The Project Partners

Australian Energy Regulator

Attention: Mr Warwick Anderson

What's Fair? An equity perspective

Our submission to SA Power Networks 2020-2025 Revenue Determination - Revised Proposal

20 January 2020

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Disclaimer

This project was funded by Energy Consumers Australia as part of its grants process for consumer advocacy projects and research projects for the benefit of consumers of electricity and natural gas.

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1 Executive Summary

In this submission the three partner organisations have focused on equity considerations in bringing prices down and satisfying customers. Recognising that SAPN is an efficient business it still has a role to play in achieving this.

We highlight that there has been an active, diligent, ongoing and very constructive challenge of the SAPN regulatory proposal resulting in a revised revenue proposal that we regard as, on the whole, capable of acceptance. However, concerns remain around the increase in Connections Capital Expenditure forecasts (see Section 10). Our preference would be to see any additional capital expenditure moved from connection forecasts to Replacement Expenditure (Repex).

A question that we have continued to ask is whether there is a risk that important expenditure decisions are kicking the can down the road? We also express concerns that if this is the case, then an unfair burden is being placed on future generations.

Our main conclusion is that, compared to the AER's draft decision, replacement expenditure (Repex) needs to be increased - some cans cannot be kicked much further down the road. The AER draft decision required SAPN to justify their Repex bids; in general, this has been achieved and we are happy to support modest increases in replacement capital expenditure.

Most aspects of the AER's draft decision are supported, and we note that SAPN has generally accepted these in the revised revenue proposal. Cost reductions for consumers compared to the original regulatory proposal can be achieved in operating costs, accepting the tax allowance in line with the AER Regulatory Tax Review (December 2018)**,** connections expenditure forecasts and IT costs.

The reality of SAPN's leadership in dealing with a range of 'future network' issues and stubbornly high electricity prices for South Australian customers particularly impacting on low income people, means that it is crucial that SAPN continues to build on its strong engagement in this regulatory process, to continue to develop shared solutions with consumers and other stakeholders as ongoing engagement.

The Tariff Structure Statement (TSS) proposed by SAPN is strongly supported - particularly the innovative, "solar sponge" tariff to help manage high levels of rooftop PV generation during sunny, lower demand days.

2 About the Project Partners

SAFCA

The SA Financial Counsellors Association supports the Financial Counselling and Low Income Support sectors in South Australia and the Northern Territory. The sector employs directly and indirectly over 500 individuals. These workers provide a much needed and valued service to all South Australians and Territorians.

Financial counsellors assist some 35,000 – 40,000 financially vulnerable South Australians and Northern Territorians and their families every year. This includes those on benefits and pensions, low income and people with high levels of debt.

SAFCA provides the professional development needed by financial counsellors to keep up with the latest developments in such areas as banking, utilities and debt collection practices around hardship and collections

Project Contact: Wendy Shirley. wendy@safca.org.au

Uniting Communities

Uniting Communities is an inclusive not-for-profit organisation working alongside more than 30,000 South Australians each year as they strive for bright futures and great lives. We value diversity and are committed to providing respectful, accessible services to all.

Uniting Communities seeks to reduce inequality and improve wellbeing for all who are striving to overcome disadvantage – individuals, their families and communities – so that they can realise their potential and live the best lives they can. We do this in a way that is non-judgemental, generous and supportive; that embrace diversity; and that values and promotes fairness, justice and the benefits of strong communities.

Project Contact: Mark Henley MarkH@unitingcommunities.org

The Energy Project

The Energy Project is a specialist energy consulting firm. We provide independent analysis, insights and advice on a range of energy related challenges faced by commercial, institutional and government clients.

We don't sell equipment. Rather, we work closely with clients to provide them with the tools needed to make sound business decisions about their energy needs.

Project Contact: Dr Andrew Nance andrew.nance@energyproject.com.au

3 Our Approach – An equity perspective

This submission draws on some key themes that we raised at the AER public forum on 30th October 2019, responding to the SA Power Networks initial proposal. We also reflect on the considerable engagement that we have been involved with over the details of the SAPN proposal and the subsequent Revised Revenue Proposal that was submitted on 8th December (released by AER on 14th December), as well as considering the AER's Draft Decision.

Our approach throughout this project has been to engage as actively and openly as possible with key staff from South Australia Power Networks and also collaborate with other consumer interests, including business and primary producers. In summary we have sought to apply AER 2.0 as outlined by AER Chair Paula Conboy in 2017[1]. This approach of active engagement is built on trust and means that all parties need to be trusted by others to be able to 'critique' any issue and seek agreement or compromise. We stress that 'critiquing' is very different from 'criticising.' We have no intent of criticising SAPN but have actively critiqued a number of aspects of their initial regard for proposal, as were some of their initial responses. We have challenged and been challenged.

At the AER public forum, Mark Henley, as a member of the partnership made the following personal observation:

> *"I have been engaging with ETSA / ETSA Utilities / SAPN for a long time! I consider the engagement over the past couple of months to be the most open, frank and constructive that I have experienced. Not 'there' yet, but getting close"*

The partnership members stand by this observation and further add that since the statement was made publicly, our ability to challenge each other and to seek pragmatic outcomes is improved further. We have genuinely enjoyed working with SAPN and commend them for the constructive approach that they have taken particularly in the pressure environment finalising their revised revenue proposal.

The organisations forming the partnership for this submission have also worked closely with other consumer interest groups in South Australia and have each been involved separately with SAPN's own engagement processes, including through the SAPN CCP. (We use this nomenclature to differentiate it from the AER CCP, CCP14, with whom we have also shared engagement activities, observations and debates).

Consequently, we note that each member of this partnership was also involved with aspects of the SAPN CCP submission responding to the revised revenue proposal, and this submission supports the

[1] www.aer.gov.au/news/working-together-to-restore-confidence-in-energy-regulation

perspectives presented in that submission, particularly for topics not directly considered in this submission.

3.1 Focus for analysis

The central question that we posed at the AER's Draft decision forum, somewhat rhetorically, was whether there was risk that the draft decision would require SAPN and their customers to kick the figurative can down the road? We have continued to ask ourselves and SAPN that same question since the public forum. The question of whether we are kicking the can, i.e. unnecessarily deferring expenditure in a manner that would be inefficient for consumers, remains a theme of this submission.

Central to our musing about "kicking the can down the road?" is the driving consideration for the organisations collaborating on this submission, namely the question of equity? The following provide some brief comments about our perspectives on equity which informs our approach.

3.2 Equity

While there are many views about what constitutes equity, perhaps a starting point for equity in public policy, and hence regulatory considerations, comes from the classical economist Vilfredo Pareto who argued that a public policy improvement was one that made at least one person better off and nobody worse off. The content has been modified over the years with various methods of compensating those who are worse off while still providing a net benefit. This is the essence of cost benefit analysis.

The "lens" through which the partners have considered the Revised Revenue Proposal is its likely impact on poorer members of the SA community, an approach summarised as 'Rawlsian' from the perspective

of equity described by philosopher John Rawls. He proposed that a fair society is one that seeks to most improve the situation of the poorest member of society, in any policy or related action.

We contend that the SAPN proposal should be considered, at least in part, by its likely impacts on the poorest people in SA society. We considered the 2020-25 regulatory proposal from the perspective of the lowest, efficient revenue allowance so that the money to be recovered from customers, particularly poorer customers, is as low as is reasonable. We also contend that the best outcome for the poorest members of society, in this instance for access to essential service of electricity, is generally the best outcome for all households, as well as small businesses and (smaller scale) primary producers.

Getting the regulatory decision 'right' for the poorest members of our communities is also the 'right' decision for most customers.

Arguably in Australian energy policy and regulation, the National Energy Objective has been used to something of a proxy for fair, and maybe equitable, outcomes for consumers. We are not convinced this is the case and strongly believe that the growing incidence and risk of energy poverty must be a crucial consideration for energy businesses as well as regulators and policymakers.

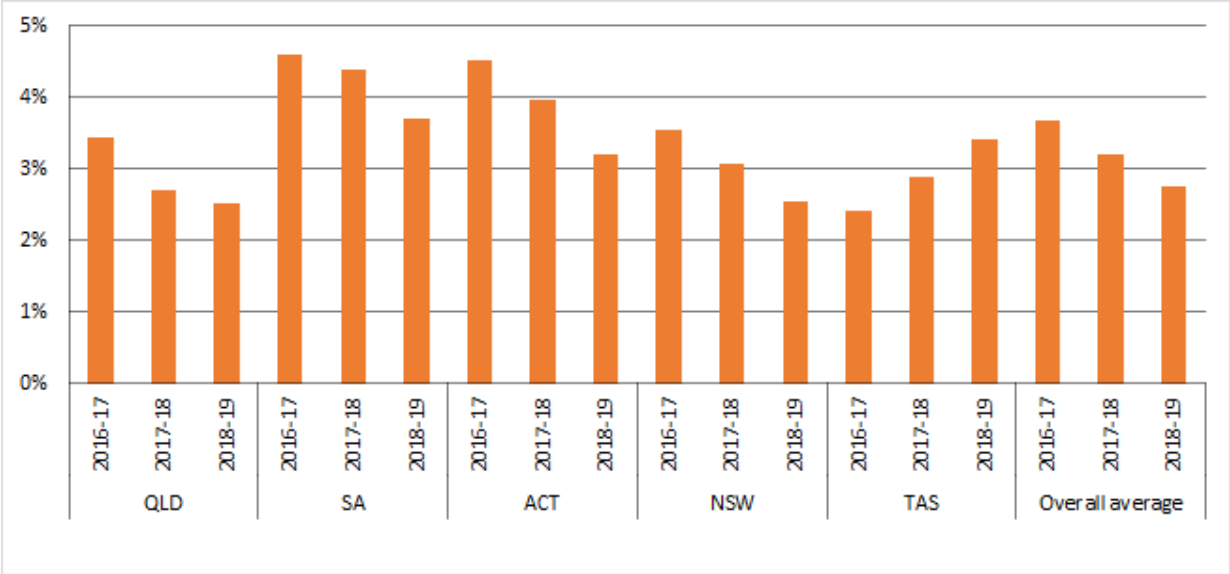
3.3 Vulnerable to disconnection

We consider vulnerability first and foremost in the context of vulnerability to having the electricity disconnected for an inability to pay. This ensures a clear eye on the 'edge' of the market as well as how prices have travelled 'on average'.

While there are multiple causes of financial stress, electricity sits uncomfortably in the weekly and fortnightly cycles of household finances. The biggest slice of the household budget is almost always housing costs but energy, fuel and water are rarely far behind.

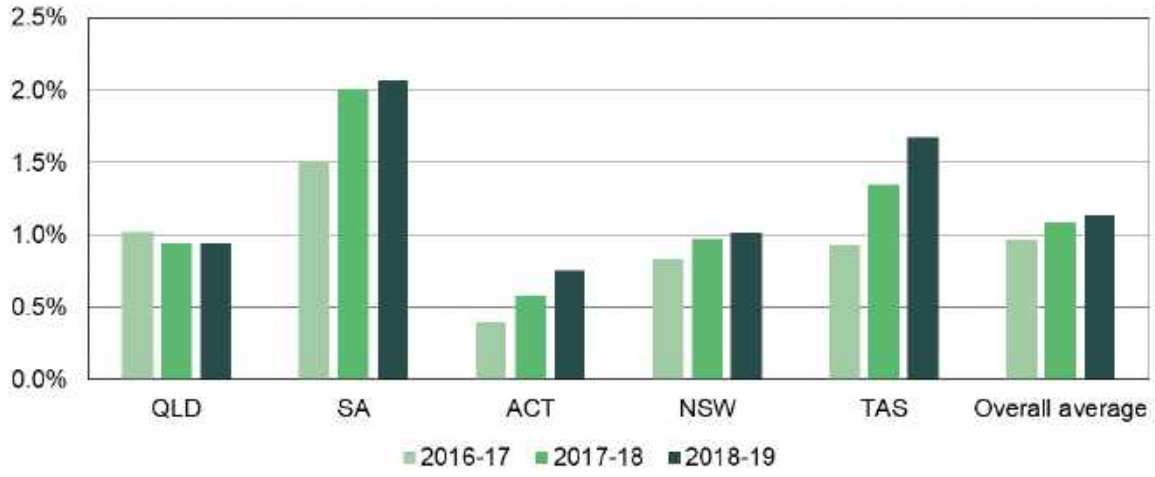
The Australian Energy Regulator (AER) requires electricity businesses to report on a number of performance indicators. The National Energy Customer Framework (NECF) provides explicit direction for the path to disconnection and the reported data illustrates the scale of households at risk of electricity disconnection for an inability to pay.

SA had the highest proportion of residential customers in energy debt

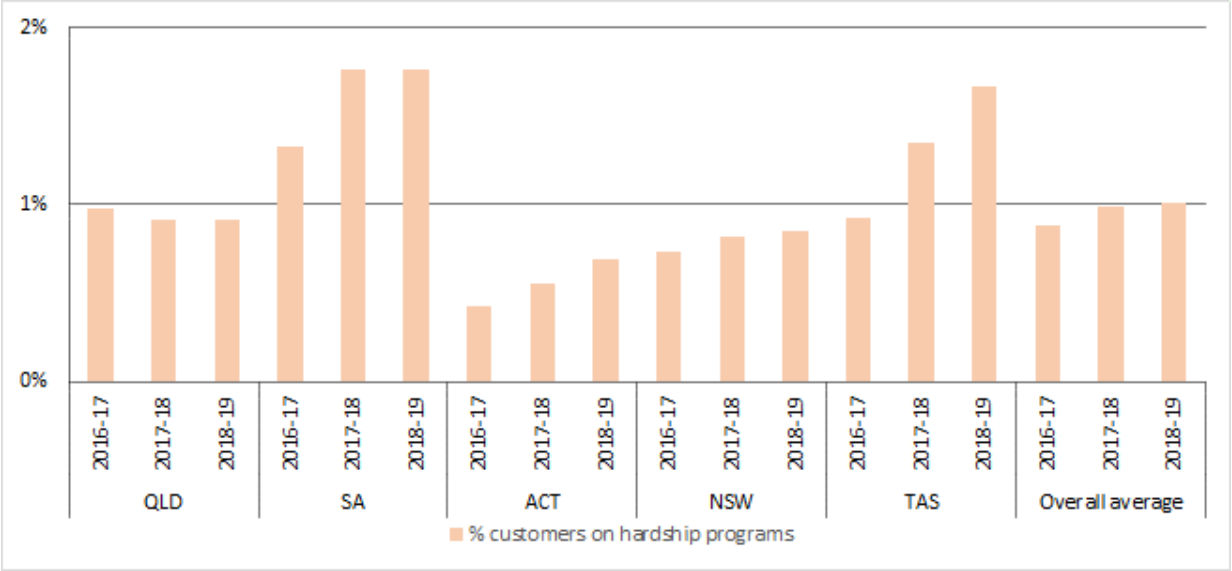


AER Figure 3.1: Total proportion of residential customers in energy debt 2016-17 to 2018-19
Source: AER: Annual Retail Markets Report 2018-19

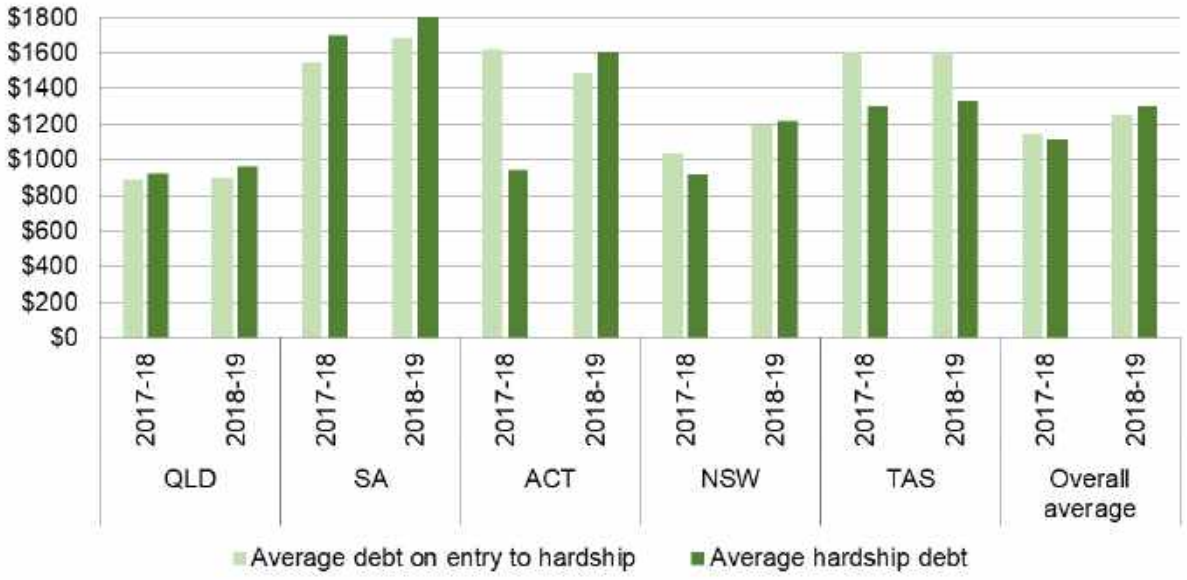
The National Energy Customer Framework mandates Hardship Programs from Energy Retailers. Hardship Program customers have protections from disconnection. AER's Figure 3.8: Proportion of electricity customers on a hardship program 2016-17 to 2018-19 shows that 1 in 50 SA electricity consumers are using Energy Retailer hardship programs – the highest proportion in the NEM:



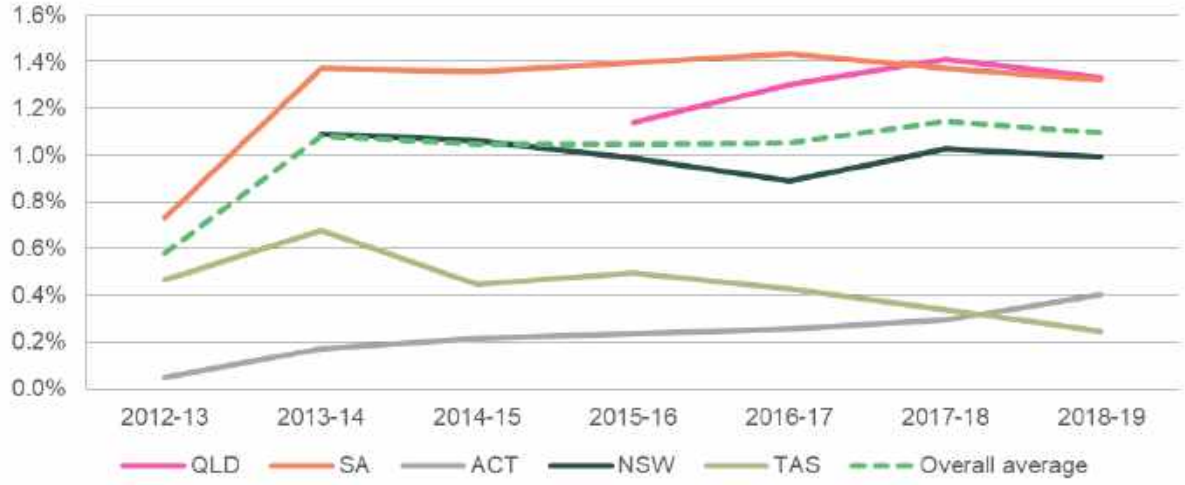
AER's Figure 3.1 (above) Illustrated how the SA electricity market has relatively high levels of electricity debt. The proportion of that debt owed by hardship customers has been extracted from that, and SA's unfortunate leadership is shown below:



AER's Figure 3.10: *Average electricity debt at time of entry to hardship programs and average hardship debt 2017-18 to 2018-19* show that SA households come into these programs with relatively high levels of debt and those debts tend to grow – suggesting that consumption already exceeds capacity to pay:



AER's Figure 3.12: *Residential electricity disconnections as a percentage of customers 2012-13 to 2018-19* shows how SA has had persistently high rates of disconnection for unpaid bills since electricity price deregulation in February 2013:



Another indicator of the challenges of energy vulnerability in SA is from AER Table 3.8: Proportion of hardship customers receiving energy concessions 2016-17 to 2018-19 that shows how the vast majority of those in hardship in SA are not eligible for the State's Energy Concession.

	Electricity			**Gas**		
	2016-17	**2017-18**	**2018-19**	**2016-17**	**2017-18**	**2018-19**
SA	39%	35%	34%	13%	9%	4%
NEM average	**61%**	**61%**	**55%**	**45%**	**36%**	**31%**

3.4 Case Studies

The stories of Carly and Brienna below are but two of hundreds of stories that financial counsellors deal with day in day out. Electricity costs continue to be the number 1 presenting issue.

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Carly is a single mum with a disability. She has a ten year old daughter. Carly is being supported by a women's shelter after fleeing a domestic violence situation.

She was moved into a Community housing property which was in a terrible condition. There was explicit graffiti on the walls, the back of the house had louvre windows which were not sealed against the weather. The main bedroom had water running down the inside wall during winter. There was no heating provided in the house. Carly is receiving Newstart and Family Tax Benefit, and she did not have enough money to heat the house so, to keep electricity costs down, Carly and her daughter did not use heating. During winter, the poor condition of the house caused Carly's disability to become more

uncomfortable, and she and her daughter suffered some illnesses. She owes $350 to her electricity provider.

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Brienna is a single mum with an eight year old daughter. She is unemployed and is trying to flee a Domestic Violence situation, where there is financial abuse involved. She lives in a small town in the Adelaide Hills.

Brianna had been on payment plans for electricity but had missed a number of payments. She had also changed electricity providers 3 times. When her electricity provider threatened disconnection, she ended up shouting at the call centre, and was too stressed to negotiate any kind of affordable payment arrangement. Her daughter had just turned eight, and therefore her Centrelink payments dropped from Parenting Payment Single down to Newstart. Her ex-partner, who was still controlling her financially, insisted that he receive half the Family Tax Benefit, and that she remained living in a private rental unit near him. She did not have enough money on Newstart and half Family Tax Benefit to pay the private rent, electricity, and look after her daughter. She is not able to find work because she had lost her license and there were only a couple of buses from her small town into the city each day.

Being located in the Adelaide Hills, the house was cold, and she could only afford to buy a small fan heater, which was very expensive to run. Brianna has total electricity debts of around $9000 and had been threatened with disconnection.

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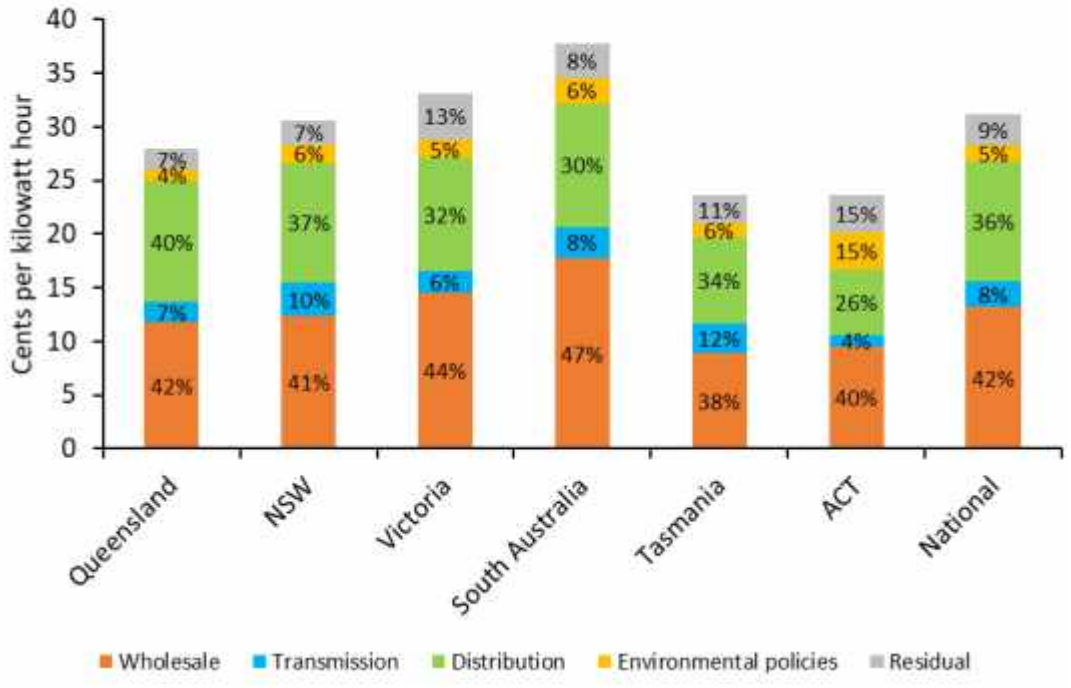
The question about whether we are kicking the can down the road has a critical equity dimension to it because it requires consideration of intergenerational equity. This is about current and future generations all paying the same, fair price for the use of the network. This is of course difficult to achieve precisely, but we suggest it must remain as a critical guiding principle.

3.5 SAPN and SA electricity Bills

With our strong focus on equity considerations and ongoing concerns in South Australia about the high cost of electricity, it is beholden on us to be clear about the SAPN role in electricity prices, and contributions that it can make to improve energy affordability in South Australia.

A useful starting point is the AER energy network benchmarking report 2019[2] which provides the following overview picture:

Figure 2.1 Network costs as a proportion of retail electricity bills, 2017



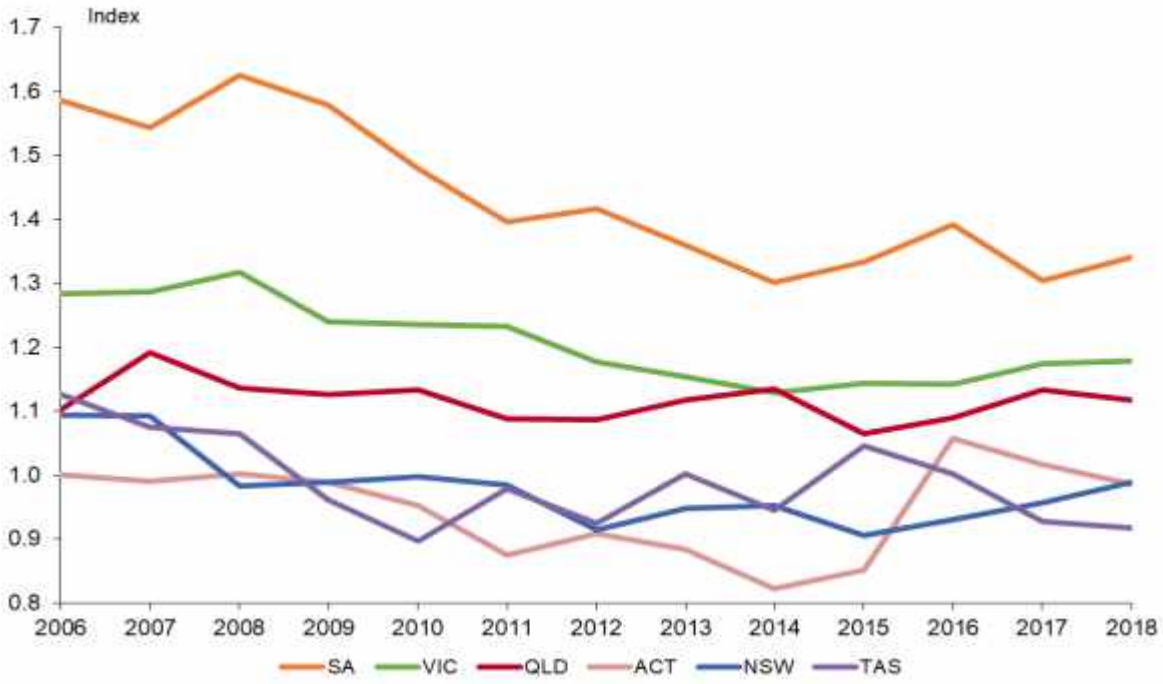
Source: AER Benchmarking report 2019

This figure tells a couple of important stories, the first is that it confirms that South Australia consumers are paying high electricity costs. It also shows that the distribution component of the retail electricity bill in South Australia is about 30% of the total. Only the Australian Capital Territory has a lower distribution charge. We know that our SAPN colleagues would highlight that the geographic area of ACT is much smaller than South Australia and the concentration of customers much higher, making it an easy geographic region to serve than South Australia - we would agree!

A useful measure of energy network efficiency is Multilateral Total Factor Productivity (MTFP) which the AER explains "measures the relationship between total output and total input. It allows total productivity levels as well as growth rates to be compared between businesses."

[2] https://www.aer.gov.au/system/files/D19-187221%20AER%202019%20distribution%20network%20service%20provider%20benchmarking%20report%20-%20November%202019.PDF

Figure 4.1 Electricity distribution MTFP levels by state, 2006–18



Source: Economic Insights, reported by AER in Benchmarking Report 2019

This graph shows that SAPN has the best MTFP performance across the national electricity market, though it is not clear yet whether the trend is for gradually improving MTFP, or continued decline. This is partly tied up with the impacts of high rooftop PV penetration in South Australia, considered elsewhere in this submission.

Suffice to say that we recognise that SAPN is an efficient network business and that South Australians generally pay a smaller share of their electricity bill for network use of system charges than interstate customers.

We've also been very clear with SAPN that electricity bills are too high in South Australia, a message that they have heard very clearly from multiple customer sources. We have said that they need to be able to contribute to reducing electricity prices in South Australia, along with every other part of the electricity supply chain. We also accept that other components of the supply chain should be making a greater contribution to bringing prices down.

SAPN, as efficient as they are, still has a role to play in reducing their charges to customers and to making a contribution to electricity bill reduction in South Australia.

3.6 SAPN Revised revenue proposal

We repeat some other key questions, and themes that we presented at the AER's public forum (30th October 2019) that were considered in the draft decision. At the forum we said that the critical issue for consideration is that of equity, with equity related issues being:

1. managing uncertainty
2. replacement capital expenditure
3. consideration of worst served customers
4. taxation and what is fair and reasonable, noting the AER is decision on taxation
5. future networks and future tariffs

3.6.1 Managing Uncertainty

The environment in which energy business operate is now one of uncertainty with no one really knowing what are in the best long term interests of consumers of electricity, taking a life of capital investment focus of determining what the long term is. The National Energy Objective does not provide certainty now and into the foreseeable future.

Uncertainty is a reality with SAPN's own power network at the global forefront of pragmatically operating within the environment of uncertainty caused by moving generation to renewable sources and being much more distributed.

The take-up rates of emerging technologies including small and large scale storage and use of electric vehicles are examples of uncertainties that we know about, but which we do not know the rate at which they will move into near future energy systems. This means that planning for these and other new and emerging technologies is very difficult.

3.6.2 Repex

We have identified expenditure on replacement capital as a major element of debate for resolution in the AER's final determination.

The question we posed was "how far can we kick the can down the road?" With the subtheme being how necessary replacement capital expenditure is fairly shared between current, near future and longer term future generations.

The AER's draft decision identified aspects of repex expenditure proposals that were underdeveloped, so these have been areas of discussion between SAPN and consumer interests for some time, particularly heightened since the draft decision.

3.6.3 Worst served customers

Consideration of the amount of money to be allocated for improving services to worst served customers and related questions about "hardening the network" have been major examples of debates about prudent and equitable expenditure.

3.6.4 Taxation

The questions of the impact of the AER's taxation treatment decision on SAPN were being vigorously considered at the time of the release of the AER draft decision. Consequently, we have given considerable attention to this question with a separate report included as part of this submission on appropriate, consumer focused treatment of taxation for SAPN. In short, we were asking whether SAPN's situation warranted some transition arrangements, given that the regulator proposal was developed before the tax treatment decision was made.

We have particularly appreciated the support of SA Centre for Economic Studies in undertaking this work for us.

3.6.5 Future networks and future tariffs

As South Australian organisations working with South Australia clients, we are acutely aware of the leading work that South Australia Power Networks is undertaking in understanding and planning for change future network use responsiveness and architecture.

3.7 Economic Context

The big electricity concern of customers continues to be affordability. We are not alone in this concern which is summarised by the following graph from the ACCC

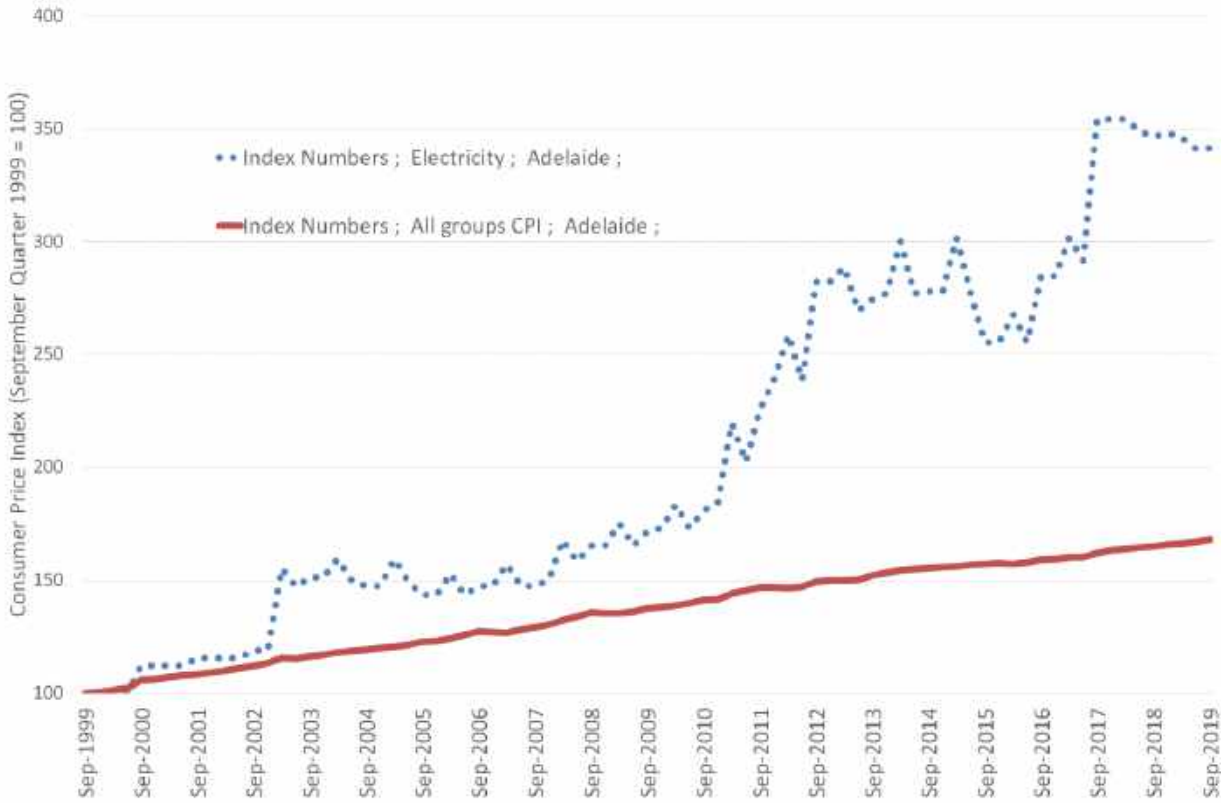


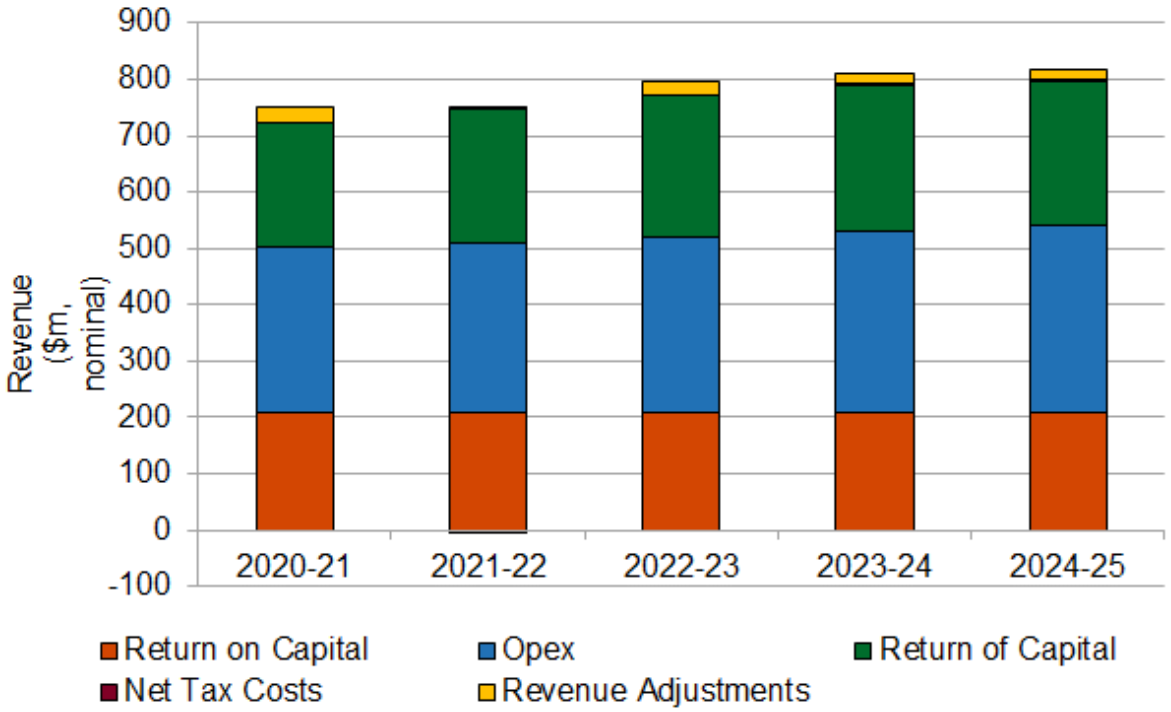
Figure 1: 20 years of Electricity component of the Consumer Price Index vs general inflation (the 'All Groups' index)

*Figure **1*** represents a 20-year comparison of quarterly inflation data from the Australian Bureau of Statistics (ABS) – contrasting the Electricity Price Index with the 'All Groups' or General Inflation Index. This timeline coincides with the period of time since the South Australian Electricity Distribution Network was privatised. The coincidence with network privatisation is presented as context. The Electricity Index of Figure 1 reflects the relative price paid by consumers for the entire electricity supply chain. According to SA Power Networks, the Distribution component has tracked below the All Groups index – highlighting how much the other components have increased.

4 Operating Expenditure (Opex)

The AER's Post Tax Revenue Model (PTRM) shows Opex is the largest single component of revenue, as shown in the graph below, (though there is a mix of components of return to capital). The point is that operating costs are those over which SAPN has the greatest control and Opex costs also have the most direct relationship between network business and customer – dollars received from customers each year is the same as dollars spent by SAPN; as compared to capex, for example, where the direct return to SAPN for expenditure in any given year is a fraction of total capital raising.

In other words, Opex matters!



Our starting point for Opex considerations is the AER's draft decision that includes the following summary table. This draft decision is a 5% reduction on the allowance proposed by SAPN.

Table 7 Comparison of SA Power Networks' proposal and our draft decision on opex ($ million, 2019–20)

Opex category	SA Power Networks proposal	AER draft decision	Difference ($)
Base (reported opex in 2018–19)	1 381.0	1 381.0	–
2018–19 to 2019–20 increment	18.0	16.6	–1.4
Trend: Output growth	30.6	25.6	–5.0
Trend: Real price growth	25.7	9.7	–16.0
Trend: Productivity growth	–	–20.8	–20.8
Step changes	75.1	53.6	–21.5
Total opex (excluding debt raising costs)	**1 530.4**	**1 465.7**	**–64.7**
Debt raising costs	20.5	7.2	–13.3
Total opex (including debt raising costs)	**1 551.0**	**1 472.9**	**–78.1**

The SAPN revised revenue proposal is summarised in the SAPN attachment 6 as follows

Table 6-1: SA Power Networks opex proposals compared to AER Draft Decision for the 2020-25 RCP

Expenditure category (June 2020, $ million)	Original Proposal	AER Draft Decision	Revised Proposal
Base Year (including increment)	1,399.0	1,397.6	1,340.8
Step changes	75.1	53.6	76.2
Output Growth	30.6	25.6	24.7
Real Price Growth	25.7	9.7	20.4
Productivity Growth	-	(20.8)	(20.1)
Opex excluding debt raising	**1530.4**	**1465.7**	**1,442.0**
Debt raising costs[1]	20.5	7.2	11.3
Total opex	**1551.0**	**1,472.9**	**1453.3**

The bottom line is an SAPN revised revenue proposal for operating costs that is marginally less than the AER draft decision. This is great news for South Australian energy customers, and we commend SAPN for their diligence in seeking to further enhance efficiency in a business that is benchmarked as being amongst the most efficient electricity network businesses in Australia.

There are three aspects of the Opex proposal that about which we wish to make some observations.

- Step Changes
- Labour prices
- Productivity

4.1 Step Changes

Step changes are additional allocations for operating cost revenue for costs that are exogenous to the business, that is they are imposed by bodies or circumstances beyond the direct control of the business.

We note that over the past 12 months or so of discussions with SAPN the topic of 'step changes' has been an ever-changing matter, with early expectations being that there would not be any step change proposals. However, the rapidly changing nature of the environment in which energy markets are currently operating has meant that SAPN has ultimately proposed six step changes, all of which meet the 'test' of being externally derived.

The AER has accepted the appropriateness of all of the proposed changes with reduced allowances for some of them in the draft decision. SAPN has responded to the draft decision with the following opex proposal in their revised revenue proposal.

Table 6-5: SA Power Networks summary of step changes for the 2020-25 RCP

(June 2020, $ million)	Original Proposal	AER Draft Decision	Revised Proposal
LV Management	3.8	3.8	3.7
Cloud Transition – Hosting	7.2	7.2	7.2
Cloud Transition – Scheduling	3.8	3.8	3.7
Cable and Conductor minor repair	68.2	49.7	49.7
Critical Infrastructure Compliance	12.1	12.1	10.1
GSL Reliability	(19.9)	(23.0)	(1.8)
Distribution Licence Fee	-	-	3.2
Utilities Cyber Maturity Uplift	-	-	1.7
LV Transformer Monitoring	-	-	(1.3)
Step Change	**75.1**	**53.6**	**76.2**

We note that SAPN has added three elements to the step changes proposed, these being: distribution license fee, "cybersecurity uplift" and LV transformer monitoring. The first two of these are simply additional, external costs imposed on SAPN that justify acceptance of step changes. The low-voltage transformer monitoring proposal is considered in more detail in the next section dealing with capex. We accept the merits of this proposal and the associated opex component.

We are relaxed about the GSL reliability adjustment as this is an estimate and will change no doubt change over the coming months.

All other step change bids are in line with the AER draft decision, and where relevant, with discussions that we have had with SAPN.

4.2 Labour prices

The question of appropriate labour cost escalators has been lively for some time with differing views about "the best" real wage price index. In the draft decision, the AER summarised their analysis with the following:

> *"We looked at 18 WPI growth forecast from Deloitte and 16 from BIS Oxford Economics over the period 2007 to 2018. These were the Australian utilities real and nominal WPI growth forecasts from the reports published by BIS Oxford Economics and Deloitte. We then compared them to actual Australian real and nominal WPI growth for the electricity, gas, water and waste services (utilities) industry reported by the Australian Bureau of Statistics (ABS). 191 We calculated the mean error and mean absolute error for each series as well as an average for Deloitte and BIS Oxford Economics. We found that the forecasts from Deloitte were more accurate than the forecasts from BIS Oxford Economics (see Table A6.1 which presents the real analysis). The average of Deloitte's forecasts tracks closer to the actual ABS reported WPI (and has a smaller mean error and mean absolute error). In contrast, since 2011 the average of BIS Oxford Economics' forecasts has been persistently at, or above, actual real WPI growth (and have a higher mean error and mean absolute error)."*

In response, SAPN has said in their revised revenue proposal:

> *"Since the publication of the AER's Draft Decision, we have engaged further on this topic with customers and stakeholders for the purposes of our Revised Proposal, via two meetings with our Customer Consultative Panel (CCP). The general feedback we received, particularly from stakeholders representing vulnerable customers, was that they felt many South Australians had not experienced real wage increases. We appreciate there is general complexity in understanding the drivers of labour price movements in South Australia, particularly for specific and specialist skilled sectors like ours as compared to other parts of the State's economy. We are also conscious of ensuring that the costs of service provision to our customers are no higher than they need to be."*

We confirm that wage escalators have been enthusiastically discussed with SAPN and that we have been active in those debates. We support the view that energy businesses in general need to be cognisant of the wage and cost realities of their customers. For a significant number of lower income households, in particular, real wages are static and for many people actual incomes are reducing in real terms, due to less hours of work. Consequently, we think that both in response to realities of customers and recognising the current global economic circumstances, a lower wage escalator is reasonable. We also very satisfied with the AER analysis and support their view.

4.3 Productivity

We are very pleased that SAPN has accepted that AER requirement for an ongoing productivity 'dividend' for customers.

4.4 Our view

We support the opex revenue proposal put by SAPN in the revised revenue proposal which is in line with the AER's draft decision. We regard this as a good outcome for South Australian consumers

5 Capex

We commence our consideration of capital expenditure by revisiting the AER's draft decision in which a total of $472.8 million was removed from the initial proposal by the AER. This was a reduction of 27.5% of the capital budget proposed by SAPN for the 5 years of the regulatory period.

Table 6 Assessment of required capex by driver 2020–25 ($ million, 2019–20)

Category	Initial proposal	AER draft decision	$	%
Repex	$637.2	$508.5	-$128.6	-20.2%
DER Management capex	$106.6	$74.7	-$32.0	-30.0%
Augex	$265.4	$187.3	-$78.1	-29.4%
Gross Connections	$553.0	$513.6	-$39.4	-7.1%
ICT	$284.6	$196.8	-$87.7	-30.8%
Fleet	$116.6	$79.9	-$36.7	-31.5%
Property	$61.5	-	-$61.5	-100%
Other non-network	$42.2	$30.2	-$11.9	-28.3%
Capitalised overheads	$62.4	$56.0	-$6.4	-10.3%
Superannuation adjustment	-$38.3	-$37.4	-$1.0	-2.5%
Gross Capex	**$2091.1**	**$1609.6**	**-$481.5**	**-23.0%**
Less capcons	$350.1	$347.1	-$3.0	-0.9%
Less disposals	$21.4	$15.7	-$5.7	-26.8%
Net Capex	**$1719.7**	**$1246.9**	**-$472.8**	**-27.5%**

Source: AER Draft Decision, Overview

The AER made the following comments in explaining their draft decision to reduce the proposed capital expenditure allowance.

"There are number of factors contributing to our lower substitute capex forecast:

- *Insufficient evidence to support the prudency and efficiency of SA Power Networks' forecast capex. We encourage SA Power Networks to address the issues we have identified in its revised proposal. … We have engaged extensively with SA Power Networks on the reasons for our placeholder for these programs and projects and the evidence required to satisfy us on the prudency and efficiency of that expenditure;*

- *Based on the information before us, we consider that some programs are not required. Further, there appeared to be a lack of rigour in the testing of reasonableness of the forecast;*

- *Other factors, (see next section on repex)"*

We are also aware that the AER was clear in identifying areas of proposed expenditure where SAPN had not adequately justified the revenues that they were seeking.

For our considerations, we have engaged with SAPN on the main changes in areas of major proposed expenditure. In particular we have had lengthy discussions and debate regarding replacement expenditure, connections costs, IT costs and some non-network elements of the capital program. These are the areas of focus through much of the balance of the submission.

The SAPN Revised Revenue Proposal, in response to the AER's draft decision is given below and shows the SAPN response is seeking most of what they sought in the original proposal, an increase of $449.5 million on the draft decision.

Table 5-4: SA Power Networks' Original and Revised Proposals compared to the AER's Draft Decision (June 2020, $ million)

Capex category	Original Proposal	AER Draft Decision	Revised Proposal	Difference to Draft Decision $
Repex	669.5	538.5	682.2	143.8
Augex	390.9	277.4	331.7	54.2
Connections (net)	213.2	176.3	261.7	85.3
Non-Network	467.4	270.3	436.5	166.2
Total	**1,741.1**	**1,262.5**	**1,712.0**	**449.5**

The partners, and other consumer interests, have been involved in lengthy and detailed discussion with SAPN over all the key issues behind this revised revenue proposal, which is probably a higher bid than would have been expected when the AER's draft decision was handed down. In general negotiation terms, we might have expected a revised revenue proposal somewhere near the midpoint of the difference between the SAPN initial proposal and the AER's draft decision. The fact that SAPN have responded with the revised capex proposal similar to the original position with higher bids than originally proposed for some aspects of the capital budget, can be considered to be surprising.

The following gives voice to the reasons for our support of SAPN for some of their key revised revenue proposal bids.

We also repeat the comments made elsewhere in this submission that we were very impressed with the extent of openness and willingness to engage and debate that we experienced with SAPN, particularly in the period after the release of the draft decision. There was extensive and sometimes intense dialogue. Perhaps it is pertinent to note that our predilection as consumer advocates is to 'discount' capital expenditure bids made by network businesses as generally being overly cautious from the network perspective, failing to fully understand the realities of cost pressures faced by customers, who

bear extra cost of excess network caution. There is also the sense that perhaps there has been a past culture of networks 'gilding the lily' in revenue proposals particularly associated with capital expenditure.

So against this wariness on our behalf, we first note the table 5.3 from SAPN revised revenue proposal, attachment 5 which dealt with capex, a list of issues raised by the AER draft decision, summarising what was heard from both the AER and customers and then summarising their response. This is very useful context and reflects an organisational culture of a greater willingness to 'hear' advice and perspective from customers and regulators, rather than reverting to 'propose and defend' that has tended to dominate past energy regulatory practice Australia wide. It would be churlish of us not to note that consumer engagement by Australian energy network businesses has improved dramatically over the past 2 to 3 years and to note that significant leadership in consumer engagement has come from South Australian network businesses: Australian Gas Networks, ElectraNet and SAPN.

There are a couple of observations that we take from this instructive table. The most important observation is that SAPN has responded assiduously to the feedback from the AER's draft decision by revising forecasting along with all aspects of the revenue proposal, developing much more detailed "business cases" for much of the proposed expenditure and engaging actively with stakeholders including consumer groups like those represented by the partnership.

We highlight that after many discussions on some topics there has been iteration towards agreement; on other matters we disagree, to some extent at least, with what SAPN is proposing including aspects of IT, augex, property and fleet - aspects of difference that we regard as healthy and appropriate.

5.2.5 What we have heard and how we have responded

Table 5-3 below outlines the key issues raised by the AER and our customers and how we responded when developing our Revised Proposal capex forecast for the 2020-25 RCP.

Table 5-3: AER capex Draft Decision for the 2020-25 RCP (June 2020, $ million)

Issue	What we heard	How we responded
Governance and forecasting methodology	Governance and management framework led to an overstated total capex forecast.	We have improved our forecasting methodology for our Revised Proposal in order that our forecast better reflect the replication of our governance and budgeting process.
Repex	Some repex lacks cost benefit analysis. The CBRM models are a black box and they overstate risk. Historical trend forecasts include forecasts for the last two years of the 2015-20 RCP which are significantly higher than actuals	We have prepared business cases with cost benefit analysis for three repex projects. We have engaged extensively with the AER to provide better clarity on our CBRM forecasting methodology. In addition we engaged CutlerMerz to undertake an independent review of each of our CBRM models. We have revised our historical trend forecasts to incorporate the audited 2018/19 actual results.
DER Management augex	Did not account for the interrelationships that may exist between DER related programs	We have prepared a detailed explanation of the interrelationships between our DER related projects to demonstrate that they are complementary, not overlapping. We have developed a more efficient solution for the Low Voltage (**LV**) monitoring program which results in opex reductions.
Other augex	Forecasts for some programs either lack robust option analysis, overstate the benefits or do not establish the need to undertake a project	We undertook additional engagement with our stakeholders to better understand their concerns. We have developed more robust options analysis and cost benefit analysis and reviewed benefits to provided better evidence for specific projects. We engaged Oakley Greenwood to review the outcomes of the ESCoSA 'willingness to pay' survey. This review demonstrated that when considering the survey results on a comparative basis with our own engagement, there is significant support for the poor reliability feeder program.
Customer connections	Accepted capital contributions however they identified unsupported assumptions in the (gross) connections forecast. BISOE forecast is a black box.	SA Power Networks and BISOE have engaged with the AER to better explain the forecasting methodology. We have revised the basis of the connections forecast to align with RIN data.

Issue	What we heard	How we responded
Information, Communications and Technology (ICT)	The AER accepted the recurrent ICT capex as it was in-line with historical expenditure. The AER accepted four of eight non-recurrent projects. Not all options were explored.	We have undertaken further engagement with our stakeholders on the four projects that were not accepted. We have considered the AER's concerns and have refined our business cases accordingly.
Operational Telecommunications	The AER accepted our OT as it was consistent with historical expenditure. The AER did not accept our Advanced Distribution Management System (**ADMS**) project because we did not sufficiently establish the need to undertake the upgrade, or provide any options analysis or cost-benefit assessment to support the proposed investment	We have developed a robust business case for the ADMS software and hardware replacement project to address the AER's concerns.
Property	The AER did not provide any property related capex as it considered that there was insufficient evidence to support the forecast	We have improved our forecasting methodology by performing cost-benefit analysis of some major projects and a top-down analysis and validation of the overall property expenditure. This has resulted in a forecast that is more in line with our historical expenditure.
Fleet	The AER's assessment is that we are the most costly provider of fleet per employee as our vehicle service life and unit rate assumptions exceeded efficient costs.	We do not accept the findings of this analysis, which considers capex in isolation of other factors. The size of our distribution network is a significant contributor to the volume of fleet required, with the need to efficiently access urban and rural assets to maintain safety and reliability of the network for all customers. To support our Revised Proposal, we have conducted analysis of our fleet capex on a circuit kilometre basis, which we consider a more reasonable measure of fleet requirements.
Contingent project	The AER considered our proposed triggers to be reasonable but indicated that it did not have sufficient information to support the contingent project. The AER also indicated that we had not provided sufficient details in relation to the nature of the regulatory obligation to which the contingent project would be responding.	Since submitting our Original Proposal, further details and information have become available from subsequent meetings and dialogue with the Australian Energy Market Operator (**AEMO**). AEMO has identified specific operational challenges, begun to quantify when they may occur, and begun to determine mitigation measures in South Australia, including certain actions that it considers will need to be taken by SA Power Networks during the 2020-25 RCP. Additional information in support of the contingent project is provided in this Revised Proposal.

Source, SAPN revised Revenue Proposal, Attachment 5

At this stage of the submission we also note the last issue from the table, "contingent project." We agree with the AER's comments that the proposed triggers are reasonable, and we also note that the context for this potential contingent project is rapidly evolving. For example, we are writing this submission at a time of unprecedented fires across most states of Australia. In recent reporting from the Bureau of Meteorology 2019 was Australia's hottest year on record. This is some of the context, and increasing

uncertainty that we all confront, energy network businesses included. So, at this stage the process relating to the possible contingent project is much more important than trying to second-guess the timing, cost and validity of the potential project. The critical thing for us is that SAPN, AEMO, AER and any other relevant bodies maintain transparent processes and maintain active ongoing engagement with consumer interests with engagement at decision-making level and well beyond the 'inform' and 'consult' stages of the IAP2 spectrum.

5.1 Forecasts

One of the key aspects of AER advice from the draft decision relates to the need to tighten forecasts, so we give some attention to this topic in this section. The following figure from the AER draft decision highlights some of the concerns about the SAPN initial capital expenditure proposal. One of the concerns relates to record high levels of capital expenditure being projected for the last two years of the current regulatory period, noting that these are projections, not actual expenditure figures. The concern is the low level of actual capital expenditure for the start of the current regulatory period particularly in the first two years, with a known revenue allowance, while the final two years of projected expenditure are higher than any other year over recent decades. The substantial fluctuation in year by year capex expenditure raises concerns about both the extent to which the high expenditure projections for years ending June 2019 and 2020 will be met and the extent to which SAPN can manage capital expenditure with a less volatile annual expenditure path. They also raise the question about the validity of using the projected expenditure of these 2 years as a basis for next period capital allowances. Certainly, a more stable capital expenditure profile over time would give greater comfort to consumers about a well-planned capital expenditure program being efficiently planned programs implemented.

Figure 6 SA Power Networks' capex over time ($ million, 2019–20)

Source: AER Draft Decision

We have had extensive discussions with SAPN about these observations and have been advised that part of the reason for the high level of spending volatility during the current regulatory period relates firstly to the significant reductions allowed by the AER for the 2015-2020 period. More importantly, they reflect the reality that there was much more management and work focus on responding to high levels of storm activity and related damage particularly over 2016 – 2018 years than could have been reasonably predicted. We confirm that the number of storm events early in the current regulatory period was substantial, including the (in)famous 'system black' event of 2017. While this event had arguably more impact for the transmission network, there were still significant distribution network responses required over an extended period of time.

So we are inclined to accept the SAPN argument that the capital expenditure allowance that they have sought can be managed and implemented efficiently, both because they've improved their planning and scheduling practices and also because responding to storm events early in the current regulatory period was substantially unpredictable and so unable to be effectively planned for.

5.2 Replacement Expenditure (repex)

There is no issue relating to the SAPN revenue proposal that focuses the question of "kicking the can down the road" more than consideration of appropriate, timely and efficient replacement expenditure. Consequently, this has been arguably the major topic of debate and consideration between SAPN and the partners throughout the development of the revised revenue proposal.

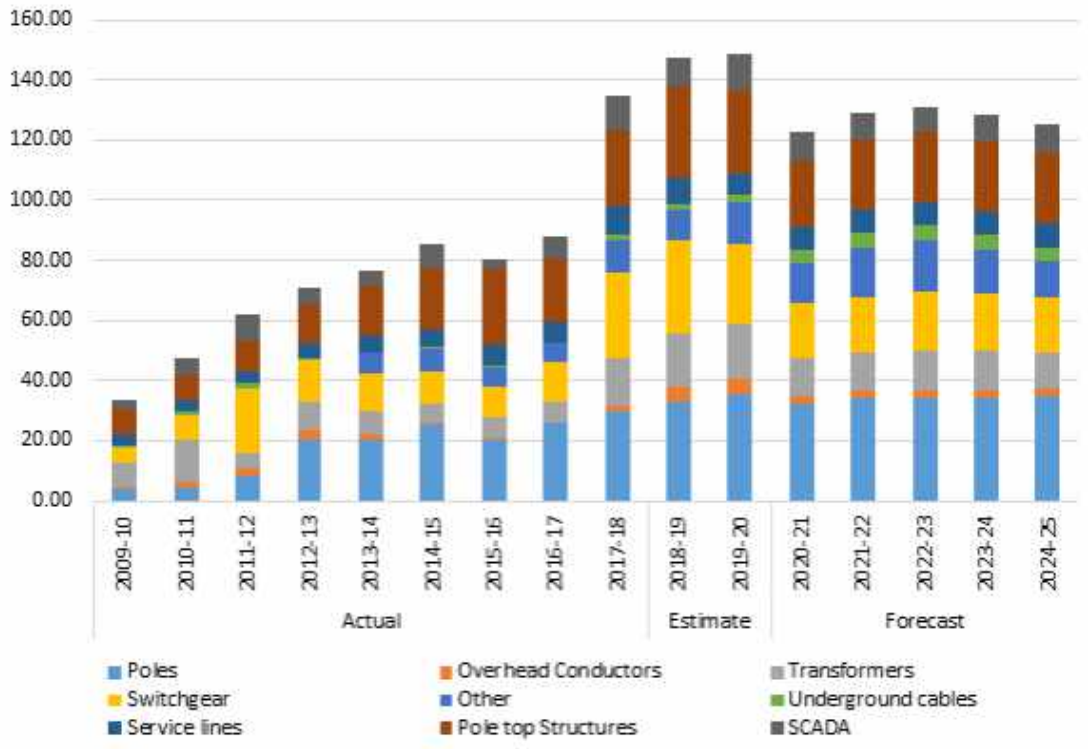
The AER also said regarding factors contributing to the lower substitute capex forecast

- *Where SA Power Networks' programs are of a recurrent nature such as repex or recurrent ICT we have relied more on confidence in its actual spend, especially in cases where we have revealed costs. We have therefore relied on these when testing SA Power Networks' forecast or in coming up with our substitute estimate;*

- *We have observed inflated risk assumptions in SA Power Networks' modelling, particularly in repex, which is likely to overstate the required capex to mitigate that risk.*

The following figure from the AER draft decision is instructive. Firstly, it shows the significant expenditure "hump" over the three years ending June '18, '19 and '20, which are projected expenditures for the final two years of the current period and the proposed allowance for the first year of the 20 - 25 regulatory period. As discussed elsewhere, we are somewhat wary about this three year 'hump' but are inclined to accept SAPN reassurance that this expenditure is needed and can be implemented efficiently.

Figure 5.5 SA Power Networks' repex by asset group 2009–10 to 2024–25 ($ million, 2019–20)



Source: SA Power Networks' regulatory information notices - AER analysis.

From AER Draft Decision, Attachment 5, Capital Expenditure

The second observation we take from this table is that the most significant expenditure items over much of the reporting period relate to poles, with pole top structures and switchgear a significant driver for the 2018 - 20 expenditure 'hump.' For this reason, a major part of our focus in repex discussions with SAPN was about poles, with pole top structures expenditure being closely connected.

The following table shows the SAPN revised revenue proposal repex expenditure bid and certainly emphasises the substantial nature of expenditure on poles and related infrastructure, confirming the merit in this being a focus of engagement.

Table 5-9: SA Power Networks' Original and Revised Proposals repex forecasts compared to the AER's Draft Decision (June 2020, $ million)

	Original Proposal	AER Draft Decision	Revised Proposal	Difference to Draft Decision $
Proposed repex – Option 2	**669.5**	**538.5**	**682.2**	**143.8**
Poles	165.2	120.1	180.7	45.1
Overhead line components	94.7	93.6	109.1	15.6
Switchgear (powerline)	52.0	41.8	54.2	12.4
Service lines	41.7	41.3	49.1	7.8
Other powerline	97.3	95.6	87.2	(6.5)
Zone substation power transformers	26.8	18.7	30.0	11.3
Zone substation circuit breakers	60.5	44.5	58.1	13.6
Zone substation protection relays	16.4	12.9	16.3	3.4
Other substation and CBD	47.2	41.4	43.3	1.9
Telecommunications	30.5	24.0	24.8	0.8
Northfield GIS	11.8	0	11.8	11.8
PILC cables	14.4	4.7	7.1	2.7
North Terrace cable ducts	10.7	0	10.5	10.5

SAPN revised Revenue Proposal, Attachment 5

It is initially curious that SAPN has proposed an increase in spending on poles in the revised proposal compared to the original proposal, this being a $45 million increase on the AER draft decision of $120 million. Increases in expenditure are also proposed for other items with which there was some connection with poles. The following summarises our engagement with SAPN about pole replacement.

<u>Stobie Pole Replacement</u>

The partners challenged SAPN about the extent of their proposed pole replacement program even before the draft decision was released by the AER. The following attempts to tell some of the story of our interaction which has led us ultimately to supporting the SAPN revised revenue proposal repex bid for expenditure on pole replacement.

There is a joke that says that the only two things that remain after a nuclear holocaust will be cockroaches and SAPN stobie poles. This reflects the widespread view that the concrete and steel poles that have been used in SA for decades are much more robust and consequently long-lived than the wooden poles that have been used in the eastern states of Australia.

We asked SAPN "what is the life of a stobie pole and so when should they be replaced?" SAPN also highlighted that where poles can be repaired, rather than replaced, as this is cost-effective for consumers and so repair rather than replacement is implemented where appropriate.

We agreed initially that the life of a pole is probably between about 50 years and 200 years but agreed that this range is a bit too wide. To better understand the stobie pole story, we went walking on some of the suburban foot paths of Adelaide with SAPN staff to look at stobie poles - as well as a bit of vegetation management and the occasional dead possum.

The two main sources of stobie pole failure are rust and corrosion of the steel and "concrete cancer." Invariably the weak point is at ground level, in some cases corroding steel can be braced with additional still supports, extending the life of poles by 20 to maybe 30 years.

We understand that the main factors impacting on the risk of pole deterioration relate to weather and SAPN has identified four corrosion zones with increasing risk of deterioration of poles between zones 1 and 4. Zone 4, referred to as extreme level corrosion zone by SAPN refers to coastal areas where salt laden winds provide a much more corrosive environment than dry inland geography.

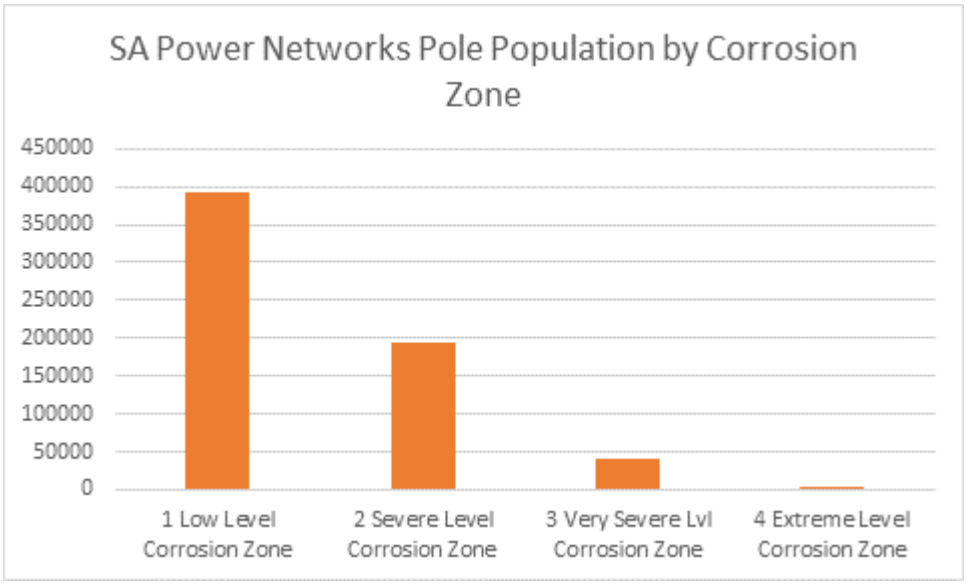
SAPN gave us the following chart showing the number of poles in each of the four corrosion zones that they have identified.

Table: Stobie pole population in corrosion zones

Corrosion Zone	Number of Poles	Percentage of Poles
1 Low Level	**392,997**	**62%**
2 Severe Level	**195,281**	**31%**
3 Very Severe Level	**41,456**	**7%**
4 Extreme Level	**3440**	**1%**
Total	**633174**	**100%**

Source: SAPN engagement presentations 2019

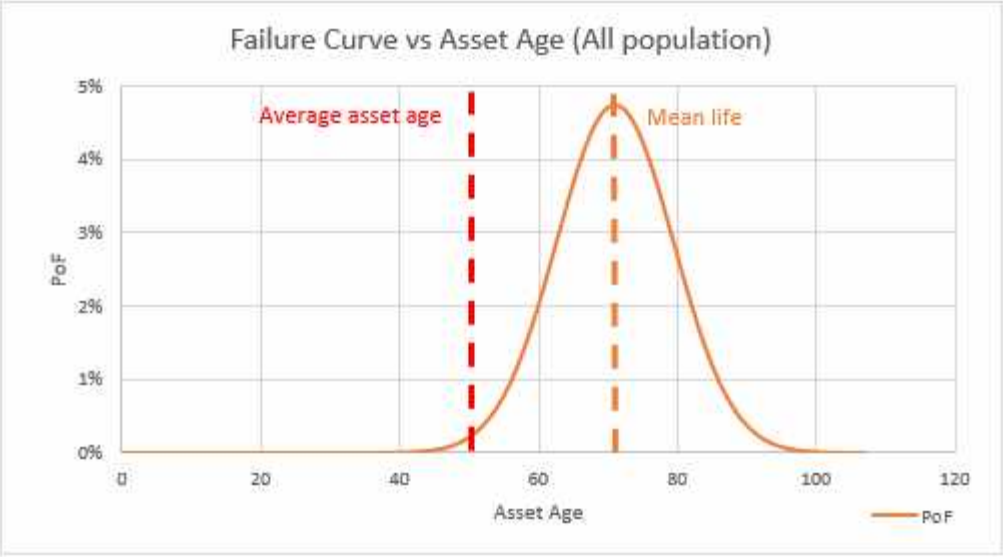
This shows that just over 60% of all poles are in level 1 low risk zones and so the poles in these areas can be expected, on average, to have longer lives than poles in more corrosive locations. In round figures about 10% of poles are in high to highest risk locations and can be expected to have shorter lives - this is shown graphically in the following chart.

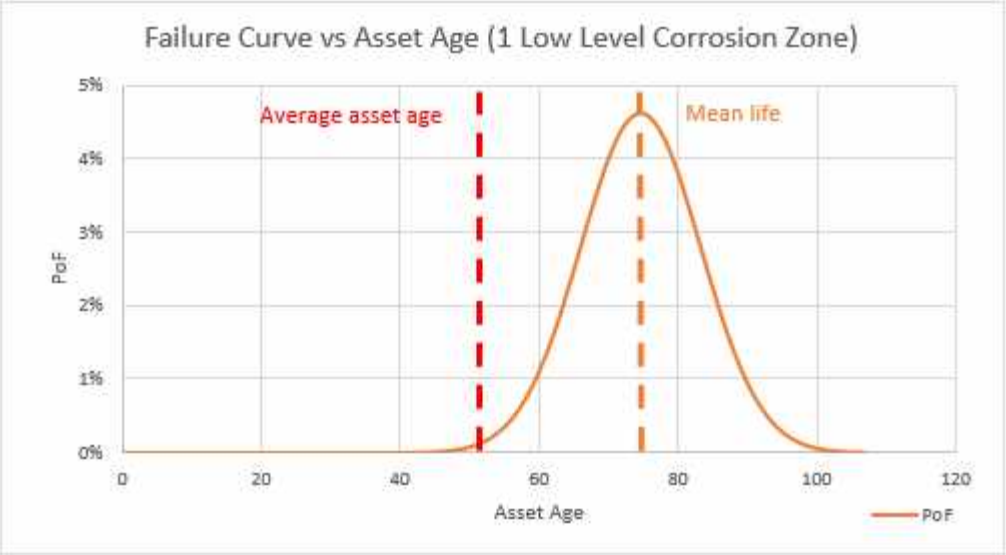


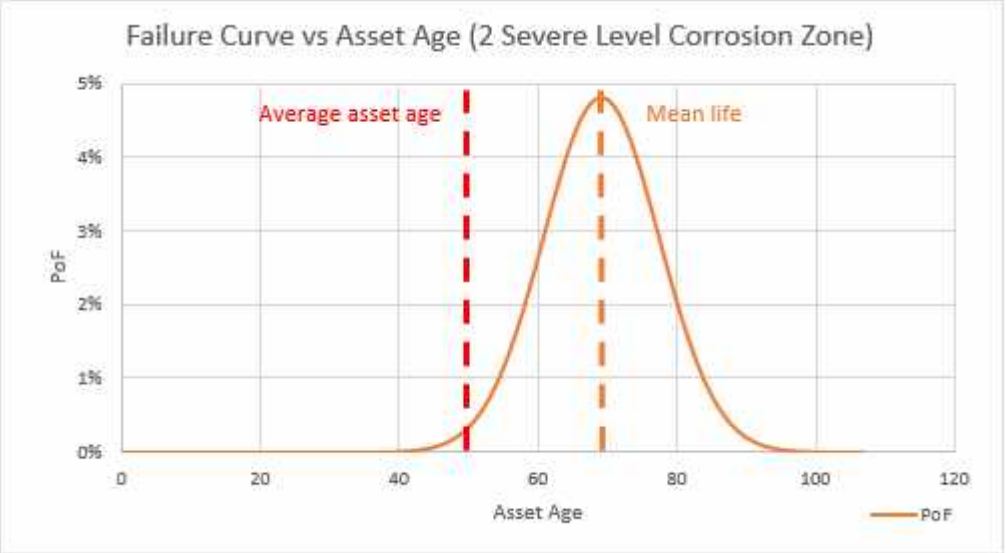
Source: SAPN engagement presentations 2019

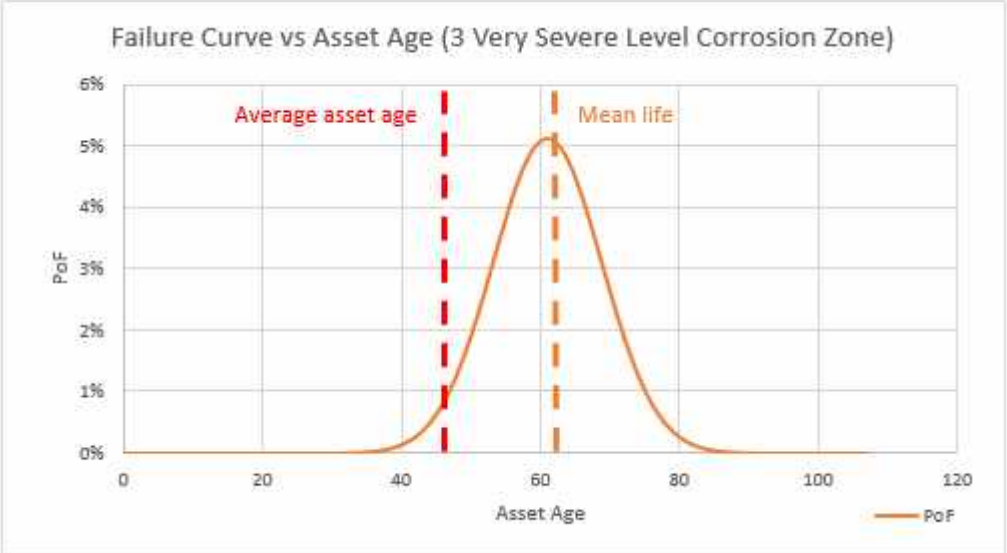
SAPN also provided the following indicative charts showing average current asset age and mean life for all poles and then for poles in each of the four different corrosion zones.

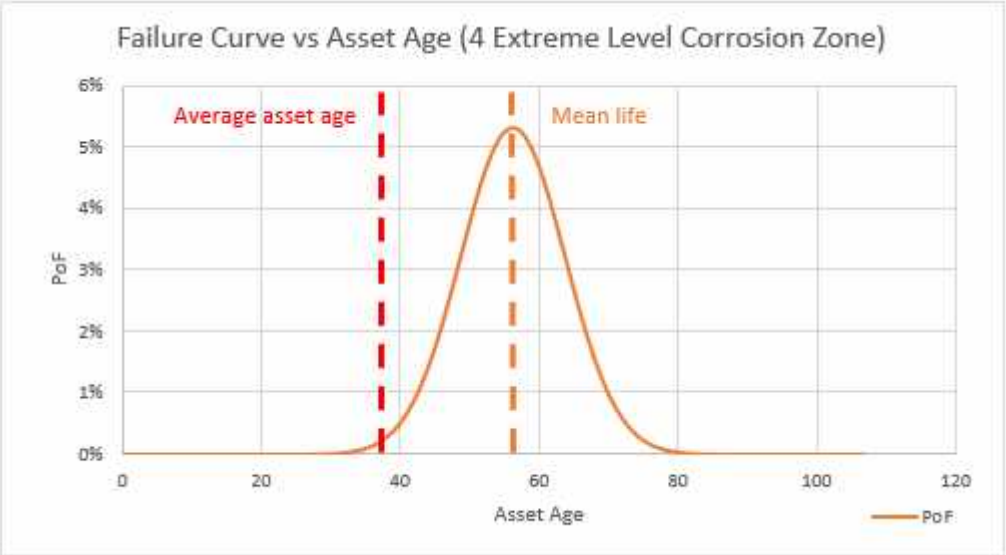
For all SAPN poles the current average age is about 50 years, in part reflecting a period of rapid growth in demand and population spread during the 1960s and 70s. The estimates that SAPN have given to us for average (mean) life of all poles is about 70 years. We note that SAPN has provided normal distributions for each of the five graphs, and we suspect that the distributions of the failure curve are not completely symmetrical with a longer "tail" to the right-hand side of the distribution, meaning some poles will probably have a life beyond 100 years. However, the graphs provide very useful information for consideration of pole replacement strategy.




Failure Curve vs Asset Age (1 Low Level Corrosion Zone)
Average asset age
Mean life
PoF
5%
4%
3%
2%
1%
0%
0
20
40
60
80
100
120
Asset Age
PoF


Failure Curve vs Asset Age (2 Severe Level Corrosion Zone)
Average asset age
Mean life
PoF
5%
4%
3%
2%
1%
0%
0
20
40
60
80
100
120
Asset Age
PoF


Failure Curve vs Asset Age (3 Very Severe Level Corrosion Zone)
Average asset age
Mean life
PoF
6%
5%
4%
3%
2%
1%
0%
0
20
40
60
80
100
120
Asset Age
PoF



We draw the following inferences from this data, and from our many discussions with SAPN about poles:

- the narrowest gap between average current asset age and predicted average life for poles is about 17 years, or 3 regulatory periods, for corrosion zone 3 which is about 7% of SAPN poles;
- there is about a 20 year life difference between poles in corrosion zone 1 and zone 4;
- there is somewhere between about 20 and 25 years gap between average current asset life and average life for the longest live poles in corrosion zone 1, this being about 60% of SAPN poles.

Our overall observation is that it would not be prudent to kick the poles 'can' too much further down the road. There is no need for panic, with most poles having at least another 20+ years of functional life, however active efforts need to be made in the 2020 - 25 regulatory period to reduce the risk of future pole failure particularly in corrosion zones 3 and 4.

In very general terms, we deduce that up to 10% of SAPN poles will need to be replaced over the next three regulatory periods, which is a higher rate of replacement than has occurred over the last couple of periods.

The revised revenue proposal for pole replacement by SAPN is as follows

Table 5-10: Forecast poles repex for the 2020-25 RCP (June 2020, $ million)

	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Pole replacement	25.2	25.4	25.6	25.7	25.9	**127.8**
Pole refurbishment	7.4	7.42	7.5	7.5	7.5	**37.3**
Line clearance rectification	3.1	3.1	3.1	3.1	3.1	**15.5**
Total	**35.7**	**36.0**	**36.1**	**36.4**	**36.5**	**180.7**

Consequently, after many hours of discussion and consideration, we are satisfied that the increase in proposed repex budget for pole replacement is prudent and fair, by reducing the risk of a much larger pole replacement program in subsequent regulatory periods with a much greater commensurate financial burden on future consumers.

6.1.1 Assets and Works (A&W)

The merit of expenditure on the "assets and works" software package has also been vigorously discussed. SAPN has regularly made the following comments to us and have made this statement in their revised revenue proposal:

- *"In a time where our assets are ageing and more defects are being identified, we are investing in systems to use asset data smarter across our business/the state to minimise the long term repex cost;*
- *By investing in A&W, over the long term (next few decades) we will spend less on repex to manage our ageing network, and customers will pay less;*
- *The level of reliability and community safety to customers will be maintained at a lower long term cost than without A&W."*

SAPN have also said:

"in more detail, the benefit of continuing A&W into 2020-25 is to remove network risk more efficiently/effectively than we are currently. Specifically, A&W benefits are:

- *Repex deferrals due to targeting highest value defects (risk v cost approach);*
- *Repex deferrals due to better work selection (better integration of work planning and scheduling based on 'value');*
- *Reduced repex costs from better bundling of work – more cost reduction (eg travel and other costs). These were not explicit in our original business case;*
- *Other efficiency benefits from automation and process improvement. These benefits manifest as both both capex and opex savings.*

SAPN have also provided the following interesting commentary on the broader question of IT savings to customers from increased IT expenditure, a perspective that we suggest has been widely presented nationally by network businesses, to consumers, over recent years. SAPN says re Assets and Works:

> *"Many stakeholders have stated that they expect IT investment to deliver opex savings* (ourselves included) – *and A&W does deliver some opex savings. However, IT investment also adds opex cost and for A&W (which is largely about better integration of systems/processes) the additional opex costs are higher than the opex savings. We have not sought an opex step change for this – we will have to find ways to manage this higher opex within our total opex forecast."*

While we are much less effusive about the likely benefits of the Assets and Works software package, we have reached the point of acceptance that SAPN strongly believes that there are significant benefits, and so we are inclined to support their revised revenue proposal bid for the assets and works expenditure, more on the basis of SAPN enthusiasm than our own, but we accept that we are not asset management nor IT experts.

6.1.2 Other Repex expenditure

There are two specific repex project proposals for which the AER draft decision provided no support, but which SAPN has discussed extensively with us and others and which they have maintained in their revised regulatory proposal:

- Northfield substation
- North Tce cable ducts

<u>Northfield 66kV Gas Insulated Switchgear</u>

The AER draft decision provided a zero dollar allowance for this project, requiring SAPN to better justify the project. SAPN has said the following in the revised revenue proposal.

> *"Northfield Substation is a critical supply point for Adelaide's Eastern Suburbs' electrical supply, feeding 108,000 households and businesses. It is a Connection Point shared between SA Power Networks and ElectraNet. The 66kV switchgear at the Northfield Substation was built in 1988. After 30 years of continuous service in an outdoor environment, it is in very poor mechanical condition and subject to accelerated ageing. There is significant external corrosion which has initiated five failures of gas seals. Attempts to seal the sulphur hexafluoride gas (SF6)* leaks from the GIS, as recommended by independent parties and facilitated by the manufacturer, has not been successful. * SF6 is critical insulating gas to enable the safe operation of the switchgear. What we originally proposed included a forecast of $11.8 million for the Northfield Substation GIS replacement for the 2020-25 RCP. The Northfield 66kV GIS project is based on prudent risk management and involves a multi-staged approach to address the risks associated with the 66kV GIS at Northfield Substation, through:*

- *Refurbishing the GIS by treating the corrosion to slow down the rate of degradation and re-seal the failed flanges to stop the present gas leaks;*
- *Building part of the final air insulated switchgear (AIS) replacement solution in 2023 to minimise the consequences should the existing GIS fail unexpectedly, or its condition deteriorate beyond a level appropriate to keep it in-service;*
- *Finalising the replacement solution at a time when the performance or condition of the existing GIS makes it unacceptable to keep it in-service."*

We are satisfied that SAPN's re-inclusion of this original budget proposal in the revised revenue proposal is appropriate.

North Terrace Cable Ducts

This is the second repex project in the draft decision, for which the AER gave a zero allowance was duct infrastructure in the Adelaide CBD, specifically focused on North Terrace. SAPN describes the project, and its importance, as follows.

"The duct infrastructure on North Terrace in Adelaide CBD enables the installation and replacement of underground cables without disrupting the above ground footpaths and business activities in the CBD. What we originally proposed SA Power Networks' Original Proposal included a forecast of $11.1 million for the North Terrace cable duct replacement program for the 2020-25 RCP as a subset of the $13.9 million CBD ducts and manholes program. The North Terrace cable duct program proposed to replace the existing ducts along North Terrace between King William Street and George Street. The AER's Draft Decision and how we responded. In its Draft Decision the AER made no allowance for the North Terrace cable duct replacement program. The AER's Draft Decision rejected our proposed forecast for the following reasons:

- *The AER specifically assessed the North Terrace duct replacement program;*
- *The North Terrace duct replacement program had already been approved in the 2015-20 RCP, yet SA Power Networks deferred the program in its entirety; 34 AER, Attachment 5, pages 55 to 56;*
- *SA Power Networks stated that the whole program is reliability driven yet had not provided any cost-benefit analysis to account for unserved energy or value of customer reliability;*
- *SA Power Networks' Asset Management Plan stages duct replacements subject to budget availability, demonstrating a lack of robust testing during the proposal stage.*

We would like to clarify that the North Terrace duct replacement program was not requested, nor approved in the 2015-20 RCP or any prior RCP. When this program was discussed with the SA Power

Networks CCP and other stakeholders, there was strong support for replacing ducts to ensure that existing businesses are able to operate with confidence and without extensive disruption, and that new businesses are able to establish in the popular North Terrace precinct."

We visited a selection of cable duct access points in the proximity of North Terrace. No doubt we were taken to the dankest, dingiest and most diabolical locations, however it is clear that at least some of the North Terrace cable ducts and access points are inappropriate in terms of system efficiency and safety.

As locals, we also acutely aware of the significance and rapidity of growth of load in the north-west corner of the Adelaide CBD, including the new Royal Adelaide Hospital, SA Medical Research Institute and major buildings for both the University of Adelaide and University South Australia. Then there is an increase in the amount of general economic activity occurring as the Adelaide CBD centre moves functionally from Victoria Square to the River Torrens precinct, directly impacting on the North Terrace area.

Consequently, we recognise that the North Terrace area is one of the major growth areas for electricity load in South Australia with the increasing load happening quite rapidly. It is also apparent to us that current infrastructure is inadequate. We therefore support reinstatement of the allowance for this project as proposed in the revised revenue proposal.

Our View about Repex

Since the draft decision public forum, we have been asking whether the SAPN regulatory proposal is "kicking the can down the road?" with the implication being that kicking the can too far down the road is a bad thing, in large part because it imposes unfair cost burdens on future customers.

Our response to this question, particularly regarding the SAPN repex proposal from the revised revenue proposal, is to say that there is not much capacity to "kick the (repex) can down the road." Responsible repex expenditure is needed in the 2020 - 25 regulatory period, which includes repex expenditure to the level that SAPN is now proposing, on the basis of considerable engagement and much more detailed justification of key projects. We support the repex allowance from the SAPN revised revenue proposal.

5.3 Augex

The AER's draft decision includes the following summary of their decision.

Table 5.5 Draft decision on SA Power Networks' total forecast augex ($ million, 2019–20)

Category	Proposal	Position	Difference (per cent)
Capacity	70.8	52.5	-25.8
Reliability	61.8	30.8	-50.1
Strategic	16.3	8.3	-48.9
Safety	54.7	35.9	-34.5
Environmental	9.3	9.3	-
PLEC	52.5	52.5	-
Modelling adjustment		-2.0	
Total	**265.4**	**187.3**	**-29.4**

Source: SA Power Networks proposal, response to information request 8, AER analysis. Numbers exclude DER management related capex.

As with other aspects of the SAPN capex proposal, the AER says that it has reduced the augex proposal for the following reasons *"SA Power Networks has not demonstrated that its capex for capacity, reliability, strategic and safety augex are prudent and efficient. SA Power Networks has justified its forecast for PLEC and its environmental-related augex…"*

The partnership members tended to have greater levels of engagement regarding repex aspects of capex, as we agreed with SAPN that this was a high priority aspect of their regulatory proposal, though some aspects of augex were also discussed.

SAPN said in the overview of their revised revenue proposal:

> *"augmentation expenditure – we have addressed AER concerns on four specific projects including our revised LV Transformer Monitoring program. We resubmit our Low Reliability Feeders program, with strong stakeholder support, and our Hardening the Network program for reconsideration by the AER."*

SAPN's revised augex proposal is summarised in their table copied below

Table 5-33: SA Power Networks' Original and Revised augex forecast compared to the AER's Draft Decision (June 2020, $ million)

Augex category	Original Proposal	AER Draft Decision	Revised Proposal	Difference to Draft Decision $
Distributed Energy Resources	112.0	79.2	86.4	7.2
Capacity	74.4	55.5	65.5	10.0
Reliability	64.9	32.6	62.9	30.6
Strategic	17.2	8.8	8.8	0.0
Safety	57.5	38.0	44.1	6.1
Environment	9.7	9.7	9.7	0.0
PLEC	55.2	53.6	54.3	0.7

Source: SAPN revised revenue Proposal, Attachment 5, Capex

So SAPN is not seeking the same level of increase on the draft decision for augmentation expenditure than they are for replacement expenditure. We suggest that this is appropriate.

The following summarises the augmentation expenditure proposals on which we engaged actively with SAPN.

Low voltage monitoring.

SAPN is seeking an increase of $7.2 million compared to the draft decision for low voltage monitoring. One of the more memorable comments made during our discussions with SAPN was "we can't see the largest generator in our system," referring to the fact that on a number of mild sunny days, rooftop PV is the main source of electricity for South Australia. Yet this network is hidden to SAPN in systems, in the low voltage network. We have agreed with SAPN that DER and particularly rooftop PV is a significant part of the network of the future, a major priority for the network and consequently that much better visibility of PV is necessary for both SAPN and their customers.

We are pleased that SAPN has revised their original bid for low voltage network transformer monitoring from $19 million to $5.2 million. In this regard, SAPN makes the following claim in the revised revenue proposal:

> *"Our SA Power Networks CCP and other stakeholders agree there is a need for improved visibility of our LV network and are supportive of this revised approach to the LV transformer monitoring program."*

We confirm the validity of this observation and consequently support the revised LV transformer monitoring budget proposal, in its reduced form. We are satisfied that SAPN has carefully revise their proposal and effectively budgeted for efficient project.

Capacity

SAPN proposes increased expenditure, compared to the draft decision, for two capacity enhancing projects: Athol Park to Woodville and Myponga to Square Waterhole.

Athol Park to Woodville

SAPN's revised revenue proposal says *"we accept the AER's decision to reject the Athol Park to Woodville 66kV sub-transmission project and we have consequently excluded that project from our Revised Proposal. The SA Power Networks CCP and other stakeholders agree."*

We agree

Myponga to Square Waterhole

We did not look closely at this project, and so will support the AER's decision based on improved information from SAPN, noting that a Regulatory Investment Test (RIT-D) will be required

Reliability

Under the category of 'reliability,' SAPN is seeking an extra $30.6m compared to the draft decision, the most significant of the augex revisions.

We have engaged actively with SAPN over two 'reliability' projects:

- Low reliability feeders and
- Hardening the network

Low Reliability Feeders

These discussions have not been easy, nor are the answers clear-cut. At the core of discussions about low reliability feeders are questions about equity, more so than technical considerations. For example, how much money should SAPN customers, in total, pay for more reliable power for a very small number of customers? While willingness to pay type surveys can sometimes be a guide to answering these questions, as in the Oakley Greenwood report submitted by SAPN to support their position for additional spending, decision-making in the end is more of a judgement call.

We met with customers who are no doubt on the worst of the low reliability feeders and cannot argue that there are economic and amenity benefits from more reliable electricity for them. The example starkly presented to us was from an Anungu man from the Nepabunna community in northern South Australia. Electricity outages from increasing rate of dry lightning strikes through to other factors associated with a hostile geography mean that every power outage means that the community, including a small retail outlet, lose all the food in fridges and freezers, for example. So while this is an

extreme example of the impact of low reliability feeders, the point is made that for a relatively modest shared cost, energy customers in the more remote parts of the network can have better access to the essential service of electricity through the SAPN network.

In the revised revenue proposal, SAPN says:

> *"During focused conversations with our SA Power Networks CCP in the preparation of the Revised Proposal, we discussed the concept of equity for our customers. The conversation focused on the fact that there are groups of customers, typically located in remote areas, who experience very poor reliability, significantly worse than what the average customer in that region experiences. Following those conversations there was consensus amongst the CCP that it was unacceptable for some customers to experience such a vastly different level of service, and that we should propose expenditure in our Revised Proposal to improve reliability for those worst served customers."*

We support this observation and support the additional allocation for improving low reliability feeders. We accept this may not be the most 'cost effective' reliability investment but are strongly of the view that equity investments like this represent an important dimension of the long term interests of consumers.

Hardening the Network

The hardening the network program is to improve the reliability of the SA distribution network specifically to reduce the impact of adverse weather events, particularly 'dry' lightning strikes, which have increased significantly in parts of South Australia over recent years.

SAPN said in their revised revenue proposal:

> "*Following the AER's Draft Decision, we consulted further with the SA Power Networks CCP and key stakeholders, and received feedback from several stakeholders such as Business SA that the hardening the network program should be re-submitted to address the ongoing reliability concerns of pockets of customers and especially business customers, who are impacted by weather events. After further discussions with the SA Power Networks CCP involving the presentation of indicative customer bill impacts, there was not a consensus view about whether the program should be included in our Revised Proposal."*

This is a fair representation of the process that SAPN has followed and of the mixed views of consumers. We recognise that there are some consumers who strongly support 'network hardening.' However, on

balance, the partners to this submission are not supporting additional funding for the proposed network hardening augex project. Reasons for this include a belief that network hardening is part of the ongoing network management responsibility of SAPN and so does not warrant an additional budgetary allocation. We consider the focus on low reliability feeders to be the higher priority.

Other Augex

For other augex considerations, we support the AER draft decision, including support for PLEC and environmental augex as proposed by SAPN.

6 IT Expenditure

The Supporting Document 5.26 "IT Investment Plan Addendum" has been reviewed and, overall, we are of the view that SAPN has responded to the feedback received and provided a stronger case for the expenditure and the benefits to customers.

In particular, we support the investment in the Asset and Works package as a prudent response to the challenges of maintaining and optimising an ageing network.

We have less comfort with the SAP upgrade expenditure but do not have the expertise to effectively challenge that. We remain concerned that the 'switching costs' to an alternate provider provide a barrier to competition and an opportunity for customers to pay higher than efficient costs for the services provided.

We appreciate the introduction of AER's ICT Capital Expenditure Evaluation Approach[3] framework as it has provided important structure to this major expenditure category. However, we feel there is much more that can be done to provide confidence to consumers that this is expenditure is prudent and efficient in future revenue determinations.

We encourage the AER to engage with SAP, understand and critique their products and provide confidence to consumers at large that Australia's electricity networks are not becoming 'trapped in an ecosystem' that can exert monopoly pricing.

[3] www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/non-network-ict-capex-assessment-review/implementation

7 Taxation Allowance

The AER published their Review of Regulatory Tax Approach in December 2018,[4] which was shortly before SAPN was due to lodge their regulatory proposal for 2020-25. This meant that they were unable to effectively respond to the outcomes of the AER's tax review.

The AER's review made four recommendations these being:

> *"1. The current regulatory tax approach should be adjusted to address depreciation mismatches arising from immediate expensing. The AER should recognise the scope for this type of tax deduction in its forecast of tax costs in each regulatory determination. It may have regard to the circumstances of the firm and the use of immediate expensing more broadly across the sector. The AER should conduct a formal model change process (with consultation) to consider the implementation of these changes in its regulatory models.*
>
> *2. The current regulatory tax approach should be adjusted to address depreciation mismatches arising from the use of the DV approach. The AER should use a benchmark DV approach (instead of SL depreciation) for new assets. The AER should conduct a formal model change process (with consultation) to consider the implementation of these changes in its regulatory models.*
>
> *3. The current regulatory tax approach should be adjusted to reflect the application of a 20 year tax life cap for new gas assets. This does not require a model change and the AER should change its approach for upcoming regulatory decisions.*
>
> *4. The AER should undertake formal reviews of its regulatory tax approach on a regular basis. A general schedule would be to align tax reviews with its reviews of the rate of return guideline, recognising the interrelationships between the two. The AER may also commence a review in response to new information identifying a significant shift in the tax practices of regulated networks."*

In discussions with SAPN immediately after the release of the AER tax review, we were aware of disquiet and active consideration by SAPN of a range of responses. In developing the proposal for funding for the partners consideration of the regulatory proposal, it was evident that taxation issues were going to be significant in considering the original revenue proposal and moving towards the revised revenue proposal. Consequently, the SA Centre for Economic Studies was engaged to assist with independent analysis and advice about consumer best interests as SAPN develop their responses to the newly released AER tax approach.

Our active consideration of taxation issues has led us to 2 main observations.

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[4] https://www.aer.gov.au/system/files/AER%20-%20Tax%20review%202018%20-%20Final%20report%20-%2017%20December%202018_0.PDF

i. General endorsement of AER on tax allowance

The partners support the position that the AER has taken with respect to corporate income tax in its *Draft Decision* for the *SAPN Distribution Determination 2020 to 2025*. We believe that the AER's proposed approach promotes the long-term interests of consumers.

We note that SA Power Networks has, in its recently released *2020-25 Revised Regulatory Proposal,* accepted the substantive elements of the AER's Draft Decision as they apply to corporate income tax. In particular, SAPN says that it accepts the AER decisions to:

> *"accept the continued use of the year-by-year tracking approach for calculating tax depreciation of existing assets;*
>
> *"apply the DV method for tax depreciation to all new depreciable assets except for forecast capex associated with buildings (capital works) and in-house software;*
>
> *"recognise the immediate expensing of some forecast capex when calculating tax depreciation, consistent with the approach proposed by SA Power Networks; and*
>
> *"determine the opening TAB at 30 June 2020 in the manner set out in the Draft Decision, except for updating the actual and forecast capex for the 2018/19 and 2019/20 regulatory years respectively."* [SAPN 2019d p. 7]

We are very pleased that SAPN has accepted the AER's approach and welcome a final decision on corporate income taxation that is consistent with it.

Regarding SAPN's exception in the fourth point, we agree that the latest available actual (2018-19) and forecast (2019-20) capex figures should be used, subject to AER acceptance of them.

We acknowledge also that the allowance for corporate income tax in for 2020-25 will need to be updated from the estimate in the Draft Decision to align with the AER's ultimate decision regarding parameters in the building blocks calculation. These parameters have implications for the key components of taxable income and the final assessment of a tax allowance should be consistent with them. SAPN has indicated that it is seeking allowances for capex and immediately deductible capex that are different to that which the AER indicated in its *Draft Decision.* The AER should ensure that the income tax allowance is consistent with whatever it ultimately allows on capex.

ii. Approach to opening tax asset base

The second matter relates to SAPN's critique of the AER's decision on the opening tax asset base. SAPN says that it accepts the AER's decision (in general) but does not agree with it (in application). Our perspective is that while SAPN accepts the AER decision on the opening tax asset base, it is still critical

of it. We do not support this criticism. Specifically, SAPN says that the AER decision regarding opening tax asset base is in conflict with the National Electricity Rules. SAPN's argument is that the AER's decision not to revalue the taxable asset base for past episodes of immediate expensing and diminishing value depreciation is at odds with requirements of the National Electricity Rules [p. 9]. But while SAPN and other network service providers may have engaged in immediate expensing and diminishing value depreciation during the period 2015-20, the benchmark efficient entity (BEE) did not. Therefore, a benchmark efficient entity, SAPN in this instance, comes to the 2020-25 regulatory period with a tax asset base that has been calculated by straight line depreciation. This is not inconsistent with the National Electricity Rules.

The full report from SA Centre of Economic Studies is attached to this submission.

8 Future Networks

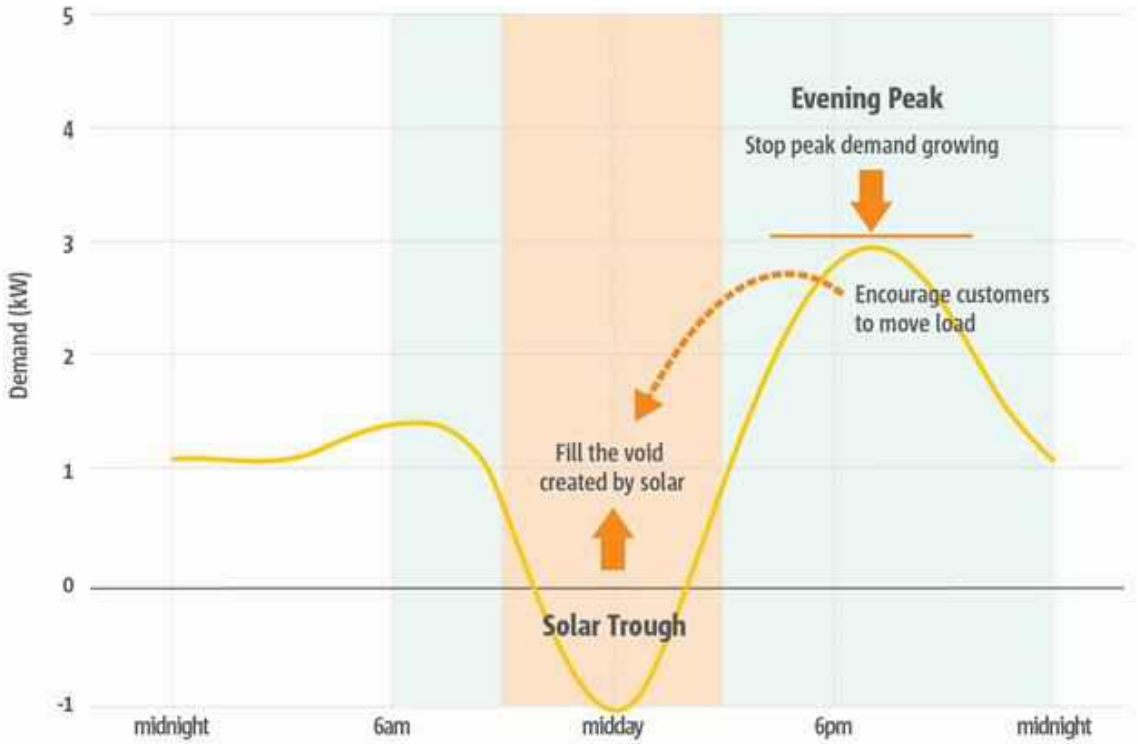
Consideration of expenditure on 'Future Networks' has important equity dimensions. Not only is it necessary to balance the needs of future customers with those of today's customers, it is also vital to ensure the cost of acting now to lower costs for tomorrow does not increase costs for those already at risk of disconnection.

In our view, the electricity distribution network in South Australia is an essential and vital asset of the South Australian community that happens to be privately owned.

Our approach to supporting expenditure proposals in the regulatory framework is based on:

- encouraging consumers to make efficient use of the existing network;
- making sure SAPN is encouraged to maintain and optimise the network for the range of consumer needs in the future; *and*
- achieving this at a fair cost to consumers.

In terms of network utilisation, we agree with SAPN that the uptake of solar power by households and businesses is the main diver of change – creating the 'duck curve':



The data reported by SAPN to the AER also shows 'Network Utilisation' is falling:

Source: AER analysis of network RIN data - Draft Decision Figure 18.1

From an equity perspective, this data can be interpreted as showing not a decline in 'utilisation' but just a change in the volume of the common charging parameters. It is not automatic that 'utilisation' and cost recovery are becoming increasingly aligned for individual consumers.

The network is ageing and we understand consumers want a smarter grid rather than a bigger grid so we need to plan for prudent and efficient repairs, refurbishment and upgrades to the grid – and be fair in how we recover the costs of doing so.

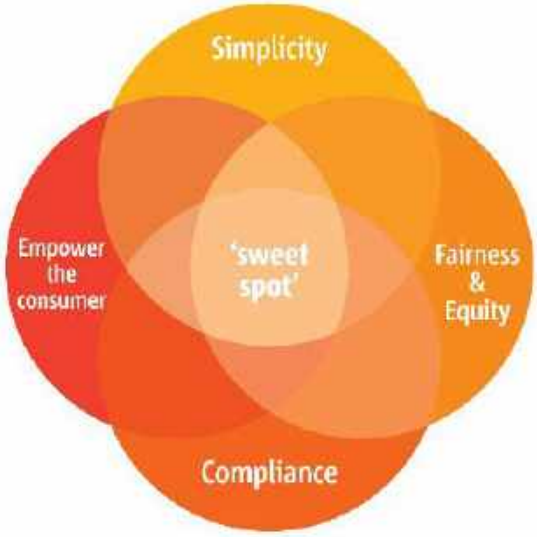
In our view, SAPN has proposed a range of actions and activities that strike a reasonable balance between expenditure today to lower costs for consumers in the future. There is not an empirical basis for this conclusion, but comfort drawn from the leadership demonstrated by SAPN in the national conversation around Distributed Energy Resources, Network Utilisation, Hosting Capacity, Technical Standards and Innovation.

We appreciate SAPN's efforts to explain the inter-relationships between the various initiatives under the heading 'Future Networks'. Supporting Document 5.14 – DER Management Expenditure Overview is a useful contribution to this. We appreciated the opportunity to comment on a draft of this in November and encourage SAPN to develop explanations of 'what's in it for customers?' in documents like these for other expenditure categories as well.

Overall, we support the proposed approach to Future Networks and DER management.

9 Tariffs

The Energy Project was engaged by SA Power Networks to assist with developing the initial 2017-2020 TSS and participated in a deliberative process in 2016 with a representative customer group. As a result of this process a series of principles were developed to guide decision-making around future tariff structures.



These principles are defined as:

- **Principle 1** — empower the consumer
- **Principle 2** — fairness and equity
- **Principle 3** — simplicity (to inform decision making)
- **Underlying principle** — compliance

The 2020-25 TSS has continued to employ these principles and, in our view, is certainly capable of acceptance. In particular we feel that the 'solar sponge' tariff is an important precedent. Preliminary analysis of residential load profiles reveal that this tariff will lower costs for those households able to consume the majority of their electricity from "other people's solar" and many of these will be households that would be considered 'vulnerable' (aged, unemployed, disabled, young families).

For larger business customers, the move to redefine peak demand charges as an average over the 4 hour 5-9PM window rather than the half hour peak between 12 and 9PM is an important change. This is considered a much more fair approach and we encourage SAPN to engage with all of the >160MWh customers who receive these price signals directly.

The key to realising the benefits of cost reflective pricing is effective implementation of the residential and small business tariffs by retailers and the targeting of early adoption to those likely to benefit. Complementary measures from SAPN and the South Australian Government can assist.

10 Connections

The Energy Project Pty Ltd made a separate submission to the AER Issues Paper that had two key themes. Firstly, in relation to the 'user experience' of accessing connection services. Secondly, in relation to expenditure on connections and the pricing of services.

In this section we revisit the 'user experience' and pricing of services as well as go into some detail on the Connections category of Capital Expenditure. This expenditure category has increased materially in the revised proposal and – due mainly to the timing of the availability of the information – was the subject of limited consultation and engagement. In our view, this category of capital expenditure is NOT capable of acceptance – a smaller allowance could also be supported by the available evidence.

10.1 User Experience and Pricing

SA Power Networks formed a Connections Working Group in August 2019. The group was established to address stakeholder feedback about the customer connections process and resolve some concerns relating to ACS Connections Pricing. Since its establishment, this group has been working collaboratively to improve the connections process and the information available to customers. The Energy Project's Dr Andrew Nance chairs the group.

The Group was briefed on the changes to ACS Pricing in the revised proposal and was afforded the opportunity to shape the change in pricing of some of these services. Further a 'LEAN Process' workshop has been conducted that has allowed Working Group members and key SA Power Networks staff to identify opportunities to improve the connection processes for residential, solar and business customers.

Overall, this has been a very positive initiative from SA Power Networks and we look forward to continued engagement through this Working Group over the coming years.

10.2 Connections Capital Expenditure Forecast

Connections Capital Expenditure comprises forecasts of 'Gross' expenditure based on historical analysis and economic forecasts for different aspects of the South Australian economy, combined with forecasts of Customer Contributions to arrive at a forecast of 'Net' Capital Expenditure.

The revised proposal includes a significant increase in forecast expenditure for this category. SAPN – Revised Proposal - Attachment 5 – Capital Expenditure (p60) states:

> *Our revised net forecast for customer connections capex for the 2020-25 RCP is $261.7 million, $85.4 million higher than the AER's Draft Decision of $176.3 million and it is $48.5 million higher than our Original Proposal of $213.2 million.*

Table 5-45: SA Power Networks' Original and Revised Proposals customer connections forecast compared to the AER's Draft Decision (June 2020, $ million)

Connections category	Original Proposal	AER Draft Decision	Revised Proposal	Difference to Draft Decision $
Customer connections	563.2	523.4	623.8	100.4
Customer contributions	(350.1)	(347.1)	(324.4)	22.7
Customer net	213.2	176.3	299.4	123.1
Other contributions	0.0	0	(37.8)	(37.8)
Total net	213.2	176.3	261.7	85.4

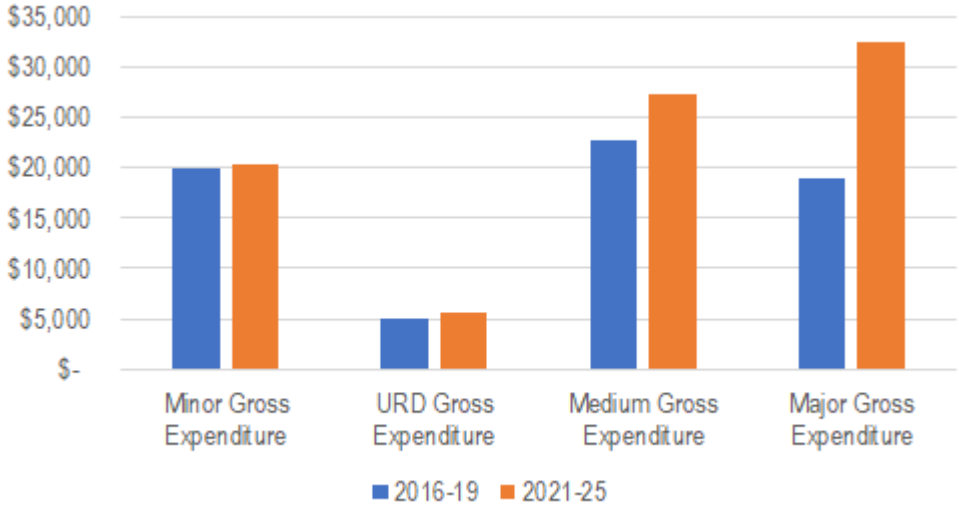
According to SAPN, the other contributions, totalling $37.8 million ($ June, 2020), consist of:

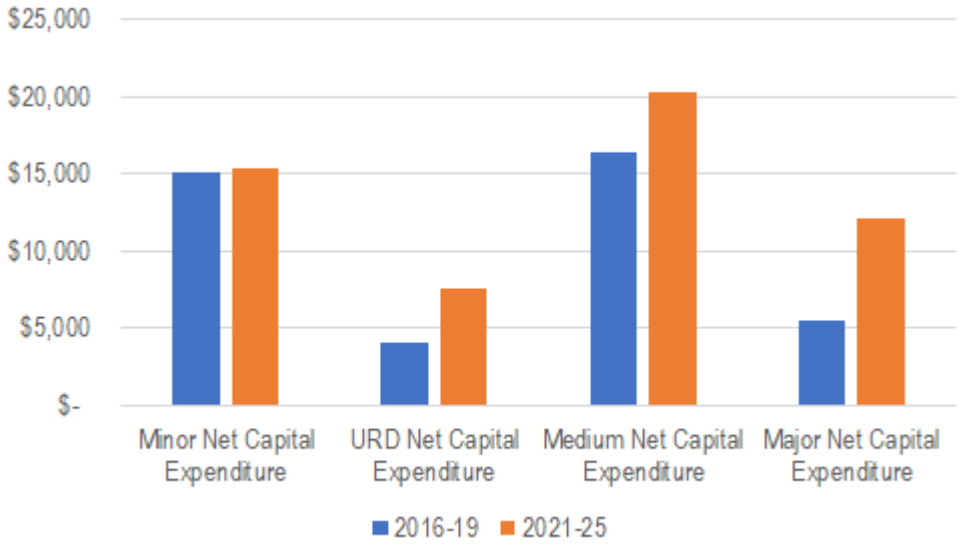
- recovery of costs of assets damaged by third parties (ie recoverable works, $18.3 million); and
- contributions towards embedded generation assets ($19.5 million).

Expenditure is built up from four categories, being:

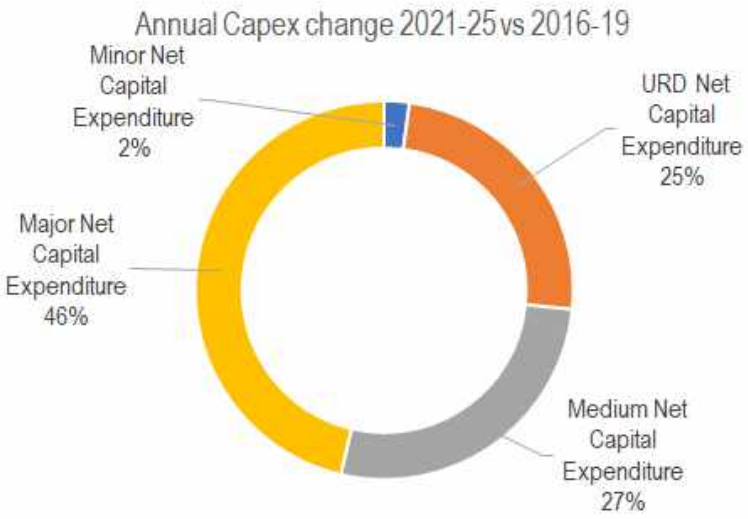
> **Minor customer connections** (less than $30,000) — connection services generally associated with residential houses or small business, where little or no augmentation of the network is required.
>
> **Underground Real estate Developments (URD)** — the establishment of new real estate development connections to the existing distribution network for new housing developments including suburban infill where one dwelling is replaced by more than three dwellings.
>
> **Medium customer connections** (between $30,000 and $100,000) — connection services which are typically associated with non-residential developments, where augmentation of the network maybe required.
>
> **Major customer connections** (more than $100,000) — connection services which are typically more complex and larger, such as large business investment, mining, major non-residential buildings, services, shopping centres and intensive agriculture, and government and private infrastructure investment, eg defence, schools, railways and water supply.

SAPN Supporting Document 5.11 (Connections 2020-25 Response to AER's draft decision) and 5.12 (BISOE Analysis) have been reviewed. Our analysis of the data provided by SAPN at 5.12 Appendix E shows the increase in Gross and Net expenditure in each category from 2016-19 (the four years of 'actual' expenditures in the current regulatory period – this also aligns with the operation of the Chapter 5A connection process under the National Electricity Rules) and the forecast for the 2020-25 Regulatory period – the financial years ending 2021-2025:





The contribution of each category to the overall increase in Connection Net Capital Expenditure is illustrated below. As can be seen, the proposal is for substantial increase for three of the four categories:

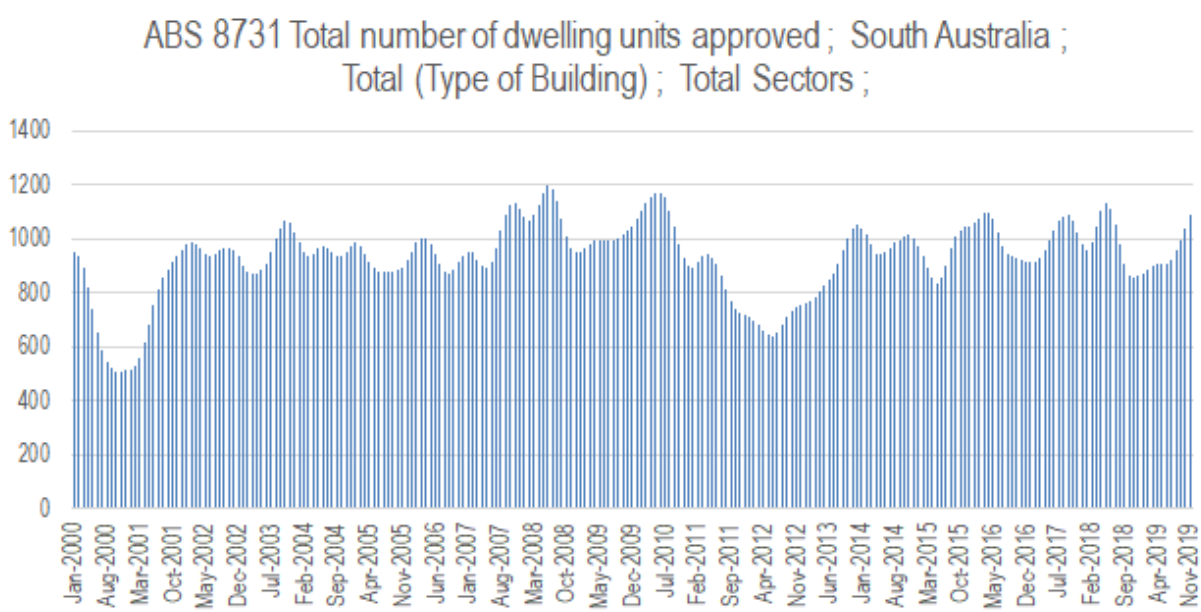


The revised forecasts only made available late in the consultation period (27 November workshop with follow up info in early December) and hence there have been limited opportunities for engagement or scrutiny. We understood the increase in the Revised Proposal was a function of increased expectations for the Major Projects category and a further reduction in Customer Contributions as a result of the lower WACC. A set of questions regarding the increase in URD expenditure were sent to SAPN in early January and a very prompt response was received. Our observations are provided below for the separate categories.

10.3 Minor Connections

Annualised Net Capital Expenditure on Minor Connections is forecast to **rise 2%** from the 2016-19 period to the 2021-25 regulatory period – from $15.1 to $15.4m on average per annum.

All indicators are for a fairly flat outlook for residential-scale construction, so an equivalent expenditure outlook was expected. BISOE use house commencements as the sole explanatory variable for forecasts of minor connections expenditure. We note that monthly residential Building Approvals for SA over the last 20 years shows little signs of a trend in growth, rather it shows shorter cycles of waxing and waning approvals:



Growth above CPI over the 5 year RP can be compared with a forecast in population growth of around 1% pa.

Overall, this seems like a reasonable forecast for this Connection Category.

10.4 URD Connections

Annualised Net Capital Expenditure on URD Connections is forecast to **rise 87%** from the 2016-19 period to the 2021-25 regulatory period – from $4m to $7.6m on average per annum.

Annualised Gross Capital Expenditure on URD Connections is forecast to rise 14% from the 2016-19 period to the 2021-25 regulatory period – from $5m to $5.7m on average per annum.

The main driver of change for net expenditure on URDs is Customer contributions that fall dramatically: from a contribution of $0.9m per annum on average from the 2016-19 period to become a rebate of $1.9m over the 2020-25 RP on average per annum.

We have sought to understand the basis for this significant increase in *net* expenditure from URDs and contacted SAPN by email in early January. The reply included a reminder that the approach to revenue rebates changed for the current regulatory period (and hence data prior to FY ending 2016 was not relevant) and said that the change was due to an increase in Asset Rebates of around 25% due to the lower WACC and a forecast increase in Gross connection expenditure from the BISOE analysis.

In terms of Gross expenditure, we understand that BISOE use lot production in Adelaide and housing commencements in South Australia to form the basis of their URD connections expenditure model. We note that the approach taken by BISOE differs from their previous forecast (the '2017 report' used for the original revenue proposal) but regardless the forecast activity is not growing so we can only assume that the 14% increase in annual average expenditure is due to a rise in value per connection rather than any increase in the volume of work performed. We have no insights into this and encourage the AER to consider this in more detail.

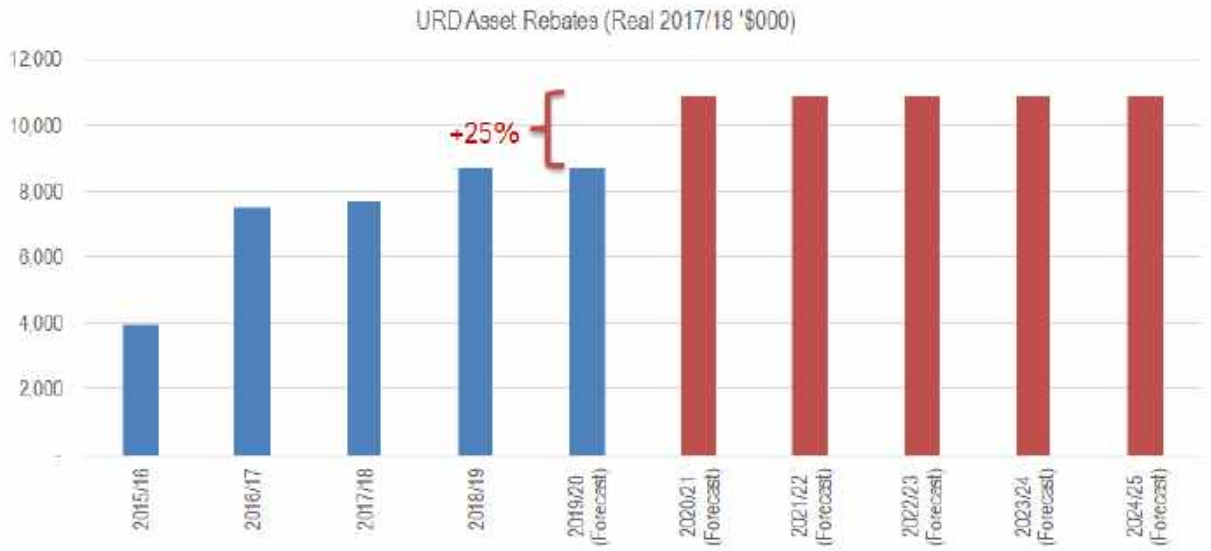
We note that this category includes a unique method that explicitly models 'asset rebates' distinct from 'customer contributions'. From SAPN 5.11 page 22.

> *"… The only notable difference in these categories is that in addition to these four connection categories, we separately calculate a contribution amount for asset rebates (ie this reflects and is associated with SAPN providing a rebate to real estate developers for provision of gifted assets that were contestably constructed).*
>
> *For Asset Rebates, the contribution adjustment factor has been calculated as 1.2469 … The current historical asset rebate amount has been calculated as $8.7 million per annum and so the annual forecast asset rebate amount is calculated as $10.8 million."*

The source of this 25% increase is described in SAPN – 5.11 – Connections 2020-25 Response to AER's Draft Decision – December 2019 Appendix A:

> *"A sample of 744 Commercial projects (Medium / Major Projects) and 434 Real Estate Development (URD) projects were tested for the impact of WACC on IRR and Customer Contributions … Key Points regarding the impact of the reduction in WACC from 2015-20 to 2020-25: Expected to increase IRR for Developers (URDs) by approximately 25%*

Even if we accept that the sample of projects did result in Asset Rebates increasing by 25%, there is no strong reason to take 2018/19 alone as the 'base year' from which to apply this forecast. 2018/19 was the single highest year of rebates (in real terms) for the current period:



The table below illustrates the cumulative effect of basing the increase on averaging across the preceding years in the current Regulatory Period.

#years averaged for 'base year'	base year Asset Rebate	2020-25 average p.a. @ +25%	Impact	5 year impact ($m 2017/18)
1	$8,731	$10,887	0%	$-
2	$8,203	$10,229	-6%	-$3
3	$7,967	$9,934	-9%	-$5
4	$6,963	$8,682	-20%	-$11

Overall, we encourage the AER to review this category in more detail.

10.5 Medium Connections

Annualised Net Capital Expenditure on Medium Connections is forecast to **rise 24%** from the 2016-19 period to the 2021-25 RP – from $16.4m to $20.3m on average per annum.

Annualised Gross Capital Expenditure on Medium Connections is forecast to rise 20% from the 2016-19 period to the 2021-25 RP – from $22.7m to $27.3m on average per annum.

The forecast expenditure increase therefore seems to be driven mainly by increases in gross connection activity with some additional increase from lower customer contributions.

We note that the level of expenditure jumped significantly in 2017/18 and this is used as the level of 'normal activity' across the 2020-25 RP. It is not clear to us that this is appropriate given the way BISOE summarised this activity (5.12 p22):

> *"Medium customer connections expenditure jumped 35% in 2017 /18, in line with the very strong increases in both non-residential building commencements and other dwelling commencements. Medium CCE then declined -4.6% in 2018/19, although both non-residential building and other dwelling commencements fell significantly. It is likely there may have been a lag in the connections for the high level of building in 2017/18, which is holding up medium CCE over 2018/19."*

Overall, we encourage the AER to review this category in detail as it represents the largest of the four categories of Net expenditure.

10.6 Major Connections

Annualised Net Capital Expenditure on Major Connections is forecast to more than double (**rise 122%**) from the 2016-19 period to the 2021-25 RP – from $5.5m to $12.1m on average per annum.

Annualised Gross Capital Expenditure on Major Connections is forecast to rise 72% from the 2016-19 period to the 2021-25 RP – from $19m to $32.6m on average per annum.

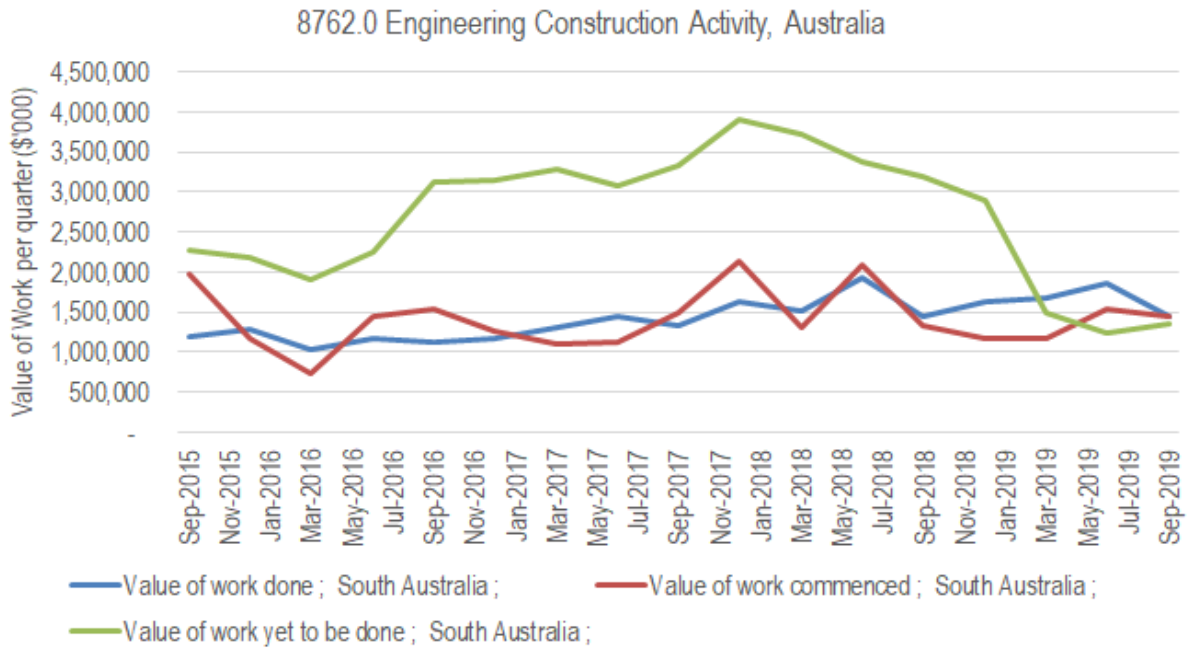
According to BISOE (5.12 p25):

> "*Major customer connections expenditure (CCE) has recovered from the very low levels of 2014/15 to 2017/18, with the 62% lift in major CCE in 2018/19 pushing levels to $29.1 million (2017/18 prices). The lift in major connections expenditure signals a return to 'normal' levels …"*

We understand that the forecast is a combination of bottom up and top-down modelling. According to SAPN 5.11 page 19

"…the 'bottom-up' forecast constitutes 99.0% and 99.5% of the first two years of the forecast (ie 2019/20 and 2020/21). However, the remaining forecast years (2021/22 to 2025/26) largely rely on the top-down model."

Table 3.4.2 Major Projects List is redacted so we cannot comment on the assessment of the likely connection expenditure in the bottom up period. However, a review of ABS 8752 (Engineering Construction Activity Sep 2019 – one of two indicators used) does not necessarily support such an increase in 2017-18 as a 'return to normal':

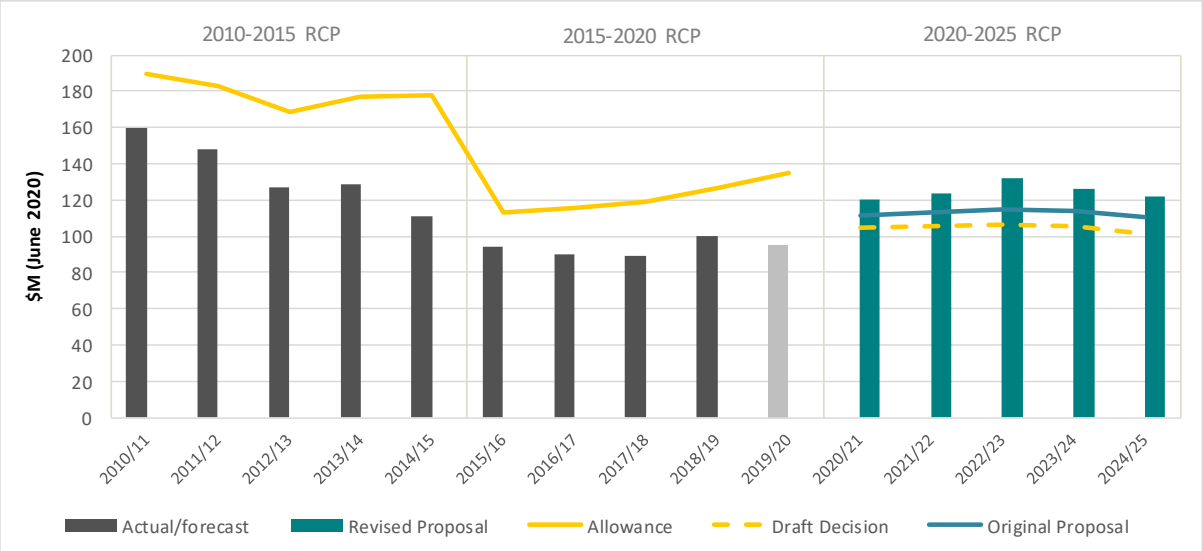


Overall, we are not in a position to assess the 'pipeline' of major customer connections, but we encourage the AER to review this category in detail as it is forecast to experience the largest growth of all of the categories

10.7 Underspend in Current Period

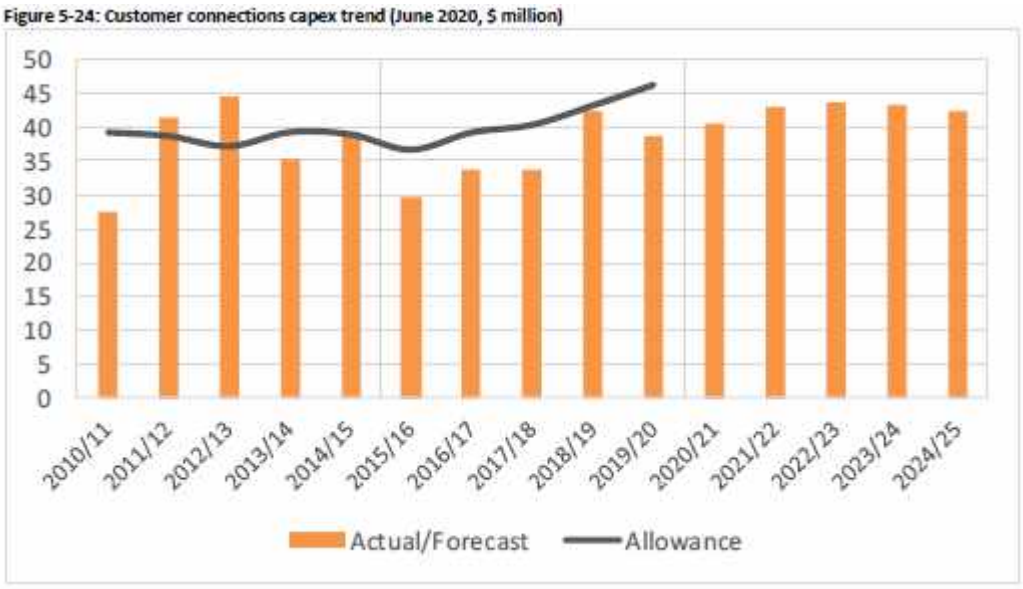
This part of the capex allowance relies on forecasting the number and scale of future connections, and so relies on input from external consultants as well as confidential SAPN data on the number and value of connection works. We accept that the volume of connections is substantial and that this should provide a strong evidence base for assessing expenditure from forecasts of activity.

However, we are also aware that historic Connections Capex allowances have consistently over estimated actual expenditure. The following chart of Gross connections expenditure was provided to us by SA Power Networks:



Connections gross capex trend (June 2020, $ million) Source: SAPN

This is consistent with Figure 5-24 from SAPN's Original Proposal showing an underspend in Net Connections Capex:



Further, the CESS calculations from the current period indicated a significant shortfall between the Customer Contributions Capex Allowance and Actual Customer Contributions of around 45% across the period (See SAPN – Revised Proposal – 9.1 – CESS Model – December 2019). Only a portion of this can be attributed to the lower WACC values, the rest must indicate lower than forecast connections expenditure.

As discussed in the following section of this submission, the CESS rewards efficient capex savings but that also means it provides a strong incentive to inflate forecasts for Customer Connections Net

Expenditure. In our view, based on the information provided in this section, the AER will need to establish a high level of confidence in the forecasts.

11 Capital Expenditure Sharing Scheme (CESS)

SA Power Networks have calculated a total underspend in the current period of $367m (See SAPN Attachment 9 and SAPN – Revised Proposal – 9.1 – CESS Model). This translates to total CESS Payments of $76m over the 2020-255 Regulatory Period.

The Revised Proposal is $7.3m higher than the Draft Decision. A key reason for the change was the inclusion of *actual* capex for 2018-19. Attachment 9 (p8) states:

> *SA Power Networks' actual capex for the 2018/19 base year was around $11 million ($ June 2020) lower than forecast, primarily driven by:*
>
> *• lower than forecast **net customer connections**; and*
>
> *• removal of more than $4 million of capex provision movements, predominantly for increases in annual and long service leave expense*

According to SAPN's Original Proposal the underspend in the 2015-20 RCP primarily results from:

- *actual customer demand being lower than forecast, allowing prudent deferral of augmentation projects and **fewer than forecast customer connections**;*
- *delays in asset replacement work, while new, more efficient asset management approaches were developed and implemented;*
- *lower than forecast costs to deliver the major Kangaroo Island undersea cable project; and*
- *significant storm events in the 2016/17 regulatory year diverting resources to repairing and reinstating the network, and away from implementing our capital program.*

The exact proportion of the underspend – and, hence, incentive payment - attributable to lower than forecast Net Connections expenditure is not explicit but appears to be material.

The AER's November 2013 Capital Expenditure Incentive Guideline[5] does not make any explicit reference to connections expenditure but states:

[5] www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/expenditure-incentives-guideline-2013/final-decision#step-22859

> *"A CESS is a mechanism that rewards NSPs for capex efficiency gains and penalises NSPs for capex efficiency losses."*

It is not clear to us that connections capex underspends are driven by NSP efficiency. We encourage the AER to address the role of connections capex forecasts in CESS payments in the final determination for the 2020-25 RP.

12 Price Path

An important equity issue is the avoidance of sudden increases in prices. The concept of "bill shock" is widely used to describe what happens when sudden increases in electricity costs reach consumers.

In recent years it has been clear that when energy sales fall, fixed costs and revenue cap regulation means prices rise for consumers. As we saw in July 2019 this can combine with other changes to be a large increase. From the AER approved SAPN 2019/20 pricing proposal:

> *"Network price increases for residential and business customers in 2019/20 average **9.9%** on a weighted-average basis. This is due to the combination of:*
>
> - *higher allowed distribution revenue and pass-throughs (transmission and PV FiT payment) of 3.2%,*
> - *revenue cap over-recovery increasing tariff recovery of a further 3.3% and*
> - *the decline in weighted average sales quantities on last year's forecast of 3.2%.*
>
> ***Both business and residential energy usage has been declining through in-house use of solar and energy efficiency and is forecast to continue to decline in 2019/20"***

We are hoping for a smoother price path in 2020-25 and encourage the AER to give this detailed consideration.

13 Consumer Engagement

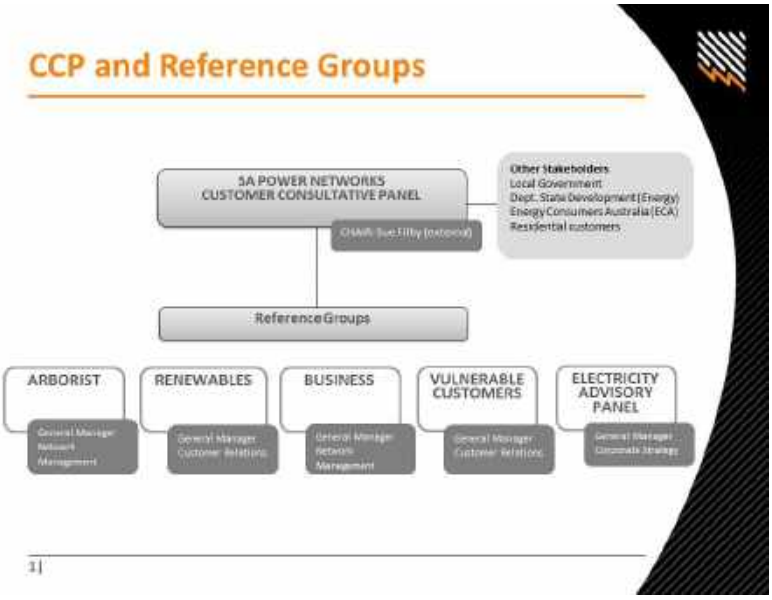
The Partners have been involved in the Consumer Engagement Process for a number of reset periods and have observed SAPN's pursuit of continuous improvement over time. We commend SAPN for the thought, time and effort that has been involved in this, and note that the improvement process is still evolving, with further changes made as of January 1st 2020.

The consumer consultation framework established by SAPN in the 2015 – 2010 period saw the establishment of a Customer Consultative Panel, four specialist Reference Groups and an Electricity Advisory Panel

The Reference Groups each met 4-6 times annually. Those groups were:

- The Community (Vulnerable Customers) Reference Group
- The Arborist Reference Group
- The Renewables Reference Group
- The Business Reference Group
- The Electricity Advisory Panel

Each of the first four groups had a representative on the Customer Consultative Panel (SAPN CCP). The SAPN CCP met four times each year but had extra "deep dives", manager and technical expert presentations and site visits in the second half of 2019. We also repeat the comments made elsewhere in this submission that we were very impressed with the openness and willingness to engage and debate that we experienced, particularly in the period after the release of the draft decision. There was extensive and sometimes intense dialogue.



The SAPN Customer Consultative Framework 2015 - 2020

In addition, SAPN established a number of working parties at various times within the past 5 years, as they say to:

> *"ensure the interests of customers are considered and provide a platform for ongoing, meaningful engagement".*

These Working Groups are the:

- LGA Working Group (vegetation management)
- Connections Working Group
- Public Lighting Working Group
- Tariffs Working Group
- DER Integration Working Group

The SAPN CCP in its December 2019 submission said:

> *"The consultative journey has necessarily been one of learning, testing, discovery and moving on to the next stage as knowledge and confidence have grown.*
>
> *In its early stages at the commencement of the RBP 2020 exercise, many members of the Panel had concerns about the effectiveness of the engagement process, largely centred on the complexity of the more technical information and difficulties associated with assimilating the details of the proposals and assessing their cost reasonableness. At the time, it acknowledged that SAPN had made great strides in this area since the previous regulatory process. In particular, it appreciated the substantial effort made with the Panel, other key stakeholders and customers in general to identify their concerns and requirements and that these were then encapsulated in the principles embodied in the work that followed. It was accompanied by extensive deep-dive workshop activity which addressed the major expenditure categories and the general approach built into the original Draft Proposal.*
>
> *This process led to a substantial growth in the Panel's knowledge of the factors driving expenditure recommendations and decisions"*

The Partnership agrees with these observations, and also considers that the new framework implemented on January 1 this year will be a further improvement. We also agree with the SAPN CCP that to move along the IAP2 spectrum toward a genuine partnership with consumer advocates will requires something further of a culture shift throughout SAPN as the organisation appreciates the benefits of external perspectives.

Stakeholder discussions with SAPN since the AER Draft Decision

The following table shows the consumer involvement since the AER Draft Decision was handed down. This was a very intense period and involved ECA and the AER CCP14.

LIST OF MEETINGS RE SAPN RESET			
Date	Event	Time	Place
Tues Oct 15	ECA Grant Group (The Partnership) plus Jess Vonthethoff and Patrick Makinson	4pm	The Greek, Halifax St
Wed Oct 16	Customer Consultative Panel Special meeting to discuss AER Draft Decision	1.30 pm	Level 6 Rydges 1 South Tce
***Tues Sept 17 & Thu Oct 17**	SAPN Vulnerable Customer Strategy	9.30am	The Precinct Conf centre, Thebarton
Mon Oct 21	IT & non network capex	12 noon	Level 6 Rydges 1 South Tce
Fri Oct 25	Repex	1pm	Adelaide Pavilion South
Mon Oct 28	Field Trip	8.30am	
Wed Oct 30	AER Forum		
Fri Nov 1	Other network capex	10.30am	Level 6 Rydges 1 South Tce
Thur Nov 21	SAPN Customer Reference group	9.30am	SACOSS King William Rd
Wed Nov 27	Customer Consultative Panel	9am	SACOSS King William Rd
Tue Dec 9	The Partners and SAPN – follow up on changes in final proposal		Cibo, Pirie St

***SAPN Vulnerable Customer Strategy**

In addition, the members of the Partnership were very pleased to be involved with a further initiative commencing in September 2019 – the development of a SAPN Vulnerable Customer Strategy.

The Partnership looks forward to seeing benefits flow to vulnerable South Australians in the near future. This Strategy was:

- Developed in consultation with SAPN Community Reference Group and community agency representatives;
- Strategy Vision: ***"Partner to deliver assistance, a responsive customer environment and improve customer experience to those most vulnerable in our community";***
- Number priority initiatives identified to implement with SAPN Community Reference Group over next 12-18 months;
- The new SAPN Customer Consultative Panel will have strong interest in the VCS to ensure SAPN remains in tune with all of their customers.

SAPN has created a record of the engagement since the AER Draft Decision was handed down, in the following diagram.

Source: SAPN Revised Proposal 2019

14 Further Down the Road

The partners to the submission have all been actively involved with various engagements with SA Power Networks over many years, almost 20 years for some of us. We observe that the engagement over the last six months or so has been the most honest and respectful engagement that we've encountered and sincerely thank the SAPN staff who have been driving this engagement for the trust, diligence and collegiality.

We've outlined in Section 3.2 that equity considerations are of crucial importance for our organisations and we've also highlighted the challenges, uncertainties and opportunities that being at the forefront of 'future networks' provides. We genuinely look forward to being part of active ongoing engagement with SAPN over the coming years.

It is clear that ongoing engagement between SAPN, consumer interests, regulators and other stakeholders must continue in the same vein that we have experienced over recent months.

Apart from being at the forefront of 'future network' considerations, SAPN has commenced active engagement to develop a 'vulnerable customers' framework.

The AER is receiving submissions about aspects of future approaches, including regulation, for the many aspects of DER (Distributed Energy Resources).

Energy businesses are collectively leading an Energy Charter program.

These and other matters need to be the focus of ongoing, active and respectful engagement.

We genuinely look forward to being part of this ongoing engagement with SAPN, the AER and other parties who are driven by ensuring equity in these significant energy processes.

15 Annex 1 SACES report on Taxation issues

South Australian Centre for Economic Studies

Consumer Perspectives on a Corporate Income Tax Allowance in the SA Power Networks Distribution Determination

Final Report

Report commissioned by:

SAFCA, Uniting Communities and The Energy Project

Report prepared by:

The South Australian Centre for Economic Studies
University of Adelaide

January 2020

Author: Jim Hancock, Deputy Director

Acknowledgment: The author is grateful to Mark Henley, Andrew Nance and Wendy Shirley for helpful comments on this report. However the responsibility for any errors remains with the author.

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1. Introduction

SAFCA, Uniting Communities and The Energy Project ("the Partnership") has engaged the South Australian Centre for Economic Studies to provide advice on the appropriate approach to calculating a corporate income tax allowance in the Australian Energy Regulator's *SA Power Networks Distribution Determination 2020 to 2025.*

This report provides summarises the key developments in the SAPN Determination. It outlines key decisions and points of dispute between AER, SAPN and interested parties, and it discusses the merits of the alternatives.

2. Background

The Australian Energy Regulator (AER) is in the later stages of a two-year process to determine the maximum allowable revenues for SA Power Networks (SAPN) on its regulated network services for the regulatory control period 1 July 2020 to 30 June 2025. The process involves extensive consultations with SAPN, consumer groups and other affected parties.

During the AER's consultations on the SAPN Determination it has also, in a separate process, carried out a review of its approach to determining corporate income tax allowances in regulatory determinations. In December 2018 it released its *Final report: Review of regulatory tax approach* (AER 2018a), wherein it announced two significant changes to the calculation of tax depreciation in its income tax allowances. In future:[6]

- it will be assumed that for tax depreciation purposes a benchmark efficient entity (BEE) "immediately expenses" some types of capital expenditures; and
- it will be assumed that the BEE uses the "diminishing value" (DV) method for calculating tax depreciation on most other types of capital expenditures (the exception being a group of assets for which the ATO requires a straight-line treatment, and straight-line will continue to apply to these).

These changes will apply only in respect of future capital expenditures. The existing tax asset bases at the commencement of the new regulatory control period (which by definition exist as a result of past capital expenditures) will continue to be depreciated straight-line.

Prior to the Review the standard treatment was to determine tax depreciation on a straight-line basis. However, there is convincing evidence that for tax purposes immediate expensing and DV are in fact standard industry practice.

Following the completion of the Review the AER modified its post-tax revenue models to incorporate the new treatment of tax depreciation (AER 2019a). Tax depreciation for existing assets will continue to be calculated on a straight-line basis. Future capital expenditures which are taken to be eligible for immediate expensing are included as tax depreciation in the year that they are incurred. This contrasts with the previous treatment whereby they would have been added to the tax asset base, thus leading to a flow of tax depreciation amounts calculated on a straight line basis over a number of years. Other capital expenditures will be added to the tax asset base. Those that are deemed to be eligible for the DV method will be depreciated on that basis. The categories which under Australian tax law are not eligible for DV—e.g. in-house software, buildings and equity raising costs—will be depreciated on a straight line basis.

The key developments to date in the SAPN Determination include:

- In July 2018 the AER finalised its *Framework and Approach* for the Determination (AER 2018b).
- In January 2019 SAPN lodged a (Preliminary) *Regulatory Proposal* (Preliminary Proposal) for consideration by the AER and interested parties (SAPN 2019a, b). Because the AER's intended approach to the tax allowance was not clear at this time, SAPN included a $1 "placeholder" tax allowance on the proviso that this would be updated in light of the AER's eventual decision.
- In March 2019 the AER published an *Issues Paper* flagging issues on which it would like to receive input during public consultations (AER 2019b).
- In June 2019 SAPN wrote to the AER arguing that the AER's proposed method for calculating an opening tax asset base for the regulatory control period 2020-25 was wrong (SAPN 2019c). SAPN

6 Tax depreciation is the amount of depreciation that is allowed under Australian tax law and practice to be claimed for income tax assessment purposes. It differs from (economic) "depreciation". Economic depreciation is a measure of the diminution in the service value of an asset over time. Tax depreciation schedules typically allow depreciation to be recorded faster than it would under an economic deprecation approach. The use of faster deprecation for tax purposes delivers a financial advantage to investors in assets which may be rationalised on the ground of encouraging investment spending by means of favourable tax treatment and also on the ground of erring in the favour of investor sufficiently to avoid any perception that tax depreciation schedules are unrealistically harsh with respect to economic depreciation.

contended that the tax asset base should be written down by about $15 million from the carry forward value at the end of Regulatory Control Period 2015-20 (RCP15). The rationale for this was that in its actual tax calculations for ATO purposes SAPN has deducted tax depreciation in excess of what has been assumed in past regulatory determinations. The result that SAPN's tax asset base for ATO purposes now has less depreciation deductions available than are provided in the regulatory tax asset base under the AER's preferred method.

- In October 2019 the AER responded to SAPN's Preliminary Proposal and related communications in a *Draft Decision* (AER 2019c). It confirmed its intention to use the revised post-tax revenue model and it rejected SAPN's proposal to write down the tax asset base. It also indicated that it would not allow numerous other aspects of the Preliminary Proposal relating to other cost components. The *Draft Decision* is discussed in more detail below.
- In late October the AER held a public consultation session to discuss its Draft Decision. There was little discussion of the income tax allowance but in response to a question SAPN reiterated its view that the tax asset base should be written down.
- In December 2019 SAPN submitted its *2020-25 Revised Regulatory Proposal* (SAPN 2019d,e). SAPN indicated that it would accept the AER's proposed methodology for determining the regulatory tax allowance even though it does not agree with the AER's method for calculating an opening tax asset base.

The AER is to issue its Final Decision on 30 April 2020. It will receive public submissions on SAPN's Revised Proposal until 15 January 2020.

3. The AER *Review of regulatory tax approach*

During the *Review of regulatory tax approach* the AER assembled evidence showing that the use of immediate expensing and the diminishing value (DV) method for calculating tax depreciation is widespread among networks.[7] However, the AER's BEE calculations at that time employed straight line depreciation.

Under Australian tax law it is permissible to "immediately expense" certain capital expenditures in the year that they are made—i.e. they are fully deducted as a business cost in that year rather than being deducted over time by means of a stream of depreciation payments. There is a question as to exactly what capital expenditures are eligible for immediate expensing and there appear to be varying levels of aggression in the networks' pursuit of them. Capital expenditures on refurbishment and other works to preserve/extend asset lives are eligible but the boundaries are not entirely clear.

Taxation law also gives taxpayers a choice of two methods for depreciating most assets, these being the straight line (or prime cost) method and the DV method. (Some asset types are ineligible for DV). Under the straight line method the asset is depreciated by equal annual amounts over the ATO-determined effective asset life. Under DV the annual depreciation payments are doubled but this means that the tax asset is exhausted half way through the life of the asset. Thus the amounts claimed under straight line and DV are the same but they are claimed sooner under DV.

From the point of view of a taxpayer, immediate expensing and DV depreciation are appealing because they allow the taxpayer to frontload the tax deductions associated with depreciating an asset. The total amount available for depreciation is still 100 per cent of the cost of the asset and consequently the total amount of tax paid over time is the same whether immediate expensing, DV or straight line depreciation is used. But because deductions are front-loaded under immediate expensing and DV, income tax payments are deferred until later in the life of the asset. This is financially beneficial to the investor because its cash balances are boosted through the period where tax is deferred, and it can then earn a return on those cash balances or reduce its borrowings and make savings on associated interest payments.

In December 2018 the AER released its *Final report: Review of regulatory tax approach* (AER 2018a). It announced that it would change the calculation of tax depreciation to allow for immediate expensing and DV deprecation.

7 Tax depreciation is the amount of depreciation that is allowed under Australian tax law and practice to be claimed for income tax assessment purposes. It differs from (economic) "depreciation". Economic depreciation is a measure of the diminution in the service value of an asset over time. Tax depreciation schedules typically allow depreciation to be recorded faster than it would under an economic deprecation approach. The use of faster deprecation for tax purposes delivers a financial advantage to investors in assets which may be rationalised on the ground of encouraging investment spending by means of favourable tax treatment and also on the ground of erring in the favour of investor sufficiently to avoid any perception that tax depreciation schedules are unrealistically harsh with respect to economic depreciation.

The AER also announced that the changes will apply only in respect of the depreciation of future capital expenditures. The existing tax asset base at the commencement of the new regulatory control period (which by definition arises from past capital expenditures) will continue to be depreciated straight line.

To support the differential depreciation treatment, entities are required to track assets and allocate them to the appropriate depreciation stream.

The AER announced that the component of capital spending to be regarded as "immediately expensed" for tax purposes would be calculated as a proportion of (approved) forecast capital expenditures in the new regulatory period. There was a question as to whether the proportion should be set on the basis of an industry-wide benchmark or using the historical pattern for the entity in question. Industry-wide benchmarking is the more "powerful" approach, in the sense of encouraging the entity to minimise its tax liability, but there is a risk that the industry-wide average might depart significantly from what is achievable from a specific entity. The AER opted for an "actuals informed" approach, in which the allocation of forecast capital expenditures to immediate expensing is based on each entity's own audited historical tax practices.

Under the new treatment, the new capital expenditure that is *not* immediately expensed will be capitalised and will then generate tax depreciation deductions for the BEE. For most categories of capital expenditure the DV method will apply. The exceptions are expenditures for which the ATO does not permit DV—categories such as in-house software, buildings and equity raising costs. The DV method effectively allows the entity to depreciate the asset twice as fast as it would with straight line.

On completion of the Review the AER modified its post-tax revenue models to give effect to immediate expensing and DV (AER 2019a) where appropriate. Tax depreciation for existing assets continues to be calculated on a straight line basis. Capital expenditures subject to immediate expensing will be included as tax depreciation in the year that they are incurred. Otherwise new capital expenditures will be added to the taxable asset base. Assets will be tracked and separate pools will be maintained for the different depreciation treatments. The opening tax asset base for the new regulatory period will be equal to the closing tax asset base from the previous regulatory period.

4. SA Power Networks' *Preliminary proposal*

In January 2019 SAPN release its *Preliminary Proposal* in which it included a $1 "placeholder" tax allowance. At that time the Post Tax Revenue Model had not been finalised, so SAPN did not produce a detailed calculation. The placeholder was an estimate of what the tax allowance would be, based on SAPN's own estimates of the impact of applying immediate expensing and DV. SAPN said that "We think that this notional value will turn out to be very close to the estimate of corporate income tax which will eventually be determined and included in our Revised Regulatory Proposal following the finalisation and adoption of the new AER models and using the above rates and values" (SA Power Networks 2018 p. 11).

The AER received a number of submissions from interested parties regarding SAPN's *Preliminary proposal.* Box 1 summarises comments received regarding the tax allowance.

Subsequent to the release of the Post Tax Revenue Model in April, SAPN wrote to the AER regarding the tax allowance. It did not contest the implementation of immediate expensing and DV—which had been through an exhaustive consultation process with the *Tax review*—but it did contest the AER's approach to the tax asset base. The AER's proposed approach was to retain straight line depreciation for assets created before the new regulatory control period, and on that basis to carry forward the taxable asset base at 30 June 2020 into the new regulatory control period commencing 1 July 2020. SAPN took issue with this. It argued that the new treatment should be applied to existing assets and accordingly that the values of existing assets should be written down to the levels that would apply if they had been subject to immediate expensing and DV for most other assets.

SAPN indicated that its proposed treatment would increase the revenue allowance by about $15 million over the new regulatory control period. This is a relatively small amount, accounting for less than ½ per cent of total allowed revenue.

Box 1 Summary of views expressed regarding the new tax treatment in application to SAPN

Government of South Australia (2019) did not make any comments on the changed method for tax allowances or its application to the SAPN Determination. But it raised the concern that analysis of SAPN's proposed capex and opex allowances needs to take account of the transfer of some items from capex to opex under the new expensing arrangements. [p. 5]
CCP14 (2019) said that the tax treatment is a general treatment applied across the network by AER and therefore out of the scope of its SAPN submission. It noted that AER-imposed changes to return on capital and tax treatment were the key factors holding prices down, and was concerned that SAPN was not taking sufficient efficiency-enhancing actions of its own to help [p. 17]. It also raised the concern that the introduction of expensing for items previously treated as capex has clouded the analysis of capex data [p. 19].
ECA says that it supports the AER's changed tax treatment and raised the concern that networks such as SAPN will seek to make up for the reduced tax allowances by boosting cost forecasts in other areas [ECA 2019 p. 24].
SACOSS (2019) said that consumers have long been concerned that the income tax allowance has been set above its efficient level and that the AER should allow only efficient tax costs [p. 16]. It noted that while the AER's new treatment allows for expensing, it "has not set an industry wide benchmark for the proportion of replacement capex that could qualify as "refurbishment" and which may be immediately expensed for taxation purposes" [p.17]. It also noted that there is "a range of entity structures and ownership arrangements across NSPs that incur different legal taxation rates … [ranging] from 0% to 30%. Although the AER recognised this fact, it decided to retain the conservative assumption of a 30% rate for all NSPs irrespective of their actual tax rates" [p. 17]. It went on to note that there were, at the time of the submission, uncertainties as to how SAPN would address the AER's requirements in its Proposal. The AER should clearly explain the approach used to determine which and how much of the current capex will be expensed.
Business SA (2019) noted that changed treatments of return on capital and income tax are helping to hold down allowable revenues for SAPN, but that the AER should also highlight what contribution is coming from actual efficiencies being delivered by SAPN [p. 4].
Central Irrigation Trust (2019) said that the restraint on revenues in the SAPN Proposal comes from changes in the AER's treatment of return on capital. income tax, and productivity and said that it does "not believe that SAPN has searched hard enough inside their business to reduce costs or carry through the efficiencies for which they have previously been recompensed and subsequently reducing their costs in real terms in the current proposal" [p. 2].
A joint submission from SAFCA, the Energy Project and Uniting Communities al (2019) argued that "the guideline has the effect of reducing the SAPN tax allowance and hence decreasing their revenue by a level that they argue is greater than for their peers. We also understand part of the response SAPN has made to the new tax guideline has been to review definitions of some operating and capital cost items and realign them, having implications for other aspects of the proposal" [p. 22].
AGL (2019) notes that while SAPN is proposing a reduction in distribution network charges in 2020-21, this is largely due to changes in the AER's approach to rate of return and income tax allowance, both of which are outside SAPN's control. SAPN is actually proposing increases in allowances for costs that are under its control.

5. The AER's *Draft Decision* on SAPN

The AER released its *Draft Decision* on the SA Power Networks Distribution Determination 2020 to 2025 on 8 October 2019. The *Draft Decision* sets out the AER's proposed approach to determining the revenue that SAPN will be allowed to recover from its customers over the regulatory period. It also provides estimates of the

The allowable revenue is determined as the amount that would be needed to cover the costs that would be incurred by a "benchmark efficient entity" (BEE) when providing the distribution services that SAPN provides, i.e. the allowable revenue is equal to the costs that the BEE would incur to provide the service. The costs of the BEE are determined using a "building blocks" calculation with the main components being:

- Return on capital;
- Regulatory depreciation;
- Operating expenditure;
- Revenue adjustments; and
- Net tax allowance.

Table 1 shows the estimated revenue building blocks from the SA Power Networks Preliminary Proposal and from the *Draft Determination*.

Table 1 AER Draft Decision for revenue building blocks 2020-25,—$ million

	AER Draft Decision
Return on capital	1,053.7
Regulatory depreciation	1,187.7
Operating expenditure	1,585.1
Revenue adjustments	38.8
Net tax allowance	37.6
Revenue requirement (unsmoothed)	3,902.9
Revenue requirement (smoothed)	3,905.3

The estimated allowance for corporate income tax costs under the new methodology is $37.6 million. The AER says that changes to the methodology have reduced the corporate income tax allowance by $116.3 million or 80.9 per cent from what would have been allowed if the method applied in the previous regulatory control period had been continued.[8] Immediate expensing accounts for $97.2 million of the reduction and the adoption of DV accounts for $19.1 million of the reduction.[9]

6. SAPN's *Revised Proposal*

In December 2019 SAPN submitted its *2020-25 Revised Regulatory Proposal* (SAPN 2019d,e). SAPN indicated that it would accept the AER's proposed methodology for determining the regulatory tax allowance even though it does not agree with the AER's method for calculating an opening tax asset base.

In particular, SAPN says that it accepts the AER decisions to:

- *"accept the continued use of the year-by-year tracking approach for calculating tax depreciation of existing assets;*
- *"apply the DV method for tax depreciation to all new depreciable assets except for forecast capex associated with buildings (capital works) and in-house software;*
- *"recognise the immediate expensing of some forecast capex when calculating tax depreciation, consistent with the approach proposed by SA Power Networks; and*
- *"determine the opening TAB at 30 June 2020 in the manner set out in the Draft Decision, except for updating the actual and forecast capex for the 2018/19 and 2019/20 regulatory years respectively."* [SAPN 2019d p. 7]

While SAPN accepts the AER's decision on the tax asset base, it says that:

> *"the AER's approach to estimating the taxable income that would be earned by a BEE during each regulatory year of the 2020-25 RCP also assumes that the BEE will be claiming depreciation in relation to its entire TAB even though a portion of the TAB will not be depreciated during the 2020-25 RCP because it was immediately expensed during a previous period. It follows that the estimate of the taxable income that would be earned by a BEE during the 2020-25 RCP is lower than the actual taxable income because the AER's estimate assumes that the BEE will be claiming deprecation in relation to its entire TAB even though this will not be the case.*
>
> *"Setting the BEE's forward looking tax allowance on the basis that it will simultaneously receive (a) the benefit of immediate expensing of certain forecast capex, and (b) depreciation deductions from the capitalisation of the same type of expenditure incurred under the previous regulatory approach that has been fully expensed, results in an underestimate of the BEE's tax allowance. As a consequence, we believe that we will receive less than our efficient tax costs for the 2020-25 RCP.*
>
> *"We raised this issue with the AER prior to the publication of its Draft Decision, noting that the partial write-down of our TAB would correct this mismatch. However, this was rejected by the AER. We also discussed this issue with stakeholders but those stakeholders did not support our proposed approach."* [SAPN 2019d p. 7]

[8] AER 2018b p. 7-5.
[9] AER 2018b p. 7-18.

SAPN also goes on to suggest that the AER's approach is at odds with the National Electricity Rules/Law:

> *"In our view:*
> - *clause 6.5.3 of the National Electricity Rules (NER) requires the AER to estimate the taxable income that will be earned by a BEE during each regulatory year of the 2020-25 RCP (ie without reference to past periods);*
> - *the NER does not permit the AER to take into account under recoveries or over recoveries of the tax allowance that may have occurred during previous periods when setting this forwarding looking estimate;*
> - *neither the National Electricity Law (NEL) or the NER permit the deliberate under estimation of a BEE's estimated taxable income in order to adjust for a past over recovery that was permitted under the approach to estimating taxable income at the time."* [SAPN 2019d p. 7]

SAPN estimates that its corporate tax allowance will be $10.5 million, in contrast to the estimate of $37.6 million in the AER's *Draft Proposal.* The differences relate to changes in other parts of the *Revised Proposal.* These differences relate to:

- forecast capex—SAPN does not accept the capex forecasts in the *Draft Decision* and it has prepared the estimate of corporate income tax using its own revised capex forecasts;
- changes to immediately expensed capex—SAPN says that its methodology is unchanged from what it has previously provided to AER but updated in light of 2018/19 actual capex and its alternative capex forecasts for the new regulatory control period; and
- changes to the proposed opening tax asset base which are consistent with the AER's proposed methodology but incorporate SAPN's actual and forecast capex for the 2018/19 and 2019/20 regulatory years a result of updated financial data.

Thus it appears that SAPN accepts the AER's methodology for preparing the tax allowance in every respect, but differs in respect of capital expenditure forecasts and other parameters that will affect the quantum of the tax allowance.

7. Thoughts on issues arising

7.1 Changed approach to tax depreciation

The tax depreciation available to regulated networks depends on Australian tax law, which in general allows asset owners to depreciate assets faster than economic depreciation. The AER's method for determining tax depreciation should be aligned with industry practice unless there are good reasons to depart from it.

7.2 Application of new tax depreciation treatment to existing assets

The AER has ruled that the new tax depreciation treatment should apply only to capital expenditures made in the new regulatory period and subsequently. It argues that existing assets should remain under their existing depreciation schedules.

In June 2019 SAPN proposed that the opening value of its taxable asset base at 1 July 2020 should be written down to allow for immediate expensing of assets that has taken place in the current regulatory period and before.

SAPN's proposed treatment seems undesirable. It confuses the tax position of the BEE with the tax position of SAPN. SAPN argues that its tax asset base is smaller than is implied by the roll forward of the closing asset base from the current regulatory control period. This is because it has used tax depreciation practices—immediate expensing and DV—that differ from the BEE's tax depreciation practices. But this argument does not hold for the BEE itself: rolling forward the closing tax asset bases simply reflects the tax depreciation allowances that are left to the BEE. It ensures that the tax allowance is equal to the tax that would be paid by the BEE. The fact that SAPN will pay more—assuming this to be correct—is not relevant it simply reflects past SAPN decisions to depart from the behaviour of the BEE.

7.3 Corporate tax rate

SACOSS has raised the concern that some owners of entities are not subject to a 30 per cent corporate tax rate and allowance should be made for this. However, the AER has indicated that it will not pursue this, rightly in my view.

There are a variety of potential holding/financing structures that may impinge on tax liabilities. Probably the most common corporate financing structure in Australia—I will call it a "vanilla structure" is one in which a

corporation deducts 100 per cent of the amounts that it pays out as interest, pays 30 per cent tax on its assessed profit and accumulates corresponding franking credits, and makes dividend payments with franking credits attached. Typically dividends paid are less than profits, in which case franking credits distributed are less than franking credits accumulated. In addition, the franking credits distributed are only redeemed fractionally, for instance because they go to non-resident owners.

It is clearly possible for the financing structure of an asset to depart from this. The asset might be owned by an entity such as a super fund that pays only 15 per cent tax. Or another entity might have above average dividend payout rates and thus franking credit distributions, which would increase the realised value of its franking credits (its realised "gamma" factor). Another might have an above average prevalence of Australian residents on its share register, again increasing the value attached to those franking credits.

But while these tax treatments may vary, making allowance for them in the building blocks calculation is both difficult and on uncertain ground conceptually. The problem is that investors who are subject to different tax rates are likely to have different requirements for net return on capital, with the two tending to offset each other. The example in Box 2 illustrates the point in a very simple (and simplistic) scenario.

Box 1 Summary of views expressed regarding the new tax treatment in application to SAPN

Consider two assets, A being a regulated network and B being a non-regulated asset. Each has a value of $100 million, each has a similar risk profile, and each will be financed with a 40:60 equity:debt mix. Assume there are no franking credits.

Assume that Asset B offers a 7.00 per cent gross return on equity. This means that a corporation subject to 30 per cent income tax can buy Asset B and enjoy a net return of 4.90 per cent. If Asset A is to compete for investors of this type it too will need to offer a 7.00 per cent gross return that delivers a 4.90 per cent net return.

Now suppose that Asset A is in fact purchased by an investor with a 15 per cent tax rate. It is tempting to argue that this investor requires a 4.90 per cent net return and that a 5.76 per cent gross return on equity is therefore sufficient. But this is misleading.

The problem is that the 15-per-cent-tax-rate investor could buy Asset B which is priced on the market to offer a gross return of 7.00 per cent. The gross return on Asset B that is available to the 15-per-cent-tax-rate investor B in the market is not adjusted according to her tax circumstances. She can buy Asset B with a gross return of 7.00 per cent for a net return of 5.95 per cent.

But under these circumstances the 15-per-cent-tax-rate investor will also require a 5.95 per cent net return on Asset A, since it is identical to asset B in its salient respects (same risk profile), and this requires a 7.00 gross rate of return.

We can summarise this with reference to the building blocks calculation, looking at a calculation based on the two different types of investors, each with $40 million in equity—see below. I consider only the return on equity and income tax blocks. What we see is that the two investors differ in their net return on capital and income tax allowances, but have the same total cost to be covered.

	30-per-cent-tax-rate investor	15-per-cent-tax-rate investor
Net return on capital	$0.70 \times 0.07 \times \$40m = 1.96m$	$0.85 \times 0.07 \times \$40m = 2.38m$
Income tax allowance	$0.30 \times 0.07 \times \$40m = 0.84m$	$0.15 \times 0.07 \times \$40m = 0.42m$
Total	$\$2.8m$	$\$2.8m$

In my view the AER is probably correct to rule out a BEE with allowance for a 15 per cent tax rate investor and other investor types. This is not to say that it would be conceptually wrong to do so, the problem relates to a lack of robust data. If the AER wanted to include other investors it would need to obtain robust estimates not just of the tax rates faced by these alternative investors but also their required net rates of return and gammas. This would not be easy to do. The AER already has enough difficulty estimating these parameters for the "vanilla structure" and the uncertainties would be greater for less common financing structures.

7.4 Distinction between minor repairs and refurbishment

A number of submissions were concerned about SAPN's proposals re the classification of certain works to, on the one hand, minor repairs and thus opex and, on the other hand, refurbishment and thus in part capex. I note the opinion of the expert that the AER engaged to advise on this matter, Energy Market Consulting associates (2019), which was that "We consider that the distinction between minor repairs and refurbishment that SAPN proposes is reasonable … irrespective of the 'tax treatment' arguments that SAPN presented in its RP, though this may have been a catalyst for it considering the matter" [p. 59].

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