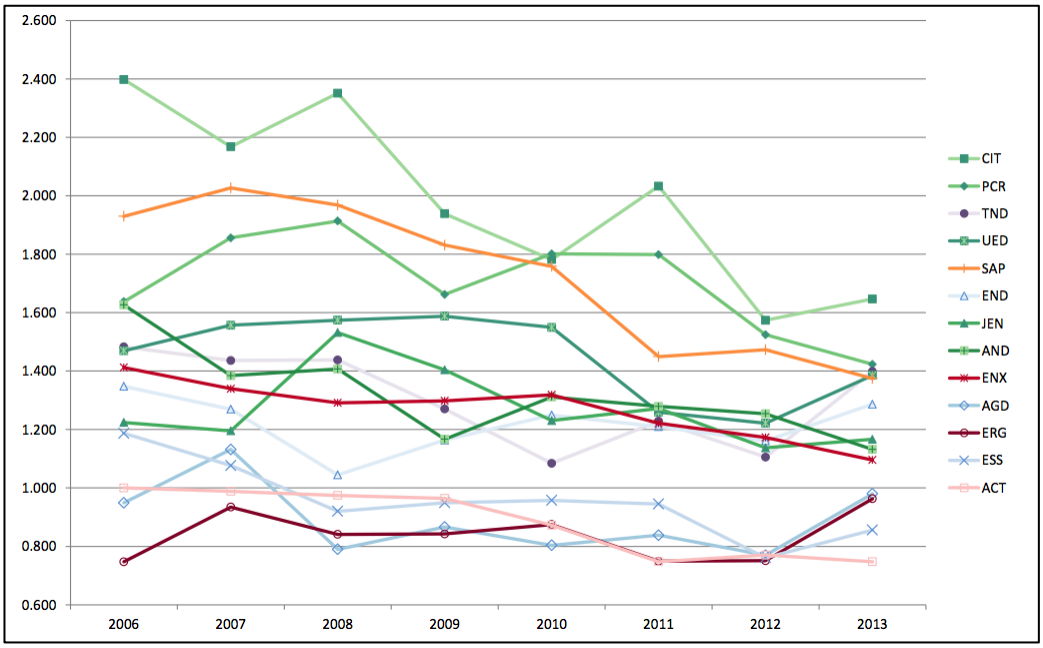
Source: AER, *SAPN Issues Paper*, 2014, Figure 9, p 22

35 AER, *Expenditure Forecast Assessment Guideline*, November 2013.

36 See Economics Insights, *Economic Benchmarking Assessment of Operating Expenditure for NSW and ACT Electricity DNSPs,* 17 November, 2014, Tables 3.1 & 4.1, pp 21- 22.

However, of even greater import to consumers is what this means for SAPN's future opex productivity and total factor productivity, given the significant increases in opex in its regulatory proposal and the reduction in energy usage and customer number growth.

Figure 13: Partial factor productivity opex



Source: AER, Annual distribution benchmarking report, Figure 19, p 34.

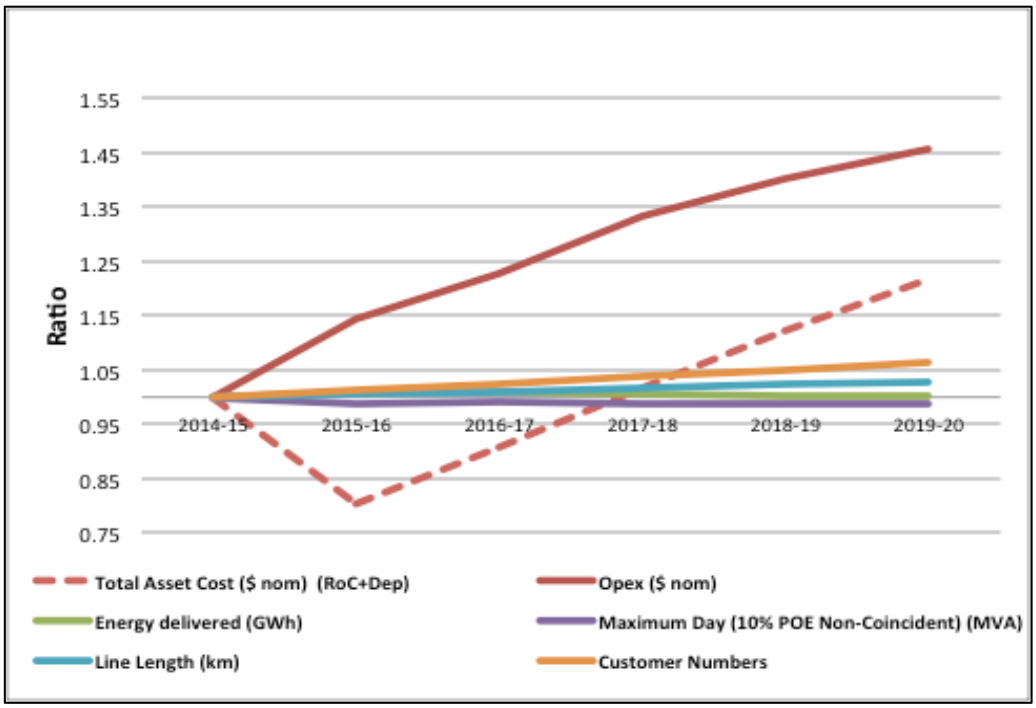
Figure 14 below provides an illustration of the risks to SAPN's future opex productivity iusing the input/output specifications identified by Economic Insights in their assessment of the MTFP for each DNSP. That is, the chart Figure illustrates the principal inputs being "opex" and "total asset cost" (return on capital (RoC) and depreciation), and the principal outputs (customer numbers, maximum day, energy delivered and line length).[37]

While Figure 14 does not claim to represent the outcomes of a full statistical MTFP assessment, it clearly demonstrates the fact that, under SAPN's opex and capex proposals, SAPN's MTFP will decline (inputs are increasing at a faster rate than outputs) towards the industry average,

For this reason, we urge the AER to stress test SAPN's proposal by extending their benchmarking analysis to the end of the next regulatory period. If the results are as expected from Figure 14, then there is an added reason to cutback on SAPN's proposed increases in opex.

37 Ibid. The paper includes a summary of the most significant variables, of which these four were the most important, and customer numbers was the most important of these four.

Figure 14: SAPN Ratio of proposed Inputs and Outputs for 2015-2020 based on SAPN's projected costs



Source: Data from SAPN *Regulatory Proposal* & SAPN Reset RIN.
Note: the decline in total asset cost in 2015-16 is because of the reduction in the WACC at the start of RCP3.

As stated previously, the CCP2 considers that the greatest risk to SA consumers is the very real risk that SAPN is building in a problem for the future. A critical examination of SAPN's step changes (as well as the base year) is vital to ensure there are no further declines in productivity.

4.2 Step Changes in Opex

Areas of SAPN's forecast step-change opex which the CCP2 believes would be useful for the AER to investigate, include:

- Legal and regulatory step change of $105 M ($ June 2015).[38] Part of this step change includes SAPN's proposed increased asset inspection, although there are no new regulatory requirements for this – it is a business decision. In assessing the other claims for step change regulatory costs it is important that they are incremental costs. Regulations are always changing, and the

38 SAPN, *Regulatory Proposa*l, 2014, Table 21.3, p 256.

costs of adapting to new regulations (albeit different ones) is already captured in full or part in the base year.

- Step change in the cost of proposed capital programs of net $70 million. Again, SAPN always has new capital projects afoot and these should be captured in the base year cost. The expanded capital project list might add additional cost but we are hopeful that this will be cut back significantly, and loser to levels seen as "normal" capex.

- Step changes from customer driven programs. A large component of this step-change is increases in vegetation management costs, over and above the additional pass through allowance in 2013 and 2014 for increased vegetation management.[39] We have noted our concerns above (and repeat in detail below), with the process by which SAPN determines this expenditure; we do not believe it is appropriate that expenditure and cost/benefit decisions are made in consumer workshops rather than in structured consultation with a broad range of parties that reflect the multiple responsibilities for managing the environment.

4.3 SAPN's Trend Forecasts for Opex

The CCP2 considers that the proposed trends in prices for materials and land are reasonable under the circumstances.

However, we do not consider the forecast costs of labour and contractors are reasonable, as they are both increasing at a rate above CPI (labour is averaging around 1.7% above award, and external contractors around 1%).

In the alternate, if labour costs were arising at close to 2% above CPI then it is reasonable to expect that employers will require productivity improvements.

Also, there is minimal wage pressure in the current Australian economy and with the mining boom a distant memory, skilled labour is more readily available.

The CCP2 believes that AER should adjust as appropriate for the Final Determination and consistent with the longer term trends emerging in the economy with respect to wages and consultancy rates.

4.4 Concluding Comments on SAPN's Expenditure Proposals

In the following sections this submission will consider some specific issues that arise throughout SAPN's proposal. However, it is worth raising some general observations about SAPN's expenditure proposals at this point.

39 This is in addition to the proposed increases in capital costs on vegetation management

To reiterate, SAPN is proposing significant increases in both its opex and capex allowances in real dollar terms, and these increases come after large increases in the allowances in the previous regulatory period, that is, from RCP1 to RCP2 (the first that the AER determined).

What is noticeable, however, is that there are few corresponding improvements in performance outcomes for consumers. For example, we do not see any commensurate changes in the following parameters:

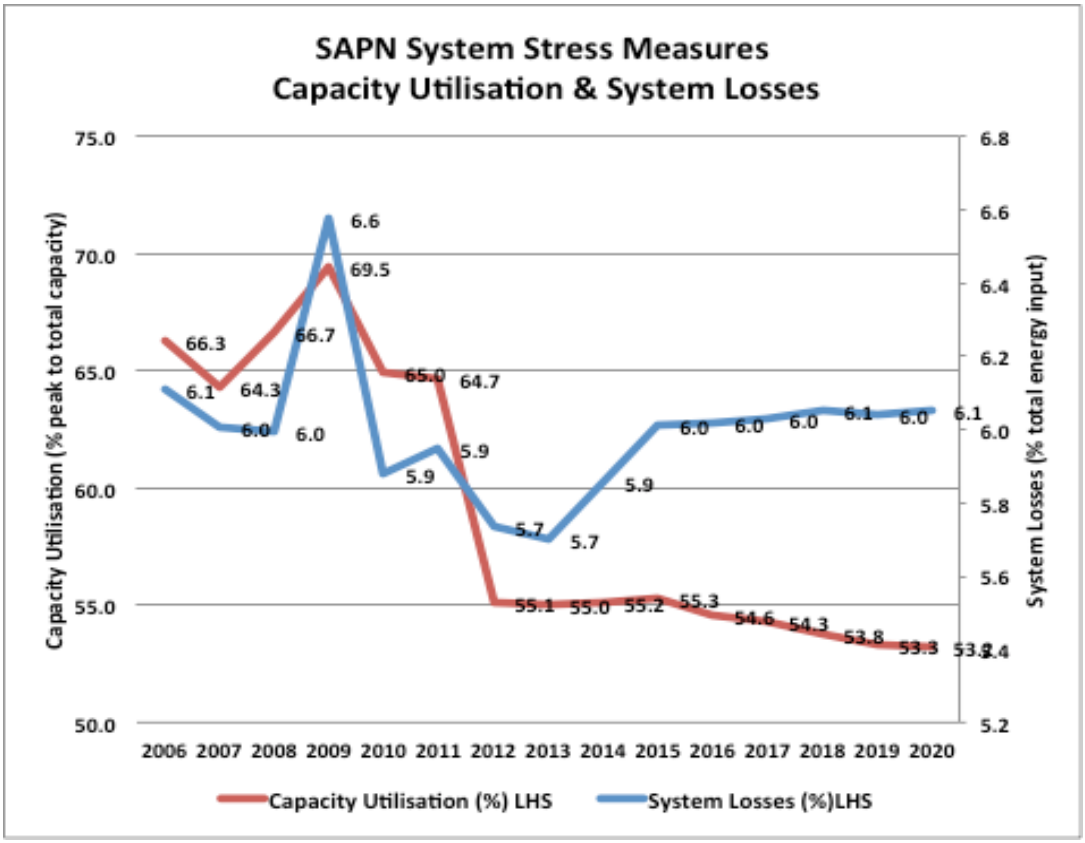
- The length of line;
- The reliability targets (SAIFI and SAIDI) overall and for each of the reliability categories (CBD, Urban, Short Rural and Long Rural);
- Supply quality measures;
- Customer service targets (time to respond to phone calls);
- System losses; and
- Spare capacity (or capacity utilisation),

With no or negative growth in energy use and demand, and only 1% growth in forecast numbers, consumers would have expected some enhancements in these measures and/or increased capacity.

Figures 15 and 16 demonstrates the changes in these various output measures. Figure 17 shows the gradual decline in the age of some of SAPN's assets.

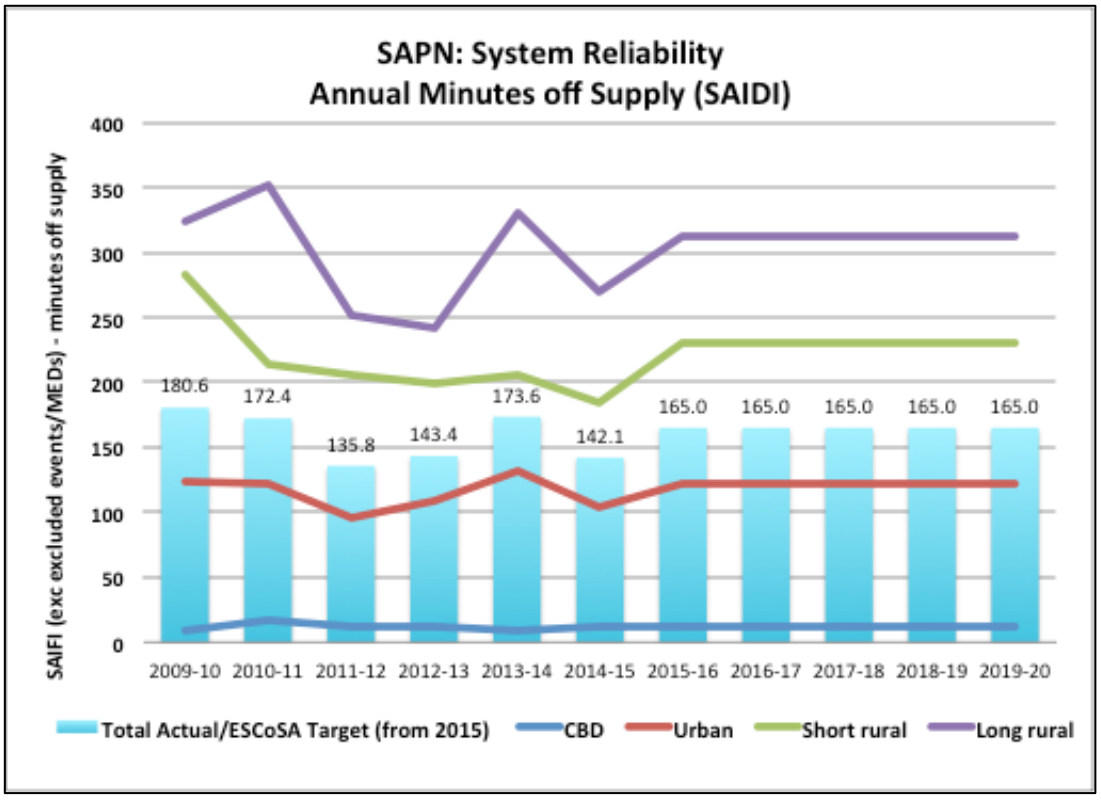
What we do see is some decline in the average age of the assets. However this decline in the average age (reflecting the very much greater level of replacement) should have led so some improvements in other measurable outputs. We therefore seek the AER and SAPN to demonstrate the tangible benefits that consumers are going to receive from this second round of expenditure increases.

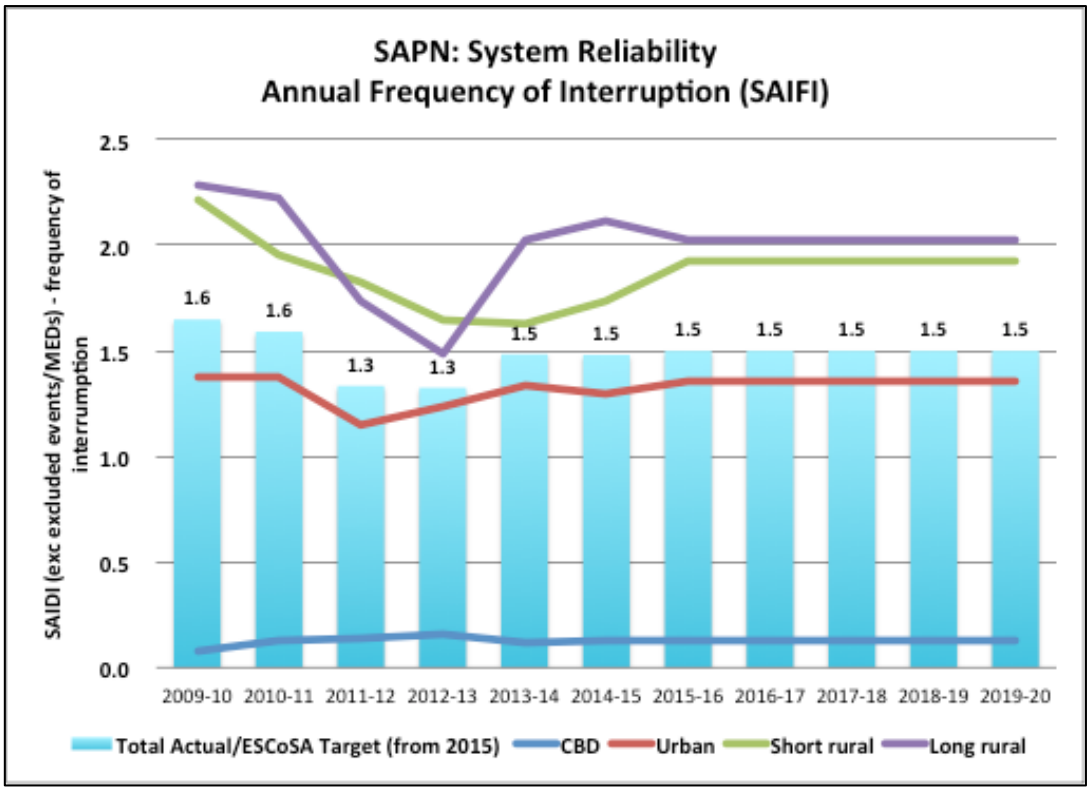
Figure 15: System stress measures: capacity utilisation and system losses



Source: SAPN Reset RIN.

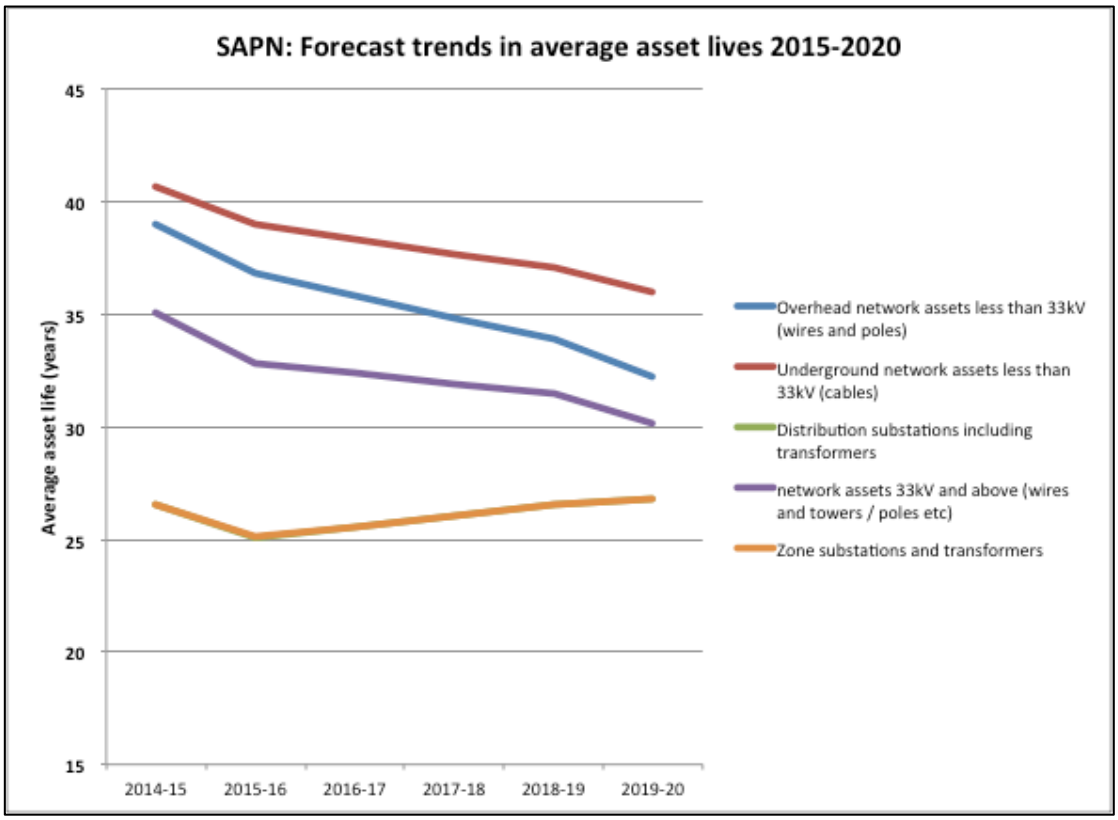
Figure 16: SAPN projected reliability performance.





Source: SAPN Economic Benchmarking RIN, SAPN Reset RIN

Figure 17: Average age of SAPN assets (2015 – 2020)



Source: SAPN Reset RIN

5 SAPN's proposal and consumer engagement

As noted, SAPN has undertaken an extensive consumer research program. SAPN uses the findings of this research to underpin and justify its significant increases in both capex and opex as described above.

The CCP2 accepts the importance of NSPs engaging with their customers and responding to customer concerns, where applicable, in *setting their expenditure priorities or improving their customer service*. We consider that SAPN's research will have provided valuable insight for SAPN into the concerns of their customers and we compliment SAPN on their commitment to the process.

However, it is a somewhat different and more complex situation when the customer research is used to justify *expenditure increases.*

Networks make long-term investment decisions that will also have long lasting impacts for consumers in terms of service and future costs (in addition to current costs). It is imperative therefore, that any claims for increases in regulatory expenditure allowances, particularly when these lead to investments that are greater than statutory requirements (rather than prioritisation of a set allowance), are very vigorously examined.

5.1 Adopting a cautionary approach

As this is the first time NSPs have undertaken such detailed consumer engagement programs to guide expenditure decisions, we would be very cautious, as a matter of principle, with simply translating that engagement and research directly into real increases in expenditures and real impacts on consumer prices now and in the future.

The CCP2 also raises a number of other issues with SAPN's research that we believe are particularly relevant when that research is used to justify expenditure increases. We urge the AER to undertake further investigation of these same issues and to also take into account the CCP's preliminary advice to the Board on best practice Consumer Engagement.[40]

As an initial, and most important consideration, we draw the AER's attention to a report prepared for IPART on options and issues with consumer engagement.[41] The

40 CCP, *Preliminary Advice on the Effectiveness of Consumer Engagement by Network Businesses*, 16 July, 2014. http://www.aer.gov.au/sites/default/files/Consumer%20engagement%20advice_140707.pdf

41 Cambridge Economic Policy Associates Ltd, Regulated Monopoly Service Providers and Consumer Views, Preferences and Willingness to Pay, A Report for IPART, June, 2011. http://www.ipart.nsw.gov.au/Home/Industries/Research/Reviews/Customer_Engagement/Customer_Engagement_on_Prices_for_Monopoly_Services_2011/01_Jul_2011_-_CEPA_Discussion_Paper/Consultant_Report_-_CEPA_-

research reviewed a range of approaches to effective consumer engagement in the context of a regulated energy business making long-term investment decisions – noting that these decisions have long term consequences and are therefore qualitatively different than decisions made by marketers of consumer products.

The research included an assessment of willingness to pay (WTP) and consumer preference research methodologies and issues, including the experiences of

From this experience with WTP research, Ofgem established a set of preconditions for effective engagement. Figure 18 provides a summary of these pre-conditions for effective consumer engagement in the regulatory investment decision making process. We commend this research to the AER for their consideration in evaluating the SAPN's proposals and those of other NSPs.

Our comments below on SAPN's consumer engagement and WTP research draw on some of the requirements highlighted in the Ofgem preconditions table. We note in particular, the requirement for some level of understanding of the industry and the regulatory framework, and the resources required for effective engagement.

Figure 18: Ofgem's preconditions for effective consumer engagement[42]

Table 2.1: Ofgem's preconditions for effective engagement

Precondition	Explanation
Understanding consumer needs	Where parties engage on behalf of end consumers they need to understand the needs of those consumers in order to adequately represent their views.
Understanding the regulatory regime	Consumers or their representatives need to understand the regulatory framework in order to engage effectively. Ofgem felt that steps could be taken to improve the knowledge of parties representing consumers.
Resources to engage	Parties need to invest time and effort to be effective in the regulatory process. The resources available to individual consumers and their representatives may be limited. Ofgem was of the view that there was merit in ensuring that customer representatives have access to the necessary resources to engage in regulatory issues.
Appreciation of trade-offs	Parties engaged in the process need to understand that regulatory decisions are subject to trade offs. For example, achieving a low carbon energy sector will have an impact on network costs.
Willingness to engage	The willingness to engage is likely to be higher the greater is the impact of decisions on consumers or network users and the more parties feel that they can influence decisions. Varied views will be expressed by consumers and network users and it is important for the regulator to demonstrate that different views have been taken into account.

Source: Ofgem (2010) "Regulating energy networks for the future: RPI-X@20, Delivering outcomes: Consumer engagement in the regulatory process"

_Regulated_Monopoly_Service_Providers_and_Customer_Views_Preferences_and_willingness_to_Pay_-_A_report_for_IPART_-_June_2011

42 See Ibid, p 14.

5.2 The limitations of SAPN's consumer research for investment planning

In addition to our concern identified above with using research that is still in its conceptual and practical infancy to guide long-term incremental investment decisions, the CCP2 raises the following more specific issues with SAPN's program. Note we do so while acknowledging the significant progress SAPN has made in this area, and the leadership it can provide on effective techniques.

- The people included in the surveys and attending the workshops generally demonstrated a very low level of understanding of the structure of the electricity industry and the interplay of various industry parties and regulatory bodies.

  Other research on choice modelling for utilities, such as the research summarised in Figure 18 above, indicate that consumers must have an understanding of the basic operation of the industry and the regulatory framework to be able to provide "investment level" input to network expenditure decisions and the regulator's assessment thereof.

- As SAPN notes, participants in the research expressed a high level of concern with overall electricity prices and did not want SAPN to take actions that would further increase prices; choice modelling must provide realistic scenarios of positive and negative variations from existing performance, as well as the status quo, and specific, realistic measures of the price increases or decreases associated with these. This requirement has been identified in research conducted for ACTEW and ACTEW AGL[43] and we believe these findings could be applied to other NSP research, including SAPN's WTP research to increase its relevance and validity.

- Participants in the research were given the following explanation to provide a context for their "willingness to pay" for each of the different components of expenditure (such as bushfire mitigation): "*any investments and operating costs could be managed within no more than a CPI increase in their network charges*".[44]

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43 See Australian National University, *Willingness to pay research project, Final Report*, March 2012. The research was conducted on behalf of ACTEW and ACTEWAGL to establish trade offs between specific dollar changes in the water supply bill, and the frequency and severity of water restrictions (analogous to the energy industries SAIFI and SAIDI measures respectively). The questionnaire was peer reviewed by Professor Ricardo Scarpa who also advised AEMO in their recent value of customer reliability review.
http://users.monash.edu.au/~mward/WTP_final_report_for_ACTEW_Personal_Academic_Webpage_Version.pdf

44 SAPN provides the context of managing increased expenditures within no more than a CPI increases in network charges .

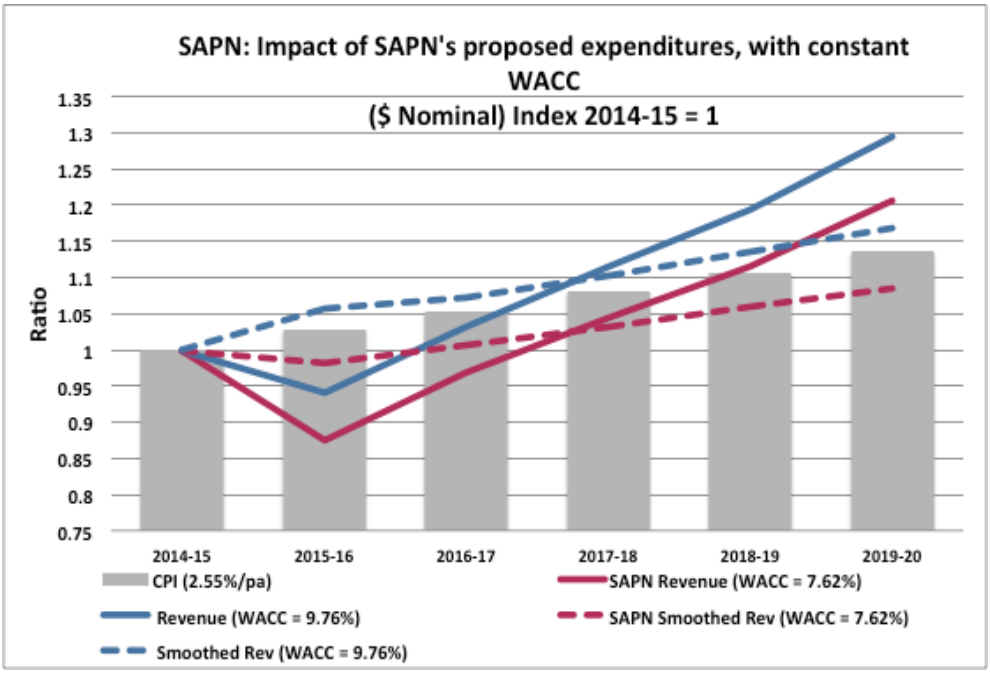
While this statement provides a context to assist the study participants, it is also raises issues in terms of the interpretations that consumers will take into the study and the conclusions that can be drawn from the study.

In particular, SAPN can only make that statement because they (but not, it appears, the participants) knew that the significant increases in expenditures proposed by SAPN were offset by the steep decline in the WACC.

In other words, in the absence of SAPN's proposed expenditure increases, the reduction in the WACC would have resulted in significant real dollar reductions in network prices for consumers. The CPI "cap" provides a comfort to consumers to agree to expanded services. However, it has the effect of covering up the underlying price impacts flowing from the various projects.

Figure 19 provides an illustration of what might happen to prices, if the WACC is held constant at. It clearly demonstrates the effect described above.

Figure 19: Impact of SAPN's Proposed Expenditures with constant WACC



Source: SAPN *Regulatory Proposal*, Table 29.1 (revenue for 7.62% WACC). CCP2 calculations.

The CCP2 considers that the more correct representation (for the purpose of SAPN's WTP studies) is to focus on the current level of performance against targets set by and then seek consumers' assessments of whether they were willing to pay specific increases in their electricity prices (or receive specific decreases) for specific level of improvements in reliability, or safety (et al).

Participants also need to be clear that increases in capex particularly, will have long term impacts on SAPN's regulated prices. It is not evident that this impact on the RAB and long-term prices was explained to consumers.

Other areas of SAPN's consumer research program that raises concerns with the CCP2, include:

- The feedback from consumer representatives who took part in various aspects of the study to the CCP2 included criticism that there was "push polling" and a lack of clarity of the overall impact of all the investment options on network prices; they considered that SAPN was not taking into account the overall lack of understanding of the market and the levels of stress high prices are causing. The CCP has provided feedback to SAPN on these issues; and

- The CCP2 has found no reference in SAPN's proposal to the AEMO's recent very extensive and peer-reviewed study of the value of customer reliability (VCR) for mainland SA.[45] [46] However, the CCP2 considers AEMO's report sets the statistical and methodological benchmark for VCR research on assessing the value customers place on different attributes of network service (including but not only, reliability). SAPN's findings need to be tested against the AEMO's conclusions and, in particular, AEMO's assessment of the aggregate VCR for SA, of 38.09$/kWh as well as its assessment of VCR by customer class.[47]

The CCP2 does not purport to be expert in the various methodologies to measure WTP, nor whether the samples represented in SAPN's research program are a statistically robust and representative group of customers, given the significance of the conclusions and expenditure proposals that SAPN draws from the research.

For example, AEMO reports that: "*a large sample was required to enable poor quality responses to be removed, while retaining an overall robust data set*".[48] AEMO also involved a wide section of the community representatives and other industry representatives in the process of developing their WTP study, as well as inviting review by world-recognised experts. The CCP2 is not aware of SAPN seeking such broad input into the design features of the study.

Therefore, given the extent to which SAPN's proposal for expenditure increases rests on the findings of their consumer research, the CCP2 believes that the AER should arrange for expert evaluation of SAPN's WTP research.

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45 See AEMO, *Value of Customer Reliability Review, Final Report,* September 2014 and associated Application Guide and related documents. [AEMO, VCR Review, Final Report, 2014] http://www.aemo.com.au/Electricity/Planning/Value-of-Customer-Reliability-review

46 SAPN's regulatory proposal does refer to the AEMO study in the context of reliability of supply to King Island. SAPN concludes that the VCR cost incurred for not having a secure supply to Kangaroo Island is estimated as $3.4M. See SAPN, Regulatory Proposal, p 221.

47 AEMO, *VCR Review, Final Report*, 2014, Table 25, p 30.

48 Ibid, p 32.

This will enable an objective assessment of whether the WTP research conducted for SAPN represents best practice methodology and statistical analysis for WTP research in a regulatory setting where long-term investment decisions are being made. We believe the Ofgem preconditions also provide a useful and practical set of criteria to evaluate SAPN's WTP research

On first blush, SAPN's consumer research does satisfy the criteria discussed above. In saying this, however, we reiterate our opening comments in this section. The effort to achieve best practice WTP research is proportional to the use that will be made of it.

When the WTP is used to identify consumer concerns and establish priorities, then a lesser standard of research might apply. SAPN's research should provide a very useful foundation to these assessments. However, when the research is used as a justification to increase expenditures and raise prices above what they could have been (in the absence of competitive market discipline), then the quality of that research must, by definition, be much higher.

Expert evaluation of the study will at the very least, provide guidance to the AER in their decision making and ensure improvements in overall consumer research by all NSPs.

6 SAPN's proposal and legal, regulatory and other standards

In addition to its claims that consumers support the proposed level of increased investment in the networks, SAPN makes considerable reference to the need to comply with various legal, regulatory and other standards (such as the Australian Standards).

The CCP2 has found it somewhat difficult to advise the AER on the treatment of SAPN's claims about compliance requirements, particularly as SAPN is subject to multiple layers of law, rules, and other standards, set by multiple authorities.

The CCP2 must, therefore, place considerable reliance on the AER's expert assessment of the efficiency and prudency of these additional investments in line with the NEL and the capex and opex objectives and criteria in the NER.

However, we would submit the following points for the AER's consideration:

- In 2013, the AEMC made specific amendments to the opex and capex requirements in the NER[49] in order to clarify that the obligation under the

49 NER, cl 6.5.6(a)(3)-(4) and cl 6.5.7(a)(3) and (4). Equivalent changes are made to Chapter 6A.

NER to allow sufficient funds for the NSP to comply with relevant standards, did not mean that funds should be provided to perform above the standard – the NSP is not stopped from performing better than the standard, but it is not to be funded to do so.

The AEMC provides a strict interpretation of its amendment to the NER as follows:[50]

…, it should be made clear in the NER that where the jurisdiction ***determines a regulated standard for reliability it is this level of reliability that expenditure in an NSP's regulatory proposal should be based on and not any other level****. In practice this means that the NSP should propose no more expenditure than is necessary to comply with the reliability standard, and for the AER not to approve any more expenditure than required by the standard.*

- SAPN has demonstrated its compliance with the existing laws and regulations to the satisfaction of the relevant regulators.[51] The CCP2 considers it essential that the AER apply the above strict test set out by the AEMC to proposals to increase expenditure in order for SAPN to comply with regulation and rules.

- The CCP2 is not aware that there have been any major changes to the South Australian laws and regulations regarding network reliability, quality and safety performance in recent years, although there has been progressive harmonisation of national standards under the auspices of COAG Energy Council and the Energy Supply Industry Safety Committee (ESISC).[52] [53]

- SAPN makes frequent reference to its Safety, Reliability, Maintenance and Technical Management Plan (SRMTMP) as the basis for specific expenditure increases. As noted by SAPN, the SRMTMP must be reviewed by the OTR as compliant with the regulatory requirements and signed off by ESCoSA as a licence condition.

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50 AEMC 2013, *Network Service Provider Expenditure Objectives, Rule Determination*, 19 September 2013, Sydney. p 15. The AEMC also stated that this assessment applies to other components of the NEO, such as the quality and security of supply.

51 See for instance, the annual distribution performance reports from ESCoSA and the Annual Report from the OTR.

52 The Office of the Technical Regulator (OTR) participates on the ESISC. The OTR's 2014 Annual Report notes that a new Australian Standard (AS 5577:2013 Electrical Networks Safety Management Systems] was published in April 2013, but is not yet called up in legislation. It includes new standards for the management of vegetation near power lines – very relevant to SAPN's proposal.

53 This is not to say that SAPN has not faced a range of other regulatory changes in the past such as the changes to the amendments to the NER, NEL, the National Energy Consumer Framework etc. The costs of these are largely captured in SAPN's 'base year" opex and existing capital expenditure; it is not clear what drives the additional expenditure proposed for RCP 3.

The CCP2 has undertaken some preliminary investigation of the legislative requirements for the SRMTMP and the role of the OTR and ESCoSA in approving the SRMTMP.

We understand from these discussions that the SRMPTMP is a document developed by SAPN, and signed off by the OTR (and ESCoSA) if it meets certain requirements, such as setting out the processes by which SAPN will ensure it manages compliance with the actions it set out in the SRMPTMP. As OTR sees it, the SRMPTMP represents "light handed" regulation in which SAPN is responsible for setting out the actions it will take to meet the general regulatory requirements for managing a safe and reliable network. The OTR does not undertake an economic assessment of the plans; that is, the OTR will sign off on the plans even if the proposed actions set out in the plan exceed the requirements.

For this reason, we encourage the AER to look "beyond the veil" of SAPN's claims for expenditures associated with meeting requirements in its SRMTMP. We are of the view that the SRMTMP and the OTR's signature and ESCoSA's approval are not evidence that either body endorses the additional expenditure as efficient or prudent from an economic perspective.

- In similar vein, and related to the SRMTMP issue, SAPN has stated that it has significantly increased its inspections of its assets and as a result has found more defects (which it says it is obliged to fix under its SRMTMP and general obligations). We believe this too requires a more critical examination by the AER in terms of the balance of costs and risks and the timing of replacements driven by "condition assessment" and the above inspections.

  In particular, as highlighted in Figure 8 above, the additional inspections have (not surprisingly) found increased number of faults. However, there is little increase in the number of Priority 1 faults, the great majority of the additional problems are categorised by SAPN as Priority 2 and 3 faults.

  It is not clear to the CCP2 what this means in practice – are priority 2 faults a danger to the public or workers – SAPN's definitions suggest not? Is there a greater risk of major failure or will the failure be of minor consequence? What is the optimal timing for replacement, or can the fault be effectively repaired in situ – SAPN appears to be planning for replacement of the great majority of these Priority 2 and 3 poles. What is the duty of care responsibility of SAPN in these situations, and does it go beyond that set out in the regulations?

  As an illustration of the interaction of the inspection regime and the SRMTMP, if SAPN had set a target in the SRMTMP to replace poles categorised as Priority 2 in 170 days (as indicated in SAPN's regulatory proposal), then the OTR would expect SAPN to comply with this target.

However, this is not to say that the OTR believes the target represents the best option from a cost/benefit perspective.

It is our view that SAPN has a clear opportunity to reduce the impact on costs (in the short and long term) by carefully prioritising the priorities and reassessing (in conjunction with the OTR) the plans it has set for itself in the SRMTMP.

7 Vegetation management/Bushfire risk management

SAPN is proposing an additional $220.1M in capex, and some $40M of additional opex as part of its bushfire mitigation plan and enhanced vegetation management strategy.

As discussed in this submission, the CCP2 does not dispute the importance of managing assets to minimise the risk of bushfires in a cost effective and prudent manner. However, we disagree with aspects of SAPN's approach. In particular, where there are significant additional expenditures proposed, we believe that SAPN should not take unilateral action but seek to establish a broader approach.[54]

That is, the CCP2 considers that SAPN's additional expenditure should only be approved if it is part of a wider, integrated plan involving state and local government and other relevant emergency. If this were to occur in SA, then SAPN has every opportunity and right to seek additional pass through amounts from the AER, as Powercor and SP Ausnet have successfully done in Victoria.

In proposing this additional expenditure, SAPN refers to the outcomes of the Bushfire Royal Commission in Victoria (VBRC), the Victorian Bushfire Safety Taskforce (VBST), the Powerline Bushfire Safety Taskforce (PBST) and new "industry standards" that have been established from the recommendations of these committees. SAPN also refers to the legal proceedings against the powerline owner (SPI Australia) and its contractors.[55]

The CCP2 has made a preliminary examination of the recommendations and plans of the various Victorian committees, and considered their relevance to SA. In particular, we highlight to the AER, the following:

- We are not aware of any specific revisions to national standards or changes to the regulations or technical standards in South Australia since the

54 We make this point, noting that SAPN claims it has talked to relevant authorities and suggested that its plans are supported by these authorities and by customers in its community engagement plan.

55 See for instance, SAPN *Regulatory Proposal*, pp 225 and 257. The matter was recently settled in an out of court agreement for a some of around $500M.

Victorian bushfire, although we would welcome advice from SAPN if that is not the case.

What we do see, however, is that SAPN has revised its interpretation of its ongoing obligations under the existing regulations. For example, the regulations that apply to the SRMTMP requires SAPN to (for instance) monitor infrastructure to identify infrastructure that is unsafe or at risk of failing, and to monitor aerial lines in bushfire prone areas to identify risks relating to bushfires. [56]

- We accept that it is important for SAPN to carefully consider the findings of the Victorian Bushfire Committees. However, we do strongly suggest that the safe management of assets and vegetation should be part of the standard, ongoing operations of the relevant NSPs and should not generally require significant additional funding over historical "business as usual funding" unless there is a legislative change.

- In addition, the claimants in the legal damages case in Victoria state that the damage was caused by the failure of SP AusNet (and its contractors) to perform its licence responsibilities with a reasonable standard of care; a requirement that applies to any business. It was a matter of business practice and expenditure prioritising rather than a regulatory revenue shortage that was at stake (noting that SP AusNet has not admitted fault).[57]

- The Victorian approach following the 2009 bushfires demonstrates the importance of a multi-disciplinary coordinated approach. SP AusNet was only part of the problem and must be only part of the solution. For instance, only two of the 67 VBRC recommendations had specific relevance to powerlines; i.e. recommendations 27 and 32 dealing with "new safer assets" and "safer network operations" respectively. [58]

  The PBST was set up to review cost effective options for achieving these recommendations, and was supported by a Stakeholder Reference Group and Interdepartmental Working Group covering a "broad range of skills,

56 See Electricity (General) Regulations 2012 72(2). Clause 72(2)(g) and 2(h).

57 The plaintiffs claim was that the fire was due to the negligence of SP AusNet (now AusNet Services) SPI Electricity, its maintenance contractor to identify and replace damaged powerlines, and the Department of Sustainability and Environment for failing to reduce fuel loads. SP AusNet paid out $380m of the $500M in a "no fault" settlement and was covered by its liability insurance. See for instance, The Age, Judge approves record $500m settlement over deadly Kilmore East-Kinglake Black Saturday bushfires., December, 2014. http://www.theage.com.au/victoria/judge-approves-record-500m-settlement-over-deadly-kilmore-eastkinglake-black-saturday-bushfires-20141223-12cq3x.html

58 The discussion herein is based on material available on the Victorian Government's Energy and Resources website. A useful summary of the work of the PBST can be found at:
www.energyandresources.vic.gov.au/__data/assets/pdf_file/0006/214944/PBSP_Progress_December_2014.pdf

knowledge and experience" which "facilitated a thorough examination of, and robust debate on, all the issues."[59]

The CCP2 is not aware that the SA Government has established any such equivalent representative committee, however, we firmly believe this is the most appropriate and effective approach to addressing multi-causation events such as bushfires in a prudent and cost effective manner. We highlight to the comments made in the Bushfire Royal Commission Implementation Monitor Annual Report, 2014:

…it is important to understand that all 67 VBRC recommendations are inextricably interdependent. No single recommendation is effective in its own right.

In addition, we note that in recognition that bushfire management was the responsibility of multiple parties, the costs of addressing bushfire risk were funded not only by electricity consumers but through direct grants from the Victorian Government (in excess of $200M) and funding for research. SAPN's approach, however, allocates all the relevant costs to electricity consumers.

We therefore do not endorse SAPN adopting a unilateral approach to bushfire management, where this involves significant additional costs to electricity consumers.

- In addition to SAPN's unilateral approach in which all costs are effectively allocated to electricity consumers rather than shared costs, the CCP2 is not yet convinced that SAPN's approach as set out in its regulatory proposal is the most cost-effective approach

  For example, SAPN appears to be recommending significant undergrounding of powerlines in bushfire prone areas.[60] Although undergrounding of powerlines was one option in the VBRC recommendations, the Taskforce has focused on deployment of the alternative (and less costly) aerial bundled cabling in the selected bushfire prone areas.

  This illustrates the benefits (noted above) of having multiple expert contributors to the development of a bushfire prevention plan

In summary, the CCP2 encourages SAPN to invest in cost effective bushfire risk management, and we are confident that SAPN already undertakes this as a priority within their existing regulatory allowances.

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59 See, Powerline Bushfire Safety Taskforce, Final Report, 30 September, 2010.

60 We have not, unfortunately, been able to identify how much of the additional capex for bushfire/safety expenditure, is being allocated to additional undergrounding but it appears to be significant.

Our concern is with SAPN proposing such substantial additional expenditures on "safety" in the absence of a coherent and integrated plan that involves multiple stakeholders. Consumer research is not substitute for expert engagement on these critical issues.

8 Undergrounding of power lines

The CCP2 notes the proposal by SAPN to spend additional capex on undergrounding power-lines in key areas, as part of its commitments to bushfire and road safety and to the environment. As in other areas, SAPN cites support for this through its community consultation program.

However, the CCP also notes that in SA there is a parallel process that allocates funds to a specific organisation dedicated to identifying and prioritising underground projects. This is the Power Line Environment Committee (PLEC) that has been operating since 1990. The PLEC includes members from SAPN, Department of Planning, Transport and Infrastructure (DPTI), Environment Department, Conservation and Tourism, Local Councils and community representatives Environment.

PLEC's charter is to advise the Minister for Energy in relation to the preparation of programs for undergrounding power lines in significant areas pursuant to section 58A of the *Electricity Act* 1996 (Electricity Act) and the Electricity (General) Regulations 2012. ESCoSA administers the Committee. The Minister may approve, disapprove or amend the recommended projects and thus has ultimate responsibility for decisions on what and where funds are expended.

SAPN is required to contribute an amount each year set under the Electricity Act. The relevant councils are generally required to provide additional funding on a 2 for 1 basis (i.e. SAPN contribute $2 dollars for every $1 contributed by the Councils). Since 1990, a total of $156.1M has been invested in PLEC projects, with SAPN contributing $100.1M. [61]

In 2012/13, the PLEC recommended funding for 6 projects, of which $6.4M was contributed by SAPN and $3.2M by council contributions. The prescribed level of PLEC funding to be provided by SAPN during 2013/14, calculated under the 2012 Regulations is $6.35M.[62] PLEC states that it is "committed to equitable distribution of funds and priorities"[63]. Its projects are assessed on the following criteria:[64]

- Routes carrying high traffic volumes;

61 Power Line Environment Committee, Annual Report 2012/13, p 4.

62 Ibid.

63 Ibid, p 11.

64 ibid.

- Prominent locations of tourism, heritage or amenity value;
- Routes of high symbolic value (e.g. gateway routes);
- Areas of intense public activity;
- Major thoroughfares through townships.

The CCP2 considers that this another example of where the AER should assess SAPN's proposal for undergrounding against the background of existing SA processes that have been developed over time, and include a broad section of the community and are funded and regulated under the Electricity Act and Electricity Regulations

As in other areas of SAPN's proposals, the CCP2 are firmly of the view that it is not for SAPN to make unilateral decisions on such important but very expensive projects, particularly when these lead to additional capex over SAPN's "business as usual" capex. Nor should SAPN's proposal rely just on the outcomes of its own research into consumer research program, when it has access to a range of experienced experts in the area .

Organisations like PLEC have broad membership, considerable knowledge of the issues. The include community representatives who have developed a deep knowledge of the real trade-offs involved in undergrounding, as well as representation by government bodies and councils and a set of decision criteria for accepting and prioritising undergrounding projects along with a set of funding criteria. We believe that this provides a much sounder framework for decision-making.

If SAPN believes the PLEC funds are not sufficient to meet the requirements of the community as understood from their research, then it is up to SAPN to promote this position to the SA Government and seek amendment of the funding arrangements. In terms of prioritising undergrounding projects, SAPN has a respected seat at the PLEC table and can further seek to influence the Minister through this consultative process.

In summary, the CCP2 is not opposed to undergrounding powerlines pe se. What we do not support, is SAPN making unilateral decisions about additional expenditure (above BAU) based on limited research with consumers who have little background on this matter. Like the enhanced bushfire management plans, undergrounding is very expensive and requires clear evidence of widespread community support, and contributions to costs from all beneficiaries, not just electricity users

9 SAPN's Response to the Power of Choice, AEMC Rule Changes and Council of Energy Directions.

The CCP considers that the recent developments arising from the original Power of Choice study by the AEMC include two particularly significant, and interrelated, elements. The issues are relevant to all the DNSPs outside Victoria, and have the potential to impact on their respective revenue proposals. They are:

- The implementation of new cost-reflective tariffs for small consumers, including time-of-use and/or demand tariffs;
- The roll-out of smart meters or "smart-ready meters"[65], and associated development of two-way communications; and
- The introduction of competition in the provision of metering services.[66]

SAPN has proposed a substantial increase in non-network investment, principally around the proposed updating and enhancement of their IT infrastructure and related communications. For example, in the current regulatory period, IT expenditure peaked in 2012-13 at around $35M per year. Under the SAPN proposal for 2015-20, this will increase to around $70M per year.[67]

9.1 Investment in Smart Tariffs, Smart Metering, Smart Grid

The CCP also highlights that a significant component of both the capex and opex proposals relates to the implementation of new demand tariffs, the roll out of smart read meters and preparing for competitive metering.

SAPN is proposing to commence the transition to capacity based network tariffs for residential and small business customers from 2017. Associated with this, SAPN proposes to install smart ready meters as standard for new and replacement meter connections. Systems and processes will need to be upgraded to manage increased volumes of customer, metering and network data that come with the implementation of smart meters and smart grid technology.[68] SAPN also proposes to replace the network billing and customer interfaces, in part because of the changes arising from the introduction of "smart" technology and meter competition.

Impact on Standard Control Services: The CCP has found it difficult to understand the overall capex associated with SAPN's plans as it is spread over a number of categories of recurrent, non-recurrent IT, communications and business change capital expenditure.[69] However, the response to smart meters and new tariffs would

65 "Smart ready meters" are meters that are capable of measuring and recording power usage over half hour period, but cannot be read remotely. They should enable innovative tariffs such as TOU or demand tariffs. Remote communication facilities can be added at a later date at minimal cost.

66 The Standing Council of Energy and Resources (SCER – now the COAG Energy Council) has applied for a rule change to allow competition in metering services. It is expected that these changes will come into effect during the 2015-2020 regulatory period.

67 See SAPN, *Regulatory Proposal,* section 20.8.1. The figure of $35M is estimated from Figure 20.36 (p 238) while the figure of $70M is estimated from Table $20.42

68 See SAPN, *Regulatory Proposal*, p 127.

69 For instance, SAPN, *Regulatory Proposal*, p 234 refers to costs of IT support requirements including additional data storage and network capacity; Table 20.44, p 236, refers to costs associated with the introduction of cost reflective tariffs and advanced metering (a total of $27.0M), Table 20.52, p 245 refers to business change activities of $45.8M ($2015) noting that this is primarily driven by increased IT developments to position SAPN for the future.

appear to represent an additional capital cost of between $80M and $100M (excluding meter costs).

SAPN is also claiming an additional $33.8M ($2015) in opex costs for IT and communications expenditure arising from the introduction of new capacity based tariffs for the mass market and to accommodate advanced metering in South Australia, including third-party smart meters".[70]

Impact on Alternative Control Services: Following the AER's change in classification of metering services from standard control service to alternative control service,[71] SAPN has provided a separate forecast for metering service costs based on installing smart ready meters on a new and replacement basis. The costs of this meter program (excluding customer initiated costs which are recovered from the customer) are forecast to be around $49M, or some $10M/year.[72]

In addition, SAPN proposes to move to monthly meter reading of its "smart ready" meters, adding to the cost of the plan.

In our view, therefore, SAPN's proposal highlights an emerging issue for the AER and we look to the AER to undertake some further investigation of this matter.

It is acknowledged by the CCP that the AEMC has introduced new rules on cost-reflective network tariffs. In addition, the COAG Energy Council has requested the AEMC to undertake a rule change to enable competition in metering and related services. The AEMC has sought an extension of time to March 2015 to complete its Draft Rule change due to the "complex issues around the details of how a competitive framework for metering can be implemented".[73]

In parallel, AEMO has been tasked to develop a minimum services specification for advanced meters, and its implementation and governance arrangements. This too has identified a number of complex and divisive issues, as can be seen in AEMO's presentation at the October 2014 workshop organised by the AEMC.[74]

The SA Government also issued a discussion paper in January 2014 on its proposal for new and replacement meters to be "smart ready" meters[75] in line with the COAG

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70 SAPN, Regulatory Proposal, p 257. SAPN categorises this as a step change in regulatory opex related costs.

71 See AER, *Final Framework and approach for SA Power Networks Regulatory Control Period commencing 1 July 2015*, April 2014.

72 SAPN, *Regulatory Proposal*, Table 20.55, p 246.

73 AEMC, *Competition in metering and related services – rule change, Extension of time for draft rule determination*, 20 November, 2014, P 1. http://www.aemc.gov.au/getattachment/95798420-3338-4780-b38c-2d5b68218843/Information-sheet-–-extension-of-time-for-draft-de.aspx

74 AEMC, *Competition in metering and related services – rule change, Stakeholder workshop 5*, 9 October, 2014. http://www.aemc.gov.au/getattachment/a1683ce4-b67b-4f27-8768-499f80e7f09e/Presentation.aspx

75 Government of South Australia, Department of Manufacturing, Innovation, Trade, Resources and Energy, South Australia, *Policy for New and Replacement Meters, Discussion Paper*, January 2014. https://www.sa.gov.au/__data/assets/pdf_file/0003/38406/SA-New-and-Replacement-Metering-Discussion-Paper.pdf

Energy Council rule proposals. This policy is broadly in line with SAPN's stated approach in its Revenue Proposal.[76]

The SA Government received various levels of support for its proposals, although a number of submissions suggested that early implementation of the policy before the AEMC's rules and minimum standards were finalised, would inhibit the full effectiveness of competition and utilisation of the smart meter capabilities in the future.[77] This is a particular concern in the context of SAPN's proposals for very high "exit fees" to be charged to third parties if they choose to install their own meter.

It is of note, and perhaps not surprising, therefore, that the SA Government has not yet published a final policy paper on new and replacement smart ready meters.

The CCP is therefore concerned about the proactive expenditure plans put forward by SAPN. We do not wish to discourage innovation by SAPN. On the other hand, our view is that it is not appropriate for the AER to allow such expenditure when there is so much policy uncertainty – and certainly no specific regulatory requirement - at this stage.

However, when – and if - the AEMC proceeds with the rule changes, and AEMO with the minimum specification and governance framework for competitive metering, the CCP considers it is appropriate for the SA Government to finalise its policy position. Following that, SAPN is in a better position to propose, and the AER to review, all relevant efficient and **incremental costs** in line with the new rules and the jurisdictional policies.

Until then, the CCP urges the AER to adopt a cautious approach to providing capex and opex allowances for SAPN's "smart ready" meter program and associated demand tariffs and monthly meter reading.

We note, as an aside, that SAPN has a distinct advantage in the adoption of smart meter technology as they have direct access to the experiences and technology of the two associated Victorian DNSPs (Powercor and CitiPower) In the period 2009 – 2013, the CitiPower and Powercor's capex for the Advanced Meter (AMI) program amounted to some $630M,[78] of which part would include investment in back-office capabilities and IT systems and would have some synergies for SAPN.

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76 SAPN, *Revenue Proposal*, p 247. SAPN states that its meter program "supports the South Australian Government's proposed policy for new and replacement meters".

77 For example, see the response by Origin Energy Retail Ltd at: http://www.sa.gov.au/__data/assets/pdf_file/0015/110076/Advanced-electricity-meters-consultations-DP-response-OE.pdf

78 See Spark Infrastructure, *2013 Annual Report*, Directors' Report, p 19. http://spark2013.annual-report.com.au/annual-report-2013/directors-report/directors-report-section-2. Spark Infrastructure has 49% equity in SAPN, CitiPower and Powercor.

10 SAPN's Forecasts of Electricity Usage, Peak Demand and Customer Numbers

The forecasts of electricity usage and peak demand are fundamental inputs into the planning process and the pricing of energy to end consumers.

The projected growth in system peak demand (90% POE (probability of exceedence)) has been a major driver of high levels of investment in the networks across the DNSPs in the NEM. However, these expectations of growth in either annual or peak demand have not been met. Most DNSPs are seeing peak demand growth at below one per cent per annum. As a result, measures of capital efficiency, such as capacity utilisation have declined. SAPN is no exception to this general trend.

This decline in usage and demand was in part a response to the rapid rise in retail electricity prices, a large part of which reflected increases in network prices. For instance, consumers in SA experience average retail price increases of 7.7% pa over the last five years.[79]

While it is expected that price pressures will reduce somewhat over the next few year, there are a number of structural changes have occurred in the electricity market that are likely to continue to put downward pressure on energy usage and demand.

These structural changes include the continued trend to lower energy intensity per unit of GDP, continued increases in rooftop PV penetration, improved appliance and housing standards, and the potential expansion of demand management under the RIT-D program. The Federal Government's Direct Action Plan may have an additional influence on reducing overall energy intensity.[80] In addition, the implementation of the AEMC's Power of Choice program will lead to more cost reflective price signals for peak demand.

As suggested above, these factors are all relevant to the forecast of South Australia's energy usage and demand and are considered in the CCP2's review of SAPN's forecasts.

In our review of SAPN's forecasts the CCP2 has placed reliance on the forecasts by the Australian Energy Market Operator (AEMO), and in particular, AEMO's forecasts as presented in the South Australian Electricity Report. AEMO has been producing these reports for the South Australian Government, the regulator and the industry for some years. The report is specific to South Australia and is able to incorporate

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79 See for instance, SAPN, *Regulatory Proposal*, Figure 2.3, p 14.

80 While the Direct Action Plan is directed at reducing carbon rather than reducing energy usage, it is likely that a number of larger scale energy efficiency programs will qualify as well as carbon capture programs.

information from a variety of sources including SAPN's annual distribution planning documents and ElectraNet's transmission annual planning report.

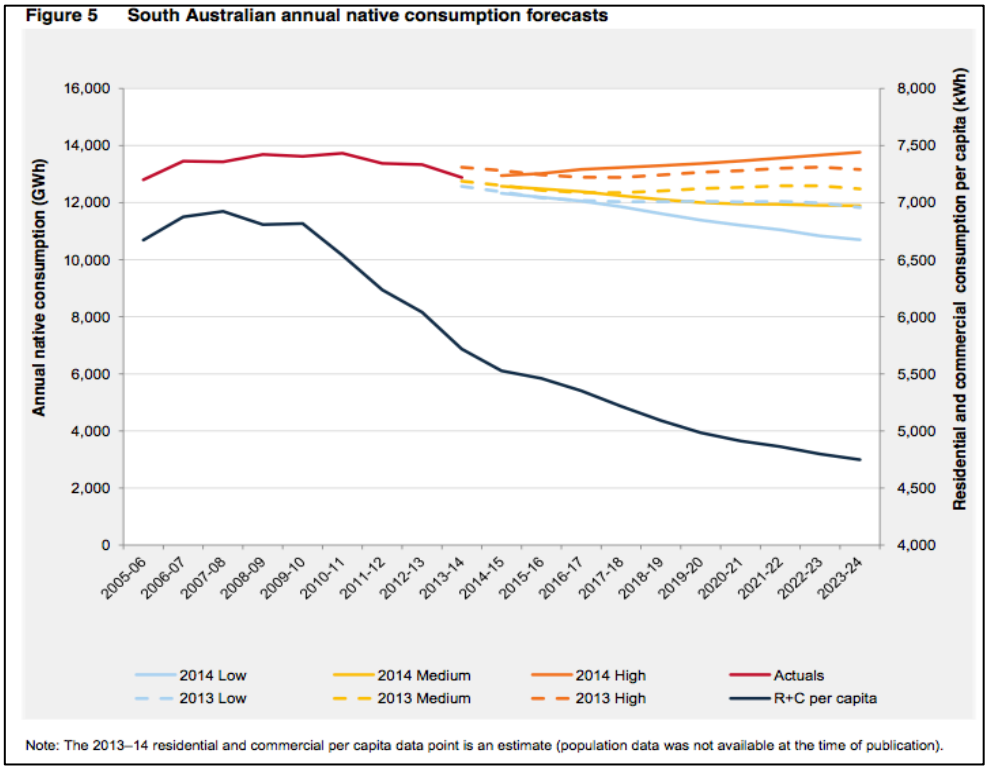
SAPN has generally taken a reasonable approach to the aggregate forecasts by largely adopting the forecasts prepared by AEMO. More detailed comments follow.

10.1 Forecast Electricity Usage for SA (Native usage)

As noted, the CCPs recognises that SAPN prepares its forecasts by reference to the AEMO forecasts, subject to amendments to allow for distribution system losses and for the export of PV output back to the grid. [81] SAPN also uses AEMO's high case solar PV forecast for this adjustment, which is not unreasonable.

On this basis, SAPN is forecasting zero net growth in electricity volume sales between 2014-15 and 2019-20.[82] This forecast is generally in line with the forecast provided by AEMO for total native consumption in SA. AEMO expects a continued decline in consumption (medium forecast) at around 0.8% pa for the next 10 years. See Figure 20.[83] Figure 20 also illustrates the very steep decline in average residential consumption over the 10 years, a trend that has significant implications for network pricing. AEMO projects this decline in average usage per capita to continue to 2023 by an average of 0.6% pa.[84]

Figure 20: AEMO's Forecast of South Australian annual native consumption



81 See for instance, SAPN, Regulatory Proposal, Figure 12.3 p 115

82 See for example, SAPN, *Regulatory Proposal*, Table 12.1, p 116.

83 AEMO, *South Australian Electricity Report*, August 2014, p 11

84 Ibid, p 15.

Source: AEMO, South Australian Electricity Report, August 2014, p 11

10.2 Forecast Electricity Peak Demand for SA

SAPN forecasts peak demand (10% POE) to remain at the same level as peak demand in 2013/14, although SAPN also cautions that AEMO's 90% POE peak demand forecast has been exceeded 3 times in the last five years due to extreme weather events.

The CCP acknowledges that the SA electricity market has the worst load factor in the national energy market (NEM)[85] reflecting the more extreme weather conditions that prevail in South Australia and the impact of current rooftop PV systems.[86] Given this, it is particularly important to understand the future relationships between peak demand growth and energy usage growth.

SAPN's forecasts of 0% growth in demand means that the SA load factor would remain about the same and not continue to deteriorate.

In contrast, AEMO forecasts a small decline in the 10% POE forecast, at a rate of around 0.3% pa.[87] However, there is a very large area of uncertainty in AEMO's forecasts. While this would normally be a cause of some concern given the links between peak demand and network augmentation, the growth in spare capacity on SAPN's network should provide sufficient scope to manage these scenarios without further investment in expansion.

10.3 Local Capacity Needs & Spatial Forecasts

Although overall energy use and demand may decline, there will be pockets of growth that the distribution business is bound to provide adequate electricity supply to. The CCP2 accepts this proposition, but is concerned that there must be detailed justification of this investment.

While accepting that there will be very limited prospects for growth in energy use overall, SAPN states that "it is the growth and relative 'peakiness' of the loads in specific regions and local areas that must be accommodated by the capacity of the network". [88]

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85 AEMO, 2014, p 15

86 While SA has a relatively high penetration rate of rooftop PV, and this is expected to continue to grow, the profile of PV generation means that it has limited impact on the level of peak demand, but does reduce overall usage. Thus, rooftop PV is, if anything, causing a decline in the system load factor, overall, and in particular, in regions of high penetration of residential customers with PV

87 AEMO, 2014, p 15.

88 SAPN, *Regulatory Proposa*l, p 116.

As an example, SAPN states that parts of the CBD have grown considerably, as have some urban rural centres (such as Port Lincoln). Other regional centres close to Adelaide have also grown rapidly, and there is a trend towards higher density living.

The CCP2 acknowledges that there are ongoing planning and demographic changes in SA (as in other states), that means some parts of the network are increasingly under utilised even when other parts of the network are experiencing declines.

However, this differential growth should not be overstated. For comparison, the table below illustrates the growth in population for the 5 fastest growing statistical areas in SA and in Victoria, in terms of absolute numbers and % growth between 2012 and 2013.[89]

There is little evidence to suggest in this data that SA has experienced multiple pockets of very high growth, although of course, the ABS data does not identify new industrial estates.

Table 2 : Population Growth Rates for SA and Victoria 2012-2013

	South Australia		Victoria	
Statistical Area	**Number**	**%**	**Number**	**%**
1	630	7.3	5,400	22.7
2	590	3.6	1,100	19.7
3	130	3.3	1,600	16.5
4	470	3.2	990	15.3
5	630	3.2	2,100	15.2
Overall	**14,800**	**0.9%**	**95,500**	**1.9%**

Source: ABS, report 3218.0 – Regional Population Growth in Australia 2012-2013, April 2014.

The CCP2 concludes, therefore, that there is not sufficient data to support the contention that there are multiple pockets of significant growth that require investment in system augmentation.

The CCP is increasingly concerned that DNSPs are using the "pockets of growth" proposal as a rationale for continued augmentation expenditures. We urge the AER to review these claims in some detail. We also particularly note that the DNSPs have, historically, very large errors in their spatial forecasting. We would like to see some further stress testing of these low level forecasts.

We request the AER investigate these arguments in some detail, perhaps be sampling historical spatial forecast performance.

89 Extract from ABS report no 3218.0, Regional Population Growth in Australia 2012-2013, April 2014. http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/3218.0Main%20Features12012-13?opendocument&tabname=Summary&prodno=3218.0&issue=2012-13&num=&view=