Energy Consumers Coalition of South Australia

Australian Energy Regulator

SA Electricity Distribution Revenue Reset

SA PowerNetworks Application

A response

by

Energy Consumers Coalition of South Australia

December 2014

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The views expressed in this document do not necessarily reflect the views of the Consumer Advocacy Panel or the Australian Energy Market Commission.

The content and conclusions reached are the work of the ECCSA and its consultants.

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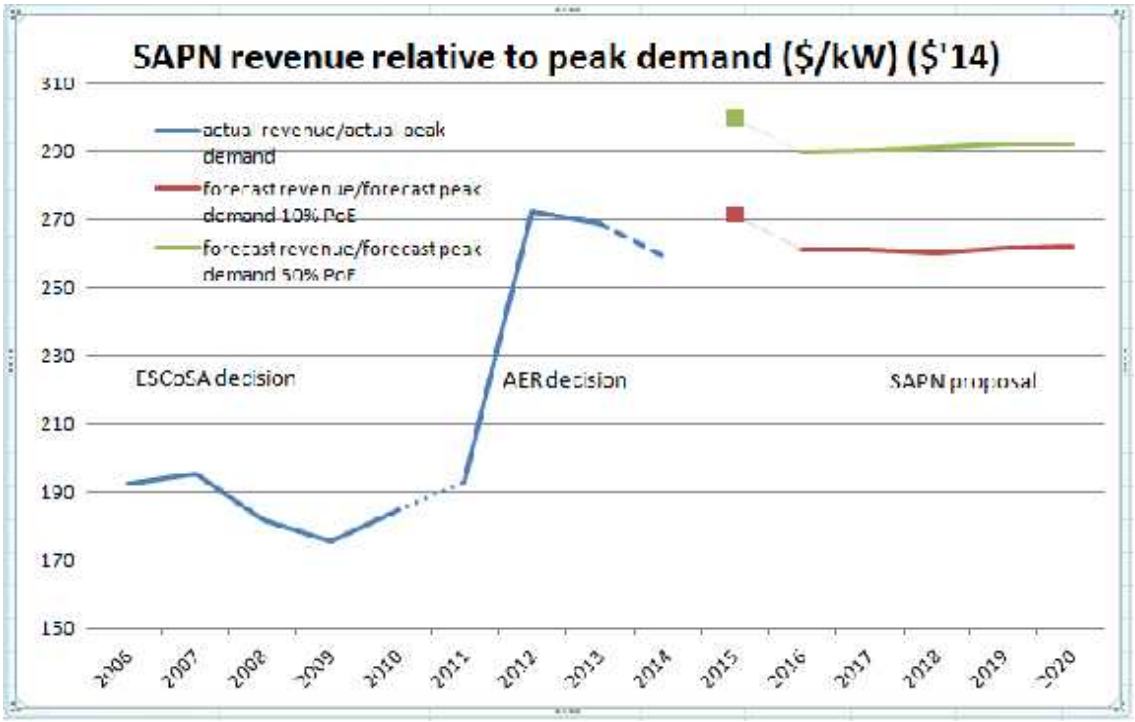
Executive Summary

The Energy Consumers Coalition of SA (ECCSA) welcomes the opportunity to present its views on the application from South Australian PowerNetworks (SAPN) for a reset of the electricity distribution costs in South Australia.

The ECCSA notes that the proposal from SAPN results in an increase in allowed revenue from the current level and that pricing of SAPN services will show little movement from present levels despite a significant fall in expected peak demand and falling consumption. The ECCSA considers that SAPN revenues should fall from the current level, not increase.

The ECCSA notes that as demand is the main driver of a network's cost, when SAPN revenues are assessed relative to the expected peak demands for the forecast regulatory period, then their costs per kW are increasing and this is shown in the following chart.



Source: SAPN application, SAPN economic benchmarking data templates, SAPN benchmarking RIN 2013/14

It is clear that on this comparative basis, the revenues claimed by SAPN are significantly overstated. Further, the massive increases in revenues over the current period have caused significant harm to consumers and steps need to be taken to reverse the trend.

The ECCSA notes that the expected average demand (50%PoE) is the more likely scenario for expected peak demand as the 10%PoE peak demand is, in effect, expected only once in a decade. This display of SAPN proposed revenue related to peak demand contradicts the SAPN assertion that its prices will not

increase from current levels. What is also concerning is that SAPN prices have risen dramatically over the past 5 years and that SAPN services are currently excessively over priced compared to historical levels.

The ECCSA has investigated the reasons why the SAPN revenues show such an increase when falling demand and consumption would imply a need for less revenue. In its assessment the ECCSA noted that:

- SAPN has grossly overstated its weighted average cost of capital and consider that the AER guideline on setting the rates of return on equity and debt are wrong and do not deliver the returns that it considers appropriate. That the claims of SAPN would deliver it a return on equity greater than many firms facing considerably more risk gain is ignored by SAPN in its assessment. Further, SAPN claims a greater cost of securing its debt than it probably incurs.

  The ECCSA finds these views totally inconsistent with reality and at odds with the SAPN assertions that it seeks to reduce the imposts on consumers for providing network services.

- The ECCSA has reviewed the SAPN claims for opex and considers that it has significantly overstated its requirements.

  SAPN has made a claim for a large increase of nearly 40% in its opex for the next period from that actually used in the current period. SAPN also under-ran its allowed opex to the extent that it has generated a modest bonus from the efficiency benefit sharing scheme (EBSS) indicating that it has used less controllable opex than it was allowed.

  Amongst other things, it has minimized what the efficiency benefit sharing scheme is supposed to achieve for consumers by limiting the impact of the revealed cost approach to opex and has added in a number of additional services that it asserts are wanted by consumers who are "willing to pay" for these.

  The largest element of the increase in opex sought is for step changes. The ECCSA has provided a view that the bulk of these step changes is not driven by external factors and should not be allowed to be added to the opex.

  The other aspect of the opex claimed, is the validity of the base year opex. The ECCSA considers that the base year opex is not efficient and should be reduced to deliver the efficient opex that consumers should only be required to pay for.

Overall, the ECCSA considers that there is little valid reason to increase the opex above current levels and every reason to have a view that the current opex is overstated and not efficient.

- SAPN has made a claim for a large increase of nearly 60% in its capex for the next period from that actually used in the current period. SAPN also under-ran its allowed capex significantly in the current period despite its concerns about the extensive deterioration of assets it had identified.

  SAPN recognises that its need for network augmentation had to reduce because of the falling demand and consumption of electricity in SA, yet it still seeks to augment parts of the network. Despite there being no real growth in peak demand, SAPN has still sought a nearly 40% increase in augmentation capex.

  The fall in forecast augmentation capex is offset by significant increases in replacement capex for which it seeks considerable increase from the replacement capex considered adequate in the previous and current periods.

  SAPN proposes to nearly double its capex for replacement, even though there has been an increase in the remaining age of the assets under the current level of replacement capex coupled to a reward for underspending the allowed capex and receiving a bonus during the current period for improved reliability.

  Further, SAPN also proposes to nearly double its capex for non-network needs mainly driven by a desire to have a new stand alone comprehensive IT platform even though it could leverage off the platforms used by its Victorian based affiliates or continue with its current systems.

  On the basis that it has consumer support and a consumer willingness to pay, it has introduced significant capex for undergrounding for improved road safety and bushfire mitigation coupled with extensive modifications to overhead lines in high bushfire risk zones. Whilst these safety related capex proposals have merit, the ECCSA does not consider that SAPN has proven consumer support for these increased costs, particularly that the beneficiaries of the increased capex do not see the costs of these programs as they are socialized over all consumers.

  Overall, the ECCSA does not consider that SAPN has proven its need for the massive increase in capex claimed or demonstrated that it is prudent. The ECCSA also is of the view that SAPN has submitted an ambit claim similar to what it did for the current period, where in fact SAPN spent just

over half of what it initially claimed and underspent the allowance it was ultimately provided with by the AER.

- The pricing methodology would appear to be still heavily biased and exhibit considerable cross subsidies. SAPN should be encouraged to immediately implement some of the sensible proposals recently added to the pricing rules for distribution pricing. The implementation of the Pricing Structure Statement (which is analogous to the transmission pricing methodology) would provide an immediate benefit.

Overall, the SAPN proposal is not considered to deliver outcomes for consumers that are expected when considering the extensive work that has been carried out over the past few years to address the ever burgeoning costs for the provision of electricity network services. The ECCSA expected that the SAPN proposal would result in considerable reductions, but what has been provided is more of the same increases that brought network services regulation into disrepute since 2011.

In addition to the analysis of the DB proposals, the ECCSA has provided responses to the questions raised in the AER Issues Paper prepared for this revenue reset for SAPN.

1. Introduction

1.1 The ECCSA

The Energy Consumers Coalition of SA (ECCSA) is a forum representing large energy consumers in South Australia. The ECCSA is an affiliate of the Major Energy Users Inc (MEU), which comprises some 20 major energy using companies in NSW, Victoria, SA, WA, NT, Tasmania and Queensland.

The ECCSA welcomes the opportunity to provide comments on the AER's review of the revenue reset for the South Australian electricity transmission system.

Analysis of the electricity usage by the members of ECCSA shows that in aggregate they consume a significant proportion of the electricity generated in SA. As such, they are highly dependent on the transmission and distribution networks to deliver efficiently the electricity so essential to their operations. Many of the members are regionally based in SA and therefore heavily dependent on local suppliers of hardware and services. As a consequence members consider they have an obligation to represent the views of these local suppliers. With this in mind, the members require their views to not only represent the views of large energy users, but also those of smaller power using facilities, and even of the residences used by their workforces.

The companies represented by the ECCSA (and their suppliers) have identified that they have an interest in the **cost** of the energy networks services as this comprise a large cost element in their electricity and gas bills.

Although electricity is an essential source of energy required by each member company in order to maintain operations, a failure in the supply of electricity (or gas) effectively will cause every business affected to cease production, and members' experiences are no different. Thus the **reliable supply** of electricity (and gas) is an essential element of each member's business operations.

With the introduction of highly sensitive equipment required to maintain operations at the highest level of productivity, the **quality** of energy supplies has become increasingly important with the focus on the performance of the distribution businesses because they control the quality of electricity and gas delivered. Variation of electricity voltage (especially voltage sags, momentary interruptions, and transients) and gas pressure by even small amounts now has the ability to shut down critical elements of many production processes. Thus member companies have become increasingly more dependent on the quality of electricity and gas services supplied.

Each of the businesses represented by ECCSA has invested considerable capital in establishing their operations and in order that they can recover the capital costs invested, long-term **sustainability** of energy supplies is required.

If sustainable supplies of energy are not available into the future these investments will have little value.

Accordingly, ECCSA (and its affiliate MEU) are keen to address the issues that impact on the **cost, reliability, quality** and the long term **sustainability** of their gas and electricity supplies.

The members of ECCSA have identified that distribution plays a pivotal role in the electricity market as it is the method whereby the needs of a vast number of consumers, each with their particular needs can access the essential service of electricity supply in a way which is best suited to their needs. Consumers recognise that the cost of providing the distribution network is not an insignificant element of the total cost of delivered electricity, and is the element in the supply chain which has the lowest reliability of supply.

1.2 The scope of this review

The ECCSA notes that this review is being undertaken in a period where there is considerable stress on electricity consumers as the cost of electricity has risen dramatically in recent years.

The ECCSA recognises that the AER is required to carry out its review in accordance with the new Electricity rules recently released. To assist in this the AER has developed a number of guidelines to provide the basis for electricity networks to prepare their applications for revenue resets. While consumers have devoted considerable effort to getting the rule changes made and in developing the new guidelines, it must be pointed out that consumers consider that the rules and the guidelines still do not provide approaches that will result in the achievement of the National Electricity Objective (NEO) and deliver the most efficient outcome in the long term interests of consumers. Despite this reservation, consumers accept that the new rules and the associated guidelines provide the basis for better outcomes in achieving the NEO.

The ECCSA notes that the new rules provide the AER with increased ability to exercise discretion and it was with this in mind that the AER decided to develop the guidelines so that stakeholders could better understand how this discretion would be used. Over the past 12-15 months, consumers and other stakeholders have been extremely active in the process in the development of these new guidelines.

Despite the development of the guidelines, consumers have seen recent attempts by networks to re-argue their opposition to some elements of the guidelines and, by doing so, aim to receive increased revenues. The ECCSA considers that the AER should require the use of the guidelines as developed so that efficient outcomes result.

It is noted that the South Australian Power Networks (SAPN) elected to accept some of the new guidelines but reject others. This is extremely concerning in that the new guidelines were developed after wide consultation and with significant consumer input. Consumers have stated that they consider some of the guidelines do not address their concerns yet, despite this, they have accepted the guidelines as they stand. That electricity networks insist on "raking over old ground" in an attempt to get a better outcome for themselves, is disappointing.

At the last revenue reset review, the ECCSA was extremely critical of SAPN (then ETSA Utilities) attempts to seek massive increases to their building block allowances. It was argued that these increases were required in order to accommodate an increasing demand for electricity coupled to increasing consumption. The outcome of the last review was that prices for electricity distribution network services increased significantly and there was significant consumer and government concern about the increases seen. The ECCSA considers that these were a major cause of the decision of the AER to seek changes to the rules to make them more balanced.

What was just as concerning was that soon after the final decision made by the AER for the current period was released, SAPN decided to appeal the AER decision and sought more revenue than costs they actually incurred.

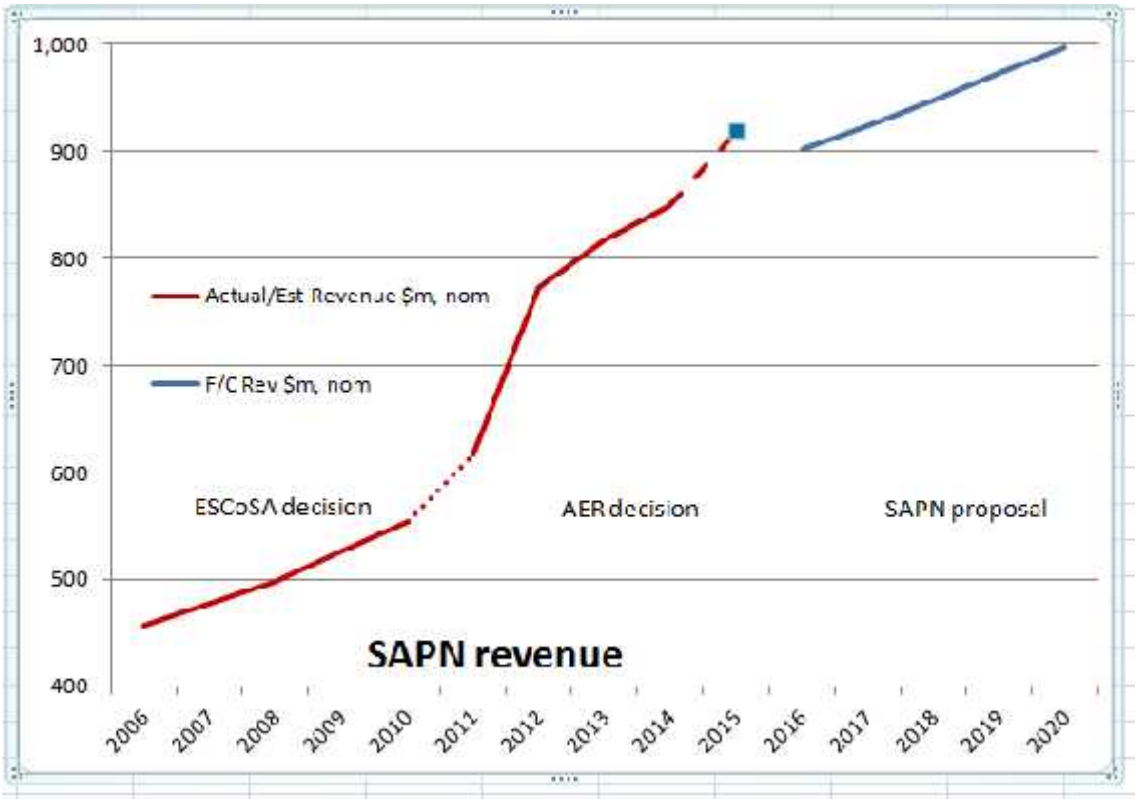
This appeal for increased revenue coincided with the electricity market seeing a major shift away from what were traditional views of electricity experiencing ever increasing demand and consumption to a market evidencing falling demand and consumption - an experience that is still evident and typified by regular reviews of forecasts seeing continual downward adjustments in demand and consumption. The outcomes of the appeal and falling demand and consumption led to even higher prices than had been seen in the past.

The ECCSA is aware that the AEMC has just completed a review of distribution network pricing and issued new rules, although implementation of them will not apply to this reset.

Even so, under the current rules, in addition to ensuring the funds provided are used efficiently, the AER has the responsibility to ensure that the allowed funds are allocated in a way that provides clear signals to consumers to be able to modify their use of the services. This means that the AER must ensure that the pricing structures that are developed as part of this revenue reset review provide appropriate signals to consumers to take actions so that the network can be operated more efficiently and that the assets have maximum utilization. By these means, the costs for both current and future users of the service can see value for the money they are required to spend on the services.

1.3 An overview of the SAPN application

SAPN has forecast a revenue requirement that continues the massive increases seen during the current period, as the revenue forecast for the next period shows a further increase from previous years.



Source: SAPN application, SAPN economic benchmarking data templates, SAPN benchmarking RIN 2013/14

The ECCSA considers that the approach used by SAPN has "locked in" the excessive cost claims made in the current period and shows that the assertions made by SAPN that it has addressed its cost structures to implement savings is so much hollow rhetoric.

To demonstrate that their network costs are efficient, SAPN has provided a view that after a small fall, its prices will grow at CPI. This assertion is beset with a very large assumption - that of the expected growth (or not) of the consumption of electricity and the expected growth in demand. If consumption continues its current downward trend, then the cost per unit of consumption (MWh) will continue to increase. The massive increase in prices during the current period reflects the near doubling in revenue allowed at the last reset and the unanticipated (at the time) collapse of traditional increases in demand and consumption.

Implicit in the SAPN application is a continuing trend of ever increasing revenues after a small initial reduction from the forecast revenue for the final year of the current period to the first year of the next period. This increase,

when balanced by the declining trend in consumption and a static or modestly increasing demand would appear to be inconsistent and fails to recognise the fact that the cost structures are massively above (in proportional terms) what they were before the current regulatory period.

In fact, across all areas of expenditure, SAPN appears to be forecasting increases in its cost structure for the next period, particularly in capex. This is despite SAPN under-running in its allowances for opex and capex in the current period.

Overall, the ECCSA would have expected considerably lower costs for the next period, rather than the continuation of the growth in the current excessively high revenues seen at the moment.

Against this background, we consider that the AER has a clear responsibility to ensure a certain amount of discipline is placed on SAPN and that all claimed costs can be justified and are economically efficient. The ECCSA would expect that given the under-runs in both capex and opex allowances in the current period that much of the new claims for allowances should be rejected for the next period.

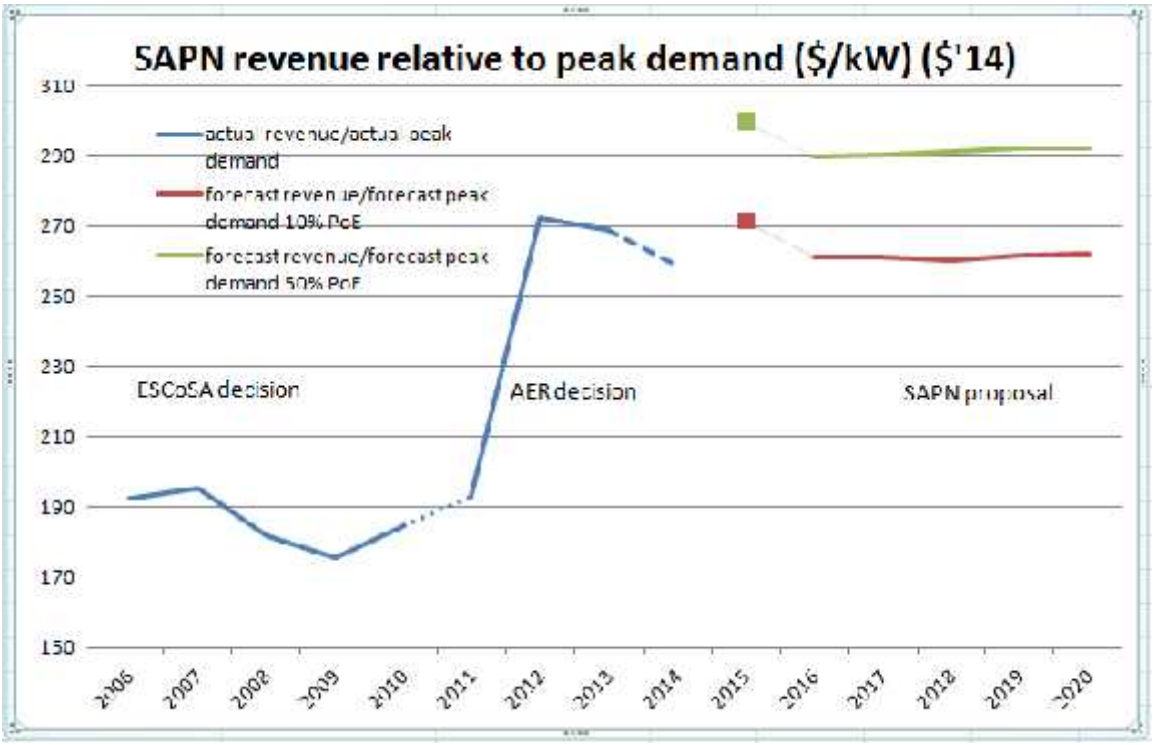
1.4 The helicopter view

In its proposal, SAPN provides a view (table 29.1) that its prices will fall a little at that start of the new period by less than 2% in nominal terms and thereafter increase by CPI for the rest of the period. The ECCSA is unable to reconcile these prices against the proposed increase in revenue when assessed against a background and a foreground of falling consumption and flat demand.

Equally, we note that SAPN has provided arguments in support of each element of their claimed cost increases, yet these cost increases will result in much larger price increases than can be supported in a market where consumption and demand is falling or flat. In a competitive world, senior management of a business must and do take a view that any claimed increase in costs by operations must be controlled in light of the potential implications for the firm's competitive position. In the regulated energy sector, however, legislation has provided the AER with the role of providing this discipline, and so it must ensure that the resultant outcomes are in keeping with what can be expected from the discipline of efficient drivers.

The ECCSA recognizes that electricity network costs are driven by the peak demands that consumers impose on the network. To assess the SAPN application the ECCSA has calculated actual and forecast SAPN revenue and divided these by the actual DB peak demands and the forecast (both 50% Probability of Exceedance (PoE) and 10% PoE) expected demands for the

SAPN region over the next regulatory period. This is shown in the following chart[1].



Source: SAPN application, SAPN economic benchmarking data templates, SAPN benchmarking RIN 2013/14

What the chart shows clearly is:

- The SA state regulator (ESCoSA) decision in 2005 provided reasonably stable prices for the previous period
- The impact of the high revenues sought by SAPN for the current period and the AER decision in 2010 compounded by the falling peak demands seen in the current period
- The impact of the flat demand expectation for the next period and the high revenue sought by SAPN for the next period
- That the assertions of SAPN that prices would reduce through the impacts of its approach to the revenue requirement for the next period are not supported by the facts.

It is interesting to note that if the expected demand is at the 10%PoE then the current high prices (based on peak demand) will be maintained at the current very high level. However, by definition 10%PoE is effectively only likely to occur once in the next decade and the 50% PoE demand is a more likely average

[1] To develop these trends, the ECCSA has accessed data from the expenditure RINs and combined this with the sought after revenue and the expected overall demand deduced from the SAPN proposal. Where the information was not readily available the ECCSA had to make some assumptions, particularly in relation to the revenues and demand at the end of the current period.

expected peak demand over the next period. Based on the average expected peak demand, SAPN prices will rise significantly (about 10%) above the already excessively high prices seen in the current period.

Whilst there was some rationale for the increased revenue for the current period (due to forecasts of significantly increasing demands at the commencement of the current period) there is no excuse for continuing this trend now that the forecasts of demand are much lower than those underpinning the assessments made for the current period revenue allowances. The ECCSA notes that a similar chart has been prepared reflecting consumption rather than demand (see section 5.4 below), and this demonstrates even more starkly that the revenue proposed for the coming period is simply not acceptable.

The issue that faced the electricity industry as a result of the price changes for electricity transport during the current period was that the high network pricing was seen as unsustainable and unnecessary by consumers and governments. However, quite effectively, the proposals for the next period lock in the massive price rises seen during the current period and effectively result in consumers seeing more than a doubling of prices between the period before the current previous and the next period - a term of just ten years.

At its most fundamental level, an increase in selling prices of about 80% in a five year period between the start of the current period AA2 and the start of the next period could not be sustained by any competitive business in an environment of falling consumption. This clearly shows that the basic cost structure used by SAPN does not equate to the changes in the market and demonstrates the absolute monopoly which SAPN has in the SA energy market, and its ability to adjust its pricing structures to reflect the interests of the organization and its shareholders, to the detriment of consumers. It is clear that SAPN, despite protestations about seeking to constrain costs sees this revenue reset process as an opportunity to maximise its rewards as a monopoly service provider.

For SAPN to consider that effectively a doubling of its selling prices between the period before the current period (ie from 2005 to 2010) and the next period should be accepted by consumers for another 5 years, is unreal and must not be approved.

The main issue for the AER as part of its assessment of the SAPN proposal is to develop a holistic view of whether the claims being made are justified **and** whether consumers will be able to pay for the increases in revenue. It is not merely an issue of agreeing that these monopolies can just continue to increase their charges on the basis that consumers have no alternatives. Electricity supply is an essential service and it is simply unconscionable and unsustainable to continually allow increases in the costs of essential services until parts of the community can no longer afford to pay. At one end of the scale, economically disadvantaged consumers will either suffer or have to be

directly assisted by government. At the other end of the scale, businesses will no longer be able to afford the charges and will either close or move offshore. Either way the costs will still remain and have to be carried by fewer consumers, further increasing unit prices. Further, these cost burdens will have long lasting national socio-economic effects, which will not easily be remedied.

1.5 The move from a price cap to a revenue cap

Up to the present time, SAPN has operated under a price cap approach which provides an incentive for a network to manipulate the individual tariffs and prices to increase its revenues. As demand and consumption has fallen during the current period, the expectation is that under a price cap SAPN revenues would have fallen.

But this is not the case - SAPN received higher revenues during the previous period and the current period than what both ESCoSA and the AER had provided for at the start of each of the previous periods[2]. This indicates that SAPN has manipulated its prices and tariffs to increase costs for consumers above those expected by the AER at that last reset

The AER has advised in its Framework and Approach that for the next period, a revenue cap should be applied to SAPN revenues to prevent this over-recovery of revenue occurring in the next period, and perhaps also to protect SAPN from reductions in revenue that might have occurred should consumption continue to fall. The ECCSA supports this approach, but also recognises that by implementing a revenue cap, the risk of a continuation of declining demand and consumption will transfer increased risk to consumers rather than this risk being managed by SAPN.

1.6 Consumer engagement and AER questions

The ECCSA is delighted that the SA Power Networks (SAPN) have decided to actively engage their consumers and "address the concerns identified though the course of consumer engagement"[3]. However, ECCSA acknowledges with some misgivings that it is only through external pressure placed upon SAPN by the AER, that after 15 years of operation, the SAPN felt this necessary.

Although, even though SAPN does state in its latest revenue proposal that their Consumer Engagement (CE) program was created "12 months before the AER consumer engagement guidelines were released[4]", the SAPN operated for

[2] See AER Issues Paper page 10
[3] Page 57 – 'Our customer engagement'
[4] This might be true, but it was clear in the new rules that consumer engagement was a core element of the rule changes and effectively SAPN responded to the rule changes pre-empting what the AER guideline on consumer engagement might require

considerable time without feeling it necessary to ensure that they integrated their consumer feedback into their operations. The ECCSA finds this staggering. It is common place amongst all industries to actively engage their consumer as a means of quality improvement. In this regard, it is safe to assume that the SAPN actively did not seek to engage their consumers prior to this external pressure as it suited their interests.

The ECCSA accepts that the formal process for CE is still very much in its formative phase. The requirement inserted as part of the network rule changes and the resultant AER guideline causing the introduction of formal consumer engagement has led to an improvement in network responsiveness to specific issues confronting consumers. However, there is much still to be done by the networks before it can be demonstrated that CE has become an integral part of the regulatory process.

The ECCAA must admit, however, that the CE program put in place by SAPN, (aptly labeled "Talking Power") is indeed comprehensive in its design. The use of a mixed method approach to social research, based on principles from the Internal Association of Public Participation (IAPP), from the outset, would lead consumers to feel comforted that it is a robust and holistic engagement program.

However, it is what has been intentionally left out of this report, and the manner in which this program has been designed to mislead, and not engage the consumer, in areas that are most pertinent to consumer groups, that are of most concern the ECCSA.

The AER recently published a draft decision on Ausgrid's distribution determination which reflected on their CE program. Of note, is that the AER specifically highlights that:

> "Consumers have indicated that they were not offered opportunities to express preferences for service standards and costs which were backed by pricing impact information"

The ECCAA argues that SAPN and its 'TalkingPower' engagement program have similar flaws to that of Ausgrid's. The ECCSA notes that, within many of the areas in which SAPN has engaged its customers for feedback, of the 12 'service areas' that were examined in stage 1 of the program, not one of these related to pricing structures or tariffs[5].

SAPN has noted, however, that it has increased Its customer and consumer engagement and points to the meetings it has had explaining, amongst other things, their expenditure forecasts, revenue impacts and pricing methodologies. SAPN comments that such consultations have resulted in

[5] Page 59 – 'Our customer engagement'

some changes to their views on how they developed their proposals for the next period.

As a result of its consumer engagement program SAPN has identified that, in addition to the standard control services that are included in the "regulatory bargain", there were a number of additional services that it considers that its customers are willing to pay for. Further, SAPN argues that these customers would accept an increase in the SAPN charges to provide these additional services. This implies that SAPN's CE has concentrated more on what additional services it can provide rater than in refining its costs for the services it must provide. The ECCSA considers that this is not what CE is intended to be - an opportunity to "up sell" SAPN services!

The ECCSA accepts that the consumer engagement undertaken by SAPN might well have supported an annual increase in charges to address additional services such as the road safety program and the power line works in bushfire areas that are the focus of this capex proposal and the additional vegetation management services proposed in the opex program. What is not clear is whether those consumers consulted were made aware of the full extent of what SAPN is already required to do with the revenue allowance that it is provided with, and the degree to which SAPN is already required to address these issues.

For example, did SAPN highlight that they were granted increased revenue to carry out increased vegetation management as a pass through during the current period and that it was being paid considerably more funds for this task already? If they were not, then they were being led to a conclusion that SAPN needed more funds to carry out vegetation clearance even though SAPN already had additional funds for the purpose. On the same issue, the SAPN consumer engagement seems to indicate that consumers see that there is often too much vegetation clearance being carried out, with the result that there is an apparent willingness to pay for more careful (and perhaps less) vegetation clearance purely on a visual amenity basis.

The ECCSA is aware that it is relatively easy to "lead" consumers to a conclusion (ie by applying "push polling") which makes question design within CE so important to ensure that the consumer is not being "led". One way of "leading" consumers is by not providing the full context surrounding an issue. By withholding vital information, consumers come to a conclusion that maybe they would not make if they were made fully aware of all the facts.

For example, with regard to the bushfire mitigation capex proposal, were the consumers made aware that in Victoria, the Victorian government was making considerable payments to implement a number of the Victorian Bushfire Royal Commission (VBRC) recommendations? Did SAPN point out that the capex would increase reliability of supplies for which SAPN would be paid a bonus under the STPIS? Were the consumers made aware that they were already

paying for capex that was not being used either in the current period (or even in the previous period) and that by not using the capex allowed, SAPN made more money? Were consumers made aware that Victorian networks subject to similar or greater bushfire risks and management costs than SAPN networks yet they have lower prices for the services they provide than SAPN does?

Whilst SAPN has asserted that they will have slightly lower "real" prices for the next period than currently apply, in nominal terms prices will rise under the SAPN proposal and it is nominal prices that consumers compare - not "real" prices. The ECCSA considers that if consumers were aware that in all likelihood prices were to rise in nominal terms, then they might not be as supportive of increases as the SAPN survey seems to imply.

The ECCAA further highlights concerns over the SAPN's promotion of supposed findings within their CE program of the "Willingness to pay" research outlined in page 65 of their revenue reset proposal. These findings were generated using only a sample of 895 consumers (less than .1% of their consumer group). It is the view of the ECCAA that this element of the CE program was developed to justify cost shifting to the consumer. Of note, is that there were no discussions that this area of operations may be funded utilizing existing revenue.

The ECCSA is very concerned that the willingness to pay process used by SAPN could be manipulated to lead consumers to a conclusion that supports what SAPN is seeking.

In addition, it is openly stated within the SAPN revenue proposal that the most 'salient issues' that impact SAPN "going forward" are:

- Customer experience
- Community Safety and reliability
- Visual amenity
- The evolving customer

Surely, pricing structures are a fundamental element of any business. The absence of this topic as a key focus is concerning. To not focus on this key area of operations is a reckless manner in which to operate any business. One can only assume, then, that it was not in the interest of SAPN to actively engage their consumer base in this topic.

In conjunction with the above, the workshops held within stage 1 of the 'TalkingPower' engagement program, extrapolated the four "salient issues" as identified above. Of note was that each issue had, at a minimum, 15 areas of operations relating to this key area, to be discussed and explored within the workshops. Adding all these topics together equates to in excess of 50 key service delivery areas to be examined by the consumer. In total, there were 7 workshops held over 2 months, with only 100 participants with a variety of

stakeholders. This may appear to be a significant number, however, to appropriately extrapolate 50 areas of service delivery with any meaning, would require a great deal more engagement with consumers than was available from the numbers of consumers actually engaged and the time provided to them within the workshops.

Further, it is the view of the ECCSA that the manner which these workshops were held was completely counterproductive to appropriately engaging the consumer. This is due to the following:

- Too many areas of operations being investigated, therefore 'watering down'' the content of each area;
- Time constraints of the workshops to actively engage and discuss these issues with the consumers present;
- Not matching the content presented with the right consumer group

Responses to the online survey outlined as the next phase of stage 2 of the CE are also concerning. The SAPN provides services to in excess of 650,000 households and many businesses consumers. For SAPN to somehow assert that a response of 2883 consumers across this demographic is a success is somewhat of a gross overstatement. Even in conjunction with the other means in which they engaged their consumers in this program, this survey only reached less than 0.25% of their target market. Further, there is no indication of the drop off of consumers that did not respond to the survey. As a result, it could be interpreted that the only respondents might be those with a specific issue that they wanted to raise rather than provide a fully representative sample. Quite simply, the SAPN survey cannot be assumed to be representative.

In addition, the SAPN drew from the total of approximately 3900 participants that engaged in the first stages of this engagement program a summary of customer preferences, forming "13 clear insights"[6]. Of interest is that only one insight, far down the list at number 12, relates to pricing. The ECCSA fails to see how these insights are representative of such a large population, given the limits of how many participants were engaged in stage 1. Again, the ECCSA notes that there is a strong probability that these areas may have been generated, or "led" by the SAPN, to further their own interests, rather than being generated by SAPN customers.

In its proposal, SAPN highlights that members of the AER Consumer Challenge Panel have provided SAPN with their views that great care is required in drawing conclusions from consumer engagement at this early stage in the CE development process in the National Electricity Market SAPN comments in section 17.5 of its proposal that the Consumer Challenge Panel (CCP) member views are flawed and based on anecdotal evidence.

[6] Page 63 – SAPN revenue proposal

Advisers to ECCSA have attended workshops, forums and focus groups and completed surveys similar to those carried out by SAPN. They comment that the general understanding by consumers of electricity network operations and its regulation is very low and the amount of time needed to provide even a modest understanding uses up most of the time available for the workshop, forum or focus group meeting. Similarly the amount of information and ability of survey recipients to appreciate the nuances of what is explained is quite constrained. With this in mind, the ECCSA has very little faith in the conclusions drawn by SAPN from its CE with regard to willingness to pay.

One particular issue that the ECCSA advisers comment on is that regarding the observations on price impacts of a particular issue. During focus group discussions, there was discussion on price impacts and usually, the price impact discussed was of a relatively modest amount (eg the same as the cost of a cup of coffee or two!). What was not done was to highlight:

- The extent of the work similar to that seen as extra that the network is already allowed to charge for (eg the allowance for tree trimming is already $X per tree but to provide the more detailed trimming program will be $X+
- How charges have increased over time (eg in 2005 the network was allowed $Y per tree but in 2010 it was allowed $Y+ and that in 2013, it was allowed a pass through in costs increasing the allowance to $Y+++, yet in 2015 it wants even more.
- Whether the increase was a "one off" (ie for just one year) or to apply for every future year
- Whether the price increase was additive (ie an extra increase every year) where the cost in year 1 is (say $5) but in year 2 it would be $10, and in year 3 $15 and so on
- The additive effect of all of the proposed price increases ie that with all of the extras you have accepted, your total network charges will increase by Z%.

The above highlights, again, the manner in which SAPN has massaged their pricing message to the consumers engaged within the CE to their advantaged. This is unacceptable, and it could be alleged that SAPN designed their CE program to justify their own interests.

Due to the lack of clear comparative information being provided as part of SAPN (and other DB) consumer engagement, the ECCSA has reached a view that the current level of consumer engagement undertaken is still very much at the early stages and almost entirely at the "inform" stage identified by the IAP2 spectrum.

The ECCSA is also aware that the AER Consumer Challenge Panel (CCP) has recently advised that, in its view, in consumer engagement activities by networks[7]:

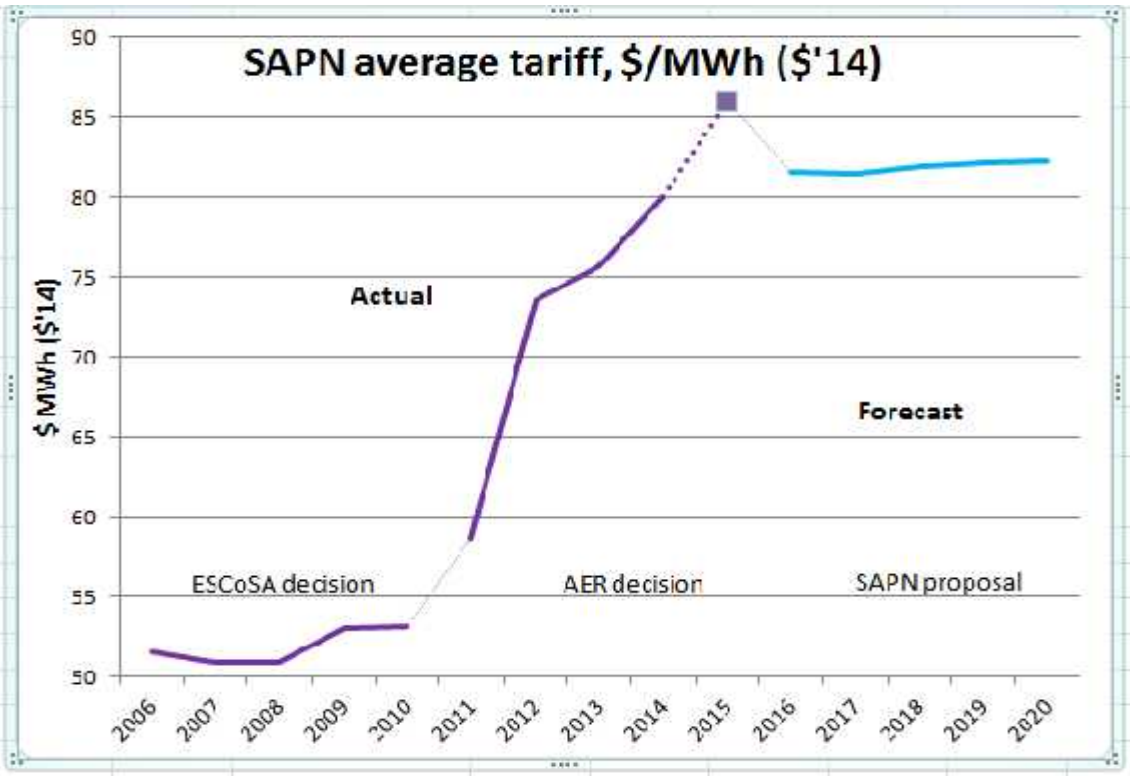
- "Cost and price implications are not adequately being conveyed;
- The methodologies of the majority of willingness to pay survey are inappropriate;
- Measurement indicators are seriously lacking;
- Inadequate attention is being paid to thorough stakeholder mapping and recruitment;
- Network service providers (NSPs) are to be encouraged to work towards creating an environment for in depth discussions with consumers; and
- It is inappropriate for NSPs to claim increased revenues or continued high revenue allowances based on the current consumer engagement outcomes."

Amongst its recommendation on consumer engagement, the CCP observes[8] that the AER:

- "considers the extent to which consumers are provided information about cost and price implications of any preferences that consumers express;
- rejects the use of WTP information that is used, in and of itself, to support particular activities of network businesses;
- critically assesses the methodologies used in willingness to pay survey work;
- encourages network businesses to develop consumer engagement KPIs;
- considers the cost and benefits of consumer engagement activity in a given determination process;
- seeks information from NSPs regarding their processes for identifying stakeholders;
- encourages NSPs to work towards allowing in depth discussions with consumers; and
- rejects claims by NSPs for increased revenues or continued high revenue allowances on the current consumer engagement outcomes."

With this in mind, the ECCSA is aware that clear comparative information must be provided to consumers to move beyond the "inform" and "consult" stages of the IAP2 spectrum to the involve stage. One of the most concerning features of the conclusions drawn by SAPN with regards to willingness to pay, is that there has been no comparative assessments made over time. By this, the ECCSA points to the following chart which provides the average SAPN tariff[9] over time.

[7] CCP letter to AER dated 30 October 2014 page 1
[8] Ibid page 3
[9] Average tariff is total SAPN revenue divided by total consumption



Source: SAPN application, SAPN economic benchmarking data templates, SAPN benchmarking RIN 2013/14

In the willingness to pay assessments, were consumers provided with a view that in 2006 they paid just over $50/MWh ($'14) for the reliability of their supply, yet by 2015 (only 10 years later) they will pay over $85/MWh ($'14) for the same level of reliability? That effectively they have paid $35/MWh (real) just to maintain the same level of reliability[10]?

The ECCSA is concerned that without this degree of information being provided, it is almost impossible to draw conclusions that consumers have a willingness to pay more. This observation is consistent with the clearly expressed view made over the past 3-5 years that consumers consider they are paying too much for the electricity supplies and have made this view known to both state and federal governments.

A feature of the CE that has been carried out by SAPN (and other DBs) is an assertion that consumers do not want lower reliability even with a price reduction. What is missing from this line of questioning is what level of reliability reduction would occur for what price reduction. For a consumer to make an informed decision on such a line of questioning requires a better understanding of what loss of reliability would occur for what lesser cost[11]. As it stands, SAPN should not make assertions about this aspect of consumer

[10] For example, most residential consumers do not know what they pay for network services or what these services comprise. How then can they make an informed decision on whether they receive value for the money they pay for the service they get?

[11] The ECCSA is of the view that considerable cost reductions could occur with no loss of reliability but the SAPN questioning does not address this quite fundamental aspect.

desires when the consumer was not provided with all of the relevant information.

While accepting that the consumer engagement program is better than what SAPN has done in the past, the ECCSA considers that the amount of time needed to explain what the networks do, and how costs are derived, would have absorbed much of the time provided for each of the CE activities. This observation is supported by direct involvement in CE processes in a number of jurisdictions. Even if the full amount of time available was dedicated to assessing substantive issues, the experience of members of the ECCSA and its affiliates is that what has been done to date is well short of the time needed to fully understand what electricity networks do, the costs they charge for, the service they provide and whether consumers are getting value for money.

The ECCSA considers that SAPN has made a start in their CE and, at a high level, the processes put in place should provide them with better information about consumers than they had at previous resets. However, the outcomes of the CE work to date is not sufficiently researched and corroborated for SAPN to use the information to inform the current reset review to the extent that SAPN has taken.

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Whilst SAPN is "confident that the TalkingPower program has been highly effective and worthwhile", the ECCAA does not share its enthusiasm for the conclusions SAPN has drawn from a program which is still in its infancy. The ECCSA views the 'TalkingPower' program as a good first step towards CE, but is of the firm view that considerably more work needs to be done before their current CE could be considered reliable, holistic or representative.

The ECCSA notes many flaws within the 'TalkingPower' program; however, the following are of significant concern:

- The 'TalkingPower' CE program is not representative of the SAPN consumer group;
- The program does not provide adequate information to consumers for them to make informed decisions and recommendations
- Stage 2 of the 'TalkingPower' CE program is flawed due to the limitations of stage 1;
- Key issues relating to consumers are not appropriately explored;
- SAPN has used this exercise to justify its own agenda, which appears to support cost shifting measures and providing increased services

	AER question	**ECCSA response**
1	Do you consider SA Power Networks has adopted our consumer engagement	See comments above. SAPN advises that it has implemented a number of avenues to access consumer views. The ECCSA also has concerns that

	guideline to build genuine consumer engagement across all business activities?	the majority of consumers do not even know a revenue reset is underway or that they might be able to influence outcomes
2	Do you consider that SA Power Networks' proposals reflect the engagement it had with you and issues you raised? If SA Power Networks did not agree with consumer views, did it explain why?	The ECCSA members have such high electricity demands, that they have regular contact with SAPN and this tends to negate a need to get involved in detailed explanations on what a network does. However, such contact also tends not to examine the detail of the revenue reset process where the members tend to rely on the skills within the ECCSA to present their views on the detailed elements of the revenue proposals
3	Did SA Power Networks provide you with options and scenarios for service and price trade-offs?	See comments above

1.7 Inter-relationships between elements in the building block

In the SAPN proposal, the ECCSA has reviewed the amounts claimed by SAPN in its proposal. Overall, the ECCSA considers that SAPN has overstated its needs for opex, augmentation capex and replacement capex. Additionally, the return on equity claimed by SAPN exceeds the risks that SAPN faces, especially in light of the excessive claims in its proposal and the seeking of increased pass through events.

With this in mind, the ECCSA provides its views on what should constitute the allowances in the building block approach.

1.7.1 Repair or replace assets

The ECCSA recognises that there is a balance between incurring capex for replacements against continuing to repair assets. Competitive industry has a similar requirement but what drives competitive industry is that generally its access to new capital is constrained whereas energy networks (particularly government owned networks) have both easier access to capital and a WACC differential that incentivises the networks to use replacement in preference to repair[12]. Further, once an asset is

[12] It is important to note that opex is notionally included in the revenue build up at cost (ie at no profit) whereas replacement increases the RAB which is multiplied by the WACC includes profit. This profit motive drives a network to replace over repair.

replaced under the regulatory approach it receives not only a return both on, but also a return of the cost of, the asset replaced. This imposes a considerable cost not only in the short term to consumers but also over the long term.

Most firms in a competitive environment use a simple payback method to determine when replacement is preferable to repair. As a rough rule of thumb, unless the simple payback is less than four years (and more commonly 1.5 to 3 years), a firm in competition will not replace an asset and will continue to repair it. Even when the payback is less than four years, the amount of available capital will also influence a decision to replace in preference to repair and if capital is not available, the decision will continue to with repairing the asset. SAPN has not applied this very basic approach to the management of its capital.

1.7.2 Usage of the asset

The ECCSA is aware that there is an incentive on a network to replace an asset that is fully depreciated as fully depreciated assets do not provide any revenue (and therefore profit) under the building block approach to setting revenues.

So, even when an asset is still used and useful, there is an incentive to replace it when fully depreciated. This issue is particularly important when consumption is falling. A lightly loaded asset is likely to have a longer useful life than an asset that is heavily loaded and therefore still be used and useful after its theoretical economic life is passed.

The ECCSA strongly recommends that the AER address this issue in its assessment of the allowance for replacement capex.

1.7.3 More assets require more opex

In the Issues paper the AER makes the statement (page 35):

> "…additional investment may create need for more opex spending. This is because, in principle, a large asset base requires more maintenance than a small asset base."

The ECCSA does not agree with this statement as the implicit view that a larger Regulatory Asset Base (RAB) automatically requires more opex is flawed and, of great concern to consumers, it is an assertion that the networks are keen to perpetuate. The only aspect where opex will automatically increase is where additional assets are added to the network through extension of the network.

The RAB can also increase for other reasons which do not cause an increase in opex in proportion to the RAB. These are:

- Replacement of existing assets with new assets of the same size. Replacement of a depreciated asset with the same sized new asset will increase the RAB but not the opex. When this occurs the opex should fall as the cost of maintaining the replaced asset will no longer be needed and a new asset should require less maintenance than an asset which has been fully depreciated due to age.
- Replacement of an existing asset with a new but larger asset. This will augment the capacity of the network and will increase the RAB. However opex should either reduce (a new asset replacing an older asset) or remain much the same as the new larger asset will be newer than the replaced smaller asset requiring less opex in proportion to its capacity as the increase in opex for a larger capacity asset does not increase in proportion to the asset value).

The ECCSA considers that the assumption of increasing opex with the RAB is part of the reason for why there has been such a massive increase in network costs being passed onto consumers and the AER needs to make this clear in its assessment of the SAPN claims.

1.7.4 Incentive schemes

The ECCSA recognises the importance of the incentives for opex, capex and service standards and agrees that now there are a suite of competing incentives covering the three elements a better outcome for consumers should result.

However, the ECCSA also points out that the actual setting of the allowances for each of the constituent elements of the build up of the allowance is critical so that for the network service provider (NSP) to benefit it has to work at improvements rather than see bonuses being made available just because it convinced the AER to provide more than is efficient.

If the allowances are set at the efficient frontier, then the incentives schemes should drive the most efficient outcomes. Setting the most efficient base levels must be from using those historic performances which have been incentivised and where benchmarking has been applied.

1.8 Shared assets

The ECCSA notes that SAPN provides services to others using the assets fully paid for by consumers and therefore consumers should receive a benefit for this

additional use. SAPN provides a calculation of the net benefit it gains from the provision of services using assets paid for by consumers.

SAPN appears to have followed the AER guideline in the development of its shared asset revenue adjustment but what this shows is the error the AER has made in the development of the guideline - aspects that ECCSA affiliate Major Energy Users highlighted to the AER at the time of the Better Regulation guideline.

SAPN shows that the additional revenue it obtains from allowing access to assets paid for by consumers is nearly $10m pa. Of this amount, it shares less than $1m pa leaving SAPN nearly $9m pa better off than if the guideline was more equitably crafted.

As SAPN appears to have applied the AER guideline correctly, the ECCSA finds it difficult to argue against the SAPN allowance, but the ECCSA points out that the AER should review its guideline to deliver a more equitable outcome for consumers. The AER guideline as currently crafted allows the network to shift benefits away from consumers to increase network revenues.

1.9 Summary

Despite considerable consumer outrage at the ever increasing costs of electricity, regulated energy network firms have continued to seek increases in revenues and additional costs for providing this essential service. In this regard, SAPN is no different.

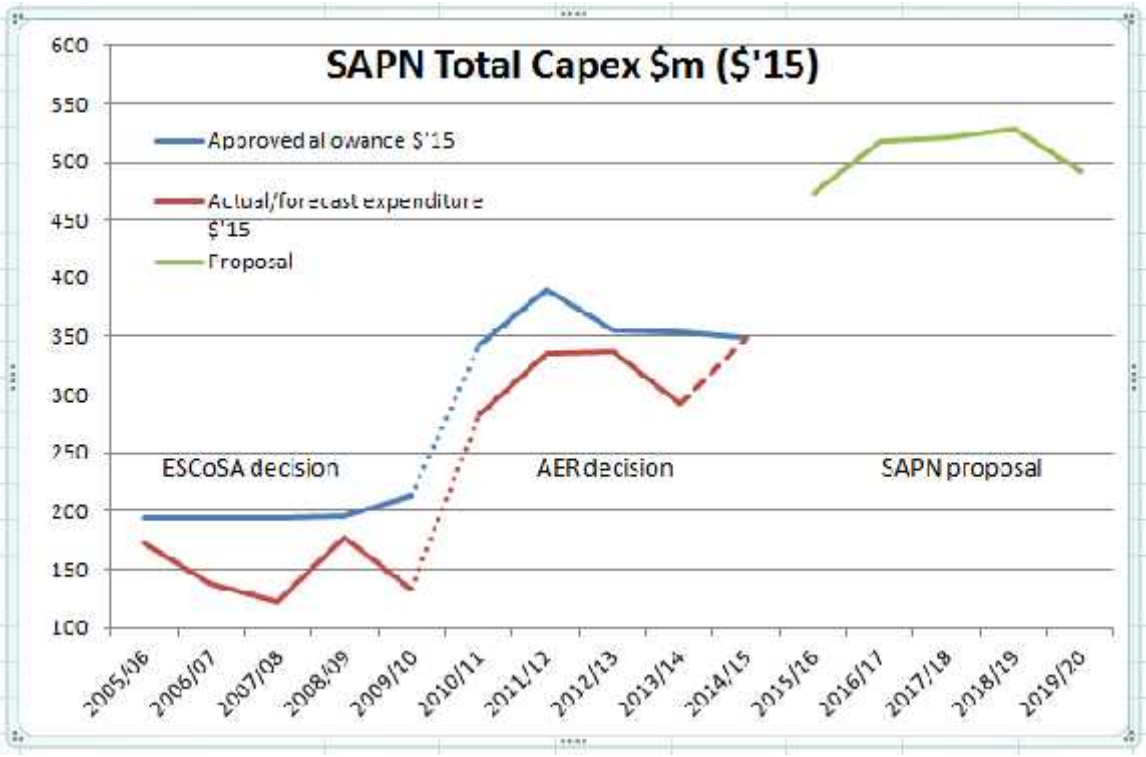
It is essential that regulatory price reviews do not lose sight of the basic fact that if the regulator keeps on allowing increases in capex and opex, the prices the networks will charge for providing their services will take the cost of electricity beyond the ability of industry (which is subject to competition) and many consumers (especially disadvantaged consumers) to pay.

The AER, at the last revenue reset of SAPN, permitted large increases in allowed in SAPN's revenue. If a similar approach is taken in relation to this new SAPN review, the essential service that is electricity supply in this day and age, will become unaffordable to many consumers and cause manufacturing to migrate off shore, resulting in the de-industrialization of the Australian economy.

The AER needs to recognise that as more and more large power users either move off shore or close down, this will result in those fewer consumers remaining having to carry an even greater share of the electricity supply chain prices, driving price up even higher.

2. Total Ex-Ante Capital Allowance

The following chart provides a view over the long term of SAPN capex - actual and allowed - as well as the capex forecast for the next period



Source: SAPN application, SAPN economic benchmarking data templates, SAPN benchmarking RIN 2013/14

This shows that overall, SAPN has not used all of the capex allowance granted it in the previous and current periods. In fact, in nominal terms, SAPN under-ran its capex allowance by nearly $250m[13] and in the current period is forecast to under-run by over $180m. Despite this SAPN is forecasting an increase in capex from the current period levels by over 60%. This further increase is after the AER granted SAPN a similar 80% increase at the last reset.

The ECCSA cannot accept that another such massive increase in capex is warranted especially when it is seen that the ambit claim from SAPN (then ETSA Utilities) in its 2009 proposal was for $2.62 Bn ($'15) in capex for the current period. The AER allowed SAPN some $1.7 Bn ($'15) for capex in the current period of which SAPN advises it s forecasting to use only $1.53 Bn ($'15). So effectively the SAPN initial claim for capex for the current period was some 70% more than SAPN actually used. This implies that the current claim from SAPN for $2.54 Bn ($'15) should be seen as ambit in the extreme.

[13] The ECCSA notes that in its proposal for the current period reset, the capex forecast by SAPN for the end of the previous period showed an increase for the final year. The benchmarking RIN shows that the actual capex for the last year of the previous period is the reverse - ie rather than an increase occurring, the actual capex shows a decrease of a similar magnitude

It is important to note that at the last reset, nearly half of the requested capex was for augmentation works. In an environment where there is an expectation of little demand growth, forecast capex should be less than that actually used in the current period when the demand forecast supported such a large capex allowance.

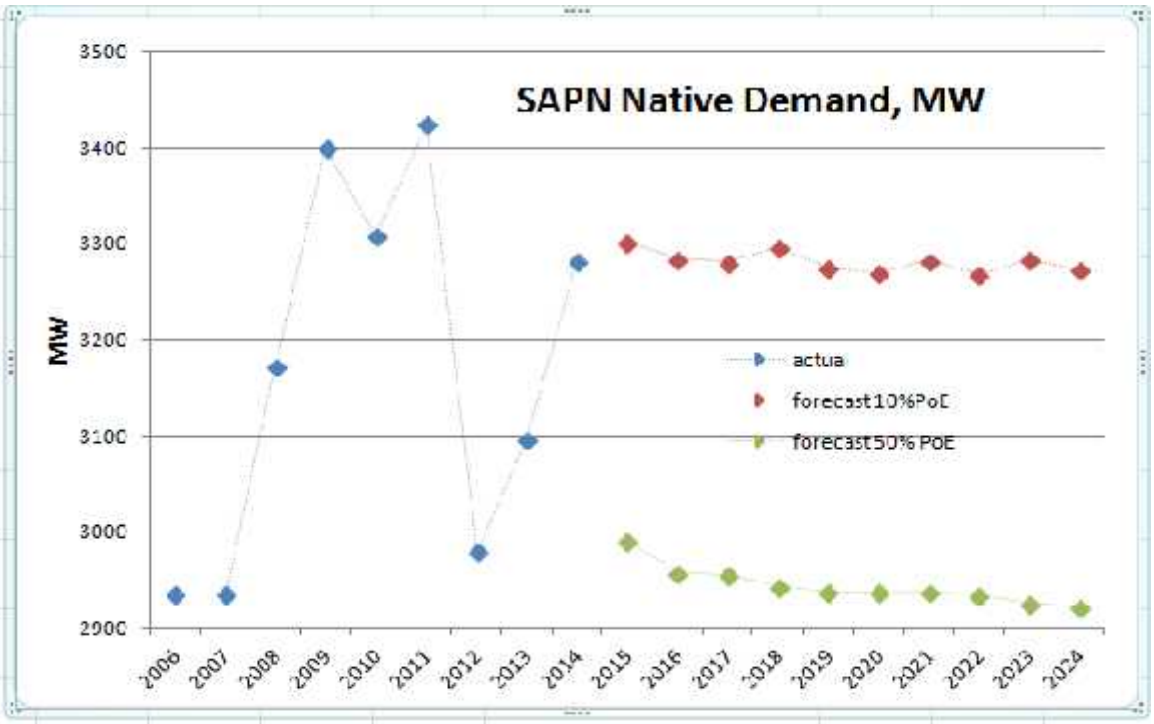
The ECCSA accepts that the previous rules allowed SAPN to retain the benefit of any capex under-run on the basis that this was an offset to the benefits consumers gain by not having to fund excess capex over the life of the assets provided. However, an under-run in capex indicates that the allowances provided were overstated.

At a high level, considering the expectation of little growth in demand and a continuation of falling consumption, the ECCSA cannot accept that such a large amount of capex is needed for the coming period, especially as SAPN did not use all of the capex allowances provided in the previous and current periods.

2.1 Augmentation Capex

In section 6 below, ECCSA comments that there is a clear and apparently permanent shift in that expected consumption of electricity is falling in SA. Additionally, the demand for electricity (ie the instantaneous consumption in any half hour period) is expected to be flat or even slightly falling from previous very high peaks. Even SAPN in its proposal highlights that this is the case. On this basis, there is an expectation that the need for capex would be significantly less than in the previous and current periods where both consumption and demand were expected to rise significantly.

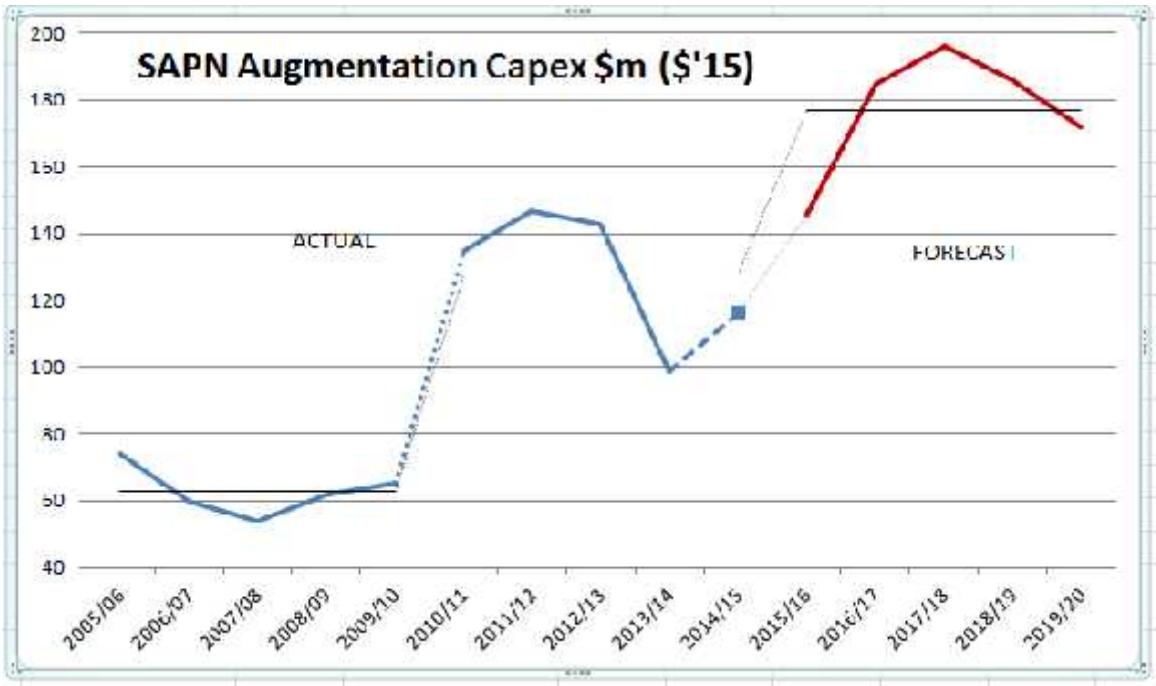
In the reset process for the current period, there was an expectation of higher demand and consumption, yet this failed to eventuate to the extent anticipated, although the peak demand in SA so far recorded occurred in January 2011, as the following chart shows.



Source: SAPN application, SAPN economic benchmarking data templates

The chart provides the expectation for demand measured both as a 50% probability of exceedance (PoE) - the average expectation and the 10% PoE - the expectation at the high end of demand. Even at the 10%PoE the expected peak demand for the coming period does not exceed the actual peak demands actually recorded in 2009, 2010 and 2011. On this basis, there is an expectation that there will be no need for any augmentation capex for the next period.

However, despite there being no apparent need for any augmentation based on the high level expectation of lower demand than has been experienced and managed in the current period, SAPN has sought a massive step increase in augmentation capex, as the following chart shows.



Source: SAPN application, SAPN economic benchmarking data templates

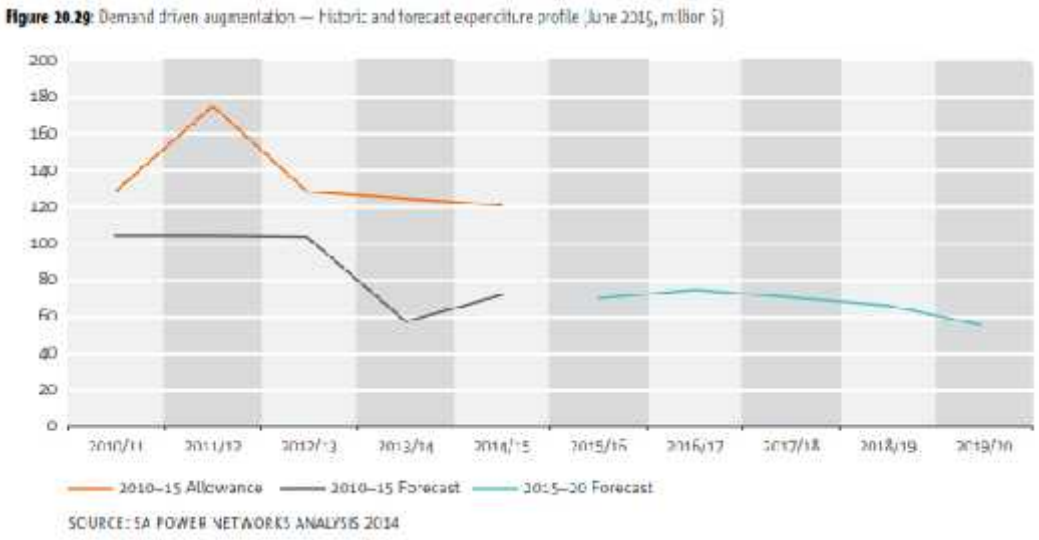
What the chart shows is that with the forecast increase in demand expected during the current period, the augmentation capex increased by an average 100% from the previous period. The ECCSA notes that the actual augmentation capex used by SAPN reduced later in the current period as it became apparent that the forecast growth in demand would not eventuate.

What the ECCSA does not accept is that with a forecast of demand for the next period not exceeding the previous actual demands recorded (ie there is no increase in demand expected above previous actual levels), SAPN is forecasting a further 40% increase in augmentation capex.

SAPN includes in its augmentation capex that driven by demand, reliability, strategic, environmental, safety and undergrounding. Intriguingly, in the current period, all augmentation capex was classified at demand driven and net connections and reliability, strategic, safety and undergrounding were separately classified. This reclassification has introduced a level of ambiguity in comparative assessments.

2.1.1 Demand driven capex

SAPN provides figure 20.29 in its proposal that shows capex for just demand driven augmentation which is about 40% of the total augmentation capex.



Even so, the ECCSA considers that even this level of augmentation/demand driven capex is inconsistent with a forecast demand well below the actual demands actually managed in the past.

SAPN discusses at length the impacts that rooftop photo-voltaic (PV) and increased efficiency have had on demand (eg where the peak PV generation is non-coincident in time with the peak system usage). The ECCSA agrees that these impact on what the network is required to provide for. Equally, it must be stressed that these impacts are included within the assessments of forecast peak demand which are significantly lower than previous actual peaks by a significant margin.

The only areas where the ECCSA considers that capex is required for demand driven needs is where there is a specific locality where it can be shown that there is real demand growth and the existing assets are clearly insufficient for meeting the higher demand that that locality is imposing on the network.

In tables 20.17 to 20.22 SAPN provides details of projects that it considers are needed as demand driven projects. These specifically detailed projects total only $220m of the $345m claimed as demand driven projects. The ECCSA considers that even for the projects detailed, not all of the work is fully justified. Therefore, the ECCSA considers that, at best, only half of the demand driven capex has been even partially justified and on a high level assessment (ie no increase in regional demand), no augmentation capex is justified.

2.1.2 Reliability capex

In table 20.24, SAPN shows that during the current period, it expended about 10% more on reliability capex than it was allowed - this slight over-

run needs to be seen in the context that overall, SAPN under-ran its capex. In table 20.25, SAPN shows that it wants to double its capex on reliability. What is absent in the assessment is the value consumers place on reliability. The AEMO has just completed a detailed assessment of the value of customer reliability, yet SAPN does not use this detailed consumer survey to support its basis for increasing the capex requirement. Further, the average current reliability of the SAPN network is considered adequate. With this in mind, we must ask: what is being achieved by the additional reliability capex? Is increased reliability needed?

This increase is predicated on the view that current customers are satisfied with their level of reliability there should be greater attention paid to the reliability of those customers on less reliable feeders. The ECCSA does not disagree with this intention but points out that by doing so, this will improve the overall average of reliability performance and thereby SAPN would be awarded a bonus under the reliability leg of the Service Target Performance Incentive Scheme (STPIS). Effectively, by increasing the capex for reliability, consumers would be paying for SAPN to be given a bonus for improved reliability under the incentive scheme.

The ECCSA does not consider that this is the intention of the incentive. In fact, the ECCSA considers that SAPN should be using the bonus it gets from the STPIS to offset the costs incurred in increasing reliability. This is what a firm in a competitive environment would do - spend some of its own money in order to gain more custom by improving the quality of service.

As the current level of reliability capex has delivered the level of average reliability required by its customers. SAPN should not be given more capex to improve performance and it should be encouraged to use its own resources to generate an overall improvement in reliability as intended by the STPIS.

2.1.3 Strategic capex

In table 20.27, SAPN shows that during the current period, it expended about 10% more on strategic capex than it was allowed. This slight over-run needs to be seen in the context that overall, SAPN under-ran its capex. In table 20.28, SAPN shows that it wants to increase its strategic capex by 25%.

Nearly 50% of the strategic capex is to replace the Kangaroo Island (KI) undersea (u/s) cable. The ECCSA was intrigued that this capex was not included under the replacement capex program until it identified that the replacement of the KI u/s cable is not really replacement capex because the asset has reached its expected life. Rather, SAPN wants to duplicate

the asset well before the designed life of the existing asset is reached despite there already being an alternate back up service already in place.

SAPN comments that the u/s cable was installed in 1993 and is designed to have a 30 year life (ie is not due for replacement until 2023 at the earliest). In fact, the u/s cable has only just past 70% of its design life and SAPN considers that because it cannot inspect the cable, its age should be the prime predictor of replacement. On this basis replacement in the coming period is not warranted.

SAPN contends that if the u/s cable failed at any time, then SAPN would be liable for between 12-24 months of using diesel generators (installed on KI to provide N-1 reliability) to continue to supply KI depending on whether a repair or replacement of the u/s cable is needed[14].

To overcome this concern, SAPN proposes that a second u/s cable should be installed ahead of when the existing u/s cable reaches its design life. SAPN notes that both the KI council and the SA minister for energy support this approach.

The ECCSA does not disagree that a second u/s cable would provide additional security of supply to KI. However, the ECCSA already notes that KI has N-1 reliability through having both the existing cable and the diesel generators on the Island. The ECCSA is also aware that a number of the facilities on KI also have diesel generators as back up. In this regard it should be noted that in the report on network support for KI, SAPN considered that the network support for the u/s cable costs just over $1m pa ($'04)

The ECCSA is not convinced that the second u/s cable is warranted considering that the existing cable still has some 10 years of design life remaining and diesel generator back up to provide reliability of supply. It would seem that SAPN considers that the potential cost to it of an early failure of the u/s cable from the extended use of the diesel generators is the core issue. SAPN has provided financial substantiation for building the second cable based on its assessment of the likely early failure of the u/s cable. The ECCSA would argue that if the existing u/s cable does not fail before its design life is reached, then this would provide the lowest cost outcome for all and is the option that a RIT-D would deliver.

The question then becomes one of whether the additional security provided by a second u/s cable should be funded by all SA electricity users, whether the additional security should be funded by the users (ie KI

[14] The issue of reliability of supply to KI has been vexed. In 2004 SAPN (then ETSA Utilities) analysed the cost of reliability of supply to KI and concluded that diesel generation on the Island was the most efficient solution for providing acceptable levels of reliability (see Kangaroo Island Network Support Back Up Generation Proposal, ETSA Utilities, August 2004).

consumers), the SA government (ie by SA taxpayers) or whether SAPN should accept the risk that an early failure of the cable would cause it to have to provide back up services via the diesel generators for an extended time.

In this regard, it must be recognised that SAPN (or its antecedents) selected the current arrangement where SA electricity consumers have funded a single u/s cable with a 30 year design life backed up by diesel generators as the lowest cost solution.

The ECCSA does not consider that SA electricity consumers should be required to fund an effective increase in reliability (to N-2 level security) for KI when so many other consumers on the mainland have N-1 level security (and in some cases even less). The ECCSA also notes that there are a number of installations in the NEM where generators provide network support to single supplies provided by network assets as this results in an overall lower cost to consumers.

Excluding the KI second u/s cable from the strategic capex program results in a slight reduction for the next period from the costs incurred in the current period. The ECCSA considers this is appropriate.

As SAPN has not detailed what the other 50% of the security capex is to achieve, the ECCSA cannot provide comment on the value of this capex. On this basis, there is a view that perhaps the claim for strategic capex should not be allowed.

2.1.4 Environmental

Whilst SAPN is only seeking a similar amount of environmental capex for the next period as it was allowed in the current period, it under-ran by 50% its allowance in the current period, generating a benefit for itself.

SAPN observes that the under-run was due to a "slow start" in the period, yet the effect of this is SAPN being allowed to carry out work which it did not do and seeking to have the same work included again in the next period.

The ECCSA considers that this wanting an allowance to be reinstated in the next period because the work was not done in the period for which it was allowed is poor practice and the AER must send a signal to networks that this practice must stop

2.1.5 Safety

SAPN used some $16.9m for safety activity in the current period and is seeking some $319.5m for the next period. The massive increase can be

divided into three elements - bushfire mitigation ($220m), road safety ($77.5m) and the balance of $21.9m for the continuation of its "normal" safety activities.

Effectively SAPN seeks an increase in its "normal" safety capex from $16.9m to $21.9m - a step increase of 30% above the actual capex in the current period. This step increase is despite the fact that SAPN under-ran its capex in the current period, implying that SAPN did not really require to expend on "normal" safety what it claimed was needed.

This view is reinforced by the fact that up to the end of year 4 of the current period, SAPN actually under-ran the "normal" safety capex allowance as the allowed amount for the first four years was $9.4m and SAPN had only used $3.5m of the allowance - an under-run of 60%. That SAPN intends to use in year 5 of the current period the same amount of capex ($12.3m) that it was allowed for the entire period (ie $12.4m) again implies that SAPN does not need to increase its "normal" safety capex in the next period[15]. The ECCSA considers that if the need was not urgent for the last 4 years (especially when there was a spare capex available due to the overall under-run), then the needs are still not urgent and the issues should be addressed on a steady consistent basis, with the current trend used to identify the amount of "normal' safety capex needed in the next period.

SAPN adds two "wish list" activities to its safety capex - bushfire and roads apparently based on the views expressed in response to its consumer engagement program.

2.1.5.1 Roads.

The ECCSA accepts that consumers would like to see more undergrounding of electricity services, both from a visual amenity viewpoint and a road safety aspect. SAPN points to the consumer engagement process as support for its capex program to underground parts of the electricity network to improve road safety.

The question remains is that whether all electricity consumers are prepared to pay for improving road safety in areas which they do not benefit from.

The ECCSA is of the view that whilst there may be a benefit from undergrounding specific parts of the SAPN network, there remains an issue that such work has not been carried out in the past (even when SAPN assets were government owned) and whether the value

[15] There is no certainty that SAPN will even expend this amount in the final year despite its claim. The ECCSA highlights that at the end of the last period, SAPN had forecast a significant increase in capex for the final year which in reality never occurred.

to the community at large will be greater than the cost that such work will require. It is clear that in the past, there was not seen to be such a benefit and even though SAPN had capex unused in the current period, it elected not to invest in this work, preferring to take the benefit rather than invest in activities for which it had available resources.

SAPN points to its willingness to pay assessments (SAPN attachment 6.8) as supporting its contention that consumers consider the capex is warranted. The ECCSA makes its comments on willingness to pay in section 2.1.5.3 below.

2.1.5.2 Bushfire mitigation

SAPN seeks capex of $220.1m for bushfire mitigation in the next period, despite there being no regulatory or governmental requirement for this to be done.

The ECCSA considers that consumers would like to see a reduction in bushfire risk from SAPN electricity networks just as has been seen in Victoria after the 2009 Victorian bushfires and the subsequent Royal Commission (VBRC).

The capex proposal from SAPN concentrates on its network assets although the willingness to pay is based on both vegetation clearance and addressing network assets. The ECCSA makes its comments about willingness to pay in section 5.1.5.3 below.

There is some confusion in the documentation that needs to be clarified

- SAPN proposal table 20.35 provides a cost of $220.1m for the bushfire mitigation program capex. Attachment 20.45 table 7 seems to indicate the cost of the Jacobs recommendation is $135.6m yet table 22 in the attachment observes that the recommended bushfire program will cost $158.5m.
- SAPN notes that many of the equipment items to be replaced are 40-50 years old. Why have these assets not been replaced as part of the normal replacement program for assets that are at or past their expected working life under the normal replacement program?
- Of the $158.5m in table 22 of attachment 20.45 $128.6m is for undergrounding of cables and $30.1m for replacing reclosers and RAGS and CLAHS. As the Jacobs report to SAPN was provided to SAPN in 2012 (ie over two years ago), why has SAPN not implemented a program to replace aged assets with

the bushfire prevention preferred assets recognising that there was considerable capex provided to SAPN but not used?

- It has been accepted in Victoria that although undergrounding of cables will provide some additional protection, the cost of this option was considered generally to be too high and other options are being considered and implemented such as installing insulated overhead cables and bundling. As a result there has been limited investment in undergrounding cables even though the Victorian government is providing funds to reduce the risk. Greater assessment is required of the options to avoid the expensive option of undergrounding.
- It needs to be accepted that the long term cost for undergrounding is considerable and asset life is shorter than overhead cabling. Has SAPN carried out long term cost assessments associated with this recommendation?
- There is no clarity as to whether this proposed program is a "once off" program or is to extend into future regulatory periods. Table 13 of attachment 20.45 indicates that the RAGs/CLAH program will continue for at least 4 regulatory periods although there is no similar indication about other parts of the bushfire program. In the willingness to pay assessment was it pointed out that the increase in prices would be increases each regulatory period rather than just a once off increase?

The ECCSA is very concerned that there seems to be considerable confusion about what should be done and what the costs might be. At the same time, the ECCSA accepts that some action could be taken to mitigate bushfire risks caused by the electricity networks but the ECCSA also notes that SAPN already has legal requirements to ensure that its assets do not cause bushfires.

Overall, the ECCSA considers that the reclosers and the RAGS/CLAH program is probably justified but should be carried out over an extended period rather than in just one regulatory period as the existing assets reach the end of their operating life.

The ECCSA is less convinced that undergrounding is a preferable option compared to other actions being used elsewhere especially when it is considered that underground cabling has a shorter economic life and has other constraints (eg cooling oil leakage, etc[16]) that suggest underground cabling might not be the best option for bushfire mitigation. With this in mind the ECCSA considers that SAPN needs to examine other supply options for these high risk areas.

[16] The ECCSA is reminded that one underground cabling installation failed when power was lost to the pumps circulating the cooling oil for the underground cable

The ECCSA points out that SAPN seems to indicate that its "bushfire" program put to the consumers in its CE program applies the VBRC recommendations in their entirety. In fact, the Victorian government implemented a detailed study of the VBRC recommendations (and the ability to implement them) through Energy Safe Victoria (ESV) and from this has resulted a suite of regulations aimed at balancing cost and reward in mitigating bushfire risk. These regulations have resulted in outcomes that are achievable and address different approaches for implementing mitigation programs. The ECCSA considers that these regulations do provide a sound basis for a better mitigation program than what SAPN seems to have developed for those parts of its network which replicate the bushfire prone regions where ESV is requiring changes.

Equally, the ECCSA notes that the SA government has not a requirement for SAPN to implement the VBRC recommendations or those regulations implemented by Energy Safe Victoria.

2.1.5.3 Willingness to pay

The ECCSA accepts that the consumer engagement undertaken by SAPN might well have supported an annual increase in charges to address the road safety and bushfire issues that are the focus of this capex proposal. What is not clear is whether those consumers consulted were made aware of the full extent of what SAPN is already required to do with the revenue allowance that it is provided with.

The ECCSA has expanded on its concerns about willingness to pay in section 1.6 above, and considers that great care needs to be taken to assume that all consumers are willing to pay for additional services and features that will increase the charges they will face in the future.

As noted above, AEMO has just completed a detailed survey on the value consumers place on reliability (value of customer reliability - VCR), and included in this work is a detailed assessment of willingness to pay. The ECCSA considers that perhaps SAPN should carry out a comparative analysis of the willingness to pay from its survey with the more comprehensive one carried out by AEMO.

2.1.6 New connections

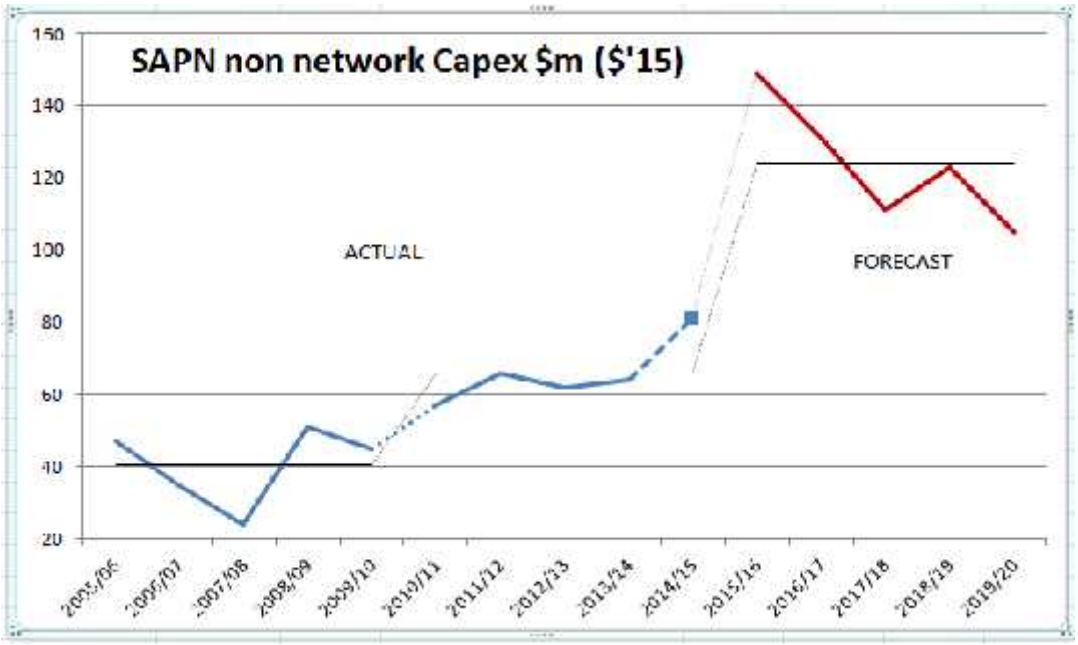
In the current period, the actual net contribution for new connections was $154m against an allowance of $167m providing SAPN with a net benefit.

SAPN is seeking an increase in the net contribution[17] to $189m. In the SAPN proposal, it would appear that SAPN considers that the same number of new connections at the lower end of the market will continue but there is likely to be less at the large end of the market. The ECCSA considers that SAPN needs to justify the expected numbers of new connections (especially if there is an increase) and the net allowance should reflect the historic costs rather than some inflated estimate.

Overall, the ECCSA does not see why the net contribution needs to increase from historic levels.

2.1.7 Non network capex

The following chart shows the SAPN non network capex proposal in context



Source: SAPN application, SAPN economic benchmarking data templates

This shows that in the last period non-network capex increased by an average of 65% between the previous and current periods. SAPN is now seeking a further average increase on nearly 90%.

The bulk of the increase is related to IT systems and the apparent need to replace the existing system used by SAPN. Yet in its proposal for the current period (where non-network capex increased by 65%), SAPN (then ETSA Utilities) sought increased funding (which it used) to address many of the issues that SAPN is now stating are not fit for purpose and a whole new system needs to be implemented.

[17] Net contribution is the total cost less consumer contributions for a new connection

The ECCSA is very concerned that there is an expectation of SAPN that consumers will keep increasing the funding for its IT using the same SAPN claims and explanations over and over again. If SAPN considers now that the current IT systems are now not adequate, why did SAPN not seek to implement a new system at the start of the current period rather than expending considerable amounts on IT that were going to be made redundant.

There seems to be a view that networks can continue to increase capex on IT with impunity on the basis that newer and better equipment is now available and therefore what is currently held in deemed insufficient for the needs. The ECCSA considers that SAPN should not be provided with additional capex to replace a system that has only recently had over $150m devoted to upgrading (see table 20.41) as a result of the capex allowed for the current period.

The ECCSA also notes that SAPN has affiliates in Victoria (Powercor and Citipower) which have provided some services in the past. Rather than seeking to either utilize IT systems already employed by these affiliates or sharing an overall upgrade of IT systems with them, SAPN proposes distancing itself from these affiliates (with which it has previously shared some resources) to introduce a new platform entirely. The ECCSA does not consider that the SAPN proposal is efficient or prudent.

The ECCSA notes that as well as there being capex involved in this IT migration process, SAPN wants an increase in its opex as well. The ECCSA comments on this opex claim are noted in section 3.4.2. On the basis that SAPN wants both an increase in capex and in opex to implement its new IT program upgrade, the ECCSA does not consider that any program should be accepted unless there is on overall saving between the capex and the opex or definable benefits to consumers.

The ECCSA also notes that in each of the other categories of expenditure included within non-network capex, SAPN has sought further increases.

In particular, ECSSA highlights:

- Property management. In the 2009 proposal, SAPN identified a need to increase its attention to property and sought (and was granted) a significant amount to implement its proposals for work force increases, repair and refurbishment and depot relocations. SAPN did not use all of the capex allowance provided yet now wants more to provide similar outcomes than it sought in 2009. This practice is quite concerning and does not give credibility to either SAPN or the regulatory process.

- Vehicles. The ECCSA is aware that SAPN provides services on a contract basis to other networks. The continual growth in vehicle numbers is concerning in itself but it also gives rise to concerns that SAPN customers are providing vehicles that are used externally to the regulated control services provided by SAPN.

2.2 Replacement capex

During the current period, SAPN advises that it exceeded the AER allowance for replacement capex and this is shown in figure 20.7 of the SAPN proposal. The amount that SAPN advises it will exceed the replacement capex is more that the amount the AER removed from the revised ETSA Utilities 2010 proposal, implying that SAPN has exceeded its own revised proposed forecast allowance.

However, despite SAPN exceeding the allowance for replacement capex, it still under-ran its total allowed capex by a significant amount. This provides support for the view that SAPN did not consider that more replacement capex was needed than was actually used.

SAPN argues that its network is the oldest in the NEM fleet and therefore it needs to spend up big on replacing its aged assets. Yet this is what it is doing in the current period - even to the extent of overspending the allowance on replacement capex.

SAPN opines that its replacement capex is based on condition monitoring and a recognition that a risk based approach has a greater emphasis on assessing the need to replace assets before they fail. SAPN also notes that it has reviewed the VBRC recommendations with regard to monitoring the condition of the network assets in order to minimise the potential for causing bushfires. The ECCSA does not disagree that these are both sensible approaches for managing the network assets.

SAPN observes that the increased attention to the condition of the network assets has revealed more defects than they considered were present and this resulted in the increased need for replacement capex in the mid to latter stages of the current period.

SAPN then states that there will be an even greater need for replacement capex than what was seen in the latter stages of the current period. This is the point where the ECCSA and SAPN disagree. ECCSA members are fully aware that there is always a desire to redress every fault and flaw identified in the plant owned by a capital intensive operation. What ECCSA members also know is that replacement capital is (and should be) limited by the ability of the firm to access capital and the need of the firm to remain competitive in the market, otherwise the firm will lose market share and make losses.

It is quite clear that the network condition is not as dire as SAPN would have consumers (and the AER) believe.

Firstly, if the network was in such a dire condition that massive increases in replacement investment were needed, then SAPN should have used the capital it had available under its current allowance rather than not use it and take the benefit that an under-run on capex provides the firm. This action by SAPN provides a clear view that SAPN is not as concerned about the imminent failure of significant elements of its network as it would like consumers to believe.

Secondly, the reliability performance of SAPN has not deteriorated as would be the case if the assets were in such poor condition that a further massive increase in replacement capex is needed just to maintain the network reliability at acceptable levels. SAPN provides two indicators that its reliability performance is more than acceptable - figure 4.1 highlighting that SAPN performance is consistently better than the NEM average and figure 4.3 highlighting that it has received significant rewards from the reliability incentive scheme (STPIS) despite a poor reliability performance in 2013/14 where reliability suffered from (proposal page 39)

> "…some of the most intense severe weather events on record."

That such long term high levels of reliability were achieved despite using lower levels of capex for replacement in the previous period and the early stages of the current period than is being sought for the next period implies that the current levels of replacement capex are more than adequate.

Thirdly, SAPN opines that its increase in condition monitoring has revealed more deterioration than previously thought is quite understandable. But what it also shows is that despite less inspection in previous times, this did not negatively impact on reliability or result in higher failure rates. This highlights that, just as ECCSA members are aware, some deterioration of assets over time is inevitable but this deterioration is built into the design of the assets - that some deterioration is expected to occur and the asset will remain fully functional.

Although deterioration might be observable, this does not automatically indicate that the asset needs to be replaced immediately - all it means is that the deterioration needs to be monitored and replacement should be made when the deterioration reaches a level where failure is incipient, ie that there is a high risk of imminent failure.

To address this SAPN has introduced a grading mechanism - the Maintenance Risk Value (MRV) - which apportions a numeric value to aspects of concern resulting from the increased condition monitoring. The ECCSA accepts that this

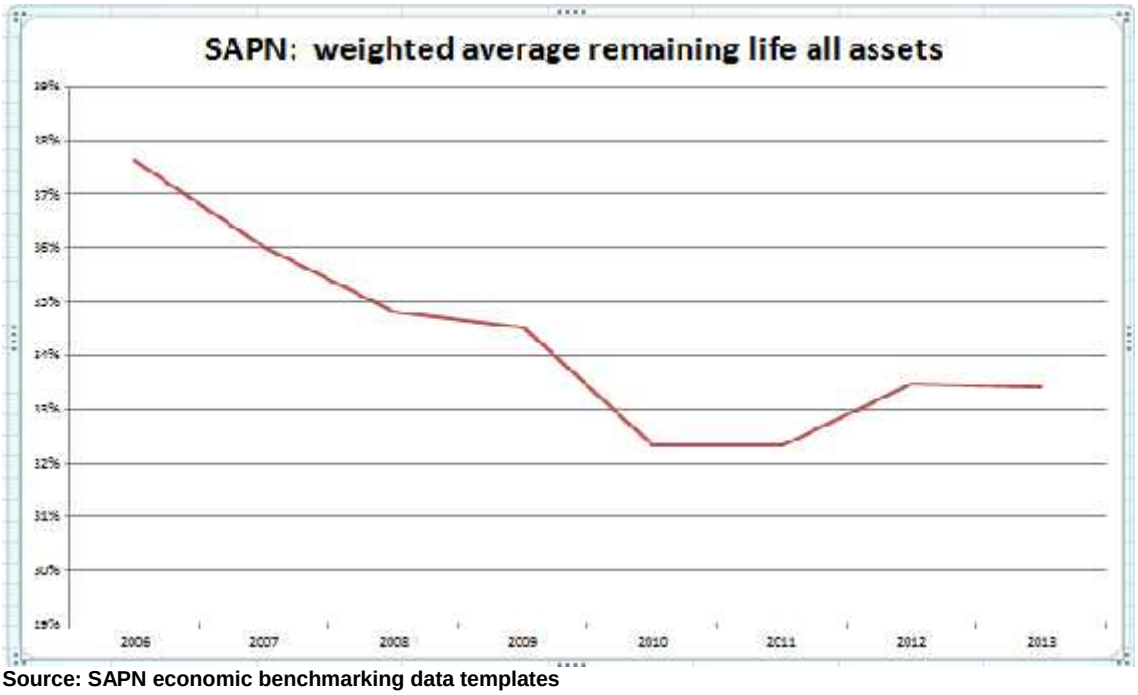
approach has merit but it also questions the allocation of the elements identified which lead to the four categories of assessment for assigning a value for the MRV. This is where the ECCSA has concerns. The current evaluation settings have resulted in a massive expansion of the gradings of imminent failure (P1), action required in 6 months (P2) and action required in 24 months (P3) for the most recent 3 years compared to the three years prior (see proposal figure 20.9). Whilst ECCSA can see that the greater inspection regime is likely to have increased the amount of identified deterioration, this does not mean that the numeric value outcomes are correct and the assumptions for action are substantiated.

At a high level, prior to the introduction of the new monitoring regime, the network failure rate was modest and this is reflected in the relatively high reliability SAPN has compared to other NEM networks. The implication of the new approach is that effectively overnight, the SAPN network is in more danger of imminent major failures even though the same level of maintenance has been applied as in previous times when reliability just as high.

Fourthly, age of the assets is an indication of the need for replacement. In this regard, it is important to recognise that average asset age of a network is driven by all capex - not just by replacement capex. Average asset age will reduce by the inclusion of new augmentation assets as well as by replacement.

Just because an asset has reached the end of its economic life (ie the asset is fully depreciated) does not mean that it automatically indicates replacement is needed. ECCSA members report that they have many assets that are fully depreciated but they are still used and useful - assets in this state are prized by firms in competition as they provide the benefit of not having to carry a financing burden on the cost of products generated by them.

SAPN opines that its asset fleet is the oldest in the NEM (see proposal figure 20.8) with an average age of 38.32 years. The following chart shows the average remaining life of the SAPN network over time, weighted by the value of each asset share as a component of the asset base - this is derived from page 4 of the SAPN economic benchmarking data template.

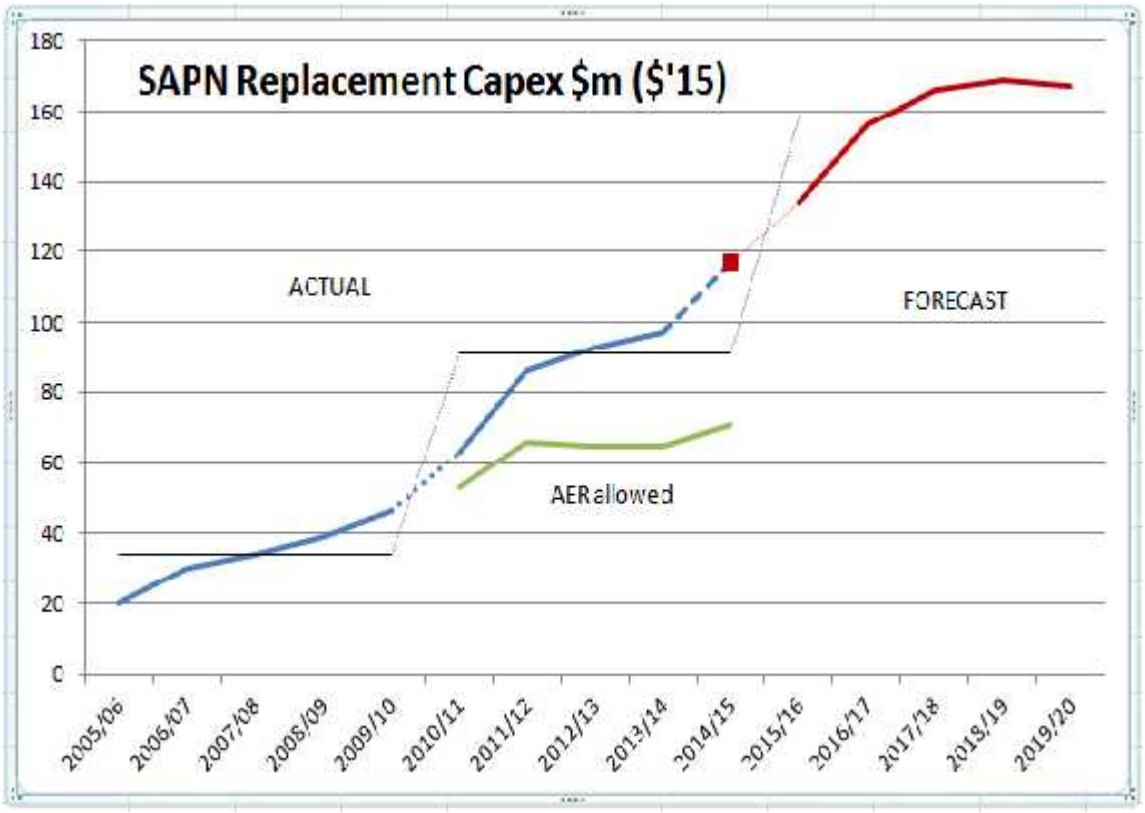


Source: SAPN economic benchmarking data templates

What this shows is that the average remaining life of SAPN assets has fallen over the previous regulatory period but over the first three years of the current period, the remaining life has increased even though SAPN used less capex than it was allowed. This indicates that the amount of capex actually used in the first three years of the current period (noting that both augmentation and replacement capex both impact the average age of the network) were more than adequate to increase the remaining life of the SAPN network.

Fifthly, SAPN is subject to an incentive scheme to improve network reliability. This provides SAPN with an incentive to balance the risk of falling reliability against savings from reducing opex and capex and vice versa. The fact that SAPN has elected to underspend capex and basically match actual opex with allowed opex in the current period implies that SAPN is aware that reliability is not at risk.

With these views in mind, the ECCSA developed the following chart highlighting the actual replacement capex and the forecast replacement capex



Source: SAPN application, SAPN economic benchmarking data templates

This shows that actual replacement capex increased on average from the previous period by nearly tripling what it used in the previous period - ie an increase of nearly 170%. The result has been a decrease in average age of the network and overall significant rewards from the reliability incentive program.

However, SAPN considers that a further average increase of some 80% in replacement capex is warranted. Effectively, SAPN considers that its replacement capex needs to be nearly five times what it used in the previous period (only four years ago) - ie an increase of nearly 400% - to ensure that its network is safe and provides reliable service.

SAPN provides support for claiming some $397m (ie 50%) of the proposed replacement capex (ie for poles, conductors, substation transformers and switchgear). It does explain that of the remaining $400m about $310m will be for "other" line assets ($219m), "other" substation assets ($52m) and telecommunications ($39m) but does not explain the reasons for the need for this capex. There is no explanation for what the remaining $90m of the claimed replacement capex will be used for.

Of the replacement assets that are provided with explanations, the major change from the current rates of replacement capex relate to pole replacement and conductor replacement.

SAPN proposes to triple the capex on pole replacement to an average of about $60m pa from a current average of about $20m pa. This would appear to be the main driver of the increase in replacement capex although conductor replacement is set to more than quadruple from an average of about $3m pa to an average of about $13m pa.

SAPN provides its view that it will be replacing a considerable number of poles due to the increased inspections carried out identifying more poles at risk than in previous times. SAPN opines that this increases the risk of greater pole failure. The ECCSA begs to differ. In fact, the risk of pole failure is no greater than it was before the pole inspection program - what is different is that SAPN knows which poles are more likely to fail before others because of the inspections. Figures 9 and 10 in attachment 20.15 show that except for the 2012 inspections, the replacement/repair of poles covers most of the poles identified as needing rework. This approach has been consistent over the current period implying that the replacement/repair is not as critical as implied by SAPN who could have carried out a lot more replacement/repair if it had wanted as it had considerable unused capex for the task but elected not to carry out the additional work.

The fact that the numbers of poles identified as needing replacement/repair in the latter years of the current period is trending down implies that the bulk of the rework on poles has been identified. As is usual in network regulation, SAPN has been able to construct a case based on bottom up assessments of the state of the poles and conductors rather than applying a consistent approach to addressing the need for pole replacement.

In a competitive environment (as all business consumers are exposed to) there is a limit on how much capital can be raised whilst keeping the firm competitive and this sets a limit on what augmentation and replacement capex is available for the firm. In contrast, SAPN is not as exposed to the limits of such capital raisings as it is seen (being a monopoly) as having a secure cash flow underwritten effectively by the people of SA and therefore less constrained on securing capital.

In its response to the SAPN (then ETSA Utilities) 2009 capex proposal for the current period, the ECCSA commented:

> **"Network ageing and capex**
> …
>
> The issue of ageing of network assets is not new and was raised by ETSA in the ESCoSA review in 2004. Despite the arguments put by ETSA in relation to its stated concern that its assets are ageing and approaching the end of their economic life, ETSA underspent its allowances for capex.
>
> This raises questions about ETSA's real concern about this issue."

It is recognised that SAPN did spend more on replacement assets in the current period than the AER allowed in its Final Decision, but it is pertinent to note that in its original 2009 proposal, SAPN sought an allowance of $530m for replacement capex and will still only spend $456m.

This puts into context a view that SAPN has developed an ambit claim for its replacement capex proposal.

2.3 Escalation of costs

In sections 6.2 (wages), 6.3 (materials) and 6.4 (land), the ECCSA has provided its views on escalation of the costs of the capex allowance.

2.4 Capex overall

SAPN has made a claim for a large increase of nearly 60% in its capex for the next period from that actually used in the current period. SAPN also under-ran its allowed capex significantly in the current period despite its concerns about the extensive deterioration of assets it had identified.

Despite there being no real growth in peak demand, SAPN has still sought a nearly 40% increase in augmentation capex.

It proposes to nearly double its capex for replacement even though there has been an increase in the remaining age of the assets under the current level of replacement capex coupled to a reward for underspending the allowed capex and receiving a bonus during the current period for improved reliability.

It also proposes to nearly double its capex for non-network needs mainly driven by a desire to have a new stand alone comprehensive IT platform even though it could leverage off the platforms used by its Victorian based affiliates or continue with its current systems.

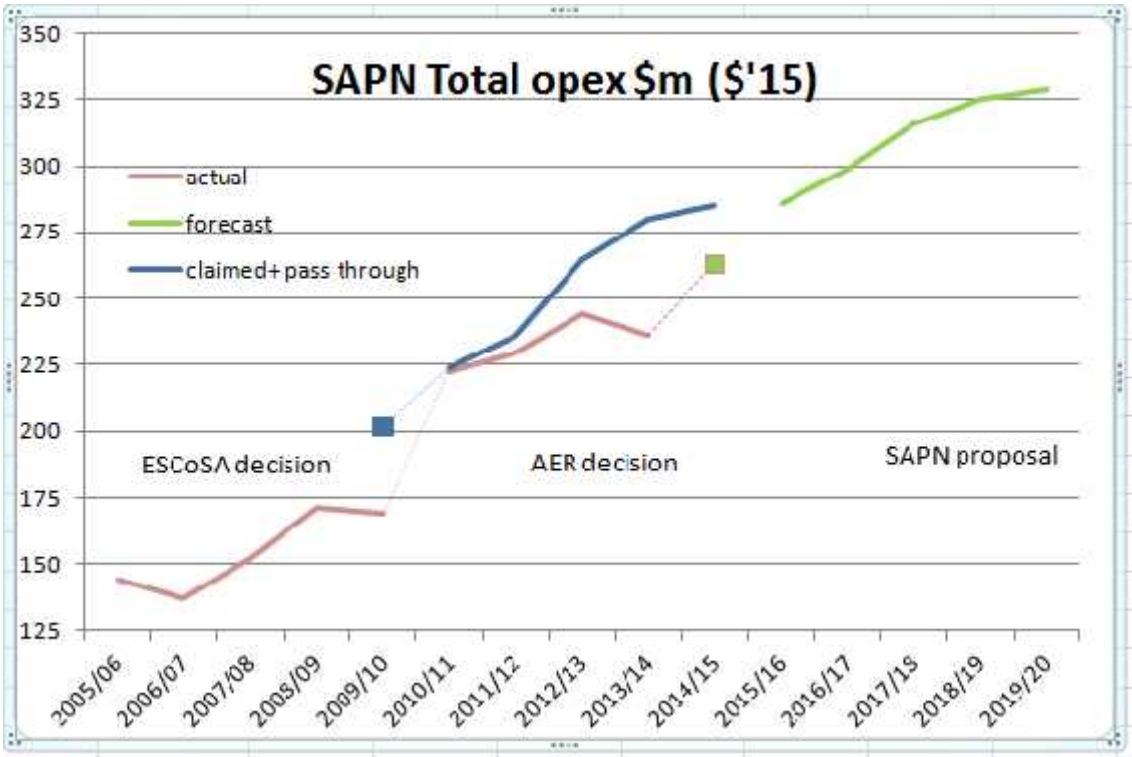
On the basis that it has consumer support and a consumer willingness to pay, it has introduced significant capex for undergrounding for improved road safety and bushfire mitigation coupled with extensive modifications to overhead lines in high bushfire risk zones. Whilst these safety related capex proposals have merit, the ECCSA does not consider that SAPN has proven consumer support for these increased costs, particularly that the beneficiaries of the increased capex do not see the costs of these programs because the costs are socialized over all consumers.

Overall, the ECCSA does not consider that SAPN has proven its need for the massive increase in capex claimed or demonstrated that it is prudent. The

ECCSA also is of the view that SAPN has submitted an ambit claim similar to what it did for the current period during which SAPN in fact spent just over half of what it initially claimed and underspent the allowance it was ultimately provided with by the AER.

3. Forecast Operating Expenditure

The outcome of the SAPN proposal is clearly shown in the following chart which compares the proposed opex to the actual opex in the previous and current periods, along with the initial (2009) opex claim made by SAPN (then ETSA Utilities) for the current period. The step up for years 2012/13, 2013/14 and 2014/15) in the SAPN claimed allowance includes both the adjusted costs in the initial proposal and the additional costs claimed by SAPN for addition vegetation management - a pass through of costs that the AER approved in July 2013.



Source: SAPN application, SAPN economic benchmarking data templates, SAPN application for pass through, SAPN benchmarking RIN 2013/14

Despite the pass through, SAPN indicates on figure 21.1 that its opex closely matches the SAPN allowances for the first four years of the current period, although, the EBSS calculation shows that SAPN under-ran its controllable opex allowance sufficient to generate an EBSS bonus. The step increase in opex forecast for the final year of the current period implies that SAPN might exceed the AER allowance for 2014/15.

The chart could be seen to indicate that the opex for the next period reflects the general trend of opex increases over the past decade, but a little overstated by perhaps 5-10%.

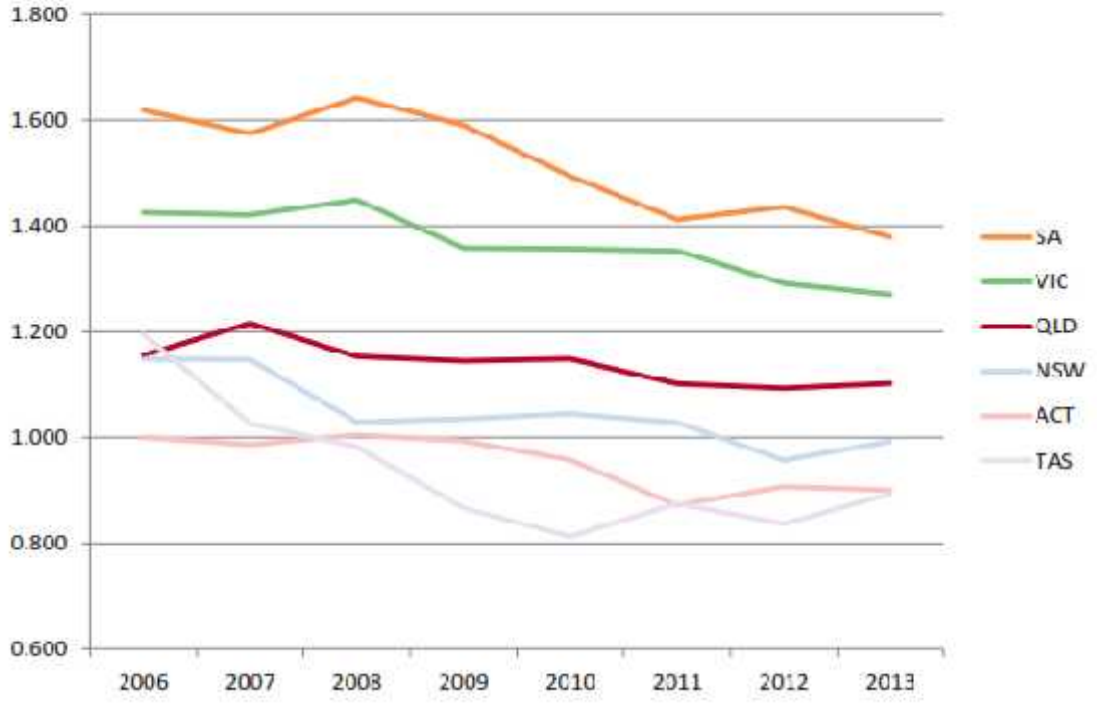
The question then becomes whether the current trends for SAPN opex reflect efficient opex whether it is reasonable to assume that the 2013/14 actual opex

is efficient and therefore can be used as a starting point for the next period opex allowance, and whether the forecast opex can be seen to be efficient overall.[18].

3.1 Efficient opex and benchmarking

The following chart maps SAPN and other networks performance over time.

Figure 1 **State wide multilateral total factor productivity**



Source: AER Electricity distribution network service providers Annual benchmarking report November 2014

This indicates that at a global level, SAPN would appear to be the most productive network in the NEM. The Huegin report provided by SAPN shows similar charts to those developed by the AER and Huegin (in its executive summary) concludes that

> "…SA Power Networks appears to be one of the most productive DNSPs within the National Electricity Market."

However, during the development of the AER guideline, ECCSA affiliate MEU, pointed out that not only is the base assessment an important element of assessing productivity but just as important is the trend of productivity over time. With this in mind, both the AER and Huegin show that SAPN productivity is falling which implies that the most recent performance of SAPN is less

[18] The ECCSA considers that the AER needs not only to assess whether the base year opex is efficient but whether the *forecast opex* is also efficient.

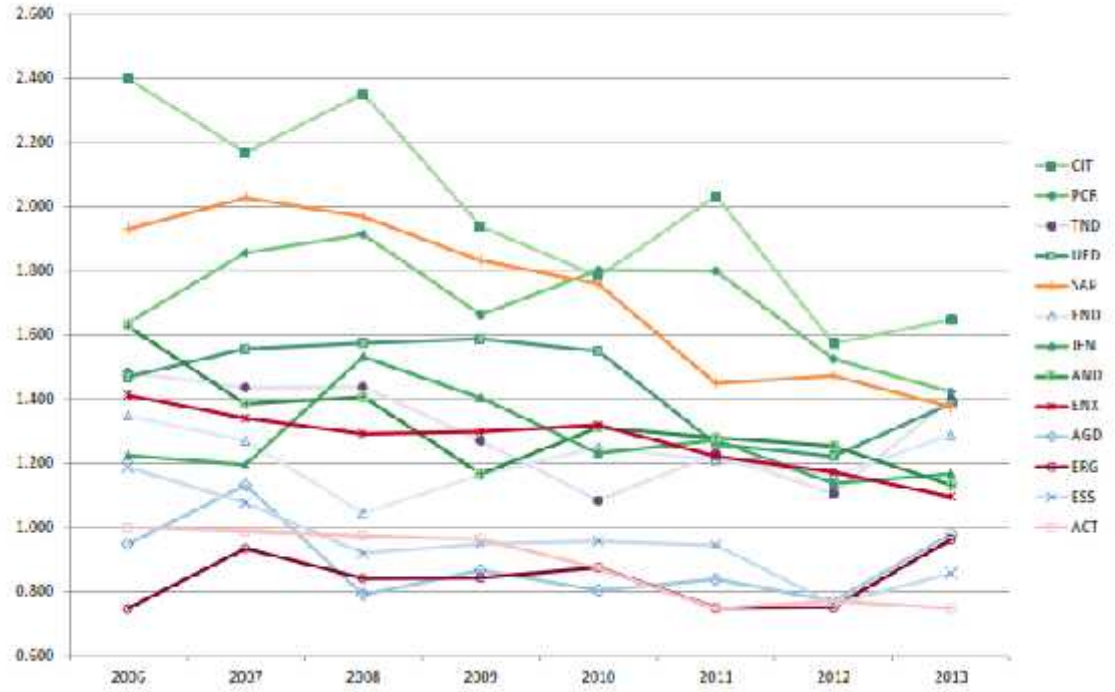
productive than it has been historically. When considering the extent of the loss of productivity over time, it appears its productivity is being lost faster than most other networks. The ECCSA accepts that productivity will fall if there are imposts added to a network's operations that increase costs but do not increase outputs. The ECCSA is unaware of any such imposts that have been added over the current period that would result in this loss of productivity to the extent seen[19].

When comparing SAPN performance to that of other networks it is pertinent to note that:

- Tasmanian networks are well aware of their loss of productivity and have taken major steps to improve on their performance.
- The productivity of Queensland networks over time, whilst lower than SAPN, demonstrates a degree of constancy, implying that the loss of productivity by SAPN could well have been prevented.

The AER benchmarking report has also provided a partial factor productivity comparison addressing just opex.

Figure 10 Partial factor productivity of opex



Source: AER Electricity distribution network service providers Annual benchmarking report November 2014

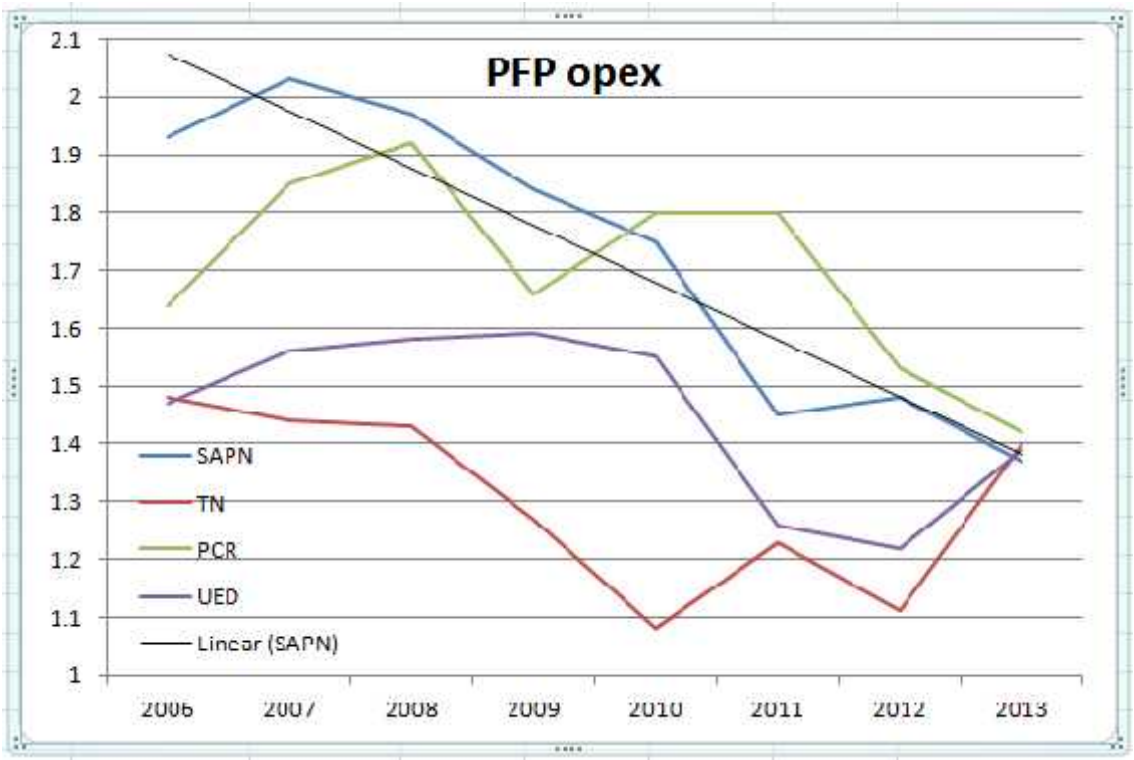
The opex productivity for SAPN is shown to be one where the greatest loss of productivity has occurred - being only behind Citipower in the rate of loss of productivity. Whereas in 2006, SAPN (then ETSA utilities) was second only to

[19] The ECCSA considers that the step changes that have applied to SAPN (see section 3.4 below) would not result in the loss of productivity seen

Citipower in terms of benchmark productivity, by 2013 it has fallen to fourth place, behind Citipower, Powercor, TasNetworks, and United Energy.

Further, while SAPN has shown a consistent loss in opex productivity, many other networks have maintained their opex productivity over time or increased it, albeit at a lower level than SAPN.

The clear import of the benchmarking is that SAPN had much higher productivity in the past and its productivity has fallen considerably over time. This can be seen in the following chart which draws on figure 19 (partial factor productivity of opex) from AER Electricity distribution network service providers Annual Benchmarking Report November 2014. The ECCSA has added in the three other reasonably similar networks (TasNetworks Distribution, Powercor and United Electricity Distribution)[20] which have similar pfp opex in 2013 - SAPN proposed base year.



Source: AER Electricity distribution network service providers Annual benchmarking report November 2014

The SAPN trend line shows that SAPN is losing about 0.1 partial factor productivity (pfp) opex benchmarking points each year; this is in contrast to the other three which all show similar downward trends but at less than half the rate of falling exhibited by SAPN. The most striking year on year change is that of TasNetworks which has increased its pfp opex massively in the last year of benchmarking. Why highlighting TasNetworks performance is so important is

[20] The ECCSA does not include Citipower as Citipower is totally unlike SAPN networks and comparisons might be considered inappropriate

that TasNetworks considers that it has a problem with its productivity and is taking considerable steps to improve it and intends to continue a program of improvement for some years.

The average productivity for the eight years of data for SAPN is 1.73 with the final year (2013) being some 20% below its eight year average. Its 2009-2013 average (against which figure 12 in the same report implies that SAPN is performing well - see section 3.2 below) is 1.58 and the 2013 pfp opex is nearly 15% below the most recent five year average.

As SAPN has assumed that its most recent performance in opex reflects opex efficiency, this assertion is clearly open to debate when seen in light of the loss of SAPN productivity whilst other networks have not done so to the same extent.

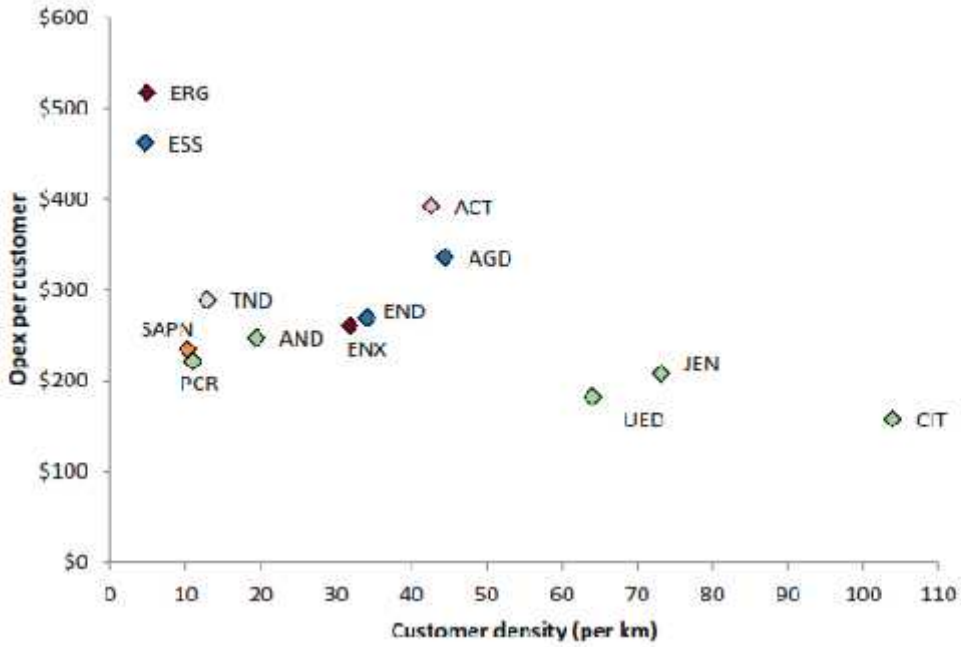
Based on the benchmarking data, it would seem that the SAPN base year opex is not efficient compared to either SAPN's own performance or when compared to others in that SAPN ranking has fallen significantly and its rate of loss of productivity is much higher than other similar networks. On this basis the ECCSA considers that SAPN base year opex might be at least 10% higher than is efficient based on SAPN own performance and the indications from other networks.

3.2 Benchmarking SAPN base year opex and proposed opex

SAPN is of the view that its current opex is efficient. On this basis, SAPN has used its current opex as the starting point for forecasting its opex needs in the next period and added costs that it considers reflect the changes it faces.

However, it would appear that SAPN is not at the efficient frontier as its productivity has been falling quite quickly over the last 8 years and its opex is currently less efficient than Citipower, Powercor, United and Jemena as the following chart from the benchmarking study shows

Figure 12 **Operating expenditure per customer compared to customer density (average 2009–2013)**



Source: AER Electricity distribution network service providers Annual benchmarking report November 2014

The chart highlights that SAPN is not at the efficient frontier so therefore it cannot be assumed that the SAPN selected base year (2013/14) reflects an efficient opex. In addition, it would appear based on the averages and trends that Powercor and perhaps other Victorian DBs are closer to the efficient frontier than SAPN.

However, it is important to note that this chart (figure 12) is based on average opex over the period 2009-2013 and, as seen in section 3.1, SAPN is less productive in recent years than earlier with other DBs improving their productivity (or losing it at a much slower rate) relative to SAPN in recent years. This implies that the current opex of SAPN (ie the opex for the base year) will be less efficient than the assessment based on averages[21] would show. It would appear that, based on this comparison and trends, SAPN current opex productivity is lower than implied by the chart. This reinforces a view that SAPN 2013/14 opex is not efficient as alleged by SAPN. The ECCSA therefore is of the view that the base year opex used by SAPN should not be used as the starting point for assessing an efficient allowance for the next period.

What is perhaps more important than past performance, is what SAPN opex efficiency will be over the next period. SAPN has indicated that its customer numbers will increase at about 0.5% pa. To maintain the current level of opex efficiency as measured in the opex/customer vs customer density efficiency measure, any increase in opex above 0.5% growth will result in the

[21] The ECCSA considers that trends are more important than averages over times as trends show whether performance is improving or deteriorating

opex/customer increasing. At the same time the customer density is likely to remain reasonably constant as SAPN forecasts a small increase in network extension capex to offset the increase in customer numbers. Therefore, unless the growth in opex is the same or less than the growth in customer numbers, SAPN opex will move away from the efficient frontier rather than towards it.

In fact, the average opex (in $'15 and including ACS) for the current period (which reasonably reflects midpoint of the time period of the benchmarking study) is $222m pa and the average of the forecast opex (including ACS) for the next period is $328m pa. This reflects an annual average increase in costs over the five year period of about 8% pa.

The difference between the growth in customer numbers (0.5% pa) and the growth in opex (8% pa) is the degree to which SAPN moves away from its current ranking in productivity. This change would move SAPN from being in the lowest quartile into perhaps the second highest quartile of efficiency.

It is clear that based on benchmarking, SAPN efficiency is reducing and the base year is probably not efficient as proposed by SAPN. Further, the benchmarking demonstrates that the proposed opex will take SAPN opex further away from the efficient frontier.

3.3 Adjustment of the base year opex

SAPN has adjusted its base year opex to exclude a number of items that are effectively "one off" costs that were incurred in the base year that do not carry through into future years. The ECCSA agrees that such adjustments are appropriate but has a concern about the metering reclassification.

The ECCSA accepts that some metering is reclassified into alternative control services (ACS). However, overall the opex including ACS should be used even though the ACS component is included in a separate opex element. What SAPN proposes is that a small amount be removed from the SCS opex but a large amount added to the ACS opex. The ECCSA does not consider that this is appropriate and only what is removed from SCS should be added to ACS.

3.4 Step changes

SAPN has identified four main categories of step changes - legal and regulatory, capital program impacts, customer driven initiatives and financing related.

As a general observation, the ECCSA is concerned that a number of the proposed step changes are not driven by external forces (such as changes in the laws and regulations) but by an SAPN desire to do more work. That is, in

addition to the "must address" changes that impact SAPN activities, SAPN has added a number of "like to" activities as step changes.

A number of the "like to" activities have been driven (as with a number of capex proposals) by an SAPN view that its customers want these additional activities to be carried out and that they are willing to pay for these.

As pointed out in section1.6 above, the ECCSA considers that a number of the SAPN proposed step changes based on a willingness to pay should be very carefully examined.

The ECCSA also asks the question whether SAPN initiated step changes are legitimate step changes, as historically regulators have only ever accepted step changes which are driven by a requirement to comply with a new set of rules and externally imposed and unavoidable requirements. This would imply that unless the increase in cost is driven by a firm requirement (such as from government legislation or a new regulation) then the step change should not be allowed.

With these thoughts in mind, the ECCSA makes the following observations.

3.4.1 Legal and regulatory ($105m increase)

The ECCSA notes that the increased amounts for each of the following elements are drawn from table 21.4 on page 256 of the proposal.

Asset inspections ($42.1m increase). SAPN considers that asset inspections need to increase above the levels provided for by the AER in the current period, particularly in the realm of underground elements of poles and increased frequency in bushfire risk areas. The ECCSA considers that neither of these are step changes driven by legal requirements or regulation but should be considered an SAPN preference. This is not to say that they are not necessary but they are not expressly externally driven.

The bulk of the cost for the asset inspections is to undertake intrusive inspection underground inspections of poles. SAPN proposes to carry out 12,000 underground inspections each year in what were previously "no access" areas. The ECCSA notes that other than the inspection regime implemented in 2012 whereby some 17,000 poles were notified for attention, the "success rate" for pole notification more recently has been well below that 2012 number[22]. This would imply that the "success rate" for notifications is a relatively small amount of poles inspected.

With this in mind, the ECCSA considers that a more cost effective approach would be to carry out type testing of poles in areas only where it

[22] See figures 9 and 10 in attachment 201.15

has previously noted that the "success rate" for pole rectification has been identified as being higher than average. This would limit the amount of underground inspections required where "no access" previously applied. This reflects a view of the ECCSA that although 100% inspection might be preferable when the budget is unlimited, SAPN has to recognise that its opex budget is limited and it needs to use it more effectively.

SAPN advises that its current inspection program (which is included in the base year opex) is (attachment 20.15 page 16) every:

- 5 years in severe and very severe corrosion zones
- 10 years elsewhere

The proposed inspection plan is for every

- 5 years in all medium and high bushfire risk areas
- 5 years in severe and very severe corrosion zones
- 10 years elsewhere

So the increase in inspections only impacts the rate of inspections in medium and high risk bushfire areas compared to the current regime. The ECCSA finds it intriguing that the overall cost seems to have increased by much more than is implied by the proposed change.

It is also important to note that figures 9 and 10 in the attachment 20.15 show that there was a massive increase in defective poles notified in 2012 but since then the notifications of defects have reduced markedly trending back to long term levels with most poles identified as requiring attention being repaired within the same year. This seems to indicate that an increase in inspections might not be warranted on a cost benefit basis.

Workplace and safety ($12.9m increase)

The ECCSA accepts that if the Workplace Health and Safety Act has changed which increases the requirements this is an appropriate reason for the step change. The ECCSA does not have sufficient information to identify whether the increases in cost for each element are reasonable.

However, it is not clear that the proposed enhancements are mandated or reflect SAPN interpretation of the requirements and become a "like to" do rather than being mandated. If there is no mandated change, then SAPN should not be granted an increase in opex.

Energy laws and regulations ($48.6m increase) SAPN considers that the AER requirements for RINs have caused increased costs. The ECCSA does not agree as it considers that the RINs only require SAPN to provide information that it already should have as an experienced network service

provider. SAPN also seeks a one off cost adjustment for its vegetation management scoping study. The ECCSA considers this is an integral part of its responsibilities and does not warrant a step increase (vegetation management is addressed by ECCSA in other sections of this response).

Whilst the ECCSA considers that the new requirement to advise consumers in advance for short power outages is a step change, it queries the cost impost that such a requirement causes. At the most simple level, letters advising outages are computer driven, so the ECCSA sees that it is merely a requirement to change the input settings on the computer program to generate the additional letters. The ECCSA considers the amount sought for the change to be excessive.

In a similar vein, the ECCSA does not consider that the amount sought for addressing the more complex method of calculating customer contributions is justified. Most of the customer contributions are for small connections and the AER approach provides standardized costs for the very reason that it sought to limit costs. In addition, once the customer connection fee formula is formalized within the SAPN system (a once off cost), then subsequent calculations should be reasonably straight forward. It must be recognised that SAPN already has a formula for setting customer connection fees and the AER approach is merely a refinement of the existing approach.

Although not explicitly stated as a step change, ECCSA notes that SAPN is implicitly substantiating is current costs for preparing the information for the resets. The ECCSA has a real and deep concern that regulated networks are spending more and more on substantiating increases in the costs of managing the networks which are then passed onto consumers. The ECCSA does not consider that SAPN should be prevented from excessive spending on regulatory applicactions, however it is of the view that the amount that consumers have to pay should be limited.

As it currently stands, consumers are required to pay ever increasing amounts so that networks can claim increasing costs. Effectively this is consumers paying the networks to enable the networks to claim greater costs from consumers. Unless the AER limits how much networks can claim form consumers to substantiate the networks' claims then the ever increasing costs (and supporting substantiation) for regulatory resets will continue to spiral ever higher.

The major cost claim by SAPN under this category is for the new pricing approach that has recently been determined by AEMC. The ECCSA accepts that there will be a cost to implement the new approach but once established, the ECCSA considers that the costs under the new approach should not be greater than the current approach. The ECCSA considers that this new requirement should be addressed as a single project and not

integrated into the continuing opex. The ECCSA does not consider that the development of the new approach will require ~$34m - the AER should examine the detail of the costings to ensure that the amount is not overstated

By addressing this step change as a single project, the ECCSA sees that this will avoid SAPN integrating the amount as an ongoing cost and being a burden on future users. Alternatively, the ECCSA would accept the project cost being amortized over a longer period.

Environmental management ($1.4m increase). If the changes to the environmental laws occurred subsequent to the base year, then the ECCSA considers there is a step change. However, the proposal does not provide evidence that the changes are subsequent and therefore it is possible that this is not a step change. The claim by SAPN needs to be supported by evidence.

3.4.2 Capital program impacts

During the current period, SAPN over-spent on replacement capex. Under normal circumstances an increase in replacement capex should have resulted in a reduction in opex as newer plant requires less opex than aged plant. However, SAPN has sought an overall increase in opex as a result of its capital program. The capital program should have resulted in a decrease in the base year opex (which has not been seen) and as the expanded replacement capex program was implemented, there should have been a reduction in the opex as old assets were replaced with new. Whilst there is some reduction in opex taking effect in the later years of next period, this benefit is swamped by increases in other areas (the opex uplift) and the benefits are attenuated by an increase under the heading capex/opex trade off.

The ECCSA also notes that at the last reset, SAPN was granted an increase in the telecommunication allowance. Yet again at this reset SAPN is seeking still more for this element of opex.

The ECCSA notes that the increased amounts for each of the following elements are drawn from table 21.5 on page 258 of the proposal.

Information technology ($43.9m increase). SAPN claims that the decision to change its IT platform will not only increase its capex needs (ECCSA comments on this are in section 2.1.7) but also significantly increase its opex as well. This is most concerning.

As a general rule, an increase in capex reflects savings that will be made in other areas. For example, most firms operating in a competitive environment will assess a decision to implement discretionary capex in

terms of the annual savings that will be made in opex. A common "rule of thumb" is that unless the opex saving over a 2-4 year period is more than the amount of capex needed to make this saving, then the capex will not be implemented. In this case, SAPN is increasing both its capex and opex implying that the new IT platform will cause a cost increase in both. This is illogical and raises a deep concern about both the new IT platform proposed but also in SAPN senior management's examination of the proposal in total.

The ECCSA does not consider that the IT proposal should be accepted unless it delivers a reduction in opex. This IT program is a discretionary project and this should not be considered to be a step change.

Mobile radio network ($7.9m increase). The ECCSA does not consider that this is a step change as such as it is a decision by SAPN to migrate from its current approach and not driven by external requirements.

Further, unless such a migration results in a lower overall cost, the ECCSA cannot see that such a decision is prudent.

Carrier costs and licensing ($3m increase). If there are more devices, required then this is a step change. However, if the increase in devices does not increase benefits to consumers, then the ECCSA does not consider that the increase in devices is warranted. SAPN needs to provide details as to what benefits consumers will get from the increase in devices.

The most logical outcome is that the increase in devices will either increase reliability (and then SAPN has to show why the increase in reliability delivers a net benefit to consumers considering consumers are generally "happy" with the current level of reliability) or will reduce costs. As it stands, SAPN does not show where costs are reducing by the introduction of the increased devices.

Telecommunications planning and control ($5.7m increase). SAPN refers to increased volume of work resulting in a need for more staff to ensure efficient operation. The ECCSA comments above on why it considers that opex should reduce if capex is required. The need for additional staff to ensure efficient operation for work that the ECCSA considers is not required is illogical and is therefore not justifiable.

Data quality ($3.9m increase). If the improved data quality is driven by external requirements, then potentially this could be considered to be a step change. If the need is driven from within SAPN, then explanation is required to demonstrate that consumers will benefit for the work and so show that the increase is prudent.

Disconnectors ($2.4m increase). The ECCSA can see that working on live equipment is likely to cost more than on de-energized equipment. However, SAPN should demonstrate where there is a benefit to consumers for working on live equipment in terms of increased reliability. ECCSA is of the view that if reliability does improve, then SAPN will earn a bonus under the STPIS and the ECCSA considers that this is the sort of work that SAPN should carry out from its own resources to generate a bonus - ie a project where there is a net benefit to SAPN resulting from the reward from the STPIS offsetting the cost of implementation.

The ECCSA does not consider that consumers should have to fund increased opex in order that SAPN is able to get a reward from the STPIS.

Condition monitoring and planning ($1.8m increase). The ECCSA does not consider this to be a step change. SAPN has already implemented a condition monitoring and planning program which has been operating satisfactorily for many years. In fact, it must be noted that SAPN was granted an increase for this activity at the last reset, so ECCSA questions why a further increase should be necessary as the costs are already in the base year costs.

Flexible load management ($1m increase). The ECCSA supports the ability of SAPN to identify flexible loads if this results in an ability to defer investment.

Having said this, the ECCSA notes that SAPN has previously deferred investment (and received a benefit from the deferral) and then reintroduced the same capex in the next period so that effectively consumers get no benefit, yet SAPN does. As a result, the ECCSA considers unless SAPN can demonstrate that consumers will actually receive a real benefit, then perhaps the allowance for flexible load management should not be allowed.

3.4.3 Customer driven initiatives

SAPN notes that its consumer engagement has resulted in a number of additional tasks that SAPN asserts are initiatives that consumers not only want SAPN to carry out, but are also prepared to pay for these additional services. ECCSA lists its concerns regarding the CE process undertaken by SAPN in section 1.6 of this review.

Vegetation management ($31.8m increase). SAPN considers it has "a clear mandate" to implement a better approach to vegetation management. SAPN asserts the changes are supported by councils, its arborists reference group and consumer willingness to pay. The ECCSA has previously commented on "willingness to pay" observations and is not convinced that the outcome provides a basis for SAPN to assert it has

consumer agreement. Equally, the ECCSA considers that as the councils and arborists do not pay for the work to be done, then their views should be given scant attention.

The program has a number of features - a two year cycle for inspect and cut (although there is no clarity on what the current practice is as a result of the pass through allowance for increased costs), undertaking removal of inappropriate fast growing or large tress, engaging arborists in how best to trim trees and better communications with councils on what to plant under power lines. The ECCSA does not have a problem with SAPN undertaking all of these activities in principle but does query whether they are step changes as they should have been carried out in the past and there is no external impetus to introduce theses as new initiatives.

In particular, as well as being allowed an increase in vegetation management at the last reset, the ECCSA notes that SAPN was allowed a pass through adjustment to its allowed revenue for the current period; this additional cost is included in the actual opex in the later stages of the current period. The ECCSA also so notes that the current period has included a considerable increase in rainfall (this is what triggered the request for the pass through) and therefore, the current period includes for vegetation management under wetter than normal conditions. As such, it is seen that the current vegetation growth is not representative of average vegetation growth conditions. SAPN asserts that it has received a "mandate" from consumers to incur additional costs for vegetation management. This is questioned, not only because of the general concerns ECCSA has with the willingness to pay substantiation, but in particular whether the consumers SAPN consulted with were made fully aware that they were already paying more for vegetation management than in the past.

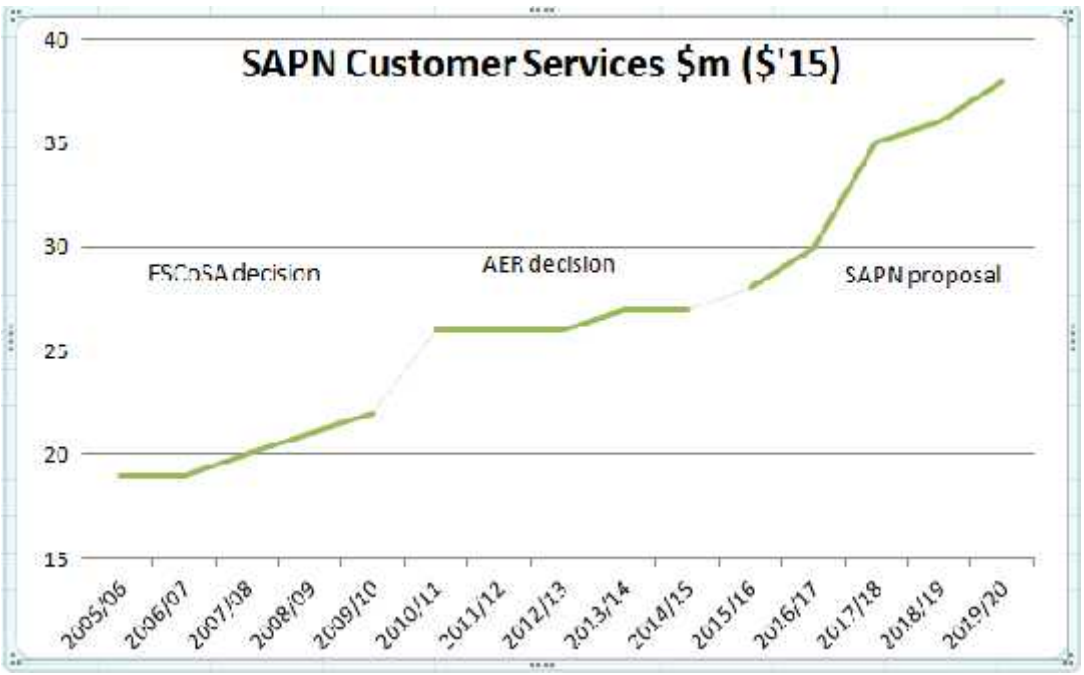
The ECCSA further questions whether under average rainfall conditions, a move to a two year cycle of inspection/cut is warranted. Indeed, the ECCSA questions whether, under the current allowance, SAPN would be expected to remove inappropriate fast growing and large trees if they increased the risk to the power lines. The ECCSA considers that this was always part of the vegetation management requirements. The ECCSA questions whether the cost of removal is really an increase in cost when, after removal, SAPN would be exposed to lesser trimming requirements.

SAPN proposes to seek arboreal advice on how best to trim trees. The ECCSA considers this was always a requirement as SAPN would be expected to work with councils on what trimming they intended to undertake and to seek council involvement in not planting inappropriate trees under power lines.

The ECCSA does not consider that SAPN should be allowed any additional vegetation management costs because:

- SAPN was granted a pass through of additional costs for vegetation management which exceed the costs expected under average rainfall conditions
- SAPN should have already addressed the additionally proposed work under its current allowance as these are features of good practice by an experienced distribution network provider.

Customer services ($4.3 increase). SAPN already was granted increased allowance at the last reset and is seeking still more. SAPN already spends considerably on customer service as the following chart shows



Source: SAPN application,

Despite already having a considerable allowance for this activity, SAPN seeks additional funding to provide better customer education on who SAPN is and what it does, an implementation of an advertising campaign and to introduce a customer service team.

The ECCSA observes that provision of all of these activities is what is expected to be provided by a service organization. The ECCSA does not consider that the decision to provide them is a step change, rather, that consumers have always been entitled to receive these services and if SAPN did not do so, then it was not responding as would be expected

from a commercially aware organization and a competent provider of network services.

The ECCSA does not believe that SAPN should be granted an additional allowance to provide consumers with information SAPN should already be providing under the amount of funding they already have.

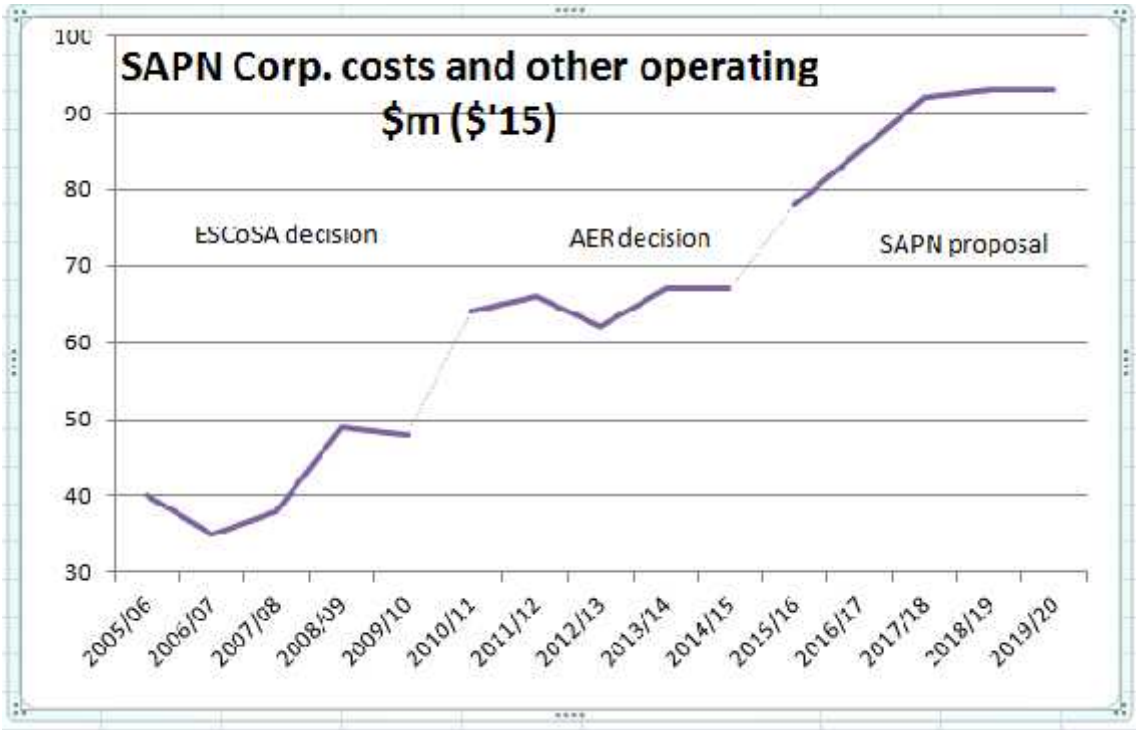
Community safety ($5.4m increase). The ECCSA considers that the increased awareness programs are valuable but questions whether these media campaigns are the responsibility of SAPN or of government. The ECCSA considers that they should be provided by government as they impact on a wider section of the community than electricity consumers. The ECCSA considers it is not electricity consumers that should be responsible for alerting other sections of the community of the risks they are exposed to.

3.4.4 Financing expenditures

SAPN claims an increase in the cost of its insurance and a reduction in superannuation provisions. The ECCSA expects that the AER will carry out due diligence on these two aspects of the opex.

3.5 Corporate overheads

Whilst not explained explicitly, SAPN is seeking an increase in corporate costs and other operating costs



Source: SAPN application,

This shows that SAPN costs in this expenditure category increased by some 55% under the current period costs and SAPN seeks another 35% increase for the next period.

ECCSA members have advised that one of the areas that needs constant attention is cost controlling in corporate overheads. One key observation is that corporate costs should reduce as a percentage of an organization's overall expenditure as the organization grows. This is typified by the fact that SAPN costs during the current period remained relatively constant whilst total opex grew by nearly 20%.

ECCSA members also comment that corporate overheads of over 25% is excessive when seen in context of overheads seen when a firm is subject to competition.

The ECCSA considers that corporate costs should be reflecting more constancy over time rather than requiring step increases at each reset.

3.6 Alternative control services

SAPN has sought an increase in its alternative control services (ACS). Some of this is warranted as there has been a transfer of some functions from standard control services (SCS) to alternative control services.

The ECCSA is concerned that the increase in ACS should be reflective of the equivalent reduction in SCS but this is not apparent.

3.7 Escalation of costs and productivity

SAPN has sought to increase its opex allowances for forecast changes in the cost of labour, materials, land and growth.

In sections 6.2 (wages), 6.3 (materials), 6.4 (land) and 6.5 (growth), the ECCSA has provided its views on escalation of the costs of the opex allowance.

What is not apparent is that there is an expectation that SAPN (like every other commercial activity of which ECCSA members are included) have to reduce their costs in real terms in order to remain in business. The ECCSA recognises that SAPN is a monopoly service provider and therefore is not exposed to the rigors of exposure to competition - it is the responsibility of the AER to impose this rigour through regulation.

It is clear that regulated networks do not consider that their allowances should be reduced for productivity improvements. In the event that the AER does

impose such cost reductions, networks consider they should be introduced over a long period so that the networks have the ability to implement change to allow the cost reductions to be accommodated.

The ECCSA differs on this. The pressures of competition have recently been seen in some very high profile instances. The massive reductions in the price or iron ore and the price of oil have occurred over only a few months. The cost cutting responses from the industries affected have been massive and very quickly implemented. This is obvious from the reactions of such capital intensive firms like BHP and Rio Tinto (iron ore market) and Santos and others (oil and gas markets).

The ECCSA does not consider that if firms in competition have to respond quickly and to such large changes in their markets, that SAPN (and other regulated networks) should not face similar pressures. In the case of regulated monopolies, it is not the market that causes the price of their products to "tank" but a requirement of the regulator for the networks to operate efficiently.

The ECCSA considers that the AER needs to impose the productivity improvements on SAPN that are obvious from their less than stellar recent performance. These productivity improvements need to be imposed immediately and not phased in over a period of time. It must be recognised that consumers have been funding poor performance for an extended period and this needs to stop now.

3.8 Opex overall

SAPN has made a claim for a large increase of nearly 40% in its opex for the next period from that actually used in the current period. SAPN also under-ran its allowed opex to the extent that it has generated a modest bonus from the efficiency benefit sharing scheme (EBSS) indicating that it has used less controllable opex than it was allowed.

The largest element of the increase in opex sought is for step changes. The ECCSA has provided a view that the bulk of these step changes is not driven by external factors and should not be allowed to be added to the opex.

The other aspect of the opex claimed, is the validity of the base year opex. The ECCSA considers that the base year opex is not efficient and should be reduced to deliver the efficient opex that consumers should only be required to pay for.

As seen in section 6, the ECCSA is concerned that SAPN has used an increase in employee numbers as a growth factor. The ECCSA considers that to use employee numbers as an input indicator of growth will embed the low productivity being seen in SAPN performance.

Overall, the ECCSA considers that there is little valid reason to increase the opex above current levels and every reason to have a view that the current opex is overstated and not efficient.

4. Incentive schemes and service performance targets

4.1 Overview

Under the new incentive scheme regime, SAPN will be exposed to incentives on usage of capital (capital expenditure sharing scheme - CESS), on usage of opex (the continuing efficiency benefit sharing scheme - EBSS), on reliability (the continuing service target performance incentive scheme - STPIS - although not to the GSL element of the STPIS) and the demand management incentive scheme (DMIS).

SAPN is also exposed to a service level incentive scheme established by ESCoSA.

The revised schemes developed by the AER as part of the Better Regulation program are a little varied from the schemes that applied previously. Specifically the schemes are now crafted so that the power of the incentive for each element should be as strong as the incentive for the others. The reasoning for this is that, in theory, a network is not incentivised to improve performance in one element to the detriment of others and by doing so achieve an enhanced bonus. The ECCSA is not convinced that the current structures of the schemes will necessary result in equity between schemes but believes that what is proposed is better than what existed before.

The ECCSA support for this combination of schemes is predicated on all of the allowances for opex and capex being set at the efficient frontier. The ECCSA is well aware that if excess amounts are allowed for opex and capex, this will bias the balance of the incentives.

For example, if excessive replacement capex is provided in the reset process then an increase in reliability should automatically result as old equipment (which is more prone to failure) is replaced with new equipment which should be more reliable. Increased reliability will generate a STPIS bonus. Additionally, this new equipment should lead to a reduction in opex, resulting in an EBSS bonus.

This simple example highlights the need for ensuring the allowances for opex and capex have to be assessed in light of the incentives being provided.

4.1 CESS

The CESS is currently untested in practice yet SAPN has accepted that it should apply as defined in the AER guideline.

The ECCSA supports this.

4.2 EBSS

The EBSS is a proven scheme and SAPN has identified that it is entitled to a reward under the EBSS. However, SAPN considers that the scheme should be adjusted to exclude uncontrollable costs and identifies those that should be excluded when calculating the carried forward bonus/penalty.

Under the scheme applying to the current period, the EBSS is to be adjusted by removing uncontrollable costs. This is what SAPN has done in its assessment of the EBSS carry forward amounts into the next period.

Table 23.4 would appear to include the EBSS adjustment categories that have been previously used by the AER to adjust the EBSS calculation. SAPN has also suggested that two other categories be added to this list:

- GSL payments for major event days
- Regulatory compliance costs

The argument proposed by SAPN for including the GSL payments appears to be based on the difference between the way the Major Event Days are assessed between the ESCoSA approach (on which the GSL impact is based) to the way the Major Event Days are assessed under the AER's STPIS which is not applied to SAPN. Presumably SAPN considers that the differences would impact on the power of the incentive and therefore favorably bias the outcome.

The ECCSA considers that, from a consumer viewpoint, whether the loss of supply occurred on a Major Event Day or on any other day, the impact to the consumer is likely to be much the same. Consumers consider they are paying for a service and if that service fails, then the provider should be penalized as would apply in any other supplier arrangement. They then question whether SAPN should be exempted from any penalty, regardless of the cause.

The arrangement for the current period included for an allowance in the opex for the GSL payments being based on the ESCoSA approach to assessment of reliability. The ECCSA does not consider that there should be any adjustment in the EBSS opex to reflect that SAPN experienced more major event days in the current period than it expected when it assessed the opex allowance for the GSL payments.

The ECCSA also notes that this interpretation is consistent with the new approach to EBSS where uncontrollable costs are no longer excluded from the EBSS.

SAPN also considers that the impact of the new regulatory requirements for providing RINs on expenditure should be excluded from the EBSS calculation. Again the ECCSA is of the view that this is not a reason for excluding the cost from the EBSS calculation. During a regulatory period, a network is required to

comply with changes to laws and regulations within the regulatory allowance. The only exceptions to this are where the change is covered by a pass through event and if the cost exceeds a materiality threshold. This change in regulation does not exceed the materiality threshold and is therefore to be covered within the opex allowance.

The ECCSA does not consider either of these exceptions should be deducted from the opex for calculating the EBSS.

The ECCSA notes that SAPN has sought an adjustment for variation in the feed-in tariffs imposed on it by the SA government. The ECCSA considers this is a reasonable adjustment.

As noted above, the EBSS to be applied as a result of the Better Regulation program excludes any adjustments for uncontrollable opex. Despite this SAPN seeks to retain the same exclusions as currently apply and to add the Major Event Day adjustment claimed for the current period.

The ECCSA does not agree with this SAPN proposal. The decision in the Better Regulation program to not allow any exclusions for the EBSS reflects a balance of incentives across capex, opex and STPIS. To vary one element of an incentive will result in a change in the balancing of all the incentives and change the dynamic of the incentive program.

4.3 STPIS

SAPN observes that the reliability element of the STPIS needs to be adjusted to reflect the national approach to setting the STPIS targets as the current targets exclude some of the Major Event Day aspects that are part of the national scheme.

The ECCSA is unsure as to whether this is necessary but does consider that there must be consistency between the measurement of the targets and the application to the measurement of the actual performance.

However, the ECCSA is more concerned with the way the STPIS is constructed. The basis of the STPIS is that if SAPN exceeds the average of the previous 4-5 years of actual performance, then SAPN earns a bonus. What this assessment excludes is that achievement of reliability comes from a number of sources - the amount of capex allowed (especially where such capex has an immediate impact on reliability).

As the previous actual performance of reliability was achieved with opex and capex actually used in the past, then to ensure comparability with previous reliability performance, similar amounts of opex and capex should be allowed. If larger amounts of opex and capex are allowed (especially replacement capex) then there would be an expectation that reliability achievement would be

enhanced. Effectively consumers would be providing the resources as part of opex and capex for the out performance of the reliability measures and therefore the generation of a reward for SAPN.

This means that if historic reliability performance is to be the target for future performance, the AER must ensure that the allowances for opex and capex for the future are consistent with the allowances that generated this historic past reliability performance.

As SAPN has sought considerable increases in opex and capex - well above the historic actual amounts needed to generate the historic reliability performance - then there is an expectation that reliability will naturally increase. If the AER allows the opex and capex claims by SAPN, then it must increase the reliability targets above the historic performance.

SAPN considers that in addition to including the previous exclusion to the STPIS (which is not part of the new STPIS arrangement) it needs the inclusion of a further exemption - that of the "catastrophic event day".

SAPN goes on to state that if the AER does not allow for a catastrophic event day within the STPIS set for the next period, there should be the ability of SAPN to introduce such an additional exclusion at a later time.

The ECCSA considers that both of these are attempts to reduce the efficiency of the STPIS and to make it easier for SAPN to earn a STPIS bonus in the future. The AER has made it clear that it views the suite of efficiency schemes (particularly the CESS, EBSS and STPIS) are all complementary. Therefore if one element is changed, then this alters the strong relationship that the AER recognised between the when it assessed the three schemes during the Better Regulation program.

SAPN seeks that the telephone grade of service (GoS) should be adjusted to exclude Major Event Days. The ECCSA disagrees and considers that the entire STPIS needs to be internally consistent.

4.4 DMIS

The ECCSA notes that the AER proposes to extend the DMIS (and the associated allowance of $0.6m pa) in the next period.

In principle, the ECCSA does not disagree with the DMIS being extended but it does consider that greater control is required to ensure that benefits of the DMIS exceed the cost to consumers. Further, the ECCSA considers that close attention is required to ensure that the work carried out by SAPN has not been assessed by other DNSPs - the ECCSA is concerned that by the AER not closely assessing the DMIS activities along with those of other DNSPs, there is a potential for significant duplication.

5. Cost of capital and allowed revenue

5.1 About the weighted average cost of capital (WACC)

There has been considerable disquiet about the regulatory framework for networks which saw massive increases in the cost of providing network services. As a result, there were a number of rule changes proposed to address what was seen as a biased outcome favoring network service providers. Indeed, there were significant changes made to the rules and which provided the regulator with greater discretionary powers. Contemporaneous with the rule change process, the energy Laws were also changed to moderate the ability of network owners to appeal AER regulatory decisions.

It was during this period that the Chair of the AEMC, Mr John Pierce, is reported as stating[23]:

> "You've got to have the right rate of return. The first question is, what's the minimum rate of return necessary to attract funding so people will invest in the sector. Secondly, we want people to operate efficiently so what we need is an efficient benchmark rate of return… we want them to try and beat it so the shareholders get the benefit of it, so that next time around it can be shared with customers.
>
> "But if they don't … then you also want the shareholders to suffer … if I'm inefficient, I want the shareholders to carry that risk, not customers."

The ECCSA supports this view.

Over the period from late 2012 to the end of 2013, the AER devoted considerable resources to developing a rate of return (weighed average cost of capital - WACC) that reflected this view provided by Mr Pierce. As part of the process undertaken by the AER, consumers and network firms provided a great deal of input into the AER process. The outcome was not one which either consumers or network firms agreed met the needs of each party. Despite this, the ECCSA considers the outcome is better than the previous approach used by the AER, the ACCC and the jurisdictional regulators.

In particular,

- The network firms considered that the approach to the development of the return on equity resulted in a lower outcome than they considered

[23] "High power rates: it's a poles and wires story", SMH June 12, 2012

necessary[24]. Despite the concerns expressed, the network firms were not able to explain why, if they were getting a lower return on equity than was considered appropriate, there was still a drive from potential acquirers of network assets to want to invest in the assets and even pay a premium to the regulated asset base.

- Consumers have noted that the market parameters (equity beta and market risk premium) have been conservatively set by the AER on the "high side" of what the market indicates are the realistic values for these, thereby providing a benefit to the networks. This conservatism provides networks with an unearned benefit.

- Consumers considered that the previous approach to return on debt did not reflect the actual costs of debt that the network firms were seen to achieve. Further, even when the networks do secure lower cost debt than allowed by the AER, this benefit is retained by the networks and is not passed onto consumers "next time around" as implied by the observation of Mr Pierce.

The amount of time and effort dedicated to getting a better approach to the WACC calculation by the AER, consumers and networks should have resulted in a large degree of acceptance of the outcome. Yet this is not the case. Consumers have consistently seen network firms argue that the AER guideline on the WACC development is flawed and want an outcome that is more attractive to the network owners. This desire for acquisition of network assets **at a premium to the value of the assets[25]** reflects a view by investors that the rewards from ownership are greater than implied by the network firms even with the flaws identified in the regulatory framework by them.

The purpose of the AER in devoting considerable effort to getting stakeholder input was to reduce the uncertainty about how the AER would address the issue of setting a regulatory rate of return. What is now apparent is that the networks consider that the AER guideline on rate of return is merely a starting point for seeking better outcomes for the networks.

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[24] It is obvious that the recent low yields for 10 year CGS (used as the risk free rate) has raised concerns with all network owners as they provide considerable evidence that a long term 10 year CGS has a much higher value (by some 250-300 bp) than the current levels experienced. As a result some network owners have argued that either the long term average 10 year CGS should be used as the basis for the CAPM calculation, or that higher levels of market risk premium should be used to accommodate what they consider to be a disparity in the calculations for the equity and debt components of the WACC that arises from a low risk free rate

[25] For example, the recent acquisition by CKI for the Envestra assets values Envestra at a premium of 50% over the regulated asset base (RAB) and the acquisition of a holding in DUET by Spark Infrastructure values DUET at over a 30% premium to the RAB. It is important to note that these acquisitions occurred after the fall in the demand for electricity and gas which in other markets might have implied a lower premium was warranted.

As a general premise, the ECCSA accepts that the AER rate of return guideline was developed as a package and sought to balance competing elements to provide an equitable outcome. On this basis, the ECCSA accepts that the guideline should be implemented in its entirety and imposed on SAPN. Failing this, then all aspects should be opened for re-assessment.

5.2 The WACC for SAPN

SAPN generally accepts the AER guideline except for two key areas. In its application, SAPN observes (page 303):

> "The combined effect of giving the SL-CAPM pre-eminent weight in a historically low risk free rate environment and the downgrading of the equity beta is to significantly reduce our allowed rate of return on equity compared with past allowed rates of return. … Now is not the time to be reducing risk adjusted returns because there is a real risk that if the return on equity is substantially reduced, insufficient investment incentives will exist affecting the level of financial resilience and service that customers expect from their electricity distributor … The Rate of Return Guideline proposes a new 'conceptual framework' for gamma which we consider to be ill conceived. SA Power Networks does not consider that there is any reason for a change to the 0.25 estimate that applied previously and consequently that is the estimate used in this Proposal."

SAPN observes that the AER approach to setting the cost of debt does meet with its approval subject to a few "tweaks" which result in an increase in the allowance. SAPN also accepts other parts of the AER guideline on rate of return.

However, the outcome of the SAPN adjustments is to effectively reject the WACC outcome that would be derived from the application of the AER guideline. This clearly shows that SAPN is seeking to enhance the returns that it provides to its shareholder.

This is concerning as the AER guideline was completed late in 2013 (and with it were published contemporaneous parameters) and it would be expected that the parameters the AER developed with its guideline would still be valid. SAPN does not accept that this is the case, especially with regard to the return on equity parameters. Analysis of the changes SAPN proposes highlights the bias in the WACC outcome:

- **Gearing**. SAPN accepts the AER guideline on gearing which considers that a network would have 60% debt and 40% equity. In fact SAPN has

66% debt and 34% equity[26]. The acceptance of the AER guideline provides SAPN with a significant benefit.

- **Credit rating**. SAPN considers that the credit rating to be used should be BBB yet the AER guideline stipulates that the benchmark credit rating is BBB+. The current credit rating of SAPN is A-[27]. The decision not to use the AER guideline credit rating of BBB+ and use BBB provides a benefit to SAPN, which is increased further because SAPN has a credit rating higher than the AER benchmark. Acceptance of the AER guideline still provides SAPN with a significant benefit

- **Debt raising costs.** SAPN proposes that there be a 30 bp premium added to the identified cost of debt due to a perceived mismatch between the costs of raising new debt compared to the secondary market estimates of the cost of debt which is proposed in the AER guideline. The ECCSA disagrees with this premium as it presupposes that the identified cost of debt deduced from the secondary corporate bond market reflects the efficient level of the cost of debt incurred by a network.

  When the AER identified that it would use the secondary corporate bond market in Australia as the basis for assessing the efficient cost of debt, it addressed the cost of debt on a holistic basis recognising that the Australian corporate bond market (even after allowing for exchange rate risk) exhibited higher prices than were seen in the international bond market. It also recognised that sourcing debt from the bond market was not the only source of debt that is acquired in a debt portfolio and that other sources of debt were available at lower costs. This means that the approach used in the AER guideline is seen as providing debt at a cost above the efficient cost of debt. This conservatism provides a benefit to networks.

  On this basis the MEU considers that the AER should not increase the allowance for the cost of acquiring debt above the actual rates used by the AER in the past.

[26] See Spark Infrastructure 2013 financial statement note 7b available at http://spark2013.annual-report.com.au/annual-report-2013/financial-report/notes-financial-statements/notes-6-20

[27] See Spark presentation 18 November 2014 page 6 available at http://imagesignal.commsec.com.au/docserver/01574363.pdf?fileid=01574363&datedir=20141114&edt=MjAxNC0xMS0yMCsxNzo0ODozNCsxMjArMCtjb21zZWMrcmVkaXJlY3QrL2ltYWdlc2lnbmFsL2Vycm9ycGFnZXMvUERGVGltZW91dC5odG1sKy9pbWFnZXNpZ25hbC9lcnJvcnBhZ2VzL3BkZmRlbGF5ZWQuanNw

5.2.1 The basis of the SAPN conclusion for varying from the AER guidelines, are:

SAPN has sought expert opinion from consultant SFG to provide its views particularly on the return on equity and gamma. It would appear that the SFG reports are essentially a refutation of the AER conclusions drawn during the Better Regulation program on these two aspects and that many of the arguments provided by SFG have already been debated in the development of the guideline. It appears to ECCSA that little new empirical information has been provided clearly demonstrating that the AER has erred. The ECCSA considers that the AER needs to ensure that if new information has been provided, it should review this to assess whether it might vary the AER conclusions made during the Better Regulation process. The ECCSA considers this unlikely as so little time has passed since the AER guideline was developed.

However, the ECCSA does make some comments that the AER should take into consideration:

1. The ECCSA is aware that the AER's Consumer Challenge Panel (CCP) has provided a paper to the AER Board highlighting that in addition to assessing the merits and demerits of the theoretical arguments provided by networks seeking to increase their costs of capital, the AER needs to pay close attention to what is seen in the "real world" where firms compete fiercely to maximise their returns to their shareholders but moderate their prices in order to retain market share. This moderating influence is totally absent from the claims made by networks which (being monopolies) do not need to moderate their claims as they are not subject to the pressures of competition.

   The CCP report urges the AER to benchmark the claims of the networks against rewards actually seen in the competitive market and the ECCSA agrees with the CCP on this important issue.

2. The approach used by the AER in its guideline has been essentially used by regulators (state based and national) since the commencement of regulation of energy networks. What is most important in this regard is that all of the networks have consistently continued, not only in operation for nearly 20 years of regulatory control, but have prospered considerably.

   That the networks have not fallen into financial disrepute (as alleged by SAPN they might if they are not awarded a much higher return on equity than the AER guideline might deliver) gives a very clear indication that the approach proposed by the AER guideline will provide adequate remuneration for network

shareholders. In this regard it is pertinent to note that the 49% shareholder of SAPN (Spark Infrastructure) in a recent presentation[28] highlighted the AER return on equity parameter settings from the Better Regulation program, thereby implying to existing and potential investors that this would not significantly harm the revenues that Spark expected.

It is clear that even subsequent to the AER issuing its guideline, networks have been bought and sold at significant premiums to the regulatory asset base. The clear implication of this is that purchasers of network assets do not consider that the returns generated by the AER guideline have dampened their enthusiasm for acquiring regulated networks, even if the guideline implies that allowances for returns on equity might be lower than previously achieved.

In this regard, it is also pertinent that despite the AER guideline on gamma, overseas investors have continued to be keen to invest in Australian energy networks even though they would not be able to benefit from dividend imputation. This clearly shows that the arguments proposed by the networks that greater allowances for the supposed loss of dividend imputation benefits have little bearing on overseas investors and therefore the need to increase the revenue for the supposed loss is more about rent seeking rather than a real concern.

It is clear that the market evidence does not support the theoretical arguments propounded by SFG for a need to increase revenues above the allowances that the AER guideline would deliver.

5.2.2 Cost of equity modelling.

SAPN rejects the AER approach to developing the cost of equity and nominates the return on equity recommend by its consultant SFG.

Implicitly, the cost of equity using the AER guideline would result in a cost of equity allowance of about 8%[29]. In their assessment of the S-L CAPM (the AER foundation model approach). SFG recommends to SAPN that the equity beta should be 0.82 and the market risk premium 7.72% -

[28] Spark Infrastructure Asia Investor Presentation 18-24 November 2014 available at http://imagesignal.commsec.com.au/docserver/01574363.pdf?fileid=01574363&datedir=20141114&edt=MjAxNC0xMS0yMCsxNzo0ODozNCsxMjArMCtjb21zZWMrcmVkaXJlY3QrL2ltYWdlc2lnbmFsL2Vycm9ycGFnZXMvUERGVGltZW91dC5odG1sKy9pbWFnZXNpZ25hbC9lcnJvcnBhZ2VzL3BkZmRlbGF5ZWQuanNw

[29] Based on the risk free rate used by SAPN coupled to the equity beta of 0.7 and market risk premium of 6.50% deduced by the AER from their 2013 assessment carried out during development of the guideline

these parameters are well in excess of the AER assessments.

In contrast to the 8% assessed using the AER guideline and AER assessed values for market risk premium and equity beta, SAPN seeks a return on equity of 10.45% being a weighted average of the return on equity from four different models used by SAPN consultant SFG. SFG recommends to SAPN that rather than following the foundation model approach used in the AER guideline, the foundation model (S-L CAPM) is given a 12.5% weighting with the Fama French model given 37.5% weighting and the Black CAPM and Dividend Growth model each having 25% weighting.

Whilst the approach used by SFG to develop a weighting for the different methods for setting the return on equity is explained, when assessed in detail there is little information provided as to the underlying strengths and weaknesses of the different models other than SFG's views at a macro level. SFG does comment that the outcome of its weighting approach delivers a similar outcome as giving equal weighting to the four different models, so on this basis, there is an implicit recognition that all could be considered to have equal merit.

What is intriguing is that SFG provides the least weight to the model most commonly used in the financial advice sector and by most regulators worldwide. This weighting approach also ignores the fact that the S-L CAPM has been used in the energy regulation process in Australia for over 15 years and has allowed network owners to buy and sell networks at premiums well in excess of the regulatory asset base[30]. This provides market evidence that the S-L CAPM is well proven to provide outcomes that are realistic.

Based on the AER detailed assessments of the various models and the conclusions reached during the Better Regulation program, and the market evidence that the S-L CAPM has delivered appropriate outcomes in the past, ECCSA considers there is no reason for the AER to vary from its guideline.

5.2.3 Equity beta

The final decision by the AER on the rate of return guideline calculates an equity beta of 0.7 to be used based on evidence available to it at the time. The range of equity beta values assessed by the AER was that it lay between 0.4 and 0.7; thus the decision of the AER sets a value at the

[30] See for example the assessment of the value for Envestra carried out by Grant Samuel for APA Group "Grant Samuel & Associates Pty Ltd, Financial Services Guide and Independent Expert's Report to the Independent Board Sub-committee in relation to the Proposal by APA Group, 3 March 2014".

very top of the credible range

Subsequent to the final decision on the guideline, AER consultant Prof. Henry provided his assessment of the value for equity beta. His advice was that the value lies between 0.3 and 0.8 with an average from the individual firms of 0.5223 and a median value of 0.3285. This work by Prof. Henry is primarily focused on the actual equity betas of the network firms operating in Australia and therefore this provides a clear view of what the values are under Australian conditions. This is particularly important as the AER had elected to use the high end value for equity beta, partly based on a view that equity betas from overseas gas transportation firms implies a higher value for this parameter than occurs in Australia.

The ECCSA notes that its affiliate MEU had previously provided a view that the average of the range for equity beta should be used - a view that the AER rejected. The new information from Prof. Henry provides a view that the range of values for the equity beta is wider than that used by the AER in the guideline development. From this, we see that there is a clear indication in the report that the benchmark efficient entity would have its equity beta closer to the median value than the average value. A median value identifies the most common value for equity beta for Australian networks recognising the uniqueness of the Australian energy market and its regulatory environment.

The ECCSA considers that the work carried out by Prof Henry is more relevant and contemporaneous than the assessments made by the AER in the guideline development and should lead the AER to use a lower equity beta than 0.7.

The ECCSA notes that SAPN's advisers have effectively inferred a value for equity beta to be used in the S-LCAPM rather than assess a specific value for it on its merits. The ECCSA does not consider that this approach provides sufficient justification to vary the AER guideline approach as the arguments provided by the SAPN advisers are essentially those provided during the Better Regulation process. The fact that the approach used to substantiate the SAPN return on equity returns provides a higher value for equity beta than what has been seen from the market, supports a view that the SAPN approach to assessing a return on equity is flawed

5.2.4 Corporate bond rate

SAPN proposes that the cost of debt be assessed on a corporate bond series rated BBB from the RBA and Bloomberg and implementing the transition to the full 10 year trailing average approach included in the AER

guideline.

In its assessment of which series should be used, the AER points out that both of the series under review (that of the RBA and of Bloomberg) exhibit shortcomings to the criteria the AER has identified for assessing the cost of debt for a benchmark entity based on corporate bonds. Specifically, the RBA currently only publishes data from the last day of the month requiring interpolation to generate a daily series and Bloomberg only publishes data for 7 year bonds, requiring extrapolation. Both require interpolation to identify a data series for BBB+ rated bonds. Interpolation and extrapolation both introduce the likelihood for error.

It was with this in mind that during the Better Regulation program the MEU recommended that the AER/ACCC should develop its own series to replicate what the cost of debt is for a pure play energy network. An AER/ACCC series could be tailored so that one of the main criticisms of using corporate bonds to set the cost of debt[31].

Accepting that the AER has not commenced developing its own data series, for this review, external data providers must be used and the data extrapolated/interpolated to derive the cost of debt. The ECCSA considers that both sets of data should be used and averaged as recommended by the Competition Tribunal and as proposed by SAPN.

5.2.5 Value of imputation credits

SAPN has sought for the value of imputation credits (gamma) to remain at the level set by the Competition Tribunal - ie at 0.25, reflecting a payout ratio of 0.7 and a utilisation rate of 0.35. In the Better Regulation program, the AER carried out further investigation and concluded that gamma should be set at 0.5 essentially reflecting a payout ratio of 0.7 (as previously used by the AER and the Competition Tribunal) and a utilisation rate of 0.7.

In contrast, a utilisation rate of notionally 0.35 was accepted by the Competition Tribunal as an appropriate estimate based on the information then provided to it. However, the AER assessment supersedes the ACT examination and is therefore more contemporary and pertinent to this review

The SFG report on which SAPN bases its decision that gamma should be 0.25, tends to be a criticism of the AER approach outlined in its guideline and seems to regurgitate the arguments provided during the development

[31] That even for firms with the same credit rating, the cost of debt varies with the core business of the firm and that regulated energy networks can acquire debt at a lower cost than other firms with less secure cash flows

of the guideline.

On this basis, the ECCSA considers that no new evidence has been provided to change the AER conclusions in relation to gamma

5.2.6 Conclusions

The ECCSA considers that assessing each of the various parameters implicit in the rate of return in isolation has resulted in networks being granted much higher revenues than were needed to provide the service. The AER has assessed the various parameters in a holistic manner in its Better Regulation program and by doing so has provided a balanced view recognising that it is probable that errors have been made in setting each individual parameter. To reflect the potential for errors, the AER has used values for the parameters at the high end of the realistic range, thereby applying a conservatism that favours the networks.

As each of the various parameters can impact other assessments made under the rate of return guideline, the ECCSA supports using the guideline in its entirety rather than "cherry picking" aspects which favour one stakeholder over another.

On this basis, the ECCSA considers that the proposal by SAPN to use an average of four models to set the return on equity is not proven to deliver a more accurate outcome than the AER guideline. The ECCSA also considers that:

- SAPN and its advisers have not proven that the AER approach to setting gamma needs changing based on new evidence
- The SAPN view that the debt raising costs should be increased is not justified

3.3 Pass through events

The use of “pass throughs” is a mechanism for the regulated entity to reduce its risk by passing these risks onto consumers. Regulators have been inclined to accept this approach as they (rightly) fear that an allowance in the costs to accommodate this risk might be too high reflecting the likelihood of exogenous low probability high impact events.

As a general observation, the ECCSA considers that all NSPs should be required to absorb the costs of all pass through events until the current capex and opex allowances are exceeded, and then for new pass through events to be considered on their merits, with the potential that the AER might allow the costs to be added to the allowed revenue. This approach has the benefit of

imposing constraints on the NSP seeking pass through events to be allowed into their revenue rather than encouraging the NSP to seek every avenue to increase revenue under this provision, and avoids the imposition of a materiality test or bright line approach until the available capex and opex is used. At this point a bright line approach is preferred to ensure the issue being addressed is material.

The recent decision by the AER to allow a pass through of costs above that covered by insurance resulting from the Victorian bushfires recognises that this was a low probability high impact event. There is a concern that the event itself might not be exogenous, and the outcome of the class action court case implies that some of the cause could be attributable to negligence on behalf of the network. Because of this, the decision of the AER to allow costs above that covered by insurance might be considered to be inappropriate, highlighting that allowing pass throughs might need to be more closely controlled in future.

The ECCSA also noted that the AER allowed a pass through to SAPN which allows it more funds for vegetation management during the current period. The argument accepted by the AER was that the drought had finished and vegetation management costs had increased due the greater rainfall being experienced. The ECCSA is concerned that such pass through allowances are essentially "one way" - that when there is greater rainfall a cost can be added, yet when there is less rainfall and the costs fall, there is no counterbalancing negative pass through event and the savings from doing less vegetation management are taken as profits and enhanced through the EBSS. This is a "heads SAPN wins, tails consumers lose" issue that the AER needs to address more closely. The ECCSA also notes that SAPN will earn a bonus under the EBSS which implies that SAPN might have been able to absorb the additional costs in its allowed opex; absorbing such costs is what firms operating in a competitive environment have to accept if they are to retain market share.

In the current Rules there are defined elements where the “pass through” of actual costs is permitted. In addition to the Rule based pass throughs SAPN considers that a number of new pass throughs should be allowed:

Approved in previous determinations:

- Natural disaster
- Insurance cap exceeded
- Insurer credit risk

New categories proposed:

- Kangaroo Island undersea cable failure
- Native title

- Uncontrolled unexpected general cost increase
- Retailer insolvency under materiality level

The ECCSA is quite concerned at the proliferation of extensions to the listing of pass throughs and the desire by networks to expand these even further at each regulatory reset.

The ECCSA accepts that there are risks that occur which are outside the control of the network. Yet at the same time, networks seek to increase their returns on equity to ensure they are treated similarly to firms which do not have the ability to even pass through costs which the networks have included under the Rules.

The ECCSA considers that each NSP should provide adequate insurance (either external or self insurance) to cover the bulk of the likely risks the NSP faces. Where the cost of such insurance is too high relative to the likelihood of the event occurring, the ECCSA accepts that such a risk might be transferred to consumers as balancing the cost premium for accepting this risk would be excessive compared to the likelihood of it occurring.

It is important to recognise that in a competitive environment, the ability to pass through costs caused exogenously to consumers is not possible, and firms have to absorb the costs (either through insurance or directly) of any exogenous impact. As there is the ability to pass through such costs to consumers by regulated NSPs, the AER must recognise that with this transfer of risk there needs to be a compensating reduction in the equity beta to reflect the reduced risk faced by NSPs.

It is inappropriate for consumers to take a risk where SAPN has the ability (and responsibility) to take action to mitigate the risk through good management. The resources are made available to SAPN through the opex and capex allowances to institute this good management and thereby precluding the need to transfer the risk to consumers.

The ECCSA does not consider that any of the claims for additional pass through events should be allowed. However, the ECCSA accepts that the AER has allowed three of the claims in previous regulatory decisions and regulatory consistency would imply that they should also be allowed for SAPN. At the same time, the ECCSA considers that there should be a reduction in the return on equity to reflect that SAPN is exposed to less risk than it has in the previous regulatory decisions.

The ECCSA does not consider that the other four claims should be allowed for the following reasons:

- **Kangaroo Island cable**. SAPN is exposed to a STPIS which provides rewards for outperformance and penalties for under performance. If

SAPN considers there is a real risk of exhibiting underperformance because of a failure of part of the network, then it can do, as other networks have done, used some of the outperformance rewards to offset the potential for underperformance. This is what firms operating in a competitive market are required to do.

- **Native title**. All firms are exposed to Native Title issues just as they are exposed to issues relating to other land ownership issues. SAPN should expect to manage its relations with all land owners regardless of whether they have Native Title or not.

- **General cost increases**. All firms are exposed to cost increases over which they have no control. SAPN already has protections that other firms do not have via a pass through mechanism included in the Rules and those that have been allowed in other network reset decisions. This pass through has all the makings of a catch all or "a pass through for all the other reasons we might be exposed to costs for". If such a pass through is to be permitted, then the AER should balance this up by applying an equity beta of zero.

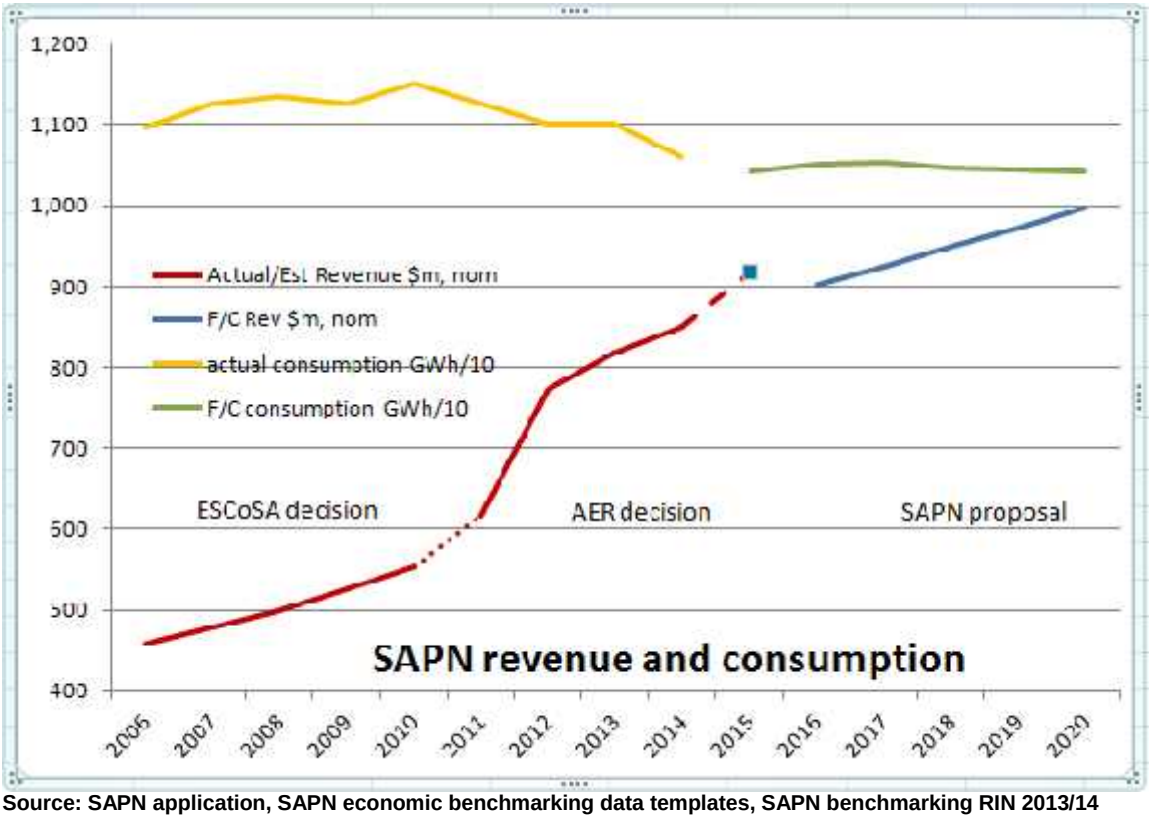
- **Retailer insolvency under materiality cap**. All pass throughs should be limited to a materiality limit otherwise there is the potential for many claims that incur administrative costs exceeding the cost of the event.

5.4 Revenue allowed and the impact on consumers

The SAPN application has its revenue continuing to increase even though there was a massive increase in revenue throughout the current period.

At the same time, for the next regulatory period, consumption is forecast to continue to decline and demand is forecast to remain below the peak experienced in 2011 and remain flat.

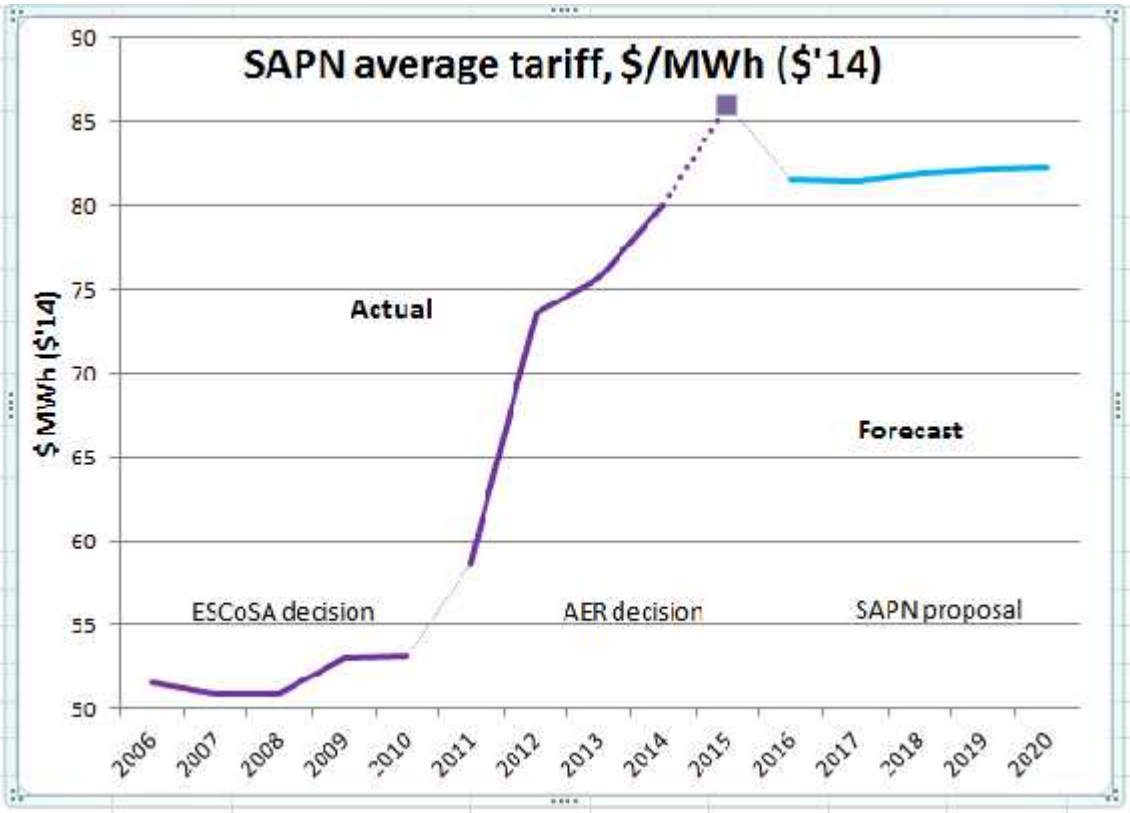
The following chart shows the actual revenue and consumption to date and forecasts for revenue and consumption.



Source: SAPN application, SAPN economic benchmarking data templates, SAPN benchmarking RIN 2013/14

Despite SAPN forecasting a small reduction in its revenue between the last year of the current period and the first year of the new period, it takes just a year by the time SAPN revenue reaches the amount forecast for 2014/15 and then exceeds this amount for the rest of the coming period.

What is overlooked in the application for continued growth in revenue, is that when this is coupled to the falling consumption and the essentially static demand, the impacts on consumers are massive. The following chart, which reflects the average tariff (ie total revenue/consumption), demonstrates just how significant the impacts on consumers will be.



Source: SAPN application, SAPN economic benchmarking data templates, SAPN benchmarking RIN 2013/14

Prior to the 2010 revenue reset, the average SAPN tariff set by ESCoSA in real terms was a relative constant value of about $51-53/MWh. The 2010 review by the AER allowed the average tariff to increase by some 70% over the current regulatory period to be over $85/MWh in the final year of the current period. SAPN effectively proposes a small decrease of about 5% (to about $82/MWh) with the average tariff remaining constant (in real terms) for the next period. Effectively the SAPN proposal locks in a real 60% rise from the average 2006-2010 period tariff for the coming period.

The stress that such an increase since 2010 has caused all consumers is incalculable considering that network charges constitutes the largest element of the total cost of delivered electricity. SAPN has advised that its consumer engagement program has implied that consumers have a willingness to pay even more to include a number of features (eg more sensitive vegetation management, undergrounding services in bushfire prone areas and road black spots) despite there being a strong concern about prices.

A review of the consumer engagement processes does not highlight that consumers were made aware that SAPN charges have increased in real terms by 70% since 2010 (and that this rise has occurred when consumption of and demand for electricity was falling). Nor were consumers made aware that the network prices will be 60% higher in real terms in the next period than they were in 2006-2010, despite a fall in electricity consumption of some 7-8% between 2006-2010 and 2016-2020.

The ECCSA can report that its members are very much aware of this massive increase in SAPN revenues and prices and they do not consider that SAPN has any justification for continuing to perpetuate a view that there is a willingness to pay such high prices for the network services SAPN provides.

In a news release 25 November 2014[32], AER Board member Mr Jim Cox commented that for 2013/14 year:

> "South Australia has an above average number of customers on payment plans with a high level of debt."

The ECCSA is very concerned that allowing SAPN to maintain its very high prices will continue to exacerbate what is already a major affordability problem for SAPN customers.

Electricity supply is an essential service. In a first world country for a regulator to allow any provider of an essential service to price its product at a level where it either causes financial hardship for a large part of the service users, it is clearly not in the long term interests of consumers.

The ECCSA also has a concern that maintenance of the very high price structure that SAPN has will result in more consumers seeking alternatives to using the SAPN services, which may ultimately cause SAPN to experience the "Death Spiral" for electricity networks that has been a point of discussion in recent years[33].

The AER assessment must take into account the very real impacts that maintaining the already high SAPN prices will cause.

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[32] Regarding the AER Retail Market Performance and Affordability Report - South Australia highlights

[33] Where fewer consumers use the services causing further falls in consumption leading to higher prices for those continuing to use the service

6. Forecasts and escalators

6.1 Demand and consumption

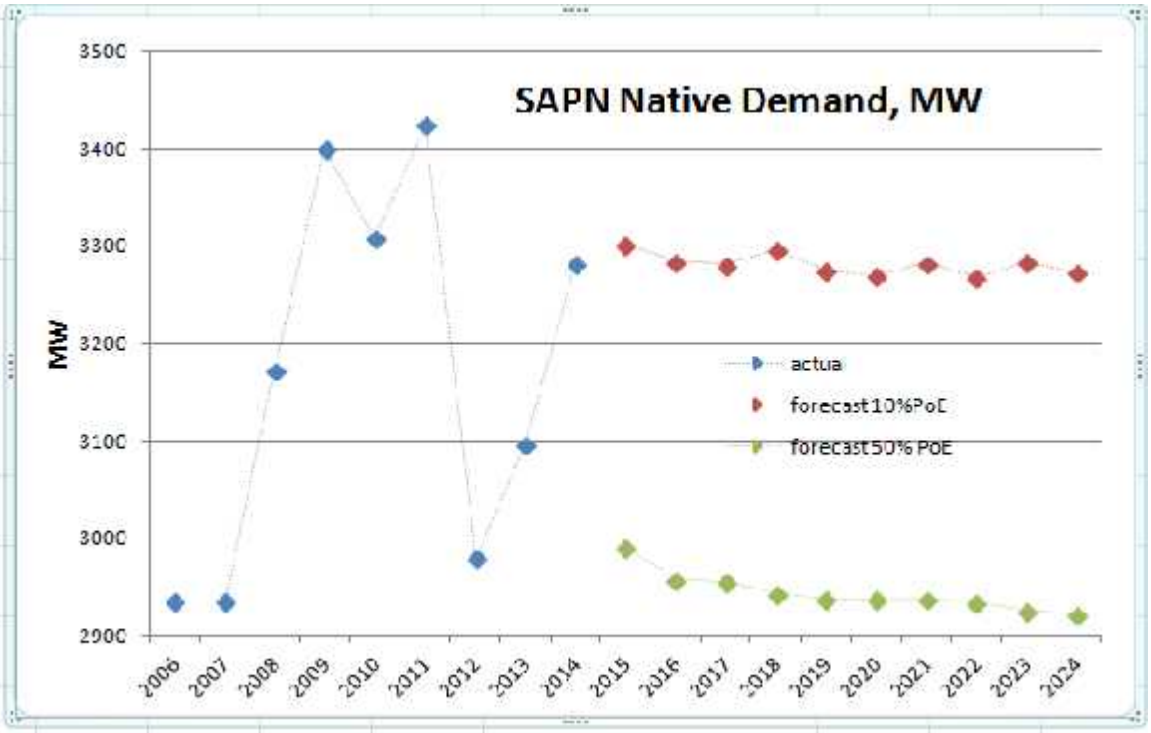
SAPN has used the AER NEFR and its own input to generate its forecasts of consumption and peak demand. The SAPN revenue proposal provides details of both actual and expected peak demand and consumption over the period 2006 to 2024, covering four regulatory periods, .

As the AER has determined that it will apply a revenue cap in lieu of the previous price cap approach, the forecasts of expected future consumption are less critical than under a price cap approach. This means the main use of the forecast consumption data is to inform on the expected impacts on consumers of the revenue proposal.

In section 5.5 the ECCSA provides the SAPN forecast of consumption and relates this to the nominal revenue. Then applying the consumption data, inflation adjustments and nominal revenue, the ECCSA derived real average price adjustments.

The assessment of future peak demand is still a key aspect of the revenue reset process as it provides a strong guide as to the needs for augmentation of the network. As there is a need to augment the network before the expected demand occurs, the ECCSA considers that expected demand has to be assessed not only for the coming period, but for the one after that as augmentation capex might be required in the final years of the next regulatory period to accommodate the expected demand in the first years of the period after the next.

The following chart shows the forecasts of peak demand for the next decade along with the actual demands incurred over the past 8 years.



Source: SAPN application, SAPN economic benchmarking data templates

The ECCSA has plotted both the expected peak demands measured by both the 10% PoE as well as the 50% PoE. This would be expected, as the actual outcome will lie between the two for most of the coming period, although there might be one year in the next decade when the actual demand will exceed the 10% PoE.

There are two issues that need to be addressed:

- The decline in peak demand forecast over the next decade.

  Peak demands in 2009 and 2011 were also the highest ever recorded in SA and since then annual peak demands have fallen considerably reflecting the loss of manufacturing, increasing penetration of roof top PV and greater energy efficiency measures. So the indication is that peak demand will also fall in SA as roof top PV penetration increases, energy efficiency is driven by high costs and the impacts of the closure of the automotive industry occur.

- Analysis of the severity of the peak demands shows an interesting decline over time. The annual peak demands in SA occurred in the years 2009, 2010 and 2011 where the peak demand exceeded 3300 MW in each year. Since then peak demand was well below the forecast level of 3300 MW for the next decade although this level was nearly reached in early 2014. These observed peak demands need to be put in context. The peak in 2009 occurred on three consecutive days and had about 5 hours of consistent high demands on two of the days. The

peak demand in 2011 occurred on one day only although it lasted for about 5 hours. So even though they exhibited an excessive duration they were in reality relatively short lived peaks. The peak observed in 2014 lasted for just two consecutive trading periods. So over recent years, although the peak demand might have breached the 3300 MW level, the severity of the breaches has been declining.

The current decline being seen in peak demands has a foundation in other causes and the severity of the peak demands is also showing a decline. This implies that the likelihood that the peak demand over the next decade will exceed the 10% PoE forecast is relatively low and if it does, the severity of any breach is more than likely to be of limited duration.

The outcome of this analysis is that the reliability trade off against more augmentation capex works in favour of less capex. Further, the limited durations of any breaching of the 10% PoE forecast could more readily be managed in a cost effective way by the introduction of demand side options similar to those already established by, for example, AusNet Services in Victoria where AusNet contracts for load shedding on days where a critical peak demand in its network is foreseen.

6.2 Labour

SAPN expresses a preference for using Frontier Economics (Frontier) to develop a trend analysis for SAPN labour costs based on the current SAPN enterprise bargaining agreement (EBA) and then to assess what a new EBA might be in the future when the current EBA expires.

SAPN avers that using labour price indices (LPI), as has been past AER practice, is not appropriate for SAPN as an LPI for the electricity, gas, water and waste water sector is not available for SA and the AER would have to impute this from other data. The ECCSA points out that imputing an outcome is also what SAPN and Frontier propose to do for a new EBA when the current EBA expires.

The ECCSA considers that using the EBA as the basis for setting the labour cost allowance is inappropriate, whether using an existing agreement but even more so for assessing what a future EBA might be. The ECCSA does not consider that a regulator should adjust costs to relate to future cost changes that have been negotiated by a single firm. This does not necessary reflect an efficient outcome and provides a bias towards higher labour costs than might occur under a more independent approach.

The ECCSA considers that if the AER allows the EBA to be used to set the future costs, this provides the negotiating team for employees with a clear signal that whatever labour cost movements are agreed will be rolled into the

next regulatory decision. If this occurs, the firm has no strong driver to negotiate the lowest possible price for labour. If the AER uses an independent assessment of expected labour price movements, then the firm has a driver to negotiate a lower price for labour as this would provide a benefit to the firm. It does not lead to an efficient outcome where both parties to a negotiation are aware that whatever is agreed the cost will be borne by a third party.

The AER is required to set efficient costs for the benchmark entity - not provide a specific entity with a carry forward of the EBA that it has entered into. The cost increases that a benchmark entity would incur would reflect a general trend of cost increases typical for the entity and certainly should not allow costs for a specific entity to be assumed to be efficient.

SAPN expresses a concern that at the end of its current EBA, the AER will implement a LPI based approach and SAPN sees that this might introduce a discontinuity caused from implementing two different methodologies. The clear implication of this concern is that SAPN considers that its EBA provides a better reward for its employees than using a LPI approach. The ECCSA considers that the AER would avoid this issue of discontinuity by using a LPI approach for the entire wage adjustment process.

What regulated firms have all failed to recognize is that the outcome of using LPI has not disadvantaged them because consistently, actual opex costs have, over time, been generally less than the regulated allowance. On this basis alone, there is no sound reason for the AER to vary from its present practice of using LPI which is based on independent data to forecast future labour cost changes.

Using a LPI approach for SAPN direct labour for the entire forecast period results in independence and consistency which is what the benchmark efficient entity would incur for its wage movements.

SAPN proposes that both BIS Shrapnel (BIS) and Deloitte Access Economics (DAE) provide LPIs for the construction sector without productivity adjustments and then an average of both be used for the construction wage movements.

In this regard, the ECCSA notes that the AER has most recently used LPI calculations from DAE. The ECCSA is concerned that the forecasts made by BIS have exhibited considerable variation to actual outcomes when compared to those made by DAE. The fact that there are significant variances between forecasts and actuals (more often in overstating future movements benefiting the NSP) results in a lowering of confidence for their use for this reset review (see section 6.5 below).

The ECCSA notes that SAPN does not propose that the indices used should be productivity adjusted and this reflects the recent practice of the AER not to use productivity adjusted labour indices. However, the ECCSA notes that the

AER has applied improvements in productivity as an explicit adjustment to forecast labour allowances. The ECCSA supports such an approach. This view is supported by recent moves by other large capital intensive firms (eg BHP and Rio Tinto) to implement severe operational cost cutting in order to manage the sharp falls in commodity prices in order to stay competitive whilst maintaining the same quality of service. The ECCSA does not see that SAPN should not be subjected to similar cost cutting when faced by a declining market for its services.

The ECCSA considers that:

- Capex and outsourced labour costs should be adjusted for forecast movements in the DAE construction LPI
- SAPN direct labour costs should be adjusted for forecast movements in the DAE EGWW labour LPI
- Productivity improvement be stated as explicit adjustments to the cost allowances

This approach maintains consistency with previous AER decisions and provides regulatory certainty of approach. In any case, SAPN has not provided adequate reasons for change from AER practice in its proposal.

6.3 Materials

SAPN refers to reports by its consultants CEG (attachment 20.3) and Jacobs (attachment 20.4) as to how it has developed the escalator for materials. CEG provides a view on the forecast price movements of specific materials and provides a view on the historic forecasting accuracy. Jacobs takes these values and devolves them into forecast price movements of specific types of equipment used by SAPN and aggregates these movements based on the expected capital expenditure by SAPN over the next regulatory period. From this, Jacobs provides a view in the expected average weighted movement in material prices.

SAPN indicates (Table 21.14) that materials will increase in "real" value over the coming period. At a high level, the ECCSA finds this difficult to accept considering that oil and iron ore have fallen in value by so much in recent months[34] yet the SAPN consultants forecast increases for 2015/16 in the materials escalators despite massive recent falls.

In theory, it would appear that the approach developed is relatively robust although the recent directly observed anomalies for movement in the price of oil, iron ore and $A highlight the very speculative nature of the process.

[34] See appendix 1 regarding an alternative view on materials price increases

Additionally, CEG states that it uses prices for material futures where these are available and it would appear that such an approach is preferred by the AER. In this regard the ECCSA comments that great care is needed when applying futures pricing. The ECCSA is aware from discussions with its members and others, that futures pricing is not as robust as might first appear. This particularly applies to long dated futures where the futures prices are based on very thin trades and therefore are not set in a fiercely competitive environment. It also needs to be noted that trades in the futures market are a small subset of all trades where most of the trades are based on long term agreements between buyers and sellers which do not reflect the spot pricing that underlie the futures markets.

ECCSA also considers that there is scope within the process to manipulate the outcome so that the outcome is maximized by optimizing the mix of materials to limit the amount of material inclusions, where there is a forecast reduction in costs and weighting others to minimise the impacts of negative movements.

Because of this, the ECCSA (along with other MEU affiliates) considers that the AER should implement a standard suite of materials together with a weighting for each that reflects the mix of materials used by a benchmark electricity distribution network firm. This is to ensure that there is consistency between all networks and over time to eliminate the ability of any network for manipulate the development of the materials escalator to the disadvantage of consumers.

The ECCSA addresses the issue of forecasting errors in section 6.6 below.

6.4 Land

SAPN has assessed the movements in property prices and set escalation rates for the land it owns and for its easements. The ECCSA has no problems with using this approach for the value of the land that SAPN owns but it has considerable concern with applying this approach for the value of easements.

The value given for easements does not reflect ownership of land. As the ACCC allowed in 2002 in its decision for the costs of easements in Victoria when assessing the value of easements held by AusNet Services, and later the AER allowed in 2008 (and then adjusted by the Competition Tribunal later that year) when assessing the valuation of easements acquired by ElectraNet, the cost of easements are not related to the cost of land, Rather, they reflect the cost for landowner compensation and the transaction costs involved in the development of the easement.

This means that the cost of the easement is based on

1. The payment of a fixed sum to the land owner. A fixed payment made to a land owner for the easement would have been a "once off" amount and

not necessarily related to the value of the land over which the easement was sought. In many cases, the land over which the easement is granted is still used by the land owner for the same purpose originally used. As a fixed dollar payment, this means that the carry forward of the cost in the Regulatory Asset Base (RAB) is more closely related to the cost of money rather than the cost of land. On this basis the compensation element of the easement carry forward value would be related to CPI rather than to the cost of land.

2. The costs of development of the easement. Easement acquisition or transaction costs are not related to real estate value but include the labour costs in detailing, surveying and negotiating the acquisition. This means that the carry forward of the cost in the RAB is more closely related to the cost of labour than to the cost of land

The ECCSA has noted that in the past the AER has allowed for escalation of easements based on the value of the land over which the network has the easements rights. The ECCSA considers that the AER has been wrong in this and should apply an approach more reflective of the basis on which the easement costs are made

The ECCSA considers that the AER should rectify its earlier approach and in future apply an escalation methodology for easements based on the way the costs are incurred rather than continuing with a flawed methodology based on using land escalation as the basis for adjusting the value of easements.

6.5 Growth

SAPN has assessed the growth scaling factor based on three growth variables - size of the network, numbers of customers and numbers of employees. The attachment 21.4 provides the calculation of the overall growth factors.

In principle, the ECSSA accepts that opex will grow in relation to the size of the network when measured on increased line length and increase in numbers of transformers and associated switchgear. However, SAPN has assumed that the growth is linear in application - that any increase in these inputs has the same value regardless of size. For example, the assumption made is that a 100 MVA 33 kV/11 kV transformer bay will require the same amount of opex as a pole mounted transformer supplying a number of households. With this in mind, the ECCSA considers that the linear application of pure numbers (ie km of lines and # of transformers) is not an accurate basis for extrapolation for network growth.

To measure the other input growth based on numbers of customers is also misleading. The ECCSA is well aware that very large users of power require more attendance from the network provider than a single household does. Therefore to apply a linear relationship for growth based on pure customer

numbers is likely to bias the growth outcome. The ECCSA considers that there should be a more detailed breakdown on customer size in order to develop a more accurate growth factor based on customer numbers.

The ECCSA also notes that although customer numbers is entirely an input factor, the increase in line length and transformer numbers is also related to customer numbers. The ECCSA therefore considers that perhaps applying both customer numbers and network size could be considered to be somewhat duplicative and thereby overstating the actual growth in opex.

The third measure applied by SAPN is the growth in employee numbers. The ECCSA considers that employee numbers is entirely an output factor and should be an outworking of increased line length and increase in transformers. The growth in employee numbers should reflect only the growth in the amount of the assets provided (ie network growth) and any step change that causes a change in employee numbers to do a specific task or where additional tasks have been added to the base scope of work.

A clear observation about using employee numbers as a growth indicator is that an increase in employee numbers could reflect that the efficient utilisation of staff is decreasing (ie more staff for the same output). This implies that using changes in employee numbers is a methodology that is not a sound measure of actual network growth and could just as readily be an indicator of lower productivity. In this regard, the ECCSA points to sections 3.1 and 3.2 which show that SAPN productivity is falling. Falling productivity means that an employee is delivering less as an output than in the past. Therefore to allow for growth based on employee numbers perpetuates the loss of productivity seen over time. The ECCSA does not consider that employee numbers should be used to reflect growth in the network.

As step changes are included in the assessment of future opex needs, only the actual growth in network assets should be used to establish the growth factor for the adjustment in the future opex. The ECCSA is concerned that using a three faceted growth escalator as proposed by SAPN will result in an upward bias in the growth factor due to double (even triple) counting and to embed low productivity.

6.6 Forecasting inaccuracies

Previously the AER has provided a table of the past performance of DAE and BIS in forecasting actual labour movements (see for example table C2 in section 3 of the AER draft decision on the Multinet gas application).

This data is quite fascinating and from it the AER concludes that the LPI forecasting by DAE is more stable and exhibits less volatility than does BIS forecasting. Therefore the AER considers the DAE forecasting is preferred.

What the AER does not do is to assess the actual accuracy of the forecasts over time. For example, the DAE forecast for EGW made in 2007 for year 2010/11 shows a small under-run compared to the actual LPI. Yet these forecast errors are compounded – the forecast for 2010/11 is the compounded increase of all the previous years of data. When compounding is implemented, the actual increase in LPI for 2010/11 based on movements from 2007 implies labour costs in 2010/11 were 24% higher than in 2007. The DAE forecast for the same period shows an increase of 26% (the BIS increase is nearly 29%).

Further, the errors between the actual values and the forecasts show a consistent overestimation of future LPI values. The number of times the forecasters underestimated the actual LPI is 25% whereas the overestimates comprise 60% of the forecasts – the balancing 15% is where the forecasts were accurate. On this basis the forecasters are likely to overestimate the LPI 4 times more than they get it right and underestimate it 2 times more than they get it right.

These actual calculations and comparisons show that the forecasts are biased towards overestimation and so impose increased and unnecessary costs on consumers.

The ECCSA considers that the AER should also review the accuracy of material forecasts over time to ensure that the forecasts are not biased in a similar manner. This is particularly relevant at the current time as oil and iron ore prices have fallen so markedly in recent months. None of these falls had been forecast to the extent actually seen.

To minimise the error inherent in the current approach to allowing for future movements in input costs, the ECCSA considers that the AER needs to find another approach to making adjustments to capex and opex allowances to reflect future movements in input costs. The current approach can cause considerable harm to consumers and could, in the future, cause harm to regulated firms through underestimating future price rises.

In previous submissions, the MEU and its affiliates have suggested that forecasting inaccuracy could be overcome by the use of an escalation factor unique to the energy market which the AER would generate annually for adjustments to allowed revenues rather than use the CPI.

The decision of the AER to not use such an approach is strange. The argument put by the AER was that allowing for annual adjustments to allowed revenues by using the CPI provided some certainty for consumers and regulated firms and using an escalation factor different to CPI would introduce uncertainty. This issue of "certainty" for consumers and regulated firms is becoming less important with the changes that are being made in the regulatory approach. For example:

- For revenue cap decisions, (which currently will apply to nearly all regulated networks) there are frequently massive adjustments in tariffs because of large swings in current year revenues caused by under or over recovery of the allowed revenue in the previous year. In the case of transmission networks, these year-on-year swings to adjust for over/under recoveries are exaggerated by the inclusion of inter-regional settlement residues and the new inter-regional TUoS adjustments being introduced in July 2015. That members of MEU affiliates report seeing transmission tariffs vary year on year by as much as 20% exemplifies the lack of certainty introduced by these impacts

- The AER is introducing a variable cost of debt into the WACC development and this will result in the actual annual WACC varying from the WACC used to develop the forecast revenues Whilst these variations in the WACC are expected to be relatively small, they will be significantly magnified by the application to the RAB, resulting in considerable changes in revenue allowed compared to that forecast.

- The AER already permits revenues to be adjusted to reflect variations in the actual CPI compared to that forecast. The annual movements of a network specific inflation adjustment are not expected to be significantly more volatile than those of the CPI

If swings of this magnitude can occur without using an input cost adjustment index, then the AER argument fails to be legitimate. The MEU is of the view that using an industry specific escalation index would reduce the inaccuracies inherent in the current AER approach and should result in a more equitable outcome for both consumers and networks.

Many industries use cost input adjustment indices that are not the CPI to reflect the industries' special needs; therefore a decision to use a more accurate approach for allowing for variation in input costs would not be ground breaking in the least.

7. Pricing Methodology

7.1 Encouraging demand side participation

The ECCSA notes with pleasure that SAPN recognises that the methodology behind pricing is the key to efficient demand side participation (DSP) in electricity supply and that pricing has the ability to either increase DSP or reduce it.

This was also the focus of the recent AEMC final determination for the rule change on distribution network pricing; the AEMC has determined that the new pricing riles must be implemented during the next regulatory period.

The ECCSA notes that SAPN would like to introduce more emphasis in its pricing to reflect that it is peak demand from each customer that drives the size of the network and therefore drives the bulk of the costs involved. SAPN proposes a number of approaches to ensure that more of its customers have meters which are capable of recording peak demands. This is despite the decision that roll out of interval meters will not be mandated and customers can elect to "opt in" to having interval metering. The ECCSA supports this process to be implemented by SAPN.

Customers that have interval metering can be provided with tariffs that are based on the magnitude and timing of their peak demand. With this information, SAPN can provide tariffs that incentivise customers to limit their demand for electricity at times when the network is most under stress. Limiting demand allows the deferral of new investment and even precludes the need for such investment.

For both the residential and large customer classifications, SAPN proposes to increase the fixed component of the tariffs. The ECCSA considers that increasing the fixed component acts against increasing demand side participation as the costs do not vary despite the customer taking actions to reduce its demand at times when the network is under stress.

The ECCSA also notes that SAPN is not making any proposal to vary the time period that it considers is the "peak" time. Currently peak time in the SAPN network is 7 am to 10 pm weekdays all through the year. In practice, the real peak time in the SAPN network in the past 3 years occurred on weekdays between 6 pm and 7pm and the top decile of highest demands occurred on weekdays between 1 pm and 9 pm. In contrast, the peak demand on weekends and public holidays was below the top decile of highest demands on weekdays.

If SAPN is to drive demand side participation to generate the benefits of such activity then it needs to reassess how it charges for electricity to encourage less use at the time when such reduction provides the greatest benefit. If it persists in considering that peak times range from 7 am to 10 pm on weekdays, it will

preclude significant load shifting. In contrast, if it set peak times to be (say) from 3 pm to 8 pm on summer weekdays, then it could generate significant network benefits from encouraging load shift.

A further refinement of such an approach would be the introduction of critical peak pricing where load-shedding consumers benefit from not using electricity at defined times - such as has been introduced with considerable good effect by AusNet Services in its targeted program of lower demand tariffs. In this program, if the customer reduces its demand after receiving 24 hours notice when there is an expectation of very high network utilisation on the following afternoon, then the customer is provided with a much reduced tariff for other times of use.

The ECCSA supports the SAPN approach to increasing the number of controlled loads (and the cycling of these to reduce overall coincident demand) to reduce the load on the network at critical times and considers such a program should be extended.

The ECCSA considers that there are many approaches that can be taken to enhance DSP when such is needed. However, unless the tariff design is modified to give incentives, then consumers will continue to be exposed to ever increasing prices for the network services provided by SAPN.

7.2 Detailing the methodology

The ECCSA is aware that the new rules on distribution pricing are finalised and the changes are to be phased in over time.

One of the key changes that has been introduced is a requirement to develop a tariff structure statement (TSS) as part of the regulatory reset process. The ECCSA considers that SAPN should be encouraged to provide a TSS as part of its revised application. While under the transition associated with the new rules, there is no formal requirement for SAPN to carry out this exercise, the ECCSA considers that even a preliminary unenforceable TSS would be of significant benefit to consumers.

The new rules require pricing to be based on a long run marginal cost basis and that allocation of costs between consumers should be as close to cost reflective as practicable, and the preparation of a TSS would assist in clarifying for consumers that these principles are being applied.

Appendix 1

Five-year drop for commodities' prices

Australian Financial Review: : PUBLISHED: 16 Jul 2014 18:15:24 | UPDATED: 17 Jul 2014 03:07:08PRINT EDITION: 16 Jul 2014

Commodities from iron ore to copper and Brent crude will drop over the next five years as global supplies climb, according to Goldman Sachs Group, which highlighted oil's recent losses as a sign of increased output.

There will be substantial declines in some metals, energy and bulk commodities, analysts including chief currency strategist Robin Brooks wrote in a report. The period of continued year-on-year price rises for most commodities is over, they said in the report, which was dated yesterday.

Banks from Citigroup to Deutsche Bank have called an end to the commodities super-cycle, when China's surging demand combined with supply constraints led to a doubling of prices in the 12 years through 2010.
Raw materials rallied this year from three annual losses as a lack of rain in Brazil lifted coffee and a ban of ore exports from Indonesia spurred a rally in nickel. The drop in energy prices since last month showed the impact of higher global output, Goldman said in its report.

"A prolonged period of elevated commodity prices has catalysed a supply response," the analysts wrote. "We do not expect a collapse in global commodity prices. But we do anticipate substantial declines."

Copper was forecast to drop to $US6600 a metric tonne over five years, while iron ore was seen at $US80 a tonne and Brent may be $US100 a barrel, according to Goldman. The steel-making raw material was at $US98 a dry tonne in China, Tuesday, and copper traded at $US7122 on the London Metal Exchange on Wednesday. Brent was US34¢ higher at $US106.36 on the ICE Futures Europe.

'Looser supply'

The Bloomberg Commodity Index of 22 raw materials climbed 3.2 per cent this year. That compares with a 1 per cent drop in the Bloomberg Dollar Spot Index and 5.1 per cent advance in the MSCI All-Country World Index of equities.

"Against a looser supply backdrop, commodity prices should be much less sensitive to fluctuations in global growth than they were," Goldman said in the report, entitled *Emerging Market Forex and the End of the Commodity Market Super-Cycle*.

Goldman said in a January report the cycle that spurred higher commodities prices is reversing as increased US shale oil output keeps energy prices low, and that would eventually drive raw materials into a bear market. The new cycle is the opposite of the super-cycle, it said then.

"We remain bearish on iron ore, and expect a surplus market to drive the longer-term price down," the Goldman analysts wrote in Tuesday's report. "We see limited upside for agricultural commodities over the longer run."

Ore output

Rio Tinto Group, the world's second-largest mining company, said today that iron ore production in the three months to June increased 11 per cent, while Fortescue Metals Group said its shipments were 57 per cent higher on year. Iron ore entered a bear market in March on prospects for a glut as supplies surged.

Brent crude rallied to as much as $US115.71 a barrel last month as military gains in Iraq by an al-Qaeda breakaway group stoked concern that oil supplies may be disrupted. Prices posted a third weekly loss in the period to July 11, with Iraqi shipments unaffected and Libya moving to boost exports.

"Less than a month has passed since geopolitical risks in Iraq pushed up oil prices on concerns over a potential oil supply shock, and the market seems to have absorbed the related risks reasonably well," Goldman analysts wrote. "The expansion in oil supply over the past few years -- primarily from the expansion of US shale production – has minimised the consequences from past disruptions in Libya and Iraq."

Record volumes

US production of crude, along with liquids separated from natural gas, surpassed all other countries this year with daily output exceeding 11 million barrels in the first quarter, Bank of America Corp said in a report July 4. Output has climbed as hydraulic fracturing and horizontal drilling help producers pull record volumes of crude out of shale formations.
Deutsche Bank said last month commodity prices will remain subdued for years as many of the factors and fears that drove the super-cycle have dissipated. Citigroup said in April 2013 that death bells would ring for the commodity super-cycle.

"Our long-term commodity forecasts suggest that fundamentals for commodity currencies will deteriorate," the Goldman analysts wrote. "Relative shifts in terms of

trade between commodity importers and exporters will be a key input to currency determination over the coming years."

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See
http://www.afr.com/p/markets/five_year_drop_for_commodities_prices_uK3AfUNPMB08PMXD2arAoJ