



**SACOSS' Submission to the
Australian Energy Regulator on
SA Power Networks' 2020-25 Revised Regulatory Proposal:
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Introduction

The South Australian Council of Social Service (SACOSS) is the peak non-government representative body for health and community services in South Australia, and has a vision of *Justice, Opportunity and Shared Wealth for all South Australians*. SACOSS does not accept poverty, inequity or injustice. Our mission is to be a powerful and representative voice that leads and supports our community to take actions that achieve our vision, and to hold to account governments, business, and communities for actions that disadvantage vulnerable South Australians.

SACOSS' purpose is to influence public policy in a way that promotes fair and just access to the goods and services required to live a decent life. We undertake policy and advocacy work in areas that specifically affect disadvantaged and low income consumers in South Australia. With a strong history of community advocacy, SACOSS and its members aim to improve the quality of life for people disadvantaged by the inequalities of our society.

SACOSS has a long-standing interest in the delivery of essential services. Our research shows that the cost of basic necessities like water and electricity impacts greatly and disproportionately on vulnerable and disadvantaged people.

The importance of keeping energy prices down

Over the last 3 years, energy affordability issues in Australia have reached crisis point, with the greatest impact of increasing energy costs on low income households. The Australian Energy Regulator's (AER) recent Affordability Report shows South Australia has the least affordable electricity in the National Electricity Market (NEM).¹

In 2019, electricity bill costs in South Australia made up 7.6% of a low income household's disposable income (after concessions were applied), with low income customers on standing offers paying 9.9 per cent of their income in electricity costs. This is the highest percentage in the NEM.²

The amount of energy debt has also increased. South Australia has the highest average energy debt levels for hardship customers in the NEM, increasing from \$1,694 to \$1,863 in the last 12 months. Average debt on entry into hardship programs in SA has also increased from \$1,548 to \$1,685 (up \$137).³

SACOSS believes South Australian energy consumers are overwhelmingly concerned about price. Now more than ever, ensuring consumers pay no more than is necessary to maintain a safe and reliable network is of critical importance. With this in mind, SACOSS' input into SA

¹ AER, Affordability in Retail Energy Markets – 2018-19, September 2019, p.14.
https://www.aer.gov.au/system/files/Affordability%20in%20retail%20energy%20markets%20-%20September%202019_0.pdf

² Ibid, p.14.

³ AER, Quarterly Retail Performance Report Q1 2019-20, January 2020, Schedule 4
https://www.aer.gov.au/system/files/AER_Quarterly-Retail-Performance-Report_Q1-2019-20.pdf

Power Networks' Regulatory Determination process has focussed on ensuring the network is operated as efficiently and prudently as possible, with a view to reducing costs to consumers, particularly vulnerable consumers.

That said, SACOSS acknowledges stakeholders' concerns about a future 'bow wave' of expenditure and intergenerational equity issues. We recognise achieving this balance in a regulatory determination is a difficult one for the AER to achieve, particularly in light of current affordability considerations. However, we are requesting the AER provide a clear explanation as to how it has taken this important, albeit controversial, intergenerational equity issue into account in its decision-making.

AER's Draft Decision

The AER has provided a very thorough draft decision on SA Power Networks' Original Proposal for the 2020-25 regulatory control period⁴ (the Draft Decision).

In the lead up to this decision, SACOSS and other consumer groups had raised a number of concerns about SA Power Networks' original proposals, and we were pleased that in many instances the AER has listened to our feedback.

SACOSS would like to thank the Australian Energy Regulator (AER) for the opportunity to comment on SA Power Networks' Revised Regulatory Proposal for 2020-25.

Customer engagement process

SACOSS commends SA Power Networks on its extensive and responsive Customer Engagement Program (CEP). We were encouraged by SA Power Networks' willingness to listen and respond to consumer feedback during its early engagement. We have also greatly valued SA Power Networks' continued openness and inclusivity throughout the post Draft Decision consultation process. SA Power Networks have provided detailed explanations for its expenditure proposals, and have consistently responded quickly and comprehensively to all our requests for further information.

That said, it was unclear how SA Power Networks had taken our written submissions on the Draft Plan and Original Proposal into account when preparing its Revised Proposal. In relation to the Original Proposal, we echo the AER's assessment in its Draft Decision that 'SA Power Networks has demonstrated timely and effective engagement with its consumers and stakeholders, but there are concerns that their feedback, especially around balancing prices with other competing priorities, is not reflected in the proposal'.⁵

It is also worth pointing out that whilst SACOSS recognises the value in a comprehensive and early CEP, we believe it is important to highlight the resourcing pressures placed on

⁴ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025*, October 2019. See link: <https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/sa-power-networks-determination-2020-25/draft-decision>

⁵ AER, *Draft Decision: SA Power Networks Distribution Determination 2020-2025: Overview*, October 2019, p. 8

consumers and consumer organisations to meaningfully participate in the program, and to analyse and respond to the volumes of often complex information provided.

SA Power Networks' Revised Proposal

SA Power Networks' 2020-25 Regulatory Proposal⁶ (the Original Proposal) forecast a total revenue allowance of \$4,214m, with forecast opex of \$1,530 and forecast capex of \$1,741. The AER's Draft Decision allowed total revenue of \$3,905m with opex of \$1,466 and capex of \$1,263m (a reduction in allowed capex of \$478m from the Original Proposal).

SA Power Networks Revised Proposal⁷ (the Revised Proposal) forecasts a total revenue of \$3,916m with a reduction in forecast opex from \$1,530 to \$1,442m. The forecast total capex in SA Power Networks' Revised Proposal is \$1,712.0 (before disposals),⁸ which is \$29 million (2%) lower than SA Power Networks' Original Proposed capex forecast and is \$450 million (26%) higher than the AER's Draft Decision.

SA Power Networks states this 2% reduction in forecast capex from the Original Proposal 'better balances affordability, service and community risk'.⁹ In its Revised Proposal, SA Power Networks have actually increased forecast capex in the Repex and Connections categories (by \$12.7m and \$48.5m respectively) with savings being found in Augex (\$59.2m) and non-network (\$30.9m), resulting in an overall \$29m reduction in forecast capex.

Notwithstanding the relative similarity in forecast expenditure between SA Power Networks' Original Proposal and the Revised Proposal, residential customers can expect to see a reduction in annual bills of around \$62 next year under the Revised Proposal, as opposed to the previously forecast \$40 in the Original Proposal.

It is important to point out that this reduction in distribution costs for consumers does not come as a result of SA Power Networks reducing its forecast expenditure from its earlier proposal. The forecast bill reductions are largely delivered via the lower cost of capital under prevailing lower interest rates, compared with the 2015-20 regulatory control period.

This submission comments on:

- Capital expenditure
 - Repex
 - Customer connections
 - Reliability

⁶ SA Power Networks, *2020-25 Regulatory Proposal*, January 2019. See link: <https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/sa-power-networks-determination-2020-25/proposal>

⁷ SA Power Networks, *2020-25 Revised Regulatory Proposal*, December 2019. See Link: <https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/sa-power-networks-determination-2020-25/revised-proposal>

⁸ Which SA Power Networks states is subject to the AER approving its Assets and Works (Stage 2) IT program.

⁹ SA Power Networks, *2020-25 Revised Regulatory Proposal: Overview*, December 2019, p. vii.

- Operating expenditure
 - Labour costs
- Corporate Income tax
- Capital Expenditure Sharing Scheme

Capital Expenditure: Replacement Capex (Repex) Forecast

Background

In its Original Proposal, SA Power Networks proposed a total capex for 2020-25 of \$1,719.7 million (\$ June 2020). Of this total capex, repex was the largest single category and accounted for some \$637.2 million for 2020-25, or 30 per cent of the total capex proposal.¹⁰

It is also, perhaps, the investment area of greatest debate between SA Power Networks, the AER and many of the stakeholders, particularly given the extent of the underspending during the early years of 2015-20 that occurred in the face of SA Power Networks' presentations on the urgency of increasing repex in its 2015-20 regulatory proposal.

SA Power Networks has made several changes over the years to the way it forecasts its repex requirements. For its 2015-20 regulatory proposal, SA Power Networks discussed how it had moved from Defect modelling to Condition Based Replacement Model (CBRM). In this current proposal, however, SA Power Networks explains that one factor in its low repex in 2015-16 and 2016-17 was that it was transitioning to its 'value-based replacement approach' over the first two years of 2015-20.

However, in its 2020-25 proposal, SA Power Networks continued to rely on the CBRM as a basis for some 44 per cent of its repex forecast. SA Power Networks also refers to its Stage 1 'Assets and Work' (A&W) ICT project being adopted in the 2015-20 RCP, generating repex savings in both the 2015-20 and the forecast 2020-25 RCP. SA Power Networks' repex forecast also assumes that Stage 2 of the A&W project will commence in 2020-25.

These changes and mixed models have added to the difficulty of critiquing SA Power Networks' repex forecasts, particularly given the limited transparency of the CBRM, as the AER has highlighted in its Draft Decision.¹¹

Whatever models have been used, however, SA Power Networks has sought an increase in its repex allowance relative to its historical expenditures in both its 2015-20 and 2020-25 regulatory proposals. In both proposals, SA Power Networks has relied on the following general claims as a reason to increase its repex proposal.

¹⁰ See for instance Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp 5-10, 5-12.

¹¹ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp 5-45.

- The requirement to maintain an acceptable level of distribution system safety and reliability by addressing identified defects in, and degradation of, their ageing network assets.
- The requirement to meet the jurisdictional service standards and to comply with their other regulatory obligations and requirements.

The AER has rejected SA Power Networks' initial repex proposal in its Draft Decision, and substituted a repex allowance of \$538.5 million (\$2020).

The AER's Draft Decision highlighted that, notwithstanding SA Power Networks' stated improvements to its repex modelling framework, there continued to be issues with the robustness of SA Power Networks' cost benefit analyses and with the objective quantification of asset risks and the repex required to mitigate this risk.¹²

In its Revised Proposal, SA Power Networks attempted to clarify the impact of the proposed Stage 2 Assets & Work (A&W) ICT program on its forecasts. SA Power Networks had forecast its repex requirements for 2020-25 on the basis that the AER would approve the Stage 2 A&W program.

SA Power Networks claimed that Stage 2 A&W would support further improvements in the efficient and effective replacement activity and would allow deferral of asset replacement/refurbishment for an average of 10 years.¹³

The AER did not approve the Stage 2 A&W ICT investment in its Draft Decision. SA Power Networks has now provided what it calls a 'base case' option (Option 1) which excludes the claimed efficiency and deferral benefits arising from its Stage 2 A&W program. As illustrated in the table below, SA Power Networks claimed that Option 1 would significantly increase the repex expenditure over Option 2 (which includes the Stage 2 A&W program).

Table 1: SA Power Networks' Revised Proposal- Option 1 and Option 2 (\$million, June 2020)

Repex Option	Original Proposal Decision	AER Draft Decision	Original Proposal
Option 1	669.5	538.5	740.7
Option 2	669.5	538.5	682.2

Source: SA Power Networks, 2020-25 Revised Regulatory Proposal -Attachment 5 - Capital Expenditure, 20 December 2019, Tables 5-7 and 5-8, p 22.

¹² Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp 5-14.

¹³ See SA Power Networks, *2020-25 Revised Regulatory Proposal: Supporting Document 5.31- Assets & Work Program Business Case Addendum*, 10 December 2019 for details.

SACOSS has adopted a high level review of the AER's Draft Decision and SA Power Networks' Revised Proposal, rather than looking at expenditures in detail by asset class. We have considered the Draft Decision and the Revised Proposal in terms of the following general issues:

1. Modelled risk/cost analysis has been overstated by SA Power Networks.
2. Insufficient evidence for the selection of historical base years for trend analysis.
3. Deferral impact of A&W program not reflected in repex modelling/forecast.

Modelling Risk

SACOSS agrees with the AER's Draft Decision that modelled risk in SA Power Networks' Original Decision was probably overstated using the Condition Based Risk Methodology (CBRM). However, we recognise that SA Power Networks has made some important changes to its approach, particularly the adoption of industry wide risk parameters. We conclude that the AER could revisit its previous analysis based on the additional information provided and the changes to SA Power Networks' assumptions in the CBRM.

Forecasting based on historical averages or trends

With respect to the selection of historical base years, and the related issues of averaging versus trend forecasting, SACOSS is concerned that all of the alternative approaches have some difficulty. The volatility of SA Power Networks' repex expenditure over all asset classes makes the use of historical averages problematic and the selection of starting and end points highly relevant. Our view is that the combination of volatility and selection of starting and end points has resulted in SA Power Networks over-forecasting repex in its Option 2 analysis, and the AER risking under-forecasting of future repex requirements because of the weight its approach gave to the very low repex investment years of 2015-16 and 2016-17.

On the other hand, analysis based on any simple trend projection from 10 years of history (as used by SA Power Networks in calculating Option 1 costs) is also very problematic because of the significant growth between the start and end years of the 10 year period (over 200 per cent). There is a real risk that any trend based forecast would result in an excessively high forecast while subject to significant error bounds (due to the volatility of the data).

In addition, none of the historically based repex projections adequately deal with the issue that was paramount to stakeholders, namely how to address the risks and costs that may potentially arise as the network ages and the 'bow-wave' of replacements are required in the future (the 'intergenerational' issue). In particular, we request the AER to clarify in its Final Decision how it has considered this important, albeit controversial issue.

Repex Deferral Program and the links to the Stage 2 A&W program

Following criticisms by stakeholders and the AER, SA Power Networks has sought to more clearly define how the Stage 2 A&W program is critical to its preferred Option 2 proposal in the Revised Proposal.

However, our examination of the business case for the Stage 2 A&W program finds that much of the detailed quantitative analysis refers to savings in costs through greater efficiency. SA Power Networks has also claimed that the same program can result in an average deferral of asset replacement of 10 years.

However, SACOSS finds this claim both improbable and unconvincing, at least on the evidence provided by SA Power Networks. Effectively, SA Power Networks appears to be saying that given assets with existing average ages between 40 and 50 years, it can push this out to 50-60 years simply by improving its repex management systems.

At best, we see this as simply ‘kicking the can down the road’. In our view SA Power Networks is in effect running two, potentially incompatible narratives. The first is the story of the bow-wave of investment required as a result of the aging network that is in turn exhibiting ever increasing defects and reliability issues. The second is the story that investment in expensive Stage 2 A&W program will make these problems go away – or push them into the future for other generations to resolve. SACOSS considers SA Power Networks has not provided the information that reconciles these two narratives.

As a final comment in this summary, SACOSS confirms its earlier view that on current evidence, the performance of SA Power Networks’ network still meets and beats the regulatory standards. We continue to hold this view, notwithstanding the evidence SA Power Networks has provided in its Revised Proposal. However, the focus of this particular submission is on addressing the three high level questions regarding the forecast for 2020-25 and the implications for the network in future RCPs.

The AER’s Draft Decision and SA Power Networks’ Revised Proposal

The AER’s Draft Decision

The AER did not accept SA Power Networks’ initial repex proposal of \$637.3 million and determined a substitute estimate of \$508.5 million or 20 per cent lower than SA Power Networks’ Original Proposal.

The AER stated that SA Power Networks has not demonstrated that its repex forecast is ‘prudent or efficient’. The AER also stated that: ‘SA Power Networks has not justified its claimed increased risk and the step up in repex required to mitigate this risk. In summary, the AER points to three key observations:’¹⁴

¹⁴ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp p 5-43, 5-44.

- SA Power Networks overstated the risk in its condition-based modelling and therefore overstated the forecast repex required to mitigate this risk.
- SA Power Networks provided insufficient evidence to support the inclusion of the last two years of the current period (2018-19 and 2019-20) where the historical trend is used to derive forecast repex.
- SA Power Networks' modelled repex is \$13.0 million above the [AER's] repex modelling threshold. Forecasts for underground cables, transformers and switchgear are particularly higher than predicted, and would be the target of AER's bottom-up investigation.

With respect to the first of these observations, SACOSS is particularly concerned that the AER did not appear to have access to the workings of the CBRM due to its proprietary nature. Nevertheless, the AER notes that the CBRM's risk and consequence values are likely to be overstated. Looking at the inputs and outputs of the CBRM, the AER and EMCa concluded the following:¹⁵

*CBRM's resultant risk and consequence values [given certain inputs from SA Power Networks] are likely to be overstated. Despite the inability to review how the values were incorporated in the modelling, we as well as EMCa observed **that these values are more closely aligned with a maximum consequence value rather than average consequence values**. As such, where maximum consequence values are applied, they should be moderated to reflect that maximum consequence does not occur for every occurrence of that consequence. **Without the application of these moderation factors, which we have not found any evidence for, we would view that the resulting risk values are likely to be inflated.***

Noting these limitations in the assumptions and application of the CBRM, it is concerning to also note the AER's comment that in its Original Proposal, SA Power Networks did not always appear to check the CBRM results using other more standard techniques such as 'failure rates'. Given the CBRM was used for 44 per cent of the forecast, this was a significant gap in SA Power Networks' processes.

SA Power Networks also used historical analysis for its repex forecast. The AER argues that where historical data is used, it is important to consider the impact of 'outliers' on the averaging or trend analyses. The AER sees 2018-19 and 2019-20 as outliers that have overly influenced the historical average and trend analyses. Figure 1 below illustrates this point. The AER appears to have used data from the period 2013-14 to 2017-18 in forecasting its substitute repex.

¹⁵ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp 5-46.

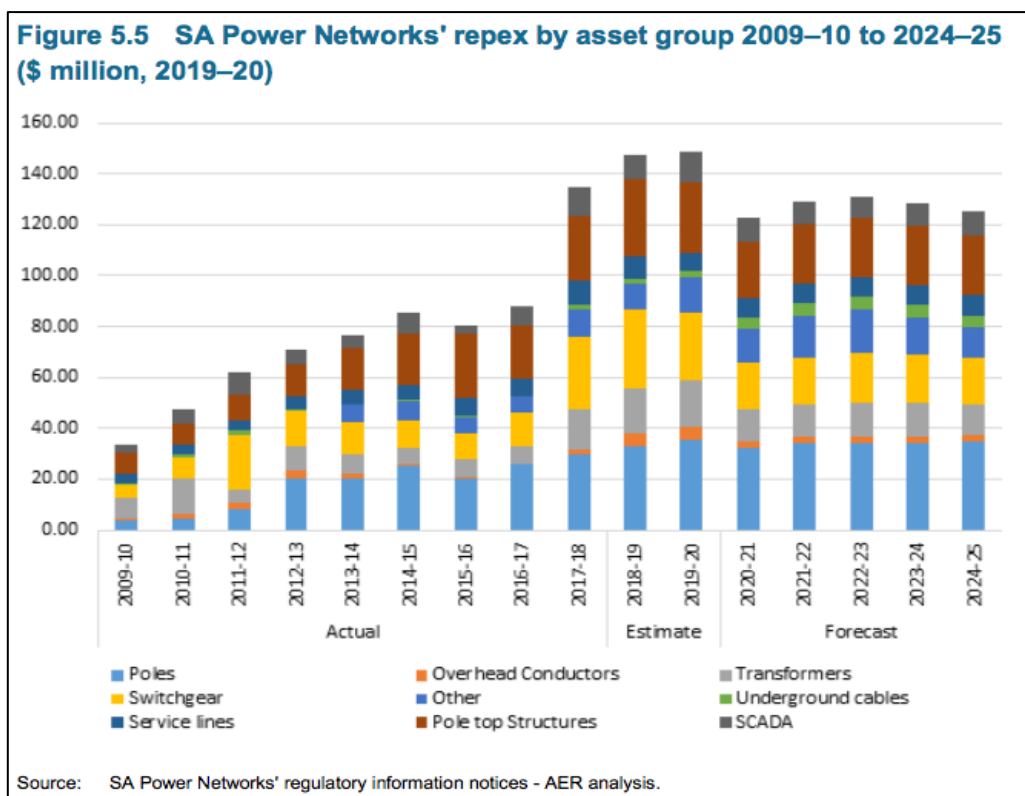


Figure 1: Historical trends in repex by asset group (\$million, 2019-20)

Source: Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 -Attachment 5 – Capital Expenditure*, October 2019, p 5-47.

In its more detailed analysis of SA Power Networks' repex proposal, the AER differentiated between 'modelled repex' and 'unmodelled repex'. Generally, the repex for each asset class followed the same pattern, namely a decline in the early years of the 2015-20 RCP, followed by a significant increase in repex in the remaining years.

The modelled repex accounted for about 34 per cent of SA Power Networks' total repex. Within the modelled repex, the AER applied its repex model to first identify where there were significant 'gaps' between the model outputs and SA Power Networks' forecasts.

As a result, the AER focussed on further investigation for 3 asset classes, namely transformers, underground cables and 'modelled switchgear'. As a result of this analysis, the AER reduced SA Power Networks' proposal for modelled assets by some 18 per cent.¹⁶

For example, SA Power Networks was proposing a step up of some 46 per cent in transformer repex. The AER noted that SA Power Networks had used its CBRM to forecast zone substation transformers and, as previously identified, the CBRM overstated the risks

¹⁶ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp p 5-59, 5-60.

and costs of failure. The AER has therefore relied on its analysis of average historical expenditure between 2013-4 and 2017-18 for its substitute forecast.¹⁷

Unmodelled repex made up around 66 per cent of SA Power Networks' forecast repex and again SA Power Networks was seeking increases across most asset groups. The AER therefore determined to review the following asset groups: poles; pole top structures; non-modelled switch gear and 'unmodelled other' repex.

As an example of the unmodelled forecast, the AER considered the proposed repex for pole replacement. SA Power Networks forecast an increase of close to 40 per cent from its actual spend over the 2013-18 regulatory years. Amongst other issues, the AER noted that SA Power Networks claimed its pole failure rates were increasing. However, the AER stated that the data provided by SA Power Networks showed that the number of pole failures remained relatively stable since 2010-11.¹⁸

SA Power Networks' Revised Proposal

SA Power Networks has sought to address some of the AER's concerns such as the AER's concerns with the transparency of the CBRM and gaps in SA Power Networks' supporting business cases. However, overall SA Power Networks has strongly rejected the AER's Draft Decision.

SA Power Networks has also stated that both its original and revised repex forecasts are contingent on the assumption that the AER would accept the capex required to implement Stage 2 of SA Power Networks' A&W ICT project.

Given that the AER's Draft Decision rejected the capex required for the Stage 2 A&W program, SA Power Networks has proposed two options in its Revised Proposal; a 'base case' forecast (no Stage 2, Asset and Work program); and a revised forecast that includes investment in Stage 2 A&W program – this being SA Power Networks' preferred option.

As illustrated in the table below, SA Power Networks claimed that the repex cost in the base case (no Stage 2, A&W project) would be significantly greater than the option 2 that includes the project. SA Power Networks' preferred option is also \$23.5 million (\$ June 2020) higher than its Original Proposal in real terms.

¹⁷ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp p 5-62,-5-63.

¹⁸ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp p 5-49,-5-50.

Table 2: SA Power Networks' Revised Proposal - Option 1 and Option 2 (\$million, June 2020)

Repex Option	Original Proposal Decision	AER Draft Decision	Original Proposal
Option 1	669.5	538.5	740.7
Option 2	669.5	538.5	682.2

Source: SA Power Networks, 2020-25 Revised Regulatory Proposal -Attachment 5 - Capital Expenditure, 20 December 2019, Tables 5-7 and 5-8, p 22.

SA Power Networks claimed that Option 2 would deliver long-term benefits to consumers by significantly reducing repex requirements over future RCPs. SA Power Networks also claimed that stakeholders supported this option on the basis that it delivers a net benefit to consumers and promotes intergenerational equity.

These claims regarding long term benefits and intergenerational equity are based on SA Power Networks' view that the Stage 2 A&W program (Option 2) will lead to substantial savings in repex over the longer term through efficiencies and deferrals of repex.

The starting point for this argument is SA Power Networks' forecast of repex in the absence of the Stage 2 A&W project. SA Power Networks notes that the current asset replacement rate is below 0.5% of asset replacement value per annum and concludes that:¹⁹

While there are short-term fluctuations in repex, the long-term expenditure trend demonstrates an upwards trajectory as the average asset age continues to increase. Over the period 2000-2019, our repex has increased from near zero to over \$150 million per annum in the current RCP to manage increasing risk exposure of failure across the larger proportion of the asset base.

SA Power Networks has also used the AER Repex Model to project the proportion of network assets (by replacement value) that will require replacement over the next 10 years. The Model estimates replacement requirements based on asset ages and observed historical failures and replacements, and assuming continuation of current assets and work practices. SA Power Networks illustrates this outcome in Figure 2 below.

¹⁹ SA Power Networks, 2020-25 Revised Regulatory Proposal - Attachment 5 - Capital Expenditure 20 December 2019, p.24.

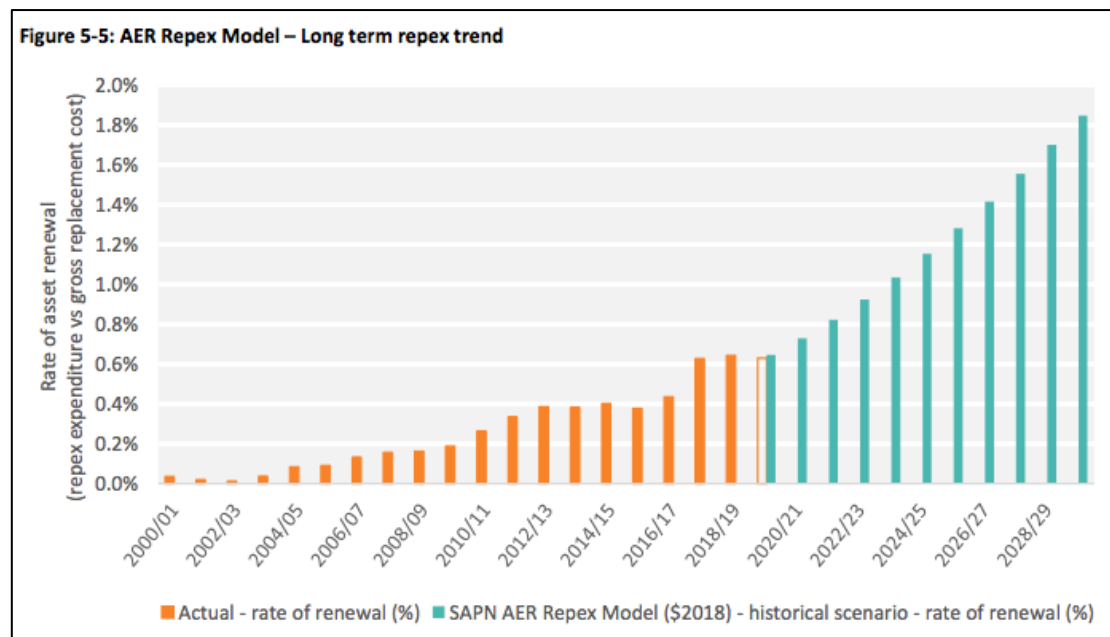


Figure 2: AER, Repex model – 10 year forecast of rate of asset renewal

Source: SA Power Networks, 2020-25 Revised Regulatory Proposal - Attachment 5 - Capital Expenditure 20 December 2019, Figure 5.5, p 25.

SA Power Networks also referred to the findings of a review by Frontier Economics (Frontier) of long-term replacement expenditure trends for poles. SA Power Networks stated that Frontier’s analysis confirms that SA Power Networks will require higher levels of repex over multiple regulatory periods.

Frontier’s report also highlighted that, as a result of the large investment in the network in the 1950s and 1960s, there will be a large ‘bow wave’ of assets that need replacement as they reach the end of their useful lives.

SA Power Networks claimed that this will dictate minimum asset replacement requirements over coming regulatory periods. This in turn raises the question of intergenerational equity. SA Power Networks reported that Frontier found:²⁰

- Not replacing assets that are identified as needing replacement will result in more in-situ asset failures, and more assets to be replaced in future RCPs, pushing more cost burden onto future generations; and
- Replacing assets after they have failed is more costly than an orderly replacement as part of a repex program. This is because replacing an asset after it has failed will result in consequences to network safety and reliability for customers.

Having reviewed the implications of Option 1, SA Power Networks then concluded that Option 2 remains the preferred approach. SA Power Networks stated:²¹

²⁰ SA Power Networks, 2020-25 Revised Regulatory Proposal - Attachment 5 - Capital Expenditure 20 December 2019, p.5-26.

Through the implementation of Assets and Work – Stage 2, we believe we can maintain the safety and reliability of our network in the 2020-25 RCP with annual repex at similar levels as 2017/18 and 2018/19 expenditure levels.

And:

As explained above, we will need to increase repex in subsequent RCPs to maintain network safety and performance. However, investing in our Assets and Work (IT) program now, will improve our efficiency in spending in the years to come – which will keep costs down for consumers in the long-term.

In an addendum to the Repex forecast,²² SA Power Networks has responded to the AER's Draft Decision in three areas:

- Modelled risk has been overstated.
- Insufficient evidence for the selection of historical base years for trend analysis.
- Deferral impact of A&W program not reflected in repex modelling/forecast.

SACOSS considers that SA Power Networks has sought to address each of these three areas in its Revised Proposal. Our views on this will be discussed in the following section. SACOSS also acknowledges that SA Power Networks has worked extensively with the AER and with its various stakeholder groups in the development of the revised proposal.

SACOSS Response to the AER's Draft Decision and SA Power Networks' Revised Proposal

In the following discussion, we have not looked at the individual asset class forecasts. Rather, we have focussed on the three broader issues listed above, namely the overstatement of risk, the use of historical data, and the deferral impact of the A&W program.

Modelled risk has been overstated

SA Power Networks reported that it has addressed many of the AER's concerns regarding the transparency and implementation of the CBRM model to forecast repex. In particular, and on the basis of advice from both the AER and an independent report, SA Power Networks has adopted more standardised industry inputs and/or ensured the data is more aligned with other aspects of its proposal and with observed outcomes.

SA Power Networks stated:²³

²¹ SA Power Networks, 2020-25 Revised Regulatory Proposal - Attachment 5 - Capital Expenditure 20 December 2019, p.5-26.

²² SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.4 – Repex Addendum, 10 December 2019.

²³ SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.4 – Repex Addendum, 10 December 2019, p.19.

- safety risks have been updated to align with the Value of Statistical Life (VSL) estimates published by the Australian Government
- environmental risk consequence values have been updated to use industry standard values
- fire risk outputs have been aligned with the fire risk modelling undertaken for our Bushfire Mitigation strategy
- environmental (oil) consequence probabilities have been revised for transformers to better reflect the presence of bunding and to align with observed risks incurred in recent years, and
- the revised modelled risks have been tested against observed risks.

While we would expect the AER to verify these claims, in principle, these developments are useful. In particular, the use of standard industry risk measures provides a degree of objectivity in the analysis.

Insufficient evidence for the selection of historical base years for trend analysis

Historical analysis of repex activity for each asset class is an important input into the AER's assessment of SAPN's forecasts. There is an underlying assumption for instance, that for many repex programs, the past is a reasonable predictor of the future repex requirements.

SA Power Networks has also used historical analysis as input into its forecasts but has come to somewhat different conclusions than the AER.

SACOSS considers there are two fundamental issues with historical data analyses, at least in the current circumstances:

- Is the forecast estimate better based on average repex for that asset class over an historical period, or based on a trend analysis?
- Over what period should the historical period be considered?

Consistent with its overall understanding of repex, the AER has used the average of the most recent five years of actual repex to establish its alternative forecast. In this instance, the AER has used the average of the observed repex between 2013-14 and 2017-18. The AER's selection of this historical period was also influenced by the very large step-up in SA Power Networks' repex in 2018-19 and 2019-20 (estimate).

The AER's modelling resulted in a repex of \$538.5 million (\$2020), although the AER concedes that there might be some changes, subject to SA Power Networks providing more detail on some of its projects. From the AER's perspective, it is then up to SA Power Networks to provide sufficient data to justify any change to these historical average figures.

SA Power Networks has challenged this approach. SA Power Networks considers the AER's approach distorts the outcome as it places too much weight on the abnormal years of 2015-16 and 2016-17. SA Power Networks has included 2018-19 (actual) and an updated estimate

of 2019-20 repex in its analyses. Importantly, SA Power Networks has prepared its historical based forecasts using both an averaging and trend approach, as described below:²⁴

- For Option 1 ('base case', no Stage 2 A&W program), SA Power Networks has used the historical trend over 10 years, including 2019-20.
- For Option 2 ('preferred option', with Stage 2 A&W program), SA Power Networks has used the historical average for the current RCP, including an estimate of repex for 2019-20.

SA Power Networks' explanation for the differences was that for Option 1, a trend analysis was required in order to explicitly take account of the old and aging network assets. However, for Option 2, the expanded Stage 2 A&W program will enable SA Power Networks to undertake its repex program more prudently, efficiently and effectively.

As illustrated in the table above, Option 1 results in a forecast repex of \$740.7 million (\$2020). Option 2 results in a forecast repex of \$682.2 million (\$2020) and both forecasts are significantly higher than the AER's forecast repex.

SACOSS therefore considers that this is a central issue to forecasting repex for the 2020-25 RCP. However, we recognise that deciding on the best approach is made more complicated by the profile of SA Power Networks' actual repex over the current RCP.

Our view is that both the historical averaging and the historical trend analysis have the potential to produce a distorted forecast. Moreover, neither approach clearly addresses the issue of an aging network and the so-called 'bow wave' problem.

Figure 3 below from SA Power Networks' repex addendum²⁵ provides a useful starting point for assessing these issues. Figure 3 illustrates:

- The claimed repex savings from Stage 1 of the A&W for both 2015-2020 and forecast 2020-25 RCPs.
- The original and revised repex forecast proposals assuming Stage 2 of the A&W program proceeds and using the historical averaging approach.
- The repex forecast proposal without the Stage 2 A&W program and using historical trend analysis
- The AER's Draft Decision based (in large part) on the historical averaging approach.

²⁴ See for instance, discussion in SA Power Networks, *2020-25 Revised Regulatory Proposal- Supporting Document 5.4 – Repex Addendum*, 10 December 2019, p.21.

²⁵ SA Power Networks, *2020-25 Revised Regulatory Proposal- Supporting Document 5.4 – Repex Addendum*, 10 December 2019



Figure 3: Repex profile including Stage 1 and Stage 2 A&W program impact (\$2020)

Source: SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.4 – Repex Addendum, 10 December 2019, Figure 5, p 15.

In our view, this chart demonstrates the problems with a 10-year trend approach used by SA Power Networks in Option 1. The 10 year trend based forecast would increase repex significantly in this and the next RCP given the more than 200 per cent increase in repex between 2010-11 and 2019-20.

However, Option 2, which uses the average of the five years 2015-16 to 2019-20, is also problematic in terms of forecasting the next five years. For instance, are the last three years of repex so much higher because they are catching up on the backlog of the first two years, and will settle back to a new normal, and if so what is that new normal?

On the other hand, the same question could be put to the AER who excluded these last few years in its analysis, when perhaps this greater expenditure is required to address the previous backlog.

The following chart provides a more detailed illustration of the issues raised above, noting that the chart only includes asset classes which are relevant to high volume scheduling work.

These high volume scheduled asset classes are more amenable, **in principle**, to modelling on an historical averaging (or trend) approach. It is very clear that for these high volume asset classes, the trend line analysis will significantly overstate the repex requirements for 2020-25 and beyond, reflecting the influence of the low starting points and high end points.

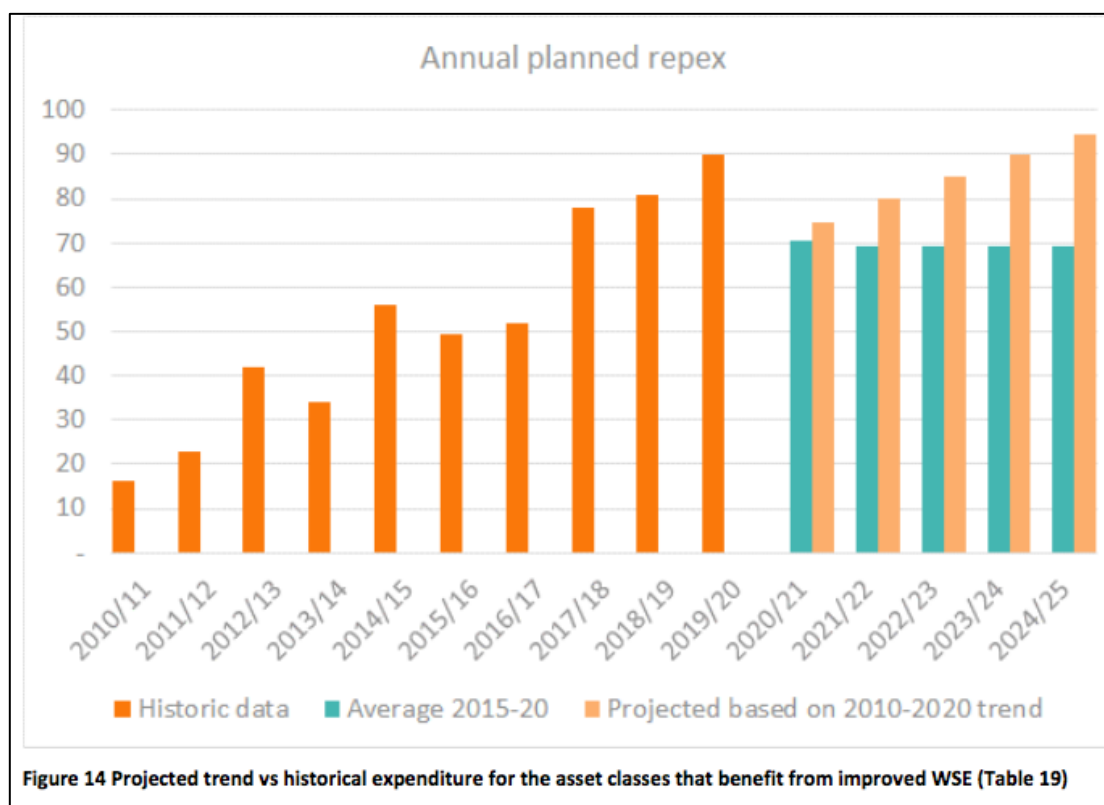


Figure 4: Annual actual and planned repex

Source: SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.31 – Assets & Work Program Business Case Addendum, 10 December 2019, Figure 14, p 54.

Overall, therefore, SACOSS considers that SA Power Networks’ approach in Option 1, using the 10-year trend analysis, will overestimate repex for 2020-25 (and beyond). However, SACOSS also considers that the AER’s approach of excluding the later years of repex in the 2015-20 RCP may underestimate the repex requirements for 2020-25 as it does not adequately recognise the possibility of ‘catch up’ expenditure or the impact of the age profile of the existing assets on future repex requirements.

In making this observation regarding the AER’s approach, we are aware that the AER’s repex model does take into account the average age of different asset classes. However, it is not clear to us how this has been incorporated into the AER’s actual forecast in its Draft Decision.

Given stakeholders concern with the ‘bow wave’ and intergenerational equity issue, SACOSS would like to see a clearer explanation by the AER on how it has taken this into account, and why their forecast appear to differ from SA Power Networks’ alternative modelling that it claims is also based on the AER’s repex model (see Figure 2 above).

SACOSS also has concerns regarding SA Power Networks' forecasting approach in Option 2 approach (historical averaging of 2015-16 to 2019-20 and with Stage 2 A&W). Again, the profile of expenditure in the current RCP raises many questions around the value of averaging all these five years as a basis for forecasting future repex. As we noted above, if the last few years are 'catch up' repex, then an average that includes these may be inappropriate to forecast future, more stable years.

The impact of Stage 2 A&W program on the deferral of repex

The discussion above raises issues around SA Power Networks' approach to forecasting under its Option 2, particularly with respect to the use of the average repex from 2025-16 to 2019-20. In addition, however (and perhaps more significantly) SACOSS believes SA Power Networks has not yet provided a clear and direct link between the implementation of Stage 2 A&W and the forecast repex requirements for 2020-25 (and beyond).

For example, SACOSS has reviewed the business case for Stage 2 A&W.²⁶ We agree that the revised business case identifies many potential improvements that may reduce costs, such as improvements in scheduling and the quality of asset information.

SA Power Networks' business case also discusses the overall improvement in decision-making based on a better understanding of the risk/cost trade-offs. Figure 5 below from the business case illustrates SA Power Networks' view on how it will progress from a 'defect' orientated planning framework to a one based on risk/cost analysis and prioritisation as Stage 2 is implemented.

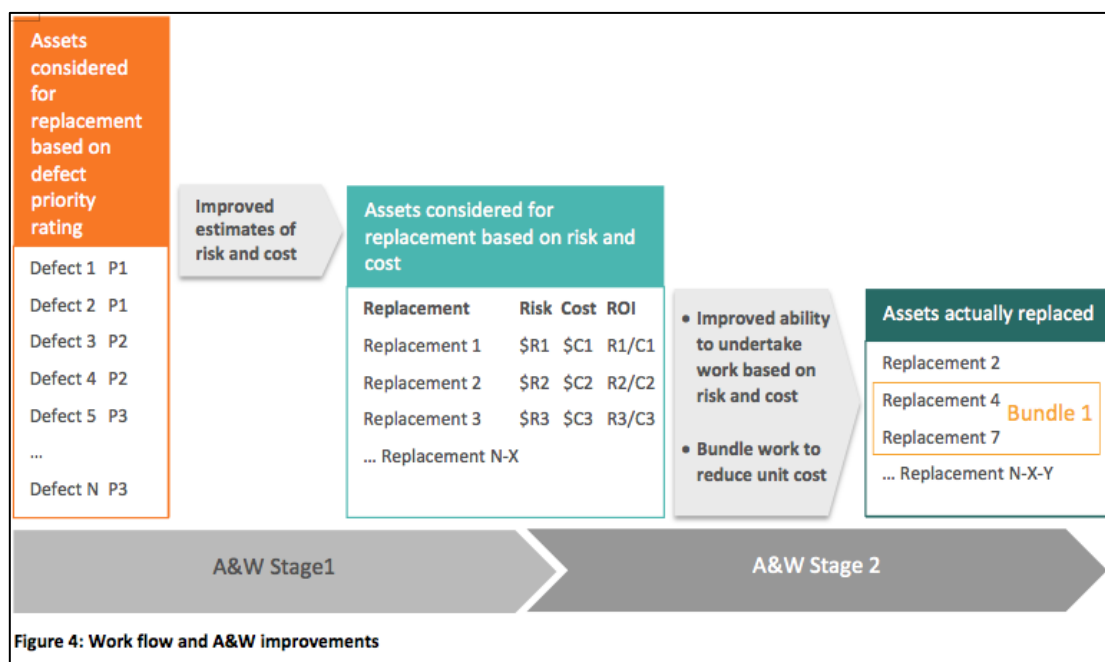


Figure 5: Work flow and A&W improvement

²⁶ SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.31 – Assets & Work Program Business Case Addendum, 10 December 2019.

Source: SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.31 – Assets & Work Program Business Case Addendum, 10 December 2019, Figure 4, p 23.

SA Power Networks also claimed, however, that the Stage 2 A&W program will result in total repex saving from **deferral alone** of \$13.1 million in 2020-25 and a total of \$47.8 million (Dec \$2017) between 2020 and 2035 (i.e. over three RCPs).²⁷

SA Power Networks states that it expects the A&W project to allow an average deferral of 10 years for all asset classes.²⁸ SA Power Networks also states that: “Our proposed repex for 2020-25 seeks to maintain service performance and safety...”²⁹

SA Power Networks’ view that improving the risk and cost assessment, and/or delivery efficiency will allow an average deferral of 10 years for its aging network assets is not substantiated - unless SA Power Networks is currently operating at a very inefficient level and/or has not incorporated advantages of the CBRM or the Stage 1 A&W into its current business modelling. SACOSS does not find it credible that the proposed Stage 2 A&W program will, on its own, allow repex deferrals for an average of 10 years.

In addition, whether deferred or not, the ‘bow wave’ issue that has concerned stakeholders, remains. SACOSS considers that SA Power Networks needs to provide longer term projections of repex (in line with its business case), so that stakeholders can be reassured that the proposed deferrals are not just ‘kicking the can down the road’.

In our view SA Power Networks is in effect running two, potentially incompatible narratives. The first is the story of the bow-wave of investment required as a result of the aging network that is in turn exhibiting ever increasing defects and reliability issues. The second is the story that investment in expensive Stage 2 A&W program will make these problems go away – or push them into the future for other generations to resolve.

As noted, therefore, SACOSS does not consider these two narratives are compatible, at least on the evidence provided by SA Power Networks in its revised proposal, including the A&W business case.

However, SACOSS also considers that the AER’s approach does not adequately address these same issues.

Given the significant stakeholder concerns, raised in part by SA Power Networks’ constant narrative of ageing, less reliable, more risky assets, SACOSS considers that the AER must directly address the issue in its repex forecast in the Final Decision.

²⁷ SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.31 – Assets & Work Program Business Case Addendum, 10 December 2019, Table 13, p.36.

²⁸ SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.31 – Assets & Work Program Business Case Addendum, 10 December 2019, Table 14, p.37.

²⁹ SA Power Networks, 2020-25 Revised Regulatory Proposal- Supporting Document 5.31 – Assets & Work Program Business Case Addendum, 10 December 2019, footnote 40, p.19.

Finally, if the AER does approve the Stage 2 A&W program in its Final Decision, SACOSS would ask the AER to confirm that SA Power Networks' proposal also includes a reduction in average replex costs to reflect the claimed greater efficiencies.

Capital Expenditure: Customer Connections

Background

The customer connections capex included in the revenue allowance - the 'net connection capex' - is a function of the forecast of gross connection expenditure less the forecast of customer contributions. Contributions apply largely to major and medium sized customers, and to developers. The contributions to connection costs are calculated using a formula set out in SA Power Networks' formal Connection Policy and approved by the AER.

SA Power Networks over-forecast its net connection capex by a significant amount for the 2015-20 regulatory control period (RCP). While the AER reduced SA Power Networks' forecast, SA Power Networks still underspent the AER's allowance by \$138 million (\$2020), or 22 per cent (gross connection capex), and \$28 million (\$2020) or 14 per cent (net connection capex).³⁰

Notwithstanding this underspend in 2015-20, in its Original Proposal SA Power Networks proposed an increase for 2020-25 of 18 per cent (gross connection capex) and 20 per cent (net connection capex) compared to their actual expenditure in 2015-20.

Consumer groups, including SACOSS, requested that the AER carefully consider this increase in the forecast particularly given the history of over-forecasting by SA Power Networks of connection capex requirements.

As set out in the table below, the AER's Draft Decision reduced the gross connection capex forecast, while maintaining the same level of customer contributions. The AER used gross connection expenditure from 2015-20 RCP to provide a substitute gross connection capex forecast but also noted that SA Power Networks' customer contribution forecast was in line with that observed in 2015-20 period so made only minor changes to SA Power Networks' contribution capex forecast.

In response, SA Power Networks have increased its connections forecast and reduced its forecast of contributions. As a result, the net customer connection forecast in SA Power Networks' Revised Proposal is some 70 per cent higher (before 'other contributions') than the AER's Draft Decision. SA Power Networks claims that the revised forecast represents a return to more 'normal' conditions and more explicit accounting for the impact of pre-tax WACC on the customer contribution component.

³⁰ SA Power Networks, *2020-25 Regulatory Proposal - Attachment 5 – Capital Expenditure*, January 2019, Tables 5-34, 5.35, 5.36, p 89.

Table 3: SA Power Networks' Original and Revised connection capex (\$2020)

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

Source: SA Power Networks, Revised Proposal -Attachment 5-Capital Expenditure, December 2019, Table 5-45, p 61.

Note: The figures in this table do not reconcile with other more detailed information provided by SA Power Networks in its Revised Proposal. The AER also uses different figures in its Draft Decision as it excludes overheads in its analysis.

SACOSS' Response to SA Power Networks' Original Proposal

In its submission to the AER, SACOSS raised a number of questions regarding the forecast of connections capex in SA Power Networks' Original Proposal (noting that these comments were made largely in the context of the calculation of CESS payments). In particular, SACOSS was concerned with:

- the extent to which SA Power Networks' forecast of net connection capex in the 2015-20 RCP greatly exceeded actual capex expenditure
- SA Power Networks had not adequately considered the impact of energy policy changes such as the as the AEMC's metering contestability rules and SA Power Networks' proposed Connection Policy (2020-21 to 2024-25).

SACOSS concluded:³¹

...we remain of the view that SA Power Networks' connection capex, including customer contributions, should be carefully reviewed by the AER, and that this assessment should be undertaken in the context of such factors as SA Power Networks' proposed Connection Policy (2020-21 to 2024-25) and the AEMC's metering contestability rule changes.

³¹ SACOSS, Submission in response to AER Issues Paper on the SAPN electricity determination 2020-2025, 10 May 2019, p.6.

https://www.sacoss.org.au/sites/default/files/public/190514_SACOSS%20Submission%20to%20AER%20on%20SAPN%20Regulatory%20Proposal.pdf

AER's Draft Decision & SA Power Networks' Revised Proposal

Note: Direct comparison of the Draft Decision and Revised Proposal are difficult because of, for instance, the different approaches to the inclusion of overheads, and in some cases, the calculation of the real value of the capex (use of \$2018 and \$2020).

AER's Draft Decision

As summarised in the Table 3 above, the AER did not accept SA Power Networks' proposed forecast of net connections capex. The AER's substitute capex forecast was \$166.5 million **excluding** overhead costs. The AER states that this is 17.9 per cent less than SA Power Networks' initial net connection forecast when compared on a similar basis (i.e. excluding overheads and gifted assets) but similar to SA Power Networks' estimated net connection capex for the 2015-20 RCP. The AER stated:³²

We have included \$166.5 million in our substitute estimate for connections, excluding overheads, consistent with SA Power Networks actual/estimated expenditure in the 2015-20 regulatory control period. This is 17.9 per cent lower than SA Power Networks' net connections forecast.

We have included SA Power Networks' forecast of contributions (\$199.3 million, excluding gifted assets), which is broadly consistent with the \$199.8 million expected to be incurred in the current regulatory period.

In particular, the AER noted that the primary driver of the increased forecast connections capex was SA Power Networks' forecast of major customer connections, being 40 per cent higher than the actual/estimated average level over the 2015-20 calendar years.

Based on the advice of its consultants (EMCa), and their own analysis, the AER also identified several modelling issues and gaps in SA Power Networks' justification of its connection forecast for large customers.

For instance, the AER stated that SA Power Networks' consultant BIS Oxford Economics (BISOE) relied on a top-down economic model for each connection category, and that they did not appear to have reconciled this forecast with a bottom up forecast (although a bottom up forecast was apparently undertaken for major customers). Similarly, the AER stated BISOE did not demonstrate the basis for its 'Non-residential commencements' forecast (a component of the major customer connections forecast). Building commencement data indicated that these commencements peaked in 2017-18 but appear to have declined since then to 2015-17 levels.³³

³² Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, p.5-40.

³³ *Ibid*, pp 5-41, 5-42.

The AER therefore concluded:³⁴

We consider the current period connections capex reasonably reflects prudent and efficient expenditure and is therefore the basis of our substitute forecast. We have adopted the five-year period (2015-20) as our substitute estimate which includes estimates for 2018-19 and 2019-20 ... In addition, we have accepted SA Power Networks' capital contributions, as SA Power Networks demonstrated that its contributions' forecast is in line with actual expenditure.

SA Power Networks' Revised Proposal

The AER's capex allowance in the revenue determination is based on the forecast of **net** connection costs. SA Power Networks' forecast of net connection capex costs for the 2020-25 RCP was \$213.2 million in its Original Proposal and \$261.7 million (\$2020) in its Revised Proposal, or \$299.4 million in its Revised Proposal if 'other contributions' (a new item in the Revised Proposal) are excluded.

SA Power Networks' forecast of a net connection capex of \$213.2 million in its Revised Proposal represented a significant increase over its Original Proposal and an even larger increase compared to the AER's substitute forecast (see table above). SA Power Networks stated this increase was due to two factors:³⁵

1. A reduction in the weighted average cost of capital (WACC) which lowers the total forecast customer contributions and increases SA Power Networks' rebates to customers (e.g. real estate developers) resulting in a higher net connections capex, and
2. An increase in the major projects forecast due to the inclusion of new committed customer connection projects and a return to historic activity levels... 'consistent with what has recently been evidenced', following a lull in investment in the earlier years of 2015-20 RCP.

SA Power Networks' revised forecast for gross connection capex is set out in Figure 6 below.

³⁴ *Ibid*, pp 5-42, 5-43.

³⁵ SA Power Networks, *2020-25 Revised Regulatory Proposal – Attachment 5 – Capital Expenditure*, December 2019, p.60.

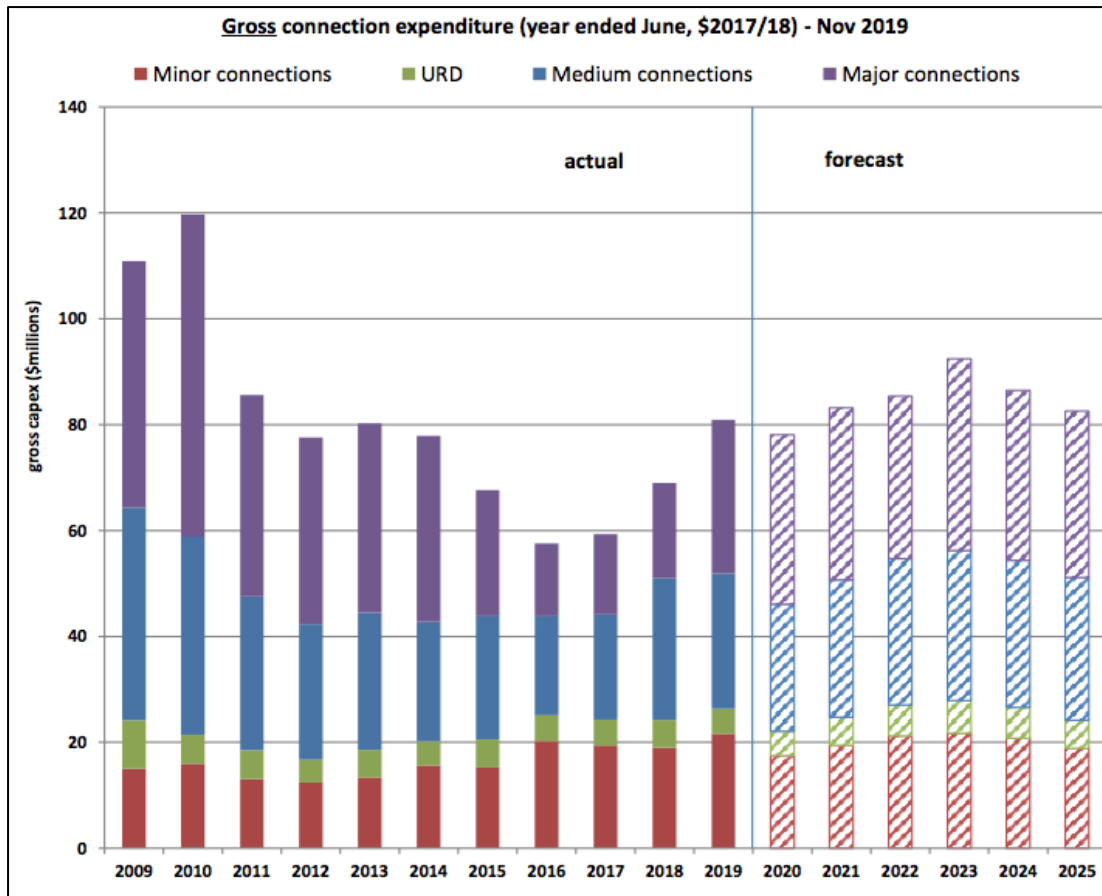


Figure 6: Gross connection expenditure, actual and forecast

Source: SA Power Networks, Revised Proposal – Supporting Document 5.11 - Connections 2020-25 Response to AER’s Draft Decision, Figure 2, p. 5.

SA Power Networks also argues that actual and expected connection activity in 2018-19 and 2019-20 signals a ‘return to more normal levels’ for the South Australian economy, it considers that the lower levels in 2016-18 were an ‘aberration’.³⁶ Notably, much of the increased connection capex involves increases in the medium, and more particularly, in the ‘major customer connection’ customer class. SA Power Networks has provided a detailed list of the new major connection customers that it expects will be connected during 2020-25. However, this list is confidential and SACOSS cannot comment on how realistic the list is.

Figure 7 below illustrates SA Power Networks’ forecast for customer contributions by customer class. Again, there is a significant decline in the early years of the 2015-20 RCP followed by a modest recovery in 2018-19 and (estimated) 2019-20. It is notable, however, that customer contributions have not grown in the forecast period (relative to 2015-20) to the same level as the increase in gross customer connections capex illustrated in Figure 6 above.

³⁶ SA Power Networks’ Revised Proposal – Supporting Document 5-11 - Connections 2020-25 Response to AER’s Draft Decision, December 2019, p.14.

SA Power Networks explains that this difference arises in a large part because the formula for calculating customer contributions includes the approved forecast of real, pre-tax WACC. A similar analysis impacts on the calculation of the 'asset rebate' for real estate developers.³⁷ For example, SA Power Networks stated that the contribution component for the medium and major project gross connections forecast is reduced by 10 per cent, as a result of the WACC (real pre-tax) declining from the 2015-20 figure of 4.27 per cent to the forecast WACC of 2.63 per cent. Similarly, the asset rebate allowance declines by 25 per cent.³⁸

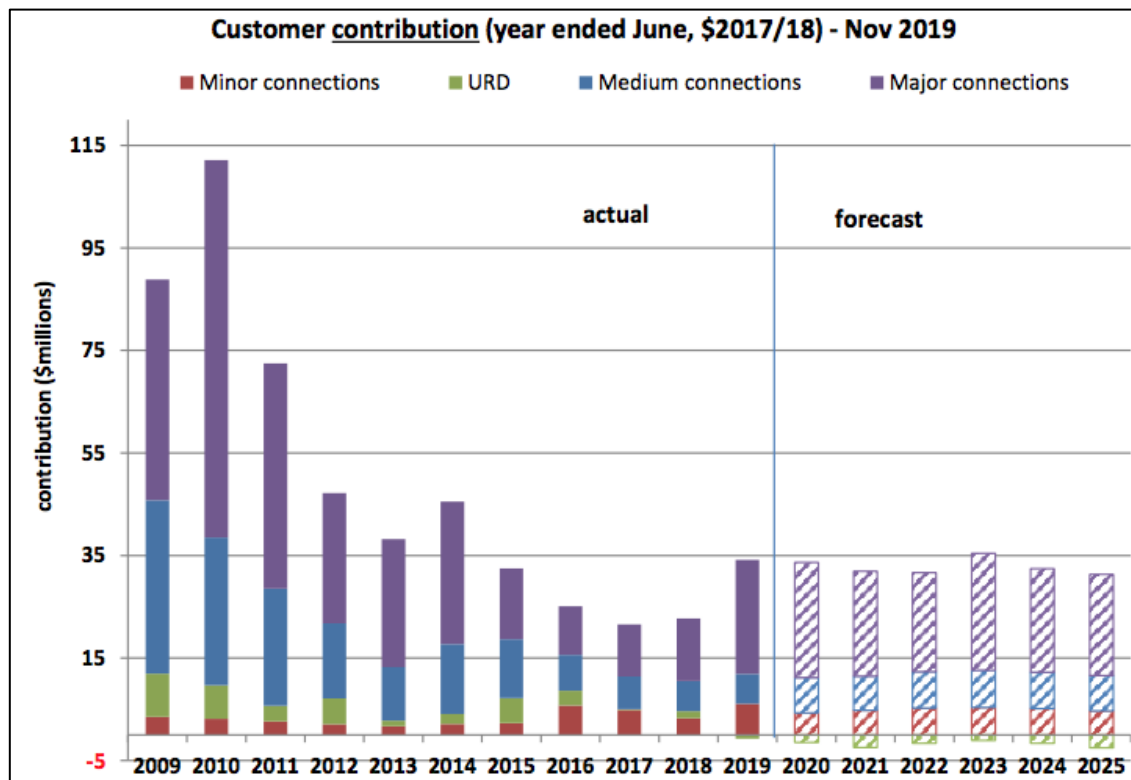


Figure 7: Connection contributions, actual and forecast

Source: SA Power Networks, *Revised Proposal – Supporting Document 5.11 - Connections 2020-25 Response to AER’s Draft Decision*, Figure 4, p. 6.

Figure 8 illustrates the net result of these two trends. It is clear that SA Power Networks’ forecast net connection capex has increased in the forecast period somewhat more than the gross connection capex as a result of the relatively lower customer contribution capex to offset the gross connection capex.

³⁷ See SA Power Networks’ *Revised Proposal – Supporting Document 5-11 - Connections 2020-25 Response to AER’s Draft Decision*, p.28. The formula is also set out in the relevant Customer Connection methodology, which must be approved by the AER.

³⁸ SA Power Networks, *Revised Proposal – Supporting Document 5-11 - Connections 2020-25 Response to AER’s Draft Decision*, p.29.

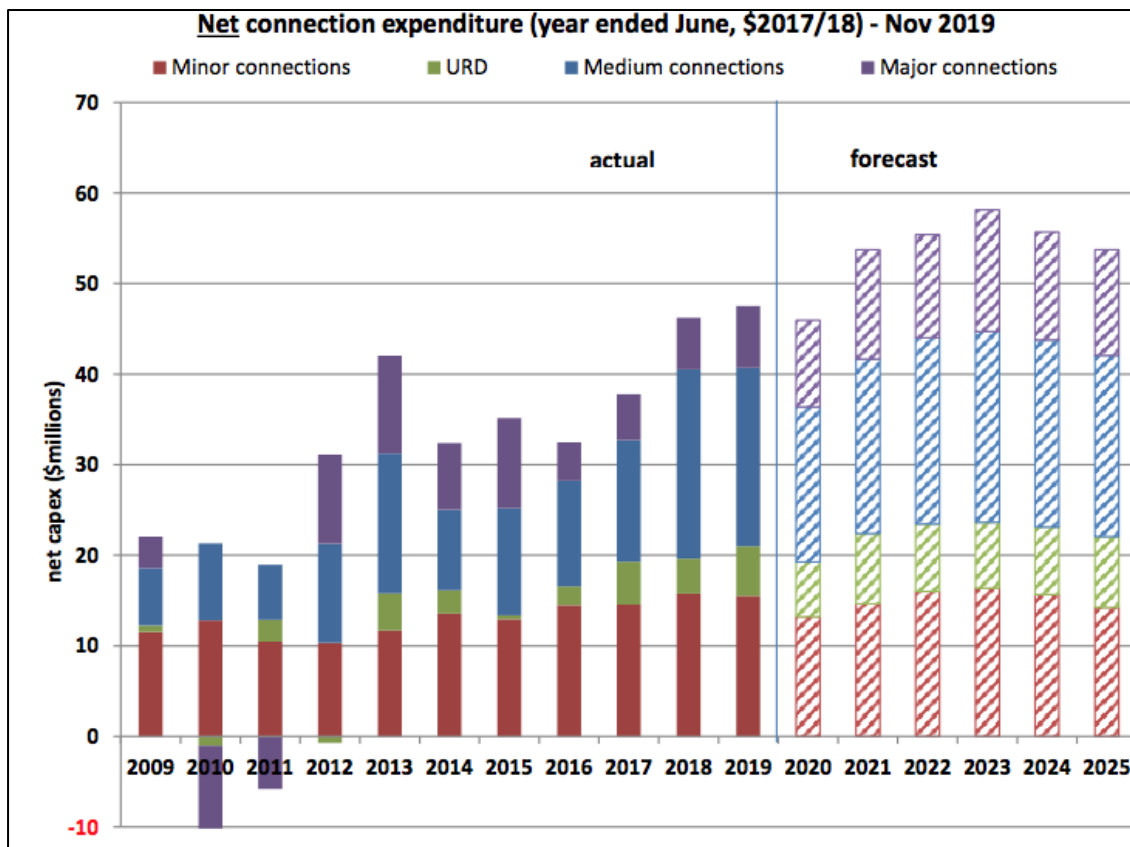


Figure 8: Net connection expenditure, actual and forecast

Source: SA Power Networks Revised Proposal – Supporting Document 5.11 - Connections 2020-25
Response to AER’s Draft Decision, Figure 6, p. 7.

In summary, therefore, SA Power Networks rejected the AER’s reasoning. Instead, SA Power Networks claimed that its forecast is reasonable. They stated that the significant increase in net connection capex costs in the Revised Proposal was a function of a return to normal growth conditions across sectors and a reduction in contribution amounts due largely to the reduction in the real pre-tax WACC.

Note: SA Power Networks does not clearly indicate if its Original Proposal included an adjustment of the customer contribution capex for pre-tax WACC, and if so, what that adjustment factor was. As a result, we cannot assess if/how much this was a factor in the increase in net connection capex between the Original Proposal and the Revised Proposal.

SACOSS' Response to the AER's Draft Decision and SA Power Networks' Revised Proposal

Summary

SACOSS welcomes the fact that SA Power Networks has responded to a number of the AER's criticisms of the original forecast and has provided more substantive analysis of the drivers of change in the forecasts of connections.

In addition, the general methodology, which has now been clarified by BISOE in the additional material provided by SA Power Networks, addresses a number of issues raised by the AER. However, we are disappointed that much of the important quantitative material from BISOE (for instance, in *Supporting Document 5.12- BIS Oxford Economics - Gross Customer Connections Expenditure Forecasts to 2025-26*) continues to be expressed in \$2017/18 dollars and there is a lack of clarity on which data includes overheads and gifted assets, and which does not. These gaps have hampered a meaningful quantitative analysis or comparison with RIN data as noted above.

SACOSS has considered two aspects of the forecasts for 2020-25:

- the forecast of gross connection capex, including the overall approach and the more detailed forecasts of economic inputs, and
- the forecast of connection contributions capex.

SACOSS concludes that while the overall forecast methodology adopted by SA Power Networks/BISOE for each of the four market segments is generally reasonable, there is considerable uncertainty regarding the forecasts of key inputs and policy developments. For instance, SACOSS considers SA Power Networks' forecast of minor connections still does not adequately account for the impact of metering contestability on SA Power Networks' capex. We also note the significant volatility in the economic data for South Australia and the reliance on public investment, particularly for major project investments. For these reasons, SACOSS concludes that SA Power Networks' forecast for gross connections are overstated and a more conservative forecast is required, particularly in the context of SA Power Networks' history of over-forecasting capex requirements.

On the other hand, SACOSS considers that the AER's alternative forecast is overly reliant on data from the current RCP (2015-20) including the period that saw a significant decline in economic activity between 2015-16 and 2017-18. The current economic data strongly suggests that the South Australian economy has been on a recovery path although this too can be expected to stabilise in the next few years after peaking around 2018-19.

With respect to the forecast of customer contributions capex, SACOSS seeks further reconciliation of the data provided by SA Power Networks.

For instance, SA Power Networks' forecast of customer contributions in its Original Proposal was \$350.1 million (\$June 2020), or some 62 per cent of total customer connection capex of

\$563.2 million. In the Revised Proposal, SA Power Networks has reduced this contribution to \$324.4 million (\$June 2020), or 52 per cent of the total connection capex of \$623.8 million. In other words, while gross connection capex has increased in the Revised Proposal (compared to the Original Proposal) by some 10.8 per cent in real dollar terms, the forecast contributions has decreased by 7 per cent in real terms.³⁹

The overall impact of these two movements is a significant increase of 22.7 per cent in **net** contribution capex (i.e. the additional amount consumers in general will need to fund) between the Original Proposal and the Revised Proposal.⁴⁰ SA Power Networks explains this result in terms of the change in the pre-tax WACC, which impacts on the calculation of the capex contributions (from medium and major connections) and capex rebates (to developers).

It is important that the AER looks carefully at this development in the assessment of contribution costs. However, SACOSS also does not support the approach adopted by the AER in its Draft Decision. In our view, and putting aside the impact of WACC, there should be some consistency in the calculation of the ratio of connections capex and customer contributions at the customer segment level. The AER's approach of reducing the overall connection capex while using historical contributions from 2015 is not appropriate if it is reasonable to expect an increase in customer connections relative to 2015-20 and/or a change in the mix of customers (as contribution rates vary with customer segment).

A more detailed explanation of SACOSS' view is set out below.

Forecasts of gross connection capex

SA Power Networks acknowledges that there is concern by stakeholders around their revised gross connection capex forecast. SA Power Networks responded as follows in its Revised Proposal:⁴¹

The increase in gross connections is largely due to a downturn in the South Australian economy that suppressed connections activity over the first three years of the current RCP, but returned to more 'normal' levels in 2018/19. BISOE are forecasting this level of activity will continue into the 2020-25 RCP with a small increase driven by strengthening economic building and infrastructure activity, with defence and government projects being key contributors.

³⁹ These figures are taken from SA Power Networks, *2020-25 Revised Regulatory Proposal – Attachment 5 – Capital Expenditure*, December 2019, p.61, Table 5-45. As noted, the AER uses different figures as does SA Power Networks in other tables.

⁴⁰ This figure includes a further \$37.8 million of "other contributions" (including recovery from third parties for damaged assets and contributions towards embedded generation assets) that is included in the Revised Proposal but not in the Original Proposal. If that impact is removed, the **net** contribution capex will increase by 40.4 per cent (versus 22.7 per cent).

⁴¹ SA Power Networks, *2020-25 Revised Regulatory Proposal – Attachment 5 – Capital Expenditure*, December 2019, p.63.

SACOSS does not dispute the view that connection activity was suppressed, and that there has been some recovery in the South Australian economy. However, we also consider that 2018/19 may not be an appropriate 'base' for the 2020-25 forecast but may represent the 'peak' rebound and the new 'normal' is likely to be somewhat below this for the reasons discussed below.

Major customer connection capex

The forecast of major customer connections capex by SA Power Networks/BISOE is based on a bottom up approach to the first two years of the forecast (2020-21 to 2021-22). This appears to be a reasonable approach, assuming the results are also tested against a top-down constraint that is consistent with the overall South Australian economic forecasts.

SACOSS also supports the approach adopted by BISOE of allocating a probability weighting factor to these investments and excluding projects where the probability to progress the project is less than 50 per cent or where costs are estimated to be below \$100,000.⁴²

However, we note that this bottom up approach seems to be an amalgam of both BISOE's estimate of major customers linked to its economic forecast and SA Power Networks' estimate based on information from potential large customer. There is little detail provided on this approach. However, in principle, SACOSS considers that by using two separate techniques there is a risk of overestimating the total, even if there are checks against double counting specific customer forecasts. As the lists are confidential, SACOSS cannot directly comment on this although we would expect the AER to consider this issue carefully particularly as this is the main driver of the increase forecast of gross connection capex.

Minor customer connections capex

SA Power Networks claims that the forecast of minor customer connections has taken into account the impact of the AEMC's metering contestability rule changes which commenced implementation from December 2017. BISOE states:⁴³

*We have therefore based our analysis [of Minor customer connections capex]] on the three years from 2015/16 to 2017/18. Over these three years, the ratio of minor customer connections expenditure to the number of house commencements have averaged 2.5, with the 2017/18 ratio impacted by metering contestability to give a ratio of 2.31. **Over the forecast period we used this ratio to set minor customer connections expenditure. ... Over the forecast period, we expect minor customer connections expenditure (CCE) to track house commencements.** [Emphasis added].*

BISOE, in turn, forecasts a recovery in the new dwelling market to continue over the three years from 2020-21 through to 2022-23 (11%, 9.2% and 2.4% respectively), with an

⁴² SA Power Networks, *Revised Proposal – Supporting Document 5-11 - Connections 2020-25 Response to AER's Draft Decision*, p.19.

⁴³ SA Power Networks, *Revised Proposal – Supporting Document 5-12 - BIS Oxford Economics - Gross Customer Connections Expenditure Forecasts to 2025-26*, November 2019, p.19.

associated increase in the minor customer connections based on the ratio observed in 2017-18.

We consider that the underlying forecast by BISOE of growth in dwelling commencements is likely to be overstated given relatively low population growth (circa 0.9 per cent/per annum, underpinned by net overseas migration). For instance, in a report by the Australian Construction Industry Forum (ACIF) issued in November 2019, the ACIF states:⁴⁴

[The ACIF]...forecasts that the decline in Residential Building will be so deep that it will dominate the outlook for building and construction, dragging down economic growth and employment.

...

Residential Building work fell 0.4% last year (2018-19). A much deeper contraction of 8.4% is expected this year (2019-20). The rebound in building activity is expected to be delayed until 2021-22. The drop in activity will be difficult to avoid despite recent improvements in house prices because it will take time to restore approval numbers, secure land commence new projects and address other 'lags'.

More significantly, however, SACOSS considers that it is not appropriate to use the ratio from 2017-18 (2.3) for the forecast 2020-25 RCP. Metering contestability for small consumers only commenced in December 2017, and there were many delays reported in its implementation. It is reasonable to expect that with the ongoing reforms to the contestable metering processes, this ratio of 2.3 would be lower for SA Power Networks over the 2020-25 RCP.⁴⁵

Economic inputs to the forecasts

More generally, SACOSS also notes that there is considerable volatility in the demographic and economic data for South Australia that underpins much of the BISOE forecast, making it more difficult to discern a clear trend to apply over the 2020-25 RCP. In addition, the South Australian Government budget is constrained, limiting state government infrastructure spending.⁴⁶

⁴⁴ See <https://www.macrobusiness.com.au/2019/11/another-dire-construction-forecast/>. Note, while this forecast applies to the national construction industry, other data indicates that South Australia will follow the same trend hampered by lower population growth and higher unemployment.

⁴⁵ In addition to these delays, the AEMC has recently committed to monitoring the roll-out of advanced meters (Type 4) and the barriers to this. The AEMC will also commence a review of competitive metering arrangements in December 2020. See, for instance: AEMC, "Reducing customers' switching times", Rule determination, 19 December 2019. As a result of all these changes, SACOSS considers there will be greater compliance by energy retailers with the requirement to install Type 4 meters for all new and replacement meters.

⁴⁶ BISOE states that: "Meanwhile, constrained state government finances will lead to slower growth in government spending, after the surprising strength of the past few years". (See: SA Power Networks, *Revised Proposal – Supporting Document 5-12 - BIS Oxford Economics - Gross Customer Connections Expenditure Forecasts to 2025-26*, November 2019, p.8.)

New capex investments (relevant to the level of medium/major connections) are more closely tied to federal government special funding grants (e.g. roads, rail, universities, telecommunications) and the expanding defence industry investment. These are difficult to predict beyond the first few years of the 2020-25 RCP, and do not necessarily relate to more general economic growth data for the state. In other words, SACOSS is not convinced that the general economic model used by BISOE to predict connections across the full 5-year period, can reliably predict public investment in South Australia.

The volatility of economic growth (measured, for example, by South Australian State Final Demand (SFD)), and the strong reliance on public investment to underpin this growth, is illustrated in the following figures recently published by the South Australian Department of Treasury.

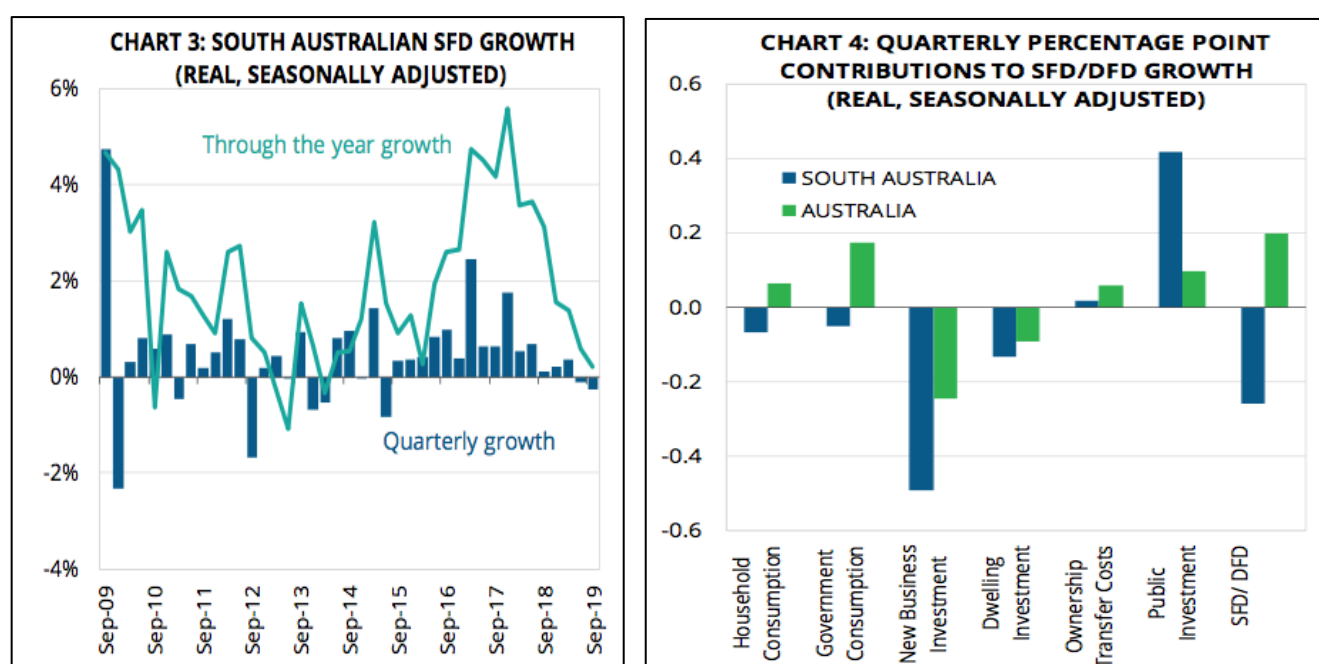


Figure 9: SA SFD Growth and Contribution to SFD/DFD Growth

Source: Government of South Australia, Department of Treasury and Finance, "GDP/State Final Demand, September quarter", 4 December 2019.

Similar volatility can be seen in other measures such as residential construction, real private new capital investment and state unemployment rates. New capital investment declined by 1.2% (in trend terms) over the September 2018 to September 2019 period – see Figure 10.⁴⁷ Unemployment in South Australia increased from 5.8 per cent to 6.3 per cent from November 2018 to November 2019 – see Figure 11 – while the underutilisation rate increased from 15.0 per cent to 15.8 per cent.⁴⁸

⁴⁷ Government of South Australia, Department of Treasury and Finance, "Private new Capital Investment, September quarter 2019", 4 December 2019.

⁴⁸ Government of South Australia, Department of Treasury and Finance, "Labour Force", 19 December 2019.

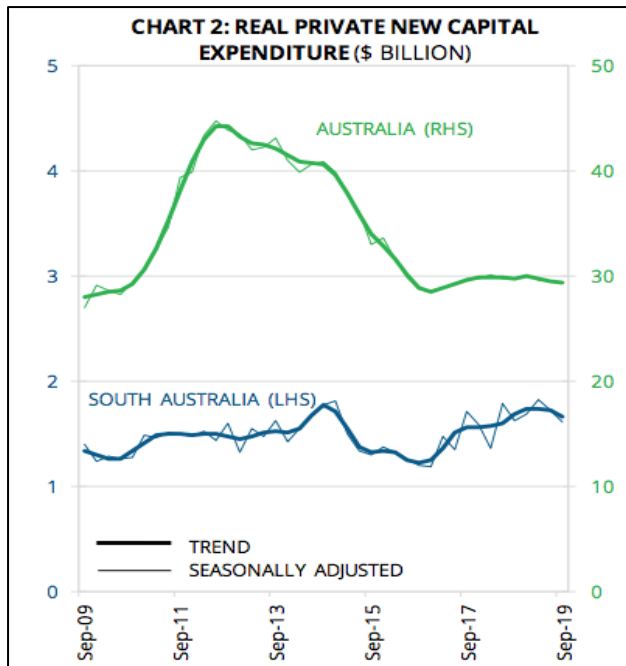


Figure 10: Real Private New Capital Expenditure

Source: Government of South Australia, Department of Treasury and Finance, Private New Capital Expenditure September quarter 2019, 28 November 2019.⁴⁹

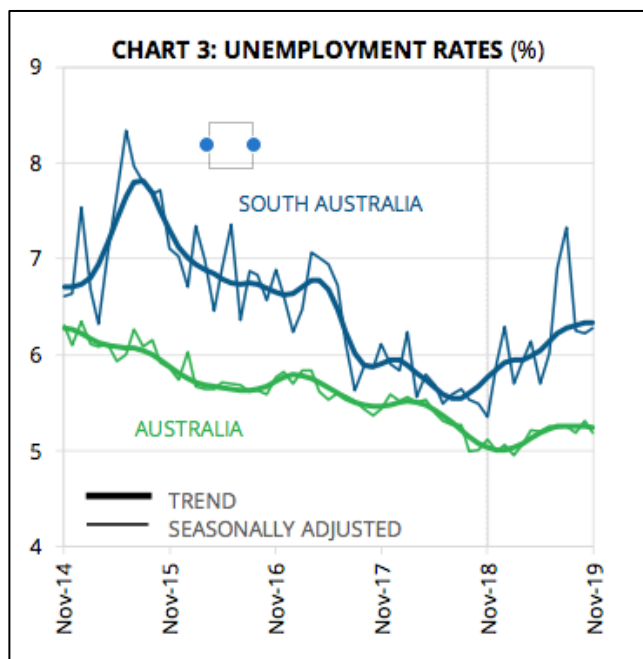


Figure 11: Unemployment Rates (%)

Source: Government of South Australia, Department of Treasury and Finance, Labour Force, 19 December 2019.⁵⁰

⁴⁹ See link: https://www.treasury.sa.gov.au/_data/assets/pdf_file/0019/126037/Private_New_Capeexp_-_September-qtr-2019.pdf

In the context of SA Power Networks' history of over-forecasting net connection capex, therefore, it is important for the AER to carefully evaluate the current forecasts presented by SA Power Networks/BISOE.

However, SACOSS also considers the economic and other data does not support the AER's substitute **gross** connection capex allowance which is based on 2015-20 gross connection capex. The AER states in its Draft Decision:⁵¹

We consider the current period connections capex reasonably reflects prudent and efficient expenditure and is therefore the basis of our substitute forecast. We have adopted the five-year period (2015-20) as our substitute estimate, which includes estimates for 2018-19 and 2019-20, as the final two years are in line with the 2017-18 actual expenditure. In addition, we have accepted SA Power Networks' capital contributions, as SA Power Networks demonstrated that its contributions' forecast is in line with actual expenditure.

SACOSS has reviewed the economic data and other material provided by SA Power Networks/BISOE and more recent data provided by the South Australian Treasury Department. It is clear that there was a period of low economic growth and low private investment in South Australia between 2015 and 2017, with a recovery only commencing in the latter part of the 2015-20 RCP. In particular, South Australia was particularly badly hit by the closure of the local car industry over the period 2013 to 2017.⁵² It is reasonable, however, to expect some recovery from this low point over the 2020-25 period as the economy adjusts and new leisure, health, educational, commercial, mining and industrial investment opportunities arise.

SACOSS therefore concludes that the AER's replacement forecast of gross connection capex for 2020-25 is likely to understate SA Power Networks' connection capex requirements for 2020-25. We therefore encourage the AER to also consider the broader trends in the South Australian economy for 2020-25 rather than just rely on extrapolating the capex using the average of the 2015-20 RCP.⁵³

⁵⁰ See link: https://www.treasury.sa.gov.au/_data/assets/pdf_file/0017/133460/Labour-Force_November-2019.pdf

⁵¹ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 - Attachment 5 – Capital Expenditure*, October 2019, pp.5-42 to 5-43.

⁵² For a summary of the impact of the Holden factory closure, see for instance, <https://www.theguardian.com/cities/2018/apr/11/adelaide-elizabeth-holden-500-car-industry-manufacturing-loss>

⁵³ Interestingly, both SA Power Networks' proposal and the AER's decision for 2015-20, ignored the much anticipated downturn in the South Australian economy arising, inter alia, from the closure of the car manufacturing industry and predicted continued growth in connections capex. See for instance, AER, *Preliminary decision, SA Power Networks distribution determination*, Attachment 6, pp 6-86 to 6-89. <https://www.aer.gov.au/system/files/AER%20-%20Preliminary%20decision%20SA%20Power%20Networks%20distribution%20determination%20-%20Attachment%206%20-%20Capital%20expenditure%20-%20April%202015.pdf>

Forecast of contributions/rebates to net connection capex forecast

In its Revised Proposal, SA Power Networks highlights the impact of the reduction in the pre-tax WACC from 4.27 per cent in the current RCP to an estimate of 2.63% in the 2020-25 RCP on the estimation of customer contributions. This decrease in contributions increases the net connection capex that must be funded by consumers in general (assuming the same level of connection activity). The table below illustrates the change to the average contribution rate by sector as a result of the reduction in the pre-tax WACC compared to 2015-20.

Table 4: Calculated contribution adjustment factor due to WACC impact

Table 1 Calculated contribution adjustment factor due to WACC impact			
Category	historical average contribution rate	contribution rate adjustment factor	forecast average contribution rate
Minor	25%	1	25%
Medium	29%	0.8968	26%
Major	70%	0.8968	63%
Real estate developments	159%	1	159%

For Asset Rebates, the *contribution adjustment factor* has been calculated as 1.2469 (see **Appendix A – Contribution formulations and WACC**). 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.

Source: SA Power Networks, Revised Proposal- Supporting Document 5.11 - Connections 2020-25 Response to AER's Draft Decision, Table 1, page 23.

Note (1): SA Power Networks calculates the historical average contribution rate based on a sample of customers in each category (except for the minor category).

Note (2): It is not clear if, or what WACC was used by SA Power Networks in its Original Proposal for 2020-25 RCP.

SACOSS has reviewed the updated information provided by SA Power Networks in November and December 2019. We have, however, found it very difficult to reconcile the various data and tables provided. The following chart is based on the detailed data by sector provided in Appendix E (p 33) of Supporting Document 5.11 in SA Power Networks' Revised Proposal. The figures differ from other tables presented by SA Power Networks, but this is the only data available to SACOSS that maps the impact by different customer connection categories.

Figure 12 illustrates that for the medium and minor categories, the data supports the adjustments set out in the table above, given the overall forecast of a relative increase in connections offset to some degree by the revised WACC adjustment figure. The area of greater interest therefore concerns the major customer category. In particular, for the major customer category:

- the gross connection capex increases by 51 per cent between 2015-20 and 2020-25
- the net connection capex increases by 92 per cent between 2015-20 and 2020-25

- the net connection capex for 2015-20 is 29% of the gross capex for 2015-20
- the net connection capex for 2020-25 is 37% of the gross capex for 2020 (i.e. the contribution capex is 63 per cent, consistent with the Table 4 above).

Across all segments (including real estate developments), net connection capex is 64 per cent of gross capex.

SACOSS requests that the AER review these results and consider whether SA Power Networks' approach to forecasting major customer connections in particular, is reasonable given the historical information and the expected pre-tax WACC.

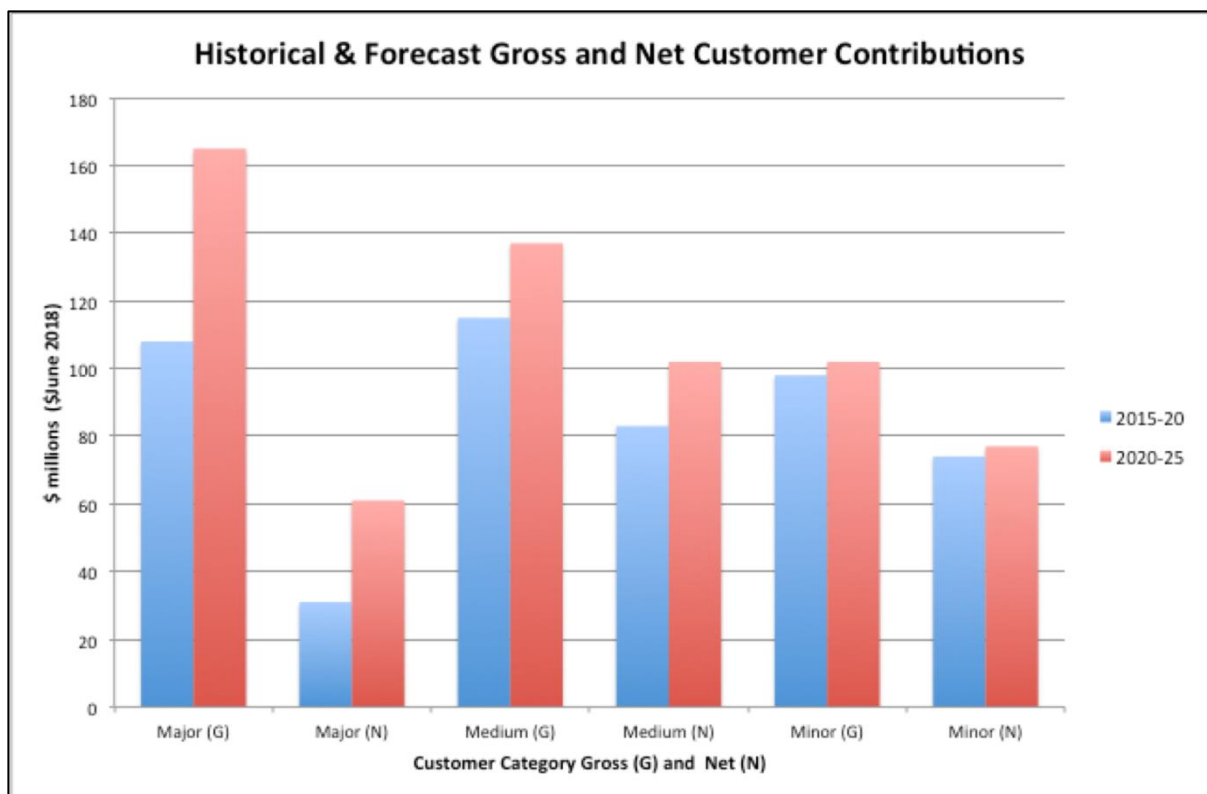


Figure 12: Historical & Forecast Gross and Net Customer Contributions (real June \$2018)

Source: SA Power Networks, 2020-25 Revised Regulatory Proposal, Connections 2020-25, Response to AER's Draft Decision - Supporting Document 5.11 - Appendix E - Connections expenditure tables, real June \$2018, 10 December 2019, p 33.

Note (1): The chart does not include rebates for real estate developments.

Note (2): The totals of all segments from Appendix E to Supporting Document 5.11 are not consistent with the data provided in other documents provided by SA Power Networks, even after accounting for the Appendix E data being provided in \$2018. For example, Table 5-45 in SA Power Networks' Revised Proposal (*Attachment 5 –Capital Expenditure – p. 61*) suggests that for 2020-25, net connection capex across all segments is some 48 per cent of gross capex (excluding 'other' contributions) – i.e. \$ million 299.4/623.8 compared to 64 per cent in the tables in Appendix E.

Capital Expenditure: Reliability

SA Power Networks is resubmitting \$14.8 million for its low reliability feeders program and \$15.3 million for its hardening the network program. The AER allowed \$32.6m to maintain existing reliability in its Draft Decision (based on expenditure over the 2015-20 RCP), which SA Power Networks has accepted. Therefore, SA Power Networks' revised forecast for all three reliability programs is \$62.9 million, \$30.3 million higher than the AER's substitute forecast of \$32.6 million.⁵⁴ In expenditure terms, SA Power Networks' Revised Proposal for reliability remains largely unchanged from its Original Proposal.

As previously submitted to the AER, SACOSS remains concerned at the high level of reliability-related capex in SA Power Networks' Original and Revised Proposal in light of:⁵⁵

- the strong view by ESCOSA that reliability levels should stay as they are
- the superior performance of SA Power Networks against its existing STPIS targets
- the feedback by customers in the ESCOSA survey that they are satisfied with the current levels of reliability
- the feedback from customers in the ESCOSA survey that they do not support paying more for improvements in reliability and
- the small number of customers that stand to benefit from the proposed capital spending.

SA Power Networks has engaged Oakley Greenwood to carry out further analysis of the contingent valuation study and report Oakley Greenwood developed and prepared for ESCOSA⁵⁶ (published in June 2018), using additional information provided by SA Power Networks, to arrive at a revised assessment of the economic viability of the low reliability feeder program for SA Power Networks' Revised Proposal. It is important to note SACOSS has concerns about a potential conflict arising in Oakley Greenwood undertaking this analysis for SA Power Networks, in circumstances where it is re-examining the methodology and outcomes of a survey it was engaged to develop and produce for another client (ESCOSA).⁵⁷ Also noting the additional analysis is relying on data obtained in a different time-frame and context. SACOSS therefore questions the efficacy of the outcomes of the

⁵⁴

⁵⁵ SACOSS, Submission

⁵⁶ Oakley Greenwood, *Economic assessment of electricity distribution reliability standard packages prepared for ESCOSA*, 26 June 2018. See link: <https://www.escosa.sa.gov.au/ArticleDocuments/1186/20180801-Electricity-EconomicAnalysisReliabilityImprovementPackages-SSF20Report-OakleyGreenwood.pdf.aspx?Embed=Y>

⁵⁷ It is worth noting the Report states: *'This report has been prepared for the Essential Services Commission South Australia as part of its consideration of changes to the reliability standards contained within the state's Electricity Distribution Code. It should not be used by any party for any other purpose.'*

Oakley Greenwood Report prepared for SA Power Networks, and suggests it should not be given undue weight by the AER.

SACOSS refers to and confirms ESCOSA's reasons for its decision to require SA Power Networks to maintain reliability at current levels, rather than improve or reduce performance for low reliability feeders, including:⁵⁸

- that customers are generally satisfied with reliability outcomes, and have limited willingness to pay for reliability improvements
- that dissatisfaction results in the survey may have been influenced by major weather-related outages from the 18 months prior to the survey being undertaken
- that results of economic assessments show no clear economic benefit in setting targets to improve performance
- that the benefits of the low reliability feeder improvements accrue to a minority of customers (who may already have contingency plans to cope with the reliability outcomes including on-site generation, and may be better served by a future consideration of off-grid and emerging technologies)
- that the improvements would involve a level of subsidy from other customers.

SACOSS supports the AER's reasons for its Draft Decision with respect to the low reliability feeder program that:⁵⁹

- there is no direct obligation to improve the supply from low reliability feeders
- ESCOSA has observed that SAIDI levels had either been steady or improved slightly in all but one region, and therefore considered an enhanced reporting and monitoring regime to be a proportionate response to stakeholder concerns
- SA Power Networks is expected to maintain regional reliability, using its existing resources.

We therefore support the AER's Draft Decision that:⁶⁰

In the absence of any regulatory requirement to undertake the program, SA Power Networks has not demonstrated that the program is prudent, therefore, we have not included the low reliability feeder program in our substitute forecast.

⁵⁸ ESCOSA 2019, *SA Power Networks reliability standards review, Final Decision*, January, p. 13.
<https://www.escosa.sa.gov.au/ArticleDocuments/1188/20190107-Electricity-SAPN-reliabilitystandardsreview-FinalDecision.pdf.aspx?Embed=Y>

⁵⁹ Australian Energy Regulator, *SA Power Networks 2020-25 Draft Decision - Attachment 5 – Capital Expenditure*, October 2019, p.5-34.

⁶⁰ Australian Energy Regulator, *SA Power Networks 2020-25 Draft Decision - Attachment 5 – Capital Expenditure*, October 2019, p.5-34.

Similarly, in relation to the hardening the network program, SACOSS considers SA Power Networks has not offered any additional evidence of economic viability or customer support to undertake this proposed augmentation expenditure. SA Power Networks acknowledges:⁶¹

- it does not have a specific obligation to mitigate MED interruptions to customers, and
- ESCOSA Service standards in clause 2 of the Code exclude unplanned interruptions that qualify as MEDs.

In these circumstances, SACOSS supports the AER's Draft Decision on the hardening the network program that:⁶²

Due to insufficient evidence of customer support, absence of a regulatory obligation and insufficient economic benefit to justify the proposed scope of the program, SA Power Networks has not demonstrated that its capex is prudent and efficient and we have not included this program in our substitute forecast.

Operating Expenditure: Labour Costs

SA Power Networks' Original Proposal proposed average labour price growth in real terms as shown in Table 5 below.⁶³

Table 5: SA Power Networks annual labour price growth for the 2020-25 RCP

	2020/21	2021/22	2022/23	2023/24	2024/25
BIS Oxford Economics %	1.16%	1.53%	1.72%	1.62%	1.36%
Deloitte Access Economics %	0.40%	0.60%	0.70%	0.57%	0.57%
Average labour price growth %	0.78%	1.07%	1.21%	1.09%	0.96%

Source: SA Power Networks, 2020-25 Regulatory Proposal – Attachment 6 – Operating Expenditure, January 2019, Table 6-8, p.32.

In our response to SA Power Networks' Original Proposal, we raised the following concerns about the labour rate forecasts presented by SA Power Networks' consultant, BIS Oxford Economics (BISOE):⁶⁴

⁶¹ SA Power Networks, *Revised Regulatory Proposal 2020-25 – Attachment 5 – Capital Expenditure*, December 2019, p. 53.

⁶² Australian Energy Regulator, *SA Power Networks 2020-25 Draft Decision - Attachment 5 – Capital Expenditure*, October 2019, p.5-37.

⁶³ SA Power Networks, *2020-25 Regulatory Proposal – Attachment 6 – Operating Expenditure*, January 2019, p. 32, Table 6-8.

- BISOE's forecasts are significantly higher than those of the AER's consultant, Deloitte Access Economics (Deloitte), and the reasons for this discrepancy should be evaluated
- both sets of rates deliver significant rises in real wages in the sector, which need to be evaluated against the backdrop of persistently weak wage growth in the general economy
- the higher wage growth forecast by BISOE (but not Deloitte) after 2021 is more speculative than the growth forecast in 2020-21, given it is predicated on a range of less certain factors, such as a strengthening economy
- BISOE does not appear to have accounted fully for the fact that networks are unable to support real wage growth in an environment of declining labour productivity.

SACOSS argued that the Deloitte forecasts are likely to be a more accurate forecast of likely wage growth, and should be weighted accordingly in the AER's Draft Decision.

AER's Draft Decision

The AER's Draft Decision noted the significant difference between the WPI growth forecasts provided by its consultant Deloitte, and those provided by SA Power Networks' consultant BIS Oxford Economics (see Table 5, above), pointing out that from 2020–21, BISOE is forecasting annual wage growth to be around 1 percentage point higher than Deloitte. The AER also noted that a number of stakeholders, including SACOSS, had questioned the reasonableness of SA Power Networks' forecasts.⁶⁵

Given the differences in the forecasts, the concerns raised by stakeholders and the changes in wage price growth over the last seven years, the AER decided to depart from its previous approach to forecasting labour price growth of using an average of the two consultant's forecasts (last applied in September 2012), and instead determined to undertake an analysis of how well the consultants' WPI growth forecasts compared with actual WPI growth. On the basis of this analysis, the AER 'now consider that Deloitte's utilities industry real WPI growth forecast, rather than BIS Oxford Economics', or an average of the two, better reflects actual Australian utilities real WPI growth'.⁶⁶ The AER's Draft Decision therefore forecasts labour price growth using the latest forecasts from Deloitte alone, rather than an average of Deloitte and BISOE. This approach lowers SA Power Networks' forecast price growth in its Original Proposal by 0.4 per cent each year; with the AER's alternative estimate for price

⁶⁴ SA Power Networks 2019, *2020-25 Regulatory Proposal – Attachment 6 – Operating Expenditure*, p. 32, Table 6-8.

⁶⁵ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 6 – Operating Expenditure*, October 2019, p.6-29

⁶⁶ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 6 – Operating Expenditure*, October 2019, p. 6-32

growth being \$16.0 million (\$2019–20) lower than SA Power Networks' proposed amount over the 2020–25 RCP.

SA Power Networks' Revised Proposal

SA Power Networks' Revised Proposal does not accept the AER's Draft Decision to solely use Deloitte's forecasts. SA Power Networks noted stakeholders' concerns about the reasonableness of its real labour price forecasts contained in its Original Proposal, saying those concerns were based on opinions that wages growth in South Australia was subdued, but that stakeholders had not provided alternative forecasts to the AER to support those opinions.⁶⁷

In order to address the AER's concerns about the accuracy of SA Power Networks' forecasts, SA Power Networks decided to engage BISOE to comment on the methodology applied by the AER in arriving at its Draft Decision. Those comments are contained in BISOE's report titled *'Review of AER Forecast Comparison'*.⁶⁸

In addition to that analysis, SA Power Networks' Revised Proposal states the AER's decision to rely solely on Deloitte's forecast is:⁶⁹

- inconsistent with best practice regulation
- imprudent given there is no direct evidence to warrant reliance on a single forecast for SA
- likely to result in less accurate forecasts.

On the basis of BISOE's review, and the reasons set out above, SA Power Networks has maintained its position that the AER should apply an average of the real labour price growth forecasts for the South Australian utilities sector produced by BISOE and Deloitte.

SACOSS' Response

SACOSS' broad analysis of the Major Economic Parameters data contained the Commonwealth's Budget Paper No.1,⁷⁰ published in April 2019, indicates that national labour price growth in real terms for the next three years is slightly lower than the average of Deloitte and BISOE's forecasts, but significantly lower than BISOE's forecast. The

⁶⁷ SA Power Networks, *2020-25 Revised Regulatory Proposal – Attachment 6 – Operating Expenditure*, December 2019, p.23

⁶⁸ SA Power Networks, *2020-25 Revised Regulatory Proposal – Supporting Document 6.4 – BIS Oxford Economics, Review of AER Forecast Comparison: Report prepared for SA Power Networks*, November 2019.

⁶⁹ SA Power Networks – *2020-25 Revised Regulatory Proposal – Attachment 6 – Operating Expenditure*, December 2019, p.24

⁷⁰ Commonwealth Government, *Budget Paper No. 1, Budget Strategy and Outlook 2019-20*, published on 2 April 2019, Table 2: Major Economic Parameters, p.1-8 <https://www.budget.gov.au/2019-20/content/bp1/download/bp1.pdf>

Commonwealth's Mid-Year Economic and Fiscal Outlook for 2019-20⁷¹, published in December 2019, revised down Treasury's previous estimates of national wage growth, which in real terms is now forecast to be less than one third of BISOE's estimate, as outlined in the Table below. SACOSS acknowledges these are national wage price growth estimates, but considers these figures provide some support for stakeholders' views that wages growth is likely to remain subdued, and BISOE's forecasts appear to be unreasonably high.

Table 6: SA Power Networks annual labour price growth (real terms) for the 2020-25 RCP

	2020/21	2021/22	2022/23	2023/24	2024/25
BIS Oxford Economics	1.16%	1.53%	1.72%	1.62%	1.36%
Deloitte Access Economics	0.40%	0.60%	0.70%	0.57%	0.57%
Average labour price growth	0.78%	1.07%	1.21%	1.09%	0.96%
Commonwealth Budget Paper No. 1 2019-20, April 2019	0.75%	1.0%	1.0%		
Commonwealth Mid-Year Economic and Fiscal Outlook 2019-20, December 2019	0.25%	0.50%	0.50%		

The South Australian State Budget Statement published in June 2019 also provides some commentary on the subdued wages growth in South Australia which is even lower than National figures, stating:⁷²

'Wages in South Australia have continued to grow at subdued rates by historical standards, as is the case nationally. Although still modest, wages grew by 2.1 per cent in the year to the March quarter 2019. Nationally, wages rose by 2.3 per cent in the year to the March quarter 2019. This is potentially an early indication of the gradual pickup in wages anticipated by the Reserve Bank of Australia.'

The Commonwealth's Mid-Year Economic and Fiscal Outlook for 2019-20 would appear to indicate 'the gradual pickup in wages anticipated by the Reserve Bank' noted in the South Australian Budget Statement, has failed to eventuate. The downward revision of the WPI by Treasury in December 2019 also calls into question BISOE's analysis in November 2019 that:

⁷¹ Commonwealth Government, *Mid-Year Economic and Fiscal Outlook 2019-20*, December 2019, Table 1.2, Major Economic Parameters, p.3 https://budget.gov.au/2019-20/content/myefo/download/MYEFO_2019-20.pdf

⁷² Government of South Australia, *State Budget 2019-20, Budget Statement, Budget Paper 3*, p.100 https://statebudget.sa.gov.au/budget-docs/2019-20_budget_statement.pdf

- ‘The latest data suggests that we have moved off the bottom of the current wage cycle.’⁷³
- ‘Wage growth is then predicted to accelerate from FY22, as tighter conditions in the labour market feed through...The WPI is projected to increase 3.2% in FY22 and peak at 3.6% in both FY23 and FY24.’⁷⁴

SACOSS agrees with SA Power Networks that forecasting is a ‘complex art’ that is inherently fraught and subjective. We agree in principle that best practice regulation would require the AER to use a broad range of modelling and benchmarking to determine the best estimate of labour real price growth. Whilst we do not wholly disagree with the methodology used by the AER in its Draft Decision to determine the best estimate, we do agree with SA Power Networks that ‘forecast accuracy can be substantially improved by combining multiple individual forecasts’.⁷⁵ However, in circumstances where it appears BISOE’s forecast is unreasonably high, SACOSS recommends a third consultant be engaged to provide an additional forecast, with an average of the three forecasts applied.

On this point, and in light of SA Power Networks’ arguments in support of the use of multiple forecasts, SACOSS considers it would have been more useful for SA Power Networks to have engaged an additional consultant to provide an alternative forecast with its Revised Proposal, as opposed to the approach it chose to take of re-engaging BISOE to critique the AER’s comparison analysis. Given SA Power Networks did not include an alternative forecast, SACOSS recommends the AER obtain a third forecast and average all three. In the event this approach is not possible due to time constraints, and in light of the downward estimates of national wage growth in the Commonwealth’s Mid-Year Economic and Fiscal Outlook for 2019-20, we support the AER using economy wide data to input into an averaging process. If the AER considers that alternative approach is not appropriate, we accept the AER solely applying the Deloitte forecast as the best estimate available.

Taxation Cost Allowance

Background

In its response to SA Power Networks’ Original Proposal, SACOSS highlighted that consumers were concerned the tax allowance in the revenue building block overstated the actual tax paid by the non-government NSPs (or their owners). A report prepared by the Australian

⁷³ SA Power Networks, *2020-25 Revised Regulatory Proposal- Supporting document 6.5: BIS Oxford Economics, Utilities and Construction Wage Forecasts to 2024/25*, November 2019, p.20
https://www.aer.gov.au/system/files/SA_Power_Networks%20-%20Revised%20Proposal%20-%206.5%20-%20BIS%20Oxford%20Economics%20-%20Utilities%20Construction%20Wage%20Forecasts%20to%202024-25%20-%20November%202019.pdf

⁷⁴ SA Power Networks, *2020-25 Revised Regulatory Proposal: Supporting document 6.5: BIS Oxford Economics, Utilities and Construction Wage Forecasts to 2024/25*, November 2019, p.21

⁷⁵ SA Power Networks, *2020-25 Revised Regulatory Proposal – Attachment 6 – Operating Expenditure*, December 2019, p.25

Taxation Office (ATO) for the AER confirmed that there was in fact a significant discrepancy between the tax allowed and the actual taxation costs paid to the ATO by the non-government businesses.

These differences arose from the AER's modelling assumptions with respect to two components of the taxation allowance, namely:⁷⁶

- an NSP's taxable income; and
- an NSP's taxation rate (applied to the taxable income).

At the direction of the Federal Government, the AER reviewed its modelling and published its final report on the taxation issues in December 2018. The report concluded that the tax cost allowance in the revenue building block did not generally reflect either the level of the taxable income or the taxation rate applied to that income. However, the AER determined that at this stage it would only address the first issue, the calculation of the NSP's taxable income. In particular, the AER decided to amend:

- the calculation of the depreciation cost schedule for the tax asset base (TAB) – i.e. all **new** capex would be depreciated using the declining value (DV) method rather than the straight-line (SL) method,⁷⁷
- the immediate expensing of some categories of replacement capex, specifically 'refurbishment capex' as defined in the ATO taxation law.

Due to the timing of this decision and the consequential amendments to the AER's revenue models, SA Power Networks did not calculate a revised taxation cost allowance in its Original Proposal. Instead, SA Power Networks included a 'placeholder' allowance of \$1, which it claimed would also be close to its initial estimate of the taxation cost allowance.

The AER published its updated revenue model (the post-tax revenue model, or PTRM) in April 2019.

SACOSS' response to SA Power Networks' Original Proposal

In its submission to the AER on SA Power Networks' Original Proposal, SACOSS noted that while the impact of the changes to taxation would vary from NSP to NSP, the changes were likely to have a relatively larger impact on SA Power Networks given its current taxation

⁷⁶ SACOSS, *Submission in response to AER Issues Paper on the SAPN electricity determination 2020-2025*, 10 May 2019, pp. 17-18.

⁷⁷ There are some minor exemptions to using DV, in line with specific requirements under the tax law. Note: this change applies only to the calculation of the tax depreciation component of the revenue building block.

practices including the extent to which it expensed its replacement capex (for taxation purposes).⁷⁸

SACOSS also highlighted a number of issues for the AER to consider:⁷⁹

- While the changes to tax depreciation apply only to new capex, SA Power Networks has proposed a significant capital expenditure relative to its tax asset base (TAB).
- How SA Power Networks has estimated a 'benchmark' proportion of its proposed replacement capex would be categorised as immediately expensed (for the purposes of the taxation allowance calculation).
- SA Power Networks' proposed capex/opex trade-off, which has implications for both the calculation of the regulatory asset base (RAB) and the TAB.
- SA Power Networks' proposal to shorten the asset lives of refurbished and other short-lived assets in the calculation of both regulatory and tax depreciation costs.

In June 2019, SA Power Networks proposed that the value of the opening TAB should be adjusted down to reflect the use of immediate expensing of capex by SA Power Networks in previous regulatory control periods. SA Power Networks estimated that this amendment would add a further \$15 million to the cost of corporate income tax over the 2020-25 RCP.⁸⁰

As this was a late submission by SA Power Networks, SACOSS did not have the opportunity to address this matter in its original submission. However, we discuss this proposal in this submission.

AER's Draft Decision and SA Power Networks' Revised Proposal

The AER's Draft Decision applied the revised approach to calculating regulatory taxation costs. Under its revised approach, the AER determined a corporate tax allowance of \$37.6 million (\$nominal) for the 2020-25 RCP.⁸¹

SA Power Networks has proposed a tax cost allowance of \$10.5 million in its Revised Proposal.

The table below summarises SA Power Networks' Original and Revised corporate income tax Proposals, and the AER's Draft Decision.

⁷⁸ SACOSS, *Submission in response to AER Issues Paper on the SAPN electricity determination 2020-2025*, 10 May 2019, p.18.

⁷⁹ *Ibid*, pp.19-20.

⁸⁰ See SA Power Networks, *Information request 007*, 3 June 2019; cited by the AER in *ibid*, Att 7, p 7-9

⁸¹ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 7 – Corporate Income Tax*, October 2019, p.7-5.

Table 7: SA Power Networks Income tax cost allowance, 2020-25 (\$nominal)

Table 7-1: Summary of corporate income tax in Original Proposal, AER Draft Decision and Revised Proposal		
Original Proposal	AER Draft Decision	Revised Proposal
\$1 Placeholder allowance proposed as updated PTRM not released	\$37.6m Updated PTRM used to determine allowance	\$10.5m Recalculated for Revised Proposal

Source: SA Power Networks, 2020-25 Revised Regulatory Proposal -Attachment 7- Corporate Income Tax, p 6.

AER's Draft Decision

The AER stated that the changes in the approach to calculating a tax allowance have reduced SA Power Networks' income tax cost allowance by around \$116 million, or 81 per cent, compared to a tax allowance estimated under the previous tax approach.⁸² The reduction in the tax allowance consisted of two elements:

- The use of DV for new assets: reduction of \$19 million (\$nominal, or 13 per cent).⁸³
- Expensing of some replacement capex: reduction of \$97 million (\$ nominal, or 68 per cent).⁸⁴

Overall, this represents a significant saving to consumers while better reflecting the actual tax practices of the non-government networks such as SA Power Networks.

Other key features of the AER's Draft Decision included the following decisions:⁸⁵

- Reject SA Power Networks' late proposal to adjust the 1 July 2020 opening tax asset base (TAB) downwards in order to reflect the TAB value of assets that were immediately expensed (for SA Power Networks' actual tax purposes) in the 2015-20 regulatory period. The AER stated that the cost of SA Power Networks' proposal would be 'higher than the benchmark efficient amount and therefore not in the

⁸² Based on SA Power Networks' proposed expenditure and rate of return inputs. Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 7 – Corporate Income Tax*, October 2019, p.7-5.

⁸³ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 7 – Corporate Income Tax*, October 2019, p.7-19.

⁸⁴ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 7 – Corporate Income Tax*, October 2019, p.7-18.

⁸⁵ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 7 – Corporate Income Tax*, October 2019, pp.7-5 to 7-6.

long term interests of customers'⁸⁶, creating a 'windfall gain for SA Power Networks'.⁸⁷

- Accept SA Power Networks' proposals re:
 - the standard tax asset lives for all of its asset classes, including the two new assets classes of 'Building – capital works' and "In-house software (40 years and 4 years respectively), and
 - continued use of the year-by-year tracking approach for tax depreciation of its existing assets (in line with the approach to regulatory depreciation).
- Adjust the tax calculation as a consequence of adjustments to the return on capital and regulatory depreciation building blocks.

SA Power Networks' Revised Proposal

As indicated in the table above, SA Power Networks has updated its proposed allowance for corporate income tax from the placeholder value of \$1 to \$10.5m. This allowance is lower than the AER's Draft Decision, largely due to SA Power Networks' revised proposals for both the total capex, and the capex that is immediately expensed in 2020-25.

SA Power Networks also disagreed with the AER's Draft Decision with respect to the treatment of assets that were immediately expensed by SA Power Networks during the 2015-20 RCP for the purposes of calculating the tax to be paid to the ATO.

SA Power Networks suggested that a NSP (including SA Power Networks) could gain a benefit in the 2020-25 RCP if it used the AER's approach, as the AER's approach did not recognise the historical and ongoing benefit arising from the tax expensing of some replacement assets in the previous RCPs. This in turn would mean that the AER overstated the value of the opening TAB for 2020-25.

Nevertheless, SA Power Networks stated in its Revised Proposal that it accepts the AER's methodology in the Draft Decision for the 2020-25 RCP.⁸⁸ Therefore, SA Power Networks' Revised Proposal has adopted the AER's methodology to calculate the opening TAB for 2020 rather than adjusting the opening TAB to reflect the NSP's historical expensing practices.⁸⁹

⁸⁶ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 7 – Corporate Income Tax*, October 2019, p.7-6

⁸⁷ Ibid, p.7-20.

⁸⁸ SA Power Networks, *2020-25 Revised Regulatory Proposal – Attachment 7 – Corporate Income Tax*, December 2019, p.9.

⁸⁹ This issue applies only to the opening value of the TAB, and is not relevant to the opening value of the RAB.

SACOSS' Response

Overall, SACOSS strongly supports the AER's revised approach to assessing the cost of income tax in the revenue building blocks which has resulted in a saving of some \$116 million (\$nominal).⁹⁰ As noted above, SACOSS (amongst others) has long been concerned with this discrepancy between the tax allowance and actual tax paid.

SACOSS also acknowledges the work that SA Power Networks has undertaken with the AER to implement the relatively complex changes in the calculation of the income tax allowance.

Moreover, the difference between the AER's tax cost allowance of \$37.6m and the \$10.5m set out in SA Power Networks' Revised Proposal is relatively small and reflects differences in the overall capex. The final figure, as noted previously will be further adjusted in line with the AER's final decision on the 2020-25 capex and the rate of return. There do not appear to be any fundamental differences in the AER's Draft Decision and tax allowance proposed by SA Power Networks in its Revised Proposal.

However, SACOSS would comment further on two issues:

- the treatment of historical expensing of capex and its relationship to the opening TAB for the 2020-25 RCP, and
- the treatment of regulatory and tax asset lives.

Treatment of historical expensing of capex and the TAB

With respect to the question of the opening TAB, SACOSS agrees with the AER's Draft Decision to reject SA Power Networks' late proposal to decrease the opening 2020 TAB to reflect SA Power Networks' actual tax treatment of these assets during the 2015-20 RCP.

We support the AER's view that a retrospective adjustment of this kind conflicts with the NER, which does not provide for such retrospective adjustments. Moreover, we agree that such adjustments would go against the principle of incentive regulation. Incentive regulation is designed to reward businesses that 'outperform' the estimated forward-looking efficient benchmark.⁹¹

The AER explained their decision to reject the late proposal as follows:⁹²

SA Power Networks had not consulted with customers in this adjustment but wanted the AER to consider it in the draft decision. We have carefully done so, but find it inconsistent with the PTRM, inconsistent with our benchmark tax approach (creating

⁹⁰ This figure will change in the AER's Final Determination as a result of, for instance, changes to, the AER's capex allowance and the rate of return.

⁹¹ Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 7 – Corporate Income Tax*, October 2019, p.7-21.

⁹² *Ibid*, p.7-20.

*a windfall gain for SA Power Networks) and not in the long term interests of customers.*⁹³

However, while we support the AER's position generally, SACOSS would welcome additional consideration of this issue by the AER. In particular, as SA Power Networks indicates in its Revised Proposal, any asset that was immediately expensed for tax purposes during 2015-20 by SA Power Networks, would generally still form part of the AER's estimate of the opening TAB for 2020 and would be depreciated in line with the AER's historical tax depreciation schedules. As a result, the opening TAB would be higher than it would otherwise be if it reflected actual tax practices and, therefore, the tax depreciation cost allowance for this existing asset would also be higher.

Based on the information provided, SACOSS also agrees with SA Power Networks that this issue might be addressed by a reduction in the opening 2020 TAB, although we would expect the AER to provide modelling of the direct and indirect impacts of this before we would conclusively support SA Power Networks' position.

SACOSS also recognises that there are legal questions around making such an adjustment to the opening TAB. In addition, the calculation of the quantum of such an adjustment raises many questions such as how far back should the AER go and how these amounts would be identified.⁹⁴

Without some clarity on the overall impact on consumers, it is difficult for SACOSS to come to a final view.⁹⁵ However, we would request that the AER provide further analysis of the potential impact of this issue as the Draft Decision provides little detail to support its reasons for rejecting SA Power Networks' proposal.

Regulated and Tax Asset Lives

SACOSS is normally sceptical of proposals by NSPs to amend the standard regulatory and tax asset lives, particularly during the life of a particular asset as there is a significant risk of 'cherry picking' outcomes based on changing the average life of an asset or asset class.

In this instance, we recognise the AER's observations that the proposed tax asset lives are 'broadly consistent' with the values prescribed under the ATO taxation ruling (ruling 2019/5), and/or the same as the standard asset lives adopted for the 2015-20 regulatory period.

⁹³ SA Power Networks states that it has since consulted with stakeholders, and these stakeholders rejected the proposal. See SA Power Networks, *2020-25 Revised Regulatory Proposal*, December 2019, p. 9.

⁹⁴ See for example, Australian Energy Regulator, *Draft Decision: SA Power Networks Distribution Determination 2020 to 2025 – Attachment 7 – Corporate Income Tax*, October 2019, p. 7-20, footnote 53.

⁹⁵ SACOSS also notes SA Power Networks' comment that stakeholders did not support SA Power Networks' suggested approach. See SA Power Networks, *2020-25 Revised Regulatory Proposal*, December 2019, p. 9.

However, SACOSS does express its concern that there appears to be considerable diversity and flexibility across the DNSPs in the assumptions they adopt about the standard 'life' of different asset classes and how the assumptions on the standard 'life' of the assets impacts on the proposed replacement rates and the depreciation profiles. It would greatly assist transparency if the AER undertook further analysis to provide standardised asset lives for different classes of assets, located in different regions. The outcomes of such an analysis may differ from the ATO rulings on 'standard tax age' for tax depreciation purposes, but at least it would provide some consistency within the economic regulatory framework.

Capital Expenditure Sharing Scheme (CESS)

Background

The AER commenced the application of the CESS to SA Power Networks' regulatory proposal from the 2015-20 RCP. The objectives of CESS are to encourage NSPs towards prudent and efficient capital investment and it is measured relative to the AER's capex allowance. In the event a network exceeds its capex allowance it may be penalised (subject to a number of conditions). In the event a network uses less than its capex allowance, then it is rewarded assuming this reflects efficient investment or prudent deferral.

Importantly, the AER's CESS Guideline states that the AER will make an adjustment to CESS payments when a DNSP has deferred capex in the current regulatory period, and:⁹⁶

1. the amount of deferred capex in the current RCP is material, and
2. the amount of the estimated underspend in capex in the current RCP is material, and
3. total approved capex in the next RCP is materially higher than it is likely to have been if a material amount of capex was not deferred in the current RCP.

In addition, the NER requires that the decision on CESS must be made in a 'manner that contributes to the achievement of the capital expenditure incentive objective', and must take into account the CESS principles, the capex objectives ... as they apply to the particular service provider and in the circumstances of the service provider.⁹⁷

As a general statement, SACOSS recognises that these criteria make the AER's assessment of CESS rewards and penalties extremely difficult. For instance, SA Power Networks has spent significantly less capex than its capex allowance for 2015-20. As a result, it has used the CESS formula to calculate a substantial CESS reward.

⁹⁶ See, for instance, AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p. 9.

⁹⁷ *National Electricity Rules*, Version 132, Chapter 6, Rule 6.5.8A(e)(3) and (4).
<https://www.aemc.gov.au/sites/default/files/2019-12/NER%20v132%20full.pdf>

However, stakeholders, including SACOSS, have opposed this on the basis that SA Power Networks has not established that its underspending during 2015-20 was clearly a result of either improved capex efficiency or prudent deferral in a manner that contributes to the capex objectives or the overall National Electricity Objective (NEO). In particular:

- SA Power Networks' underspend of its 2015-20 replacement capex allowance was not prudent if we also accept SA Power Networks' argument in its 2015-20 proposal, (and again in the 2020-25 proposal), that its network is relatively old, that replacement rates have been too low and there is a risk to its ongoing performance.
- Similarly, SA Power Networks underspent its augmentation and connection capex allowances in 2015-20. Yet there was no restriction on SA Power Networks acting prudently to use the lower demand for augmentation and connections, to boost its replacement expenditure even higher than the AER's allowance – but it did not do that.
- While ultimately consumers may receive some benefit from the underspend in terms of a lower RAB, SA Power Networks still retains a 30 per cent benefit under the CESS as well as an immediate cash flow benefit to the business.

These issues have coloured SACOSS' view of the overall effectiveness of the CESS. We are therefore concerned that the AER has largely accepted the \$69.7 million (\$2019-20) 'reward' that SA Power Networks proposed in its Original Proposal for 2020-25. The AER's reasoning for its Draft Decision appears to indicate that it viewed the CESS calculation from the perspective of its significant cut to SA Power Networks' initial capex proposal rather than from underlying principles.

That is, while the AER agreed that the amount of the deferral and the amount of the underspend were material (the first two principles listed above), the AER also concluded that SA Power Networks' underspend in 2015-20 did not result in the AER making a 'materially higher' substitute capex forecast for the 2020-25 RCP. However, the AER came to this view in the context of its significant cut to SA Power Networks' overall capex forecast for 2020-25, rather than a separate assessment of the prudence of the deferral.

While we consider that the AER has not addressed the issue adequately, and that its argument is somewhat circular, from a practical perspective the AER has left the door open to revise its draft decision in the event that its final capex decision for 2020-25 is 'materially higher' and includes deferred capex.

In its Revised Proposal, SA Power Networks has increased its proposed CESS payment for 2020-25 to \$76.3 million, as set out in the table below. SA Power Networks stated that this increase is a result of its updating of 2018/19 actual capex and 2019/20 forecast capex as well as an update of the forecast inflation for 2019/20. SA Power Networks also argues that its forecast capex for 2020-25 is not materially higher than it would have been.

Table 8: Proposed CESS payments for 2020-25

Table 9-2: SA Power Networks CESS payment in 2020-25 RCP (June 2020, \$ million)						
CESS Carryover	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Original Proposal	13.9	13.9	13.9	13.9	13.9	69.7
Draft Decision	13.8	13.8	13.8	13.8	13.8	69.0
Revised Proposal	15.3	15.3	15.3	15.3	15.3	76.3
Total may not add up due to rounding						

Source: SAPN, Revised Regulatory Proposal, Attachment 9, December 2019, Table 9.2, p. 6.

SACOSS does not accept that the arguments put forward by SA Power Networks for claiming the CESS payment (in either the Original Proposal or the Revised Proposal). In large part, we consider they are not relevant arguments in terms of demonstrating that the underspending was efficient and prudent, particularly considering the claimed threats to the safety, security and reliability of the network.

The AER, and consumers indirectly, agreed to fund a capital program in 2015-20 in order to best deliver on the capex objectives and the NEO for a safe and reliable network. The NEO, for instance, states:⁹⁸

To promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- *price, quality, safety and reliability and security of supply of electricity*
- *the reliability, safety and security of the national electricity system.*

SA Power Networks did not undertake the capex program in 2015-20 that was funded by consumers to deliver on these objectives for South Australian consumers. While SA Power Networks increased capex (particularly repex) in the final years of the RCP, the significant CESS payment sought by SA Power Networks is based on the underspend of allowed capex in the first two years (see Table 9 for details).

⁹⁸ *National Electricity (South Australia) Act 1996, section 7.*

Table 9: SA Power Networks' calculation of the CESS payments (\$millions)

Fin Year	2015-16	2016-17	2017-18	2018-19	2019-20 (e)	Total
Capex Underspend	147.69	122.56	13.95	11.85	13.82	309.8
NPV of underspend	181.9	143.59	15.49	12.48	13.82	367.3
NPV of financing benefit	0	6.22	10.84	10.87	10.8	38.73
Customer share = 70% * 367.3 = 257.00, SAPN share = (30%*376.3)- 38.73 = 71.45						

Source: SA Power Networks, Revised Regulatory Proposal, 9.C CESS Model, December 2019.

SA Power Networks has now submitted much the same arguments regarding aging assets and the need for replacement as it did in 2015-20 when seeking increases in capex. SACOSS believes that SA Power Networks should not be rewarded via the CESS for the decisions they made to cancel or defer expenditure in the early years of 2015-20. Their actions have exacerbated the so-called investment 'bow wave' when there was an opportunity due to, inter alia, lower demand, to safely and more aggressively tackle this issue during 2015-20.

SA Power Networks' arguments for a significant CESS payment, and the AER's approach in its Draft Decision will be discussed further below. If in fact, the AER considers it should allow the proposed CESS payment in its Final Decision, then SACOSS would strongly argue that the current CESS is not achieving the capex objectives or the NEO and therefore the scheme needs urgent modification.

To be clear, however, the following is not an argument against the need for increased replex/capex in 2020-25 (this is discussed in the replex section of this submission, earlier). Our argument here is that consumers should not, as a matter of principle, be asked to pay additional amounts for the failure of SA Power Networks to undertake the capital investments in 2015-20 that it claimed were essential to the safety, security and reliability of its aging network.

SACOSS' Response to SA Power Networks' Original Proposal for CESS

SACOSS opposed SA Power Networks' initial proposal for \$69.3million (\$2020) CESS. SACOSS fundamental position was that: 'the CESS should primarily be focussed on rewarding management skill in executing capital spending programs at below budget'.⁹⁹

⁹⁹ SACOSS, *Submission in response to AER Issues Paper on the SAPN electricity determination 2020-2025*, 10 May 2019, p.5.

SACOSS' conclusion was that much of the underspending was not a reflection of management skill but a 'windfall' arising from external circumstances (e.g. a slowdown in demand and connections) or deferrals that were not prudent at the time.

In particular, SACOSS noted that:¹⁰⁰

- The AER's capex decision in 2015-20 represented the AER's view of efficient and prudent expenditure in accordance with the capital expenditure objectives.
- The capital expenditure 'saving' by SA Power Networks over the course of 2015-20 was between 15 to 18 per cent, significantly below the AER's view of efficient expenditure.
- This level of saving suggested that either the allowance in 2015 was excessive, that some of the savings may be 'windfall' due to changes in circumstances in the 2015-20 period, or represents postponed spending.
- The windfall includes actual demand and customer connections being below forecast levels, while deferrals arose in part from management's pre-emptive response to the AER's 2015 Draft Determination. Even its response to the 2016-17 weather events does not demonstrate that SA Power Networks achieved capex savings due to its improved efficiency and management skill. It may be a reason for underspending, but not a basis for a 'reward' under CESS.

SACOSS rejected SA Power Networks' argument that the underspending was 'not material' and also highlighted that other networks (e.g. Energex and Ergon) have not claimed the CESS amount in their parallel proposals to the AER.¹⁰¹

SACOSS concluded with a recommendation to the AER on the risks of setting capex allowances higher than necessary for efficient service provision. In addition, the AER could consider ways of adjusting ex-post for the impact of exogenous forecast components such as demand and connection.

The AER's Draft Decision and SA Power Networks' Revised Proposal

The AER's Draft Decision on CESS

In its Draft Decision, the AER has accepted the CESS payment proposed by SA Power Networks in its Original Proposal. The AER has made this decision in the context of the three principles set out in the CESS Guideline (see above). The AER concluded:¹⁰²

¹⁰⁰ *Ibid*, p.5.

¹⁰¹ *Ibid*, p.6.

¹⁰² AER, *SA Power Networks 2020-25, Draft Decision- Attachment 9 – Capital Expenditure Sharing Scheme*, October 2019, p.9-8.

We have not adjusted SA Power Networks' CESS revenue increment to account for its material deferrals as we do not consider its deferrals has materially increased in draft decision substitute of capex.

The only adjustments that the AER made were minor and included adjustments, using more up to date information, for inputs such as CPI, reported capex and the WACC.

Regarding each of the principles in the Guideline, the AER stated that:¹⁰³

- The amount of deferred capex in the current RCP was material. The AER calculated that there was \$361.6 million (\$2019-20) of capex proposals that were not fully undertaken out of a total capex allowance of \$1999.4 million (\$2019-20). Taking account of the costs spent on some projects, the net deferral was a material amount of \$252.7 million (\$2019-20).
- The amount of the capex underspend was material. The AER estimated that the CESS applicable underspend was around \$309.5 million (\$2019-20).
- However, the substitute capex forecast is not materially higher than it would have been had the 2015-20 capex not been deferred.

In coming to this latter conclusion, the AER argued as follows:¹⁰⁴

- At least \$69.3 million in repropoed capex has been included in SA Power Networks' capex proposal for 2020-25.
- SA Power Networks has advised the AER in response to an information request that of SA Power Networks' \$65 million in repex deferrals, it estimates that the deferral will be longer than 10 years.
- The AER has not included this long term deferred capex in its CESS assessment.
- The AER has identified one 'repropoed' project for CRM and Billing project (\$9.5 million), a deferral that accounted for less than 1 per cent of the AER's substitute capex forecast and was therefore not considered material by the AER.

As SACOSS does not have access to the information requests, we cannot comment on the reasonableness of SA Power Networks' claim regarding the deferral for 10 years. However, it is clear that this claim is an important element of the AER's draft decision. For instance, the AER states that:¹⁰⁵

¹⁰³ Ibid, p.9-8

¹⁰⁴ AER, *SA Power Networks 2020-25, Draft Decision- Attachment 9 – Capital Expenditure Sharing Scheme*, October 2019, pp.9-8, 9-9.

¹⁰⁵ AER, *SA Power Networks 2020-25, Draft Decision- Attachment 9 – Capital Expenditure Sharing Scheme*, October 2019, p. 9-9.

We note that had all of SA Power Networks' reposed capex been included in our substitute forecast (\$65 to \$69 million), this would increase our substitute capex by around 5 per cent, which we consider to be a material increase in forecast capex.

And:¹⁰⁶

As noted above, SA Power Networks included at least \$65 million in reposed capex. Had this been included in our forecast capex, customers would be paying higher prices than they otherwise would have had the capex been undertaken in the 2015-20 regulatory control period.

Not surprisingly, therefore, the AER has qualified its draft decision. For example, the AER notes that its substitute forecast reflects a 'lack of information' and that this may change in response to SA Power Networks' Revised Proposal. The AER also notes that other regulators have removed the CESS due to concerns about deferrals and that the AER will review the application of the CESS and how deferrals are assessed in the future.¹⁰⁷

In coming to its draft decision to accept SA Power Networks' proposed CESS payment, the AER notes SA Power Networks' claim in its initial proposal that: 'the drivers of the deferrals are reasonable and consumers are likely to face lower prices because of the deferrals'.¹⁰⁸ While noting SA Power Networks' comments, the AER does not appear to have investigated the claims although it has stated that SA Power Networks has not quantified its deferrals.¹⁰⁹

SA Power Networks' Revised Proposal

In its Revised Proposal, SA Power Networks increased the proposed allowance for CESS from the AER's \$69 million to \$76.3 million. However, this change reflected a further updating of inputs regarding the actual capex for 2018-19 and estimated capex for 2019/20 (lower than in the Original Proposal), inflation and the WACC. There was no change in the underlying rationale provided by SA Power Networks to the AER as part of its explanation for why it should be compensated for underspending capex in 2015-20.

SA Power Networks' rationale was set out in its Original Proposal as follows:¹¹⁰

The underspend in 2015-20 RCP primarily results from:

¹⁰⁶ AER, *SA Power Networks 2020-25, Draft Decision- Attachment 9 – Capital Expenditure Sharing Scheme*, October 2019, p. 9-10.

¹⁰⁷ AER, *SA Power Networks 2020-25, Draft Decision- Attachment 9 – Capital Expenditure Sharing Scheme*, October 2019, pp. 9-9, 9-10.

¹⁰⁸ AER, *SA Power Networks 2020-25, Draft Decision- Attachment 9 – Capital Expenditure Sharing Scheme*, October 2019, pp. 9-10.

¹⁰⁹ AER, *SA Power Networks 2020-25, Draft Decision- Attachment 9 – Capital Expenditure Sharing Scheme*, October 2019, pp. 9-8.

¹¹⁰ SA Power Networks, *2020-25 Regulatory Proposal – Attachment 9 – Capital Expenditure Sharing Scheme*, 31 January 2019, p.8.

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

SA Power Networks further claims that:¹¹¹

- SA Power Networks prudently reprioritised its capex program as circumstances changed
- customers will face lower prices from the next RCP as a result of the underspend
- the amount of the deferred capex and total capex underspend is not material considering the circumstances that impacted on the capex program in the 2015-20 RCP, and
- SA Power Networks' total forecast capex for the 2020-25 RCP is not materially higher than it would have been if no capex had been deferred in the 2015-20 RCP.

SA Power Networks has provided no quantification of these different drivers. Even if the AER was to accept SA Power Networks' explanations in principle, from the limited information provided, SACOSS considers that the AER is not in a position to properly quantify these factors and how these factors might have contributed to the underspend, and to the deferral amounts. As such, it is not appropriate, *prima facie*, to accept SA Power Networks' CESS claim.

SACOSS' Response to the AER's Draft Decision and SA Power Networks' Revised Proposal

The current debate about CESS payments demonstrates that the CESS operates within a relatively narrow set of requirements and fails to take account of the more fundamental requirements that underpin the NEO.

From SACOSS' perspective, the real issue is whether SA Power Networks, in significantly under-spending its replacement capex 'allowance' (and overall allowed capex), acted in the long term interests of consumers with respect to price, safety, security and reliability.

¹¹¹ SA Power Networks, *2020-25 Regulatory Proposal – Attachment 9 – Capital Expenditure Sharing Scheme*, 31 January 2019, p.8

The broader framework of the NEO (and the capex objectives) further highlights the narrowness of the CESS. For example, the CESS Guideline indicates that deferred capex should result in an adjustment such that the network is not rewarded for capex that is deferred and then repropoed, **except to the extent that the deferral generates a time-saving in money** (emphasis added).¹¹²

It would be a distortion of the intent of economic regulation if SA Power Networks failed to act in the long term interests of consumers as required by the NEO across all the components of the NEO, but is able to claim a reward funded by consumers under the CESS arrangements, then justify this reward by reference to the impact on future prices via a lower RAB, if the same action risks safety, security and reliability of the network.

As a first step to considering whether this was the case in the context of SA Power Networks' claim, it is instructive to go back to how SA Power Networks understood the status of its network prior to the 2015-20 RCP. Throughout its regulatory proposal and revised proposal for 2015-20, SA Power Networks makes mention of the age of the network, the deteriorating status of the network and the risks to consumers. For example, SA Power Networks stated the following as justification for a significant increase in its repex allowance:¹¹³

Figure 20.16 outlines the network risk impact that would result if the level of capital expenditure was maintained at current 2014 levels. SA Power Networks considers that this is not an acceptable position as it is not consistent with the regulatory obligation to maintain a safe electricity distribution system and would not address the concerns and expectations that customers have made known during our Customer Engagement Program.

¹¹² AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p.9 and pp.11-12

¹¹³ SA Power Networks, *Regulatory Proposal 2015-20*, December 2013, p.188
<https://www.aer.gov.au/system/files/SAPN%20Regulatory%20Proposal%202015%E2%80%9320.pdf>

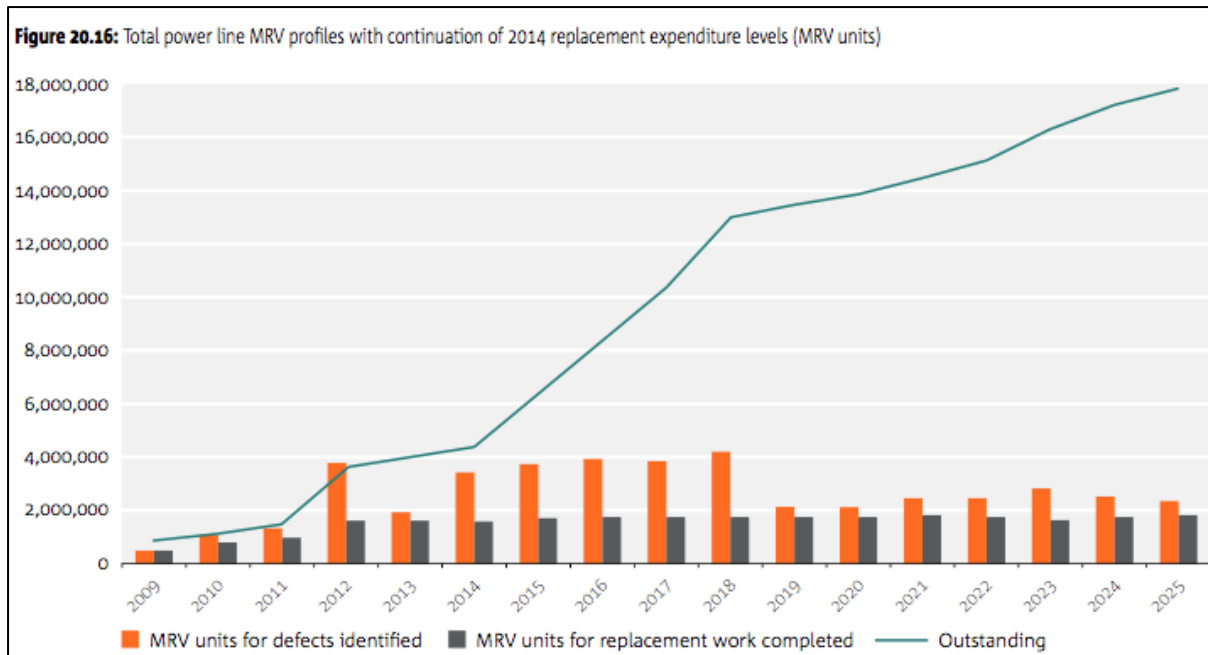


Figure 13: Total power line MRV profiles with continuation of 2014 replacement expenditure levels (MRV units)

Source: SA Power Networks, Regulatory Proposal 2015-20, December 2013, p 188.

Note (1): MRV (Maintenance Risk Value) was a measure of risk used by SA Power Networks at the time.

Note (2): While these charts relate to power lines, similar outcomes were predicted for other key assets.

Similarly, SA Power Networks made the following statements with respect to the replacement of poles:¹¹⁴

A pole that fails and falls can have public safety, reliability and environmental consequences. Bushfire starts are the most significant consequence of a pole failing.

Figure 20.17 profiles the cumulative impact of actual pole defects raised compared to those fixed for the period to May 2014. Figure 20.17 clearly identified the network risk impact that would result if the level of capital expenditure for poles was maintained at current levels...

¹¹⁴ SA Power Networks, Regulatory Proposal 2015-20, December 2013, p.190.

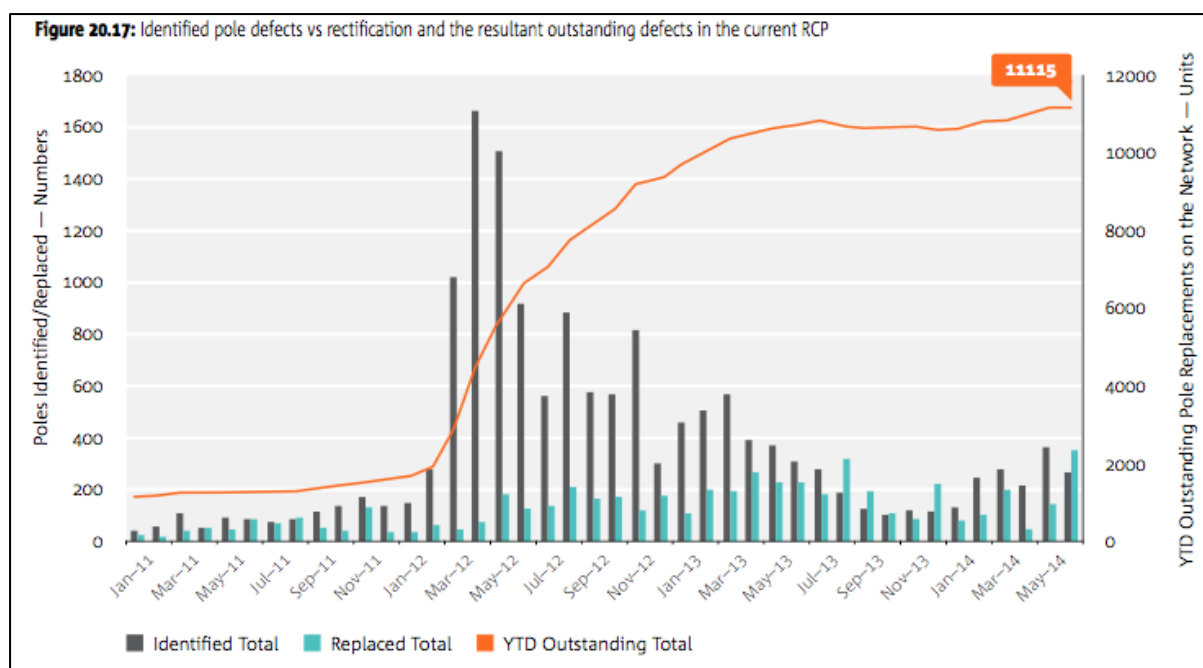


Figure 14: Profile of pole defects and replacement/rectification

Source: SA Power Networks, Regulatory Proposal 2015-20, December 2013, p 191.

As noted, these references above are just a sample of the material that SA Power Networks put to the regulator and to consumers in 2014-15 to justify a significant increase in its repex and safety capex allowance.

SACOSS concludes therefore, that SA Power Networks held the very strong view in 2014-15 that the safe and reliable operation of the network required a significant increase in repex.

The following chart demonstrates that the AER responded to this argument by significantly increasing the repex allowance, a move that was supported generally by consumers based on SA Power Networks' representations of the increasing risk profile of the network.

However, as also demonstrated in the chart, SA Power Networks responded by a significant decrease in its repex spending, particularly in the first two years that was well below the AER's allowance, and below previous expenditure.

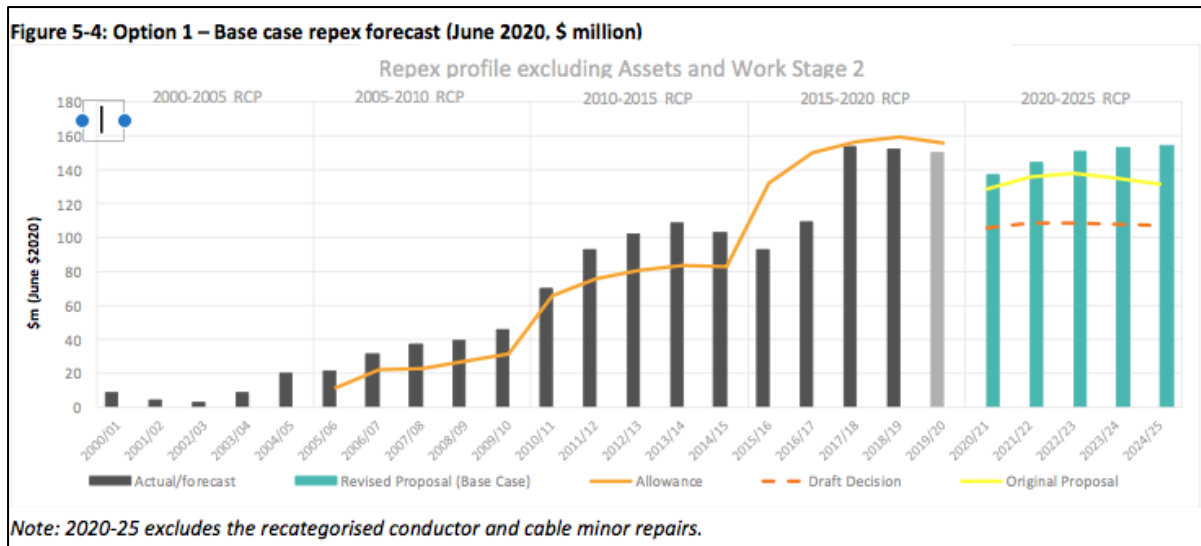


Figure 15: Repex forecast 2020-25 (\$2020)

Source: SA Power Networks, Revised Regulatory Proposal- Attachment 5 - Capital Expenditure, 20 December 2019, p 24.

SA Power Networks has provided a number of reasons for its decisions to drastically reduce repex spending in 2015-16 and 2016-17 as highlighted above. In discussing its repex expenditure however, SA Power Networks also acknowledges that at least for 2015-16, the decision to cut capex was made by the Board allegedly in response to the AER's Preliminary Decision. SA Power Networks states:¹¹⁵

These two years were abnormal and reflected anomalous conditions which affected our actual replacement expenditure levels. The 2015/16 regulatory year was materially impacted by the financing uncertainties arising from the AER at the time first making a Preliminary Decision in April 2015 for the 2015-20 RCP. This decision provided for an unexpected, materially (\$300 million) lower revenue allowance than anticipated.

When SA Power Networks prepared its 2016 calendar year budget in mid 2015 it only had this Preliminary Decision to guide its 2016 budget process. Budgets were set lower in 2016 reflecting this uncertainty. The Final Decision was not published until October 2015, after the 2016 budget had been approved by SA Power Networks' Board.

In the same section, SA Power Networks also refers to the 'unprecedented weather' in South Australia in 2016-17, and to a delay in some replacement expenditure 'as we

¹¹⁵ SA Power Networks, Revised Regulatory Proposal- Attachment 5 - Capital Expenditure, 20 December 2019, p 23.

transitioned to our “value-based replacement” approach using our Valuing and Visibility Tool’.¹¹⁶

SA Power Networks does not quantify the impacts of any of these explanations. However, from SACOSS’ perspective, only the weather related reprioritising of expenditure in 2016-17 demonstrates the possibility of prudent deferral of capex.

For instance, it could be argued that the Board’s decision to drastically cut capex in 2015 (for calendar year 2016) on the basis of the AER’s Preliminary Decision was not prudent and may in fact have introduced a range of inefficiencies in terms of manpower reduction. Moreover, the Board should have been able to reverse its initial budget decision for 2016, given the publication of the Final Determination in late 2015 and claims by SA Power Networks of the importance of increased repex to the safety and reliability of the network.

Similarly, the stated move to a new ‘value-based’ replacement approach was no reason to delay replacing assets in the first two years given the stated threats to the network.

Finally, SA Power Networks responded to comments from the AER and its advisor, EMCa, by claiming that it had spent close to, or exceeded, its repex allowances in all but the first two years of 2015-20 RCP.

SACOSS would point out that SA Power Networks’ CESS claim comes almost entirely from the underspending in those first two years, as set out in the Table repeated below.

Therefore, while SA Power Networks’ response to the AER’s criticism may possibly be relevant in terms of the repex allowance (although we do not believe so), it also further demonstrates that SA Power Networks’ CESS claim of \$71.45 million is not consistent with the overall objectives of the CESS.

Table 10: SA Power Networks’ calculation of the CESS payments (\$millions)

Fin Year	2015-16	2016-17	2017-18	2018-19	2019-20 (e)	Total
Capex Underspend	147.69	122.56	13.95	11.85	13.82	309.8
NPV of underspend	181.9	143.59	15.49	12.48	13.82	367.3
NPV of financing benefit	0	6.22	10.84	10.87	10.8	38.73
Customer share = 70% * 367.3 = 257.00, SAPN share = (30%*376.3)- 38.73 = 71.45						

¹¹⁶ SA Power Networks, *Revised Regulatory Proposal- Attachment 5 - Capital Expenditure*, 20 December 2019, p 24.

Source: SA Power Networks, Revised Regulatory Proposal, 9.C CESS Model, December 2019.

Conclusion

SACOSS would like to once again thank the AER for the opportunity to comment on its Draft Decision and SA Power Networks' Revised Proposal. We would also like to thank the AER for consideration of our comments in making its Final Decision. Please direct any queries or requests for further information to Georgina Morris at [REDACTED] or [REDACTED].