

Mr Warwick Anderson
General Manager, Networks Finance and Reporting
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

By email SAPN2020@aer.gov.au

10 May 2019

Dear Mr Anderson,

RE: SACOSS submission in response to AER Issues Paper on the SAPN electricity determination 2020-2025

SACOSS welcomes the opportunity to provide comment to the process of determining the allowed revenue that SA Power Networks (SAPN) can earn over the 2020-25 period for providing electricity distribution network services within South Australia.

In this submission, SACOSS wishes to comment on six areas of SAPN's 2020-25 regulatory proposal:

- Operating expenditure;
- Capital expenditure sharing scheme;
- Spending on the network of the future;
- IT expenditure;
- Labour costs, and;
- Taxation.

Operating expenditure

The AER 2018 benchmarking study¹ finds that SAPN is generally among the most productive networks overall in terms of total productivity, ranking second in the cohort of 13. SAPN is to be congratulated for this performance.

However, SAPN is significantly behind the best performer, Citipower, at only 87 per cent of the performance of Citipower.² Additionally, SAPN is the only distributor in the top 9 to have experienced a decline in productivity in 2017, meaning that it is coming back to the pack. SAPN's performance is about 16 per cent better than Jemena in the middle or 7th place, about the same amount as the gap between Citipower and SAPN.

Moreover, SAPN experienced a decline in productivity between 2006 and 2017 (the latest available year). In 2017 itself, SAPN experienced a 6 per cent decline in productivity. Overall, SAPN has experienced perhaps the largest decline in overall productivity of all of the distributors between 2006 and 2017, with its index performance falling from around 1.6 to 1.3 over that period.³

Turning to opex performance, the AER notes that SAPN is currently the third most efficient firm. However, similar to total productivity performance, SAPN has experienced a relative decline in performance in the most recent period (2012-2017), from an index performance of about 1.3 to less than 1.2, while the two



Marjorie Black House
47 King William Road
Unley SA 5061

P. 08 8305 4222
F. 08 8272 9500
E. sacoss@sacoss.org.au
www.sacoss.org.au

ABN 93 197 662 296

¹ AER 2018, *Annual Benchmarking Report: Electricity distribution network service providers*, November

² 1304 (SAPN) compared to 1500 (Citipower): AER 2018, p. iv.

³ AER 2018, p. v.

distributors around its level in 2012 have improved significantly to place well above it (Powercor and Citipower), while the distributors that were significantly below it in 2012 have now almost caught up.⁴ The AER benchmarking report notes that of the annual minus 3.1 per cent change in SAPN total factor productivity in 2017, the opex contribution was minus 5.2 per cent, meaning that a deterioration in opex productivity was the major contributor to the overall deterioration in total factor productivity.⁵

This view that SAPN's productivity has fallen significantly in recent times is supported by the BIS Oxford Economics report for SAPN of wage forecasts to 2024/25.⁶ Figure 10 of the BIS Oxford Economics report shows the strong decline in productivity in the utilities sector over the period from 2000 to 2018, with productivity forecast to flatline in the period to 2025.⁷

Considering SAPN opex is forecast to increase significantly in 2018-19 on 2017-18 levels and is forecast to increase again in 2019-20,⁸ while other networks are forecasting falls in opex, this may well presage a significant fall in SAPN's opex productivity performance compared to its cohort of distribution networks by the end of the 2015-2020 regulatory period.

Examining SAPN's operating costs over time, it can be seen that there has been a steep rise in operating expenditure since 2005-06, with operating expenditure almost doubling over that time from around \$150 million per year to almost \$300 million per year.⁹

Concerningly, at the same time as SAPN's relative opex efficiency is falling, and other networks are cutting opex, SAPN is seeking a major increase in opex in the 2020-25 regulatory period, with the forecast opex in its regulatory proposal for the 2020-25 period rising by:

- 17.3 per cent compared to 2015-20; and
- \$170.0 million or 11.0 per cent over its base year (2018-19) opex.¹⁰

By contrast, Energex in south-east Queensland is forecasting about a \$100 million reduction in opex in the 2020-25 period compared to 2015-20.¹¹ Ergon in rural and remote Queensland is forecasting about a \$200 million reduction in opex in the 2020-25 period compared to 2015-20.¹²

Other networks for their 2019-24 regulatory periods are forecasting or have been awarded opex changes of:

- minus 21 per cent for Power and Water Corporation;
- minus 11.8 per cent for Ausgrid;
- minus 6.6 per cent for Essential;
- minus 2.2 per cent for Endeavour;
- plus 3.9 per cent for Evoenergy; and
- percentage change unstated but a significant rise for TasNetworks.¹³

⁴ AER 2018, p. vi.

⁵ AER 2018, p. 10.

⁶ SAPN 2019, *2020-25 Regulatory Proposal: Supporting document 6.6: BIS Oxford Economics Utilities Construction Wage Forecasts to 2024-25*, p. 36, figure 10.

⁷ SAPN 2019, *2020-25 Regulatory Proposal: Supporting document 6.6: BIS Oxford Economics Utilities Construction Wage Forecasts to 2024-25*, p. 36, figure 10.

⁸ AER 2019a, *Issues Paper: SA electricity distribution determination – SA Power Networks 2020 to 2025*, March, p. 27, figure 8.

⁹ AER 2019a, p. 27.

¹⁰ AER 2019a, pp. 26-27

¹¹ Energy Queensland 2019, *An Overview: Our Regulatory Proposal 2020-25*, January, pp. 34 and 42. Opex drops from a forecast \$1,899 million in 2015-20 to \$1,806 million requested in the regulatory proposal for 2020-25.

¹² Energy Queensland 2019, pp. 45 and 52. Opex drops from \$2,027 million in 2015-20 to \$1,835 million in 2020-25.

¹³ Refer to AER, fact sheets for various networks.

This sets the scene for SAPN's opex and total productivity performance to decline significantly in both absolute and relative terms compared to its cohort.

While SAPN has pointed to weather effects contributing to the 6 per cent decline in its opex performance in 2016, these same factors do not seem to have been at play in 2017 (at least relative to other networks). The once-off factors in 2016 do not explain the continuing decline in SAPN opex productivity performance. Additionally, given the improvement by other networks, the decline in SAPN's opex productivity performance cannot easily be ascribed to general economic or industry-related factors affecting electricity networks in view of the improved performance of many of SAPN's peers.

One area where SAPN is significantly outperforming its peers in opex productivity performance is average maintenance opex spend per circuit km against customer density.¹⁴ However, this metric bears close scrutiny to ensure that it is sustainable over time and is not an area where SAPN will have to play catch-up later on.

There do not appear to be other factors that justify the relative deterioration in opex efficiency. The AER benchmarking report for the 2006-2017 period identifies that some of the key operating environment factors (OEFs) that can elevate operating costs for particular networks. None of these OEFs apply to SAPN (with the possible exception of elevated vegetation management costs), meaning that SAPN should have a natural comparative advantage in operating productivity compared to networks that face costs associated with the other identified OEFs, which are operating sub-transmission assets, vegetation management, jurisdictional taxes and levies, cyclones, backyard reticulation, and termites.¹⁵ The AER report found that these factors can each add 1 to 5 per cent to operating costs compared to networks not affected by these factors.¹⁶ Significantly, these factors mainly apply to networks that are rated below SAPN in terms of operating efficiency (networks in Queensland, NSW, the ACT, and Tasmania), and particularly apply to Queensland and NSW networks.

It would be worthwhile for the AER to forecast SAPN's operating expenditure productivity performance based on its proposed opex compared with the opex that has been set for other networks for 2019-24 or proposed by the Queensland networks for 2020-25. This would show if SAPN was at or near the frontier of opex productivity performance.

Other issues include:

- *The choice of 2018-19 as the base year and whether it represents efficient opex.* Selecting the most recent year with reasonable data as the base year seems sensible so choosing 2018-19 as the base year is seen as fair. However, the key issue is whether this base year represents an efficient base for projecting operating expenditure going forwards. As discussed above, the 2018-19 base year is a significant rise on earlier years and is well above SAPN's historical average. It represents a clear worsening in SAPN's operating expenditure performance compared to other networks. While SAPN has historically been among the more efficient networks, this may not be true judged on the high level of opex in the 2018-19 year and given the significant improvements in the opex performance by other networks. Thus, a question mark hangs over whether the 2018-19 year represents an efficient base.
- *Whether the 2015-2020 opex costs are comparable given it is unclear if they include debt raising costs (while the opex costs for 2010-15 and 2020-25 do).*¹⁷ SAPN needs to clarify if debt raising costs

¹⁴ See AER 2018, p. 40.

¹⁵ AER 2018, p. 24.

¹⁶ AER 2018, pp. 23-29.

¹⁷ AER 2019a, p. 27, footnote 41.

have been included in opex in 2015-20 for comparison purposes (as they typically are and should be).

- *Treating cable and conductor minor repair as opex rather than capex.* In the current regulatory period this is treated as capex.¹⁸ Treating it as opex would add about \$14 million per year to opex, for a total addition to opex of \$68.2 million.¹⁹ Generally it would seem preferable to treat repair of the network consistently and as capex. SAPN has argued that the change from treating this category as capex to opex addresses potential intergenerational inequities since the expenditure benefits current rather than future customers. SAPN states that the change in treatment is revenue-neutral given an equivalent off-setting in capex and a reduction in the regulated asset base.²⁰ It is not clear that the nature of the activities in the cable and conductor minor repair category have changed in any particular way that make them more likely to be considered opex than capex. This could be contrasted with the situation where a network engages in an activity that is opex related in substitution for an activity that is capex-related, such as switching from stronger cross-arms that cost more to using cheaper cross-arms and doing more inspections. SACOSS considers that arguments about intergenerational equity can be misused and the AER would need to be convinced that the activity is truly opex-related, and the benefits of the expenditure accrue only to customers in the 2020-25 regulatory period to approve the change in treatment. Additionally, the AER would need to be convinced that some part of those repair activities was not *already covered* as part of existing opex-related activities in the 2018-19 base year. It may be some of those activities were already compensated in some form in the base year opex, meaning that adding them now to opex would provide double compensation.
- *Proposed productivity growth of zero compared to AER of minus 0.5 per cent.*²¹ The AER has generally been rigorous in imposing the 0.5 per cent productivity improvement in recent regulatory determinations for networks for the 2019-24 regulatory period. The AER stresses in its final decision paper on opex productivity growth that the 0.5 per cent improvements in opex should be achievable by networks operating at the frontier of efficiency,²² meaning that to the extent that SAPN is operating below this level then it should be able to achieve at least 0.5 per cent annual efficiency improvements. The AER drew on a wide range of data sources to be confident that productivity gains of 0.5 per cent were achievable, including partial indicators, time trends, labour productivity forecasts by Deloitte, and BIS Oxford, and CEPA, and work by the Productivity Commission.²³ It is not clear that SAPN is operating in different conditions to other networks which would mean that the 0.5 per cent productivity improvement was unattainable. In reviewing this, the AER should also consider how this measure might be applied given the impact of SAPN's proposed opex/capex trade off for cable and conductor minor repairs (cited above).
- *Overall, whether conditions are favourable for opex improvements.* Generally, there is weak pressure on the price of inputs. The AER may well be able to identify technological improvements that could be expected to underpin improvements in opex, for example better IT management systems, and better geospatial systems. Consumers are yet to see in either 2015-20 or in the 2021-25 period the efficiency dividend for the extensive investment in CIT systems, cloud transitioning etc.
- *The credibility of proposed increases in key inputs as a factor in the rise in proposed opex in the 2020-25 regulatory period.* It is observed that wage growth is subdued and other networks facing similar economic conditions are forecast significant real falls in opex.

¹⁸ AER 2019a, p. 28,

¹⁹ AER 2019a, p. 28, table 5, and p. 29.

²⁰ SAPN 2019, *2020-25 Regulatory Proposal*, Appendix 6 – operating expenditure, pp. 26-27.

²¹ AER 2019b, *Final Decision – Forecasting productivity growth for electricity distributors*, March. Also, AER 2019a, p. 28.

²² AER 2019b, p. 8.

²³ AER 2019b, pp. 9-11.

Capital expenditure sharing scheme

The capital expenditure sharing scheme (CESS) is designed to provide incentives for networks to reduce costs and/or increase efficiency in undertaking capital expenditure.²⁴ Under the guideline, the AER assumes that the capital expenditure for a given regulatory period represents efficient expenditure, such that if a network spends less it is entitled to a portion of the saving.²⁵ The AER adjusts for capital included in a given regulatory period that is deferred to a later regulatory period.²⁶ This is to avoid the network rolling over capital expenditure from one period to the next and earning a CESS reward on the underspend in the first regulatory period.

The AER applied version 1 of the CESS (the 2013 Guideline) to SAPN for capex during the 2015-20 regulatory period.²⁷

SAPN is seeking \$69.7 million under the CESS for savings in capex during the 2015-20 regulatory period.

SAPN note in their regulatory proposal for 2020-25 that:²⁸

We have achieved an underspend as compared to our capex allowances in the 2015-20 RCP primarily due to:

- *lower augmentation and customer driven capex as a result of lower than forecast demand; and*
- *prudent delays in replacing network assets as a result of developing and implementing more efficient approaches to network asset management.*

Under the CESS, the networks retain only 30 per cent of the NPV of the capital underspends. In its CESS workbook (RIN 6 Workbook 6 – CESS model) SAPN has forecast that it will achieve a capex underspend on capex allowed in the 2015-2020 regulatory period of \$282.71 million, an \$341.63 million in net present value terms.²⁹ As the allowed capex for the 2015-20 period was \$1,845.8 million,³⁰ the capital expenditure saving on what the AER saw as an efficient level of capex in 2015-20 is between 15 to 18 per cent.³¹ This level of saving on what the AER saw in 2015 as an efficient level of capex is extraordinarily high, suggesting either that the allowance in 2015 was excessive, that some of the savings may be a windfall due to changes in circumstances in the 2015-2020 period, or represents postponed spending.

SACOSS argues that the CESS should primarily be focussed on rewarding management skill in executing capital spending programs at below budget.

Assessing SAPN's reasons for the capex savings in greater depth, SAPN reports that the savings resulted in part from:

- "actual customer demand has been lower than forecast, which allowed prudent deferral of a number of augmentation ... projects and also resulted in fewer than forecast customer connections"
- Significant storm events in the 2016/17 regulatory year necessitated a diversion of resources to repairing and reinstating the network, and away from implementing our capital program in the 2015-20 RCP. SAPN also reported diversion of capex and opex to efforts to protect the network from bushfire.³²

²⁴ AER 2013, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November, p. 6.

²⁵ AER 2013, p. 8.

²⁶ AER 2013, p. 8 and pp. 11-12.

²⁷ AER 2015, *Final Decision: SA Power Networks determination 2015-16 to 2019-20 Overview*, October, p. 37.

²⁸ SAPN 2019, *2020-25 Regulatory Proposal: Attachment 9 Capital expenditure sharing scheme*, January, p. 6.

²⁹ See tab Calc CESS Revenue Increments, line 12, Underspend, and line 31, Total underspend (NPV).

³⁰ AER 2015, *Final Decision SA Power Networks Determination 2015-16 to 2019-20 Overview*, 2015-20, p. 27.

³¹ 282.713/1845.8 and 341.63/1845.8, which may ignore any NPV adjustments that might have to be made to the original \$1845.8 capex allowance.

³² SAPN 2019, Attachment 9, p. 8.

The capex savings due to the lower than forecast customer demand do not demonstrate the exercise of management skill in reducing capital expenditure but rather represent a windfall from lower than forecast demand meaning a requirement to spend less on the network. The CESS should reward management skill and effort in finding ways to spend less capex than historically forecast for an activity whereas in this case the savings stemmed from lower than forecast demand. Essentially, awarding a CESS would be rewarding SAPN twice for mis-forecasting, once in the original capital allowance which they have been able to access for the five year period from 2015-20, and then a second time with retention of 30 per cent of the underspend resulting from the mis-forecasting. This is not consistent with the concept of a CESS which rewards management skill in finding savings in delivery of capital projects.

SAPN has also suggested that an additional reason for the spending below the allowance arose from their decision to significantly reduce capex investment following the AER's draft decision on capex and rate of return.³³ This was particularly relevant to the 2015-16 regulatory year where the total underspend (excluding customer connections and asset disposals) was \$143.7m (\$2014-15), or approximately 39 per cent of the allowed capex. SACOSS is concerned that this total underspend does not represent a "prudent" deferral of capex, in the sense that this capex needed to be spent to provide customer services. Rather it appears to represent a management decision to restrict actual capital investment in response to **the AER's draft** decision – a management decision that was not represented in SAPN's revised proposal (see previous chart). We therefore seek further investigation by the AER regarding the reasons for SAPN's capex underspend in that year, particularly as the 2015-16 year has a significant influence on the total CESS payment that SAPN proposes to recover in its 2020-25 proposal.³⁴

It is interesting to note that while SAPN reports that customer demand and customer connection capex was below forecast, it is seeking a 20 per cent increase in the 2020-25 regulatory control period on the 2015-20 budget for customer connections.³⁵ This would suggest that significant customer connection capex had been deferred from 2015-20 to 2020-25, perhaps due to delays in major urban expansions and major customer connections. Nevertheless, SACOSS observes that the net population growth rate for South Australia in 2017-18 was a reasonably healthy 0.7 per cent per annum with the main source of growth being net overseas migration.³⁶ For this reason, we remain of the view that SAPN's 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 SAPN's proposed Connection Policy (2020-21 to 2024-25) and the AEMC's metering contestability rule changes. Customer connections capex is not a component of the CESS analysis, and only actual connections enter the RAB (net of capital contributions) at the end of the regulatory period. Nevertheless, SAPN has the benefit of any excess capex allowance (including return on and return of capital) within that particular regulatory period.

The significant storm events and bushfire-proofing of the network diverted resources from the capex program. Again, this simply means that SAPN did not execute the capex program proposed in 2015-20, rather than it was able through management skill to deliver it under budget. The resulting underspend is likely to result in some of the same capital spending items being proposed for the 2020-25 regulatory control period. The AER's 2013 CESS Guideline is clear that deferred capex should result in an adjustment **such that**

³³ AER 2019a, pp. 26-27

³⁴ The 2015-16 capex underspend accounts for some 55 per cent of the total value of the 5-year capex underspend in NPV terms (i.e. \$186.96 million out of a total of \$341.63 million) – see SAPN, RIN Workbook 6 – CESS Model, line 20 NPV underspend.

³⁵ AER 2019a, p. 25.

³⁶ See for instance, SA Government Population projections and demographics. The longer term average population growth 2011 to 2016 was 0.9% pa. See:

https://www.saplanningportal.sa.gov.au/data_and_research/population_projections_and_demographics

the network is not rewarded for capex that is deferred and then re-proposed, except to the extent that the deferral generates a time-saving in money.³⁷

SAPN argues that the underspend is not material and therefore the CESS should not be adjusted due to what would otherwise be seen as a deferral.³⁸ However, given that the CESS underspend amounts to between 15 and 18 per cent of the capital budget awarded for the period, it should certainly qualify as material.

SACOSS notes that networks in other jurisdictions have not claimed the CESS, including Energex and Ergon. For example, Energex has identified that for the 2020-25 regulatory period it is eligible for \$21.39 million per year under the CESS, or \$106.97 million in total. Energex is not proposing to claim this amount.³⁹ Ergon is proposing not to claim CESS of \$39.33 million.⁴⁰

Overall, there is a concern that the AER may historically have awarded more capex than is necessary or efficient, based on the greater information available to the network and its resources and ability to argue for high levels of capex, and high forecasts for customer demand. This concern is bolstered by the fact that while SAPN claims to have been diverted substantial resources from its capex program due to a range of disasters and bushfire-proofing initiatives, and significantly underspent capex (by around 12.6 per cent), its service quality performance was well in excess of the targets set by the AER. The risk of setting capex allowances higher than necessary for efficient service provision should be borne in mind by the AER in setting capex, and in considering whether to find an approach for adjusting capex if related forecasts of demand or customer connections are not achieved. For example, the AER could award an amount of capex per customer connection such that the overall capex for new connections was based on the actual number of connections rather than on a five year forecast ahead of time.

The AER should also consider that its forecast capex allowance for 2015-20 was some 10.9 per cent below SAPN's revised regulatory proposal for 2015-20, which in turn was well below SAPN's initial proposal, as illustrated in chart CCC below.⁴¹

³⁷ Refer AER 2013, p. 8 and pp. 11-12

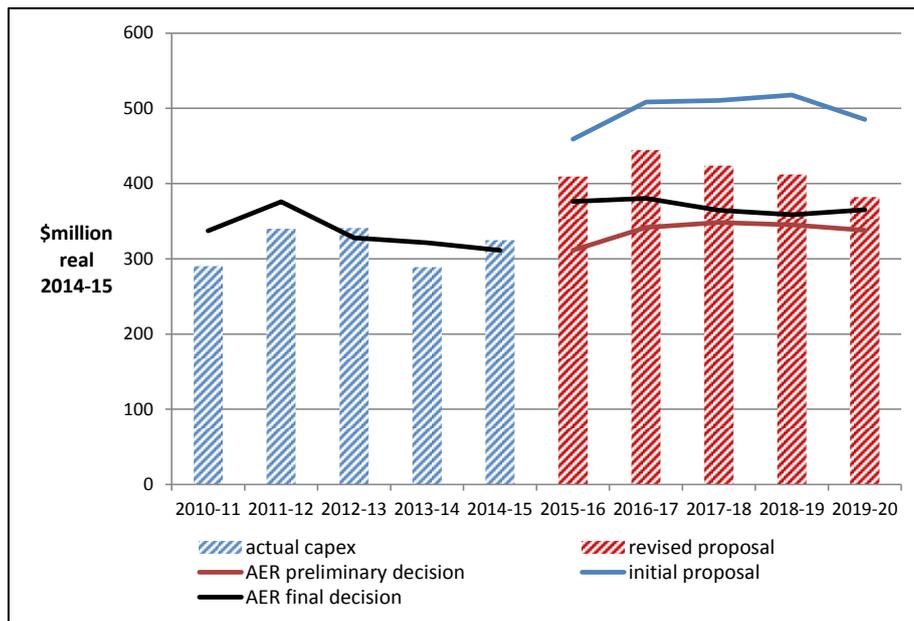
³⁸ SAPN 2013, Attachment 9, p. 9.

³⁹ Energy Queensland 2019, p. 41.

⁴⁰ Energy Queensland 2019, p. 51.

⁴¹ AER, *Fact Sheet, Final decision SA Power Networks Distribution Determination*, October 2015, p. 2.

Chart CCC: AER final decision for 2015-20 compared to SAPN proposal (\$m, 2014-15)



In summary, SAPN has spent significantly less capex in 2015-20 than the AER’s allowed capex which in turn was well below SAPN’s revised proposal for 2015-20. SAPN has therefore, a history of significantly over-forecasting its capex requirements relative to its ability to deliver on the proposed capital investments. While SACOSS considers SAPN has followed a more stringent process in the current forecast, consumers have the expectation that the AER will critically evaluate SAPN’s capex forecast and their CESS claim based on the current underspend of capex.

Network of the future

SAPN has presented a case for spending on the network to prepare it for increasing penetration of solar and battery generation. SAPN argues that feeders have a finite hosting capacity based on their ability to “accommodate the connection of embedded generators like solar and batteries before technical issues arise”. SAPN argues that significant flows from solar panels into feeders, especially at times when demand on those feeders is low, can cause voltage issues. Batteries could cause similar voltage fluctuations if they all charge or discharge at the same time.^{42 43} SAPN is concerned that more solar and battery connections will lead to more feeders reaching their hosting capacity, causing significant voltage issues that can damage connected appliances and disrupt supply.

SAPN proposes three initiatives at a cost of \$31.8 million to respond to this challenge:⁴⁴

- Spending on improved visibility of what is happening in the low voltage network;
- Establishing a DER register and supporting processes so SAPN can understand where and how much DER is installed on its network; and
- Establishing systems to communicate with small customer systems and aggregators.

⁴² Presumably simultaneous battery charging or discharging would be in response to pricing incentives or programming issues as it does not seem likely that batteries would otherwise start discharging or charging at the same time given households would have diverse electricity demand and battery storage levels and therefore different needs to charge or discharge batteries.

⁴³ SAPN 2019, *2020-25 Regulatory Proposal – Overview*, p. 29.

⁴⁴ SAPN 2019, *2020-25 Regulatory Proposal – Overview*, p. 31.

This spending is further detailed as ‘low voltage management’ and ‘Strategic LV management’ under Strategic capex in Attachment 5 of SAPN’s regulatory proposal.⁴⁵

The \$31.8 million would be spent to:⁴⁶

- *“improve visibility of the LV network through targeted mid-line and end-line monitoring, primarily through the procurement of data from smart meter providers and other third parties;*
- *develop an LV network model to understand the ‘hosting capacity’ of our network⁴⁶;*
- *put in place a register of DER; and*
- *implement open interfaces (eg Application Programming Interfaces, (APIs) to publish dynamic export limits to customers and DER aggregators.”*

However, SAPN has proposed a number of other capital expenditure initiatives to manage future network flows and voltage fluctuation issues.

First, SAPN has proposed regulatory compliance spending under the augex category of \$101.2 million for programs “including QoS, LV monitoring and voltage regulation (transformer tap changer replacement) and other minor programs”.⁴⁷ This expenditure is to maintain voltage supply within the range of the Australian standard, to manage the “continuing uptake of residential DER, particularly solar generation”.⁴⁸ This regulatory compliance expenditure seems to be squarely in the same area as the \$31.8 million strategic capex spending on managing the capacity of feeders to host more DER.

Second, SAPN has proposed two contingent projects at a total of \$79.2 million:⁴⁹

- Redesign and rebuilding of the existing under frequency load shedding scheme, at a cost of \$78.7 million. This would enable SAPN when it is shedding load to protect the grid to select and disconnect only those feeders that in net draw power from the grid;⁵⁰ and
- Establishing capability to shed DER, at a cost of \$0.5 million.

There seems to be considerable overlap between these capex programs.

SACOSS considers that SAPN could be more transparent about how much it is spending on preparing the network for greater solar and battery penetration and how the initiatives interrelate with each other. This would assist the regulator and third parties to judge if the overall package of spending is reasonable and if the different elements of the package integrate well with each other. It would also assist in determining whether a regulatory investment test (RIT) threshold has been reached.

Additionally, SAPN should be clearer about the comparison of its proposed spending to manage voltage and voltage quality of supply with other programs that could soak up demand at relatively low cost or manage voltage, such as:

⁴⁵ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 73 and pp. 75-76.

⁴⁶ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 76.

⁴⁷ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 63.

⁴⁸ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, pp. 64-65

⁴⁹ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, pp. 113 - 117.

⁵⁰ If the SA grid was suddenly disconnected from generation in other States, there would be a need to act very quickly to disconnect load in order to protect the network from major collapse. Currently, the under frequency load shedding scheme provides for disconnection of feeders to reduce load in these circumstances. However, where some feeders are net suppliers of power due to solar generation, it is desirable for them to continue to be connected as disconnecting them would increase the problem of excessive load relative to generation. SAPN is proposing a system to quickly identify feeders that are net suppliers of power to enable them to stay connected under an under frequency load shedding event.

- Using relays to switch on and off hot water load;
- Substation voltage control,

which SAPN only references in passing in the Overview,⁵¹ and does not mention again in the Capital expenditure attachment. Other networks such as Energy Queensland use remote switching of hot water to reduce and increase demand quickly at low cost. SAPN notes that substation voltage control has been shown to work well in Victoria but would require greater visibility of the LV network. It may be that the \$31.8 million strategic capex proposed to be spent on improving LV network visibility would provide this capacity, meaning then that rather than the \$101.2 spent on regulatory compliance or quality of supply issues, it could more efficiently spend this money in the area of substation voltage control.

IT expenditure

In the 2015-20 regulatory control period, SAPN was allocated \$285.7 million for IT expenditure but spent \$313.4 million.⁵² SAPN also noted that in the 2015-20 regulatory control period it was funded for but had not completed the GIS and CRM and billing system replacements. It estimated completion of these two programs at \$17.8 million and \$11.7 million respectively in the 2020-25 regulatory control period.⁵³ If these two programs were added back into the \$313.4 million expenditure for 2015-20, the actual spending would have been \$342.9 million or 20 per cent over budget. SAPN noted some unanticipated IT expenditure including metering contestability (\$22.2 million), outage response (\$10.0 million), field scheduling (\$17.0 million), cyber security uplift (\$3.9 million), and other (\$4.2million). The AER will need to carefully consider the IT over-expenditure as part of its assessment of any CESS amounts due to SAPN.

In the 2020-25 regulatory control period, SAPN have proposed \$284.6 million for information and communications technology (IT capex).⁵⁴

There is not much detail provided to justify the IT expenditure in the text in Attachment 5, with only pages 94 to 102 covering expenditure in the 2015-20 and 2020-25 regulatory control periods to justify the proposed 2020-25 expenditure of \$285.7 million. SAPN has referred to supporting documents 5.32, 5.33, and 5.34 (IT investment plan, External related party transactions report, and IT asset management) and specific business cases available on request.⁵⁵

It is noted SAPN IT expenditure does trend down from year 3 of the 2020-25 regulatory control period,⁵⁶ and has “one of the lowest IT operating costs per customer” according to a KPMG IT benchmarking report. This benchmarking comparison could be extended through the period of the 2020-25 regulatory control period to assess if it continues to remain true against other networks.

By far the majority of the \$284.6 million in proposed expenditure is on maintenance and upgrading of business-as-usual systems. Around 72.5 per cent of the capex (\$206.5 million) is concerned with maintaining current levels of service and managing IT risk through replacement and updates to existing IT applications and infrastructure. This IT expenditure generally is not expected to yield significant savings or efficiencies, with only \$23.2 million of savings forecast to be realised during 2020-25 and \$91.9 million of savings forecast for the longer period of 2020-30.⁵⁷

⁵¹ SAPN 2019, *2020-25 Regulatory Proposal – Overview*, p. 31.

⁵² SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – Capital Expenditure*, p. 96.

⁵³ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – Capital Expenditure*, p. 96.

⁵⁴ SAPN 2019, *2020-25 Regulatory Proposal: Capital Expenditure - Attachment 5*, p.99, table 5-28.

⁵⁵ SAPN 2019, *2020-25 Regulatory Proposal: Capital Expenditure - Attachment 5*, p.94, and 102.

⁵⁶ SAPN 2019, *2020-25 Regulatory Proposal: Capital Expenditure - Attachment 5*, p.98, figure 5-27, and p. 94.

⁵⁷ SAPN 2019, *2020-25 Regulatory Proposal: Capital Expenditure - Attachment 5*, p.99, table 5-41 and figure 5-28.

SAPN argues that the expenditure is necessary as systems need upgrading or replacement, particularly as they reach end of support life.⁵⁸

In addition to the general IT expenditure, SAPN has a separate category of IT called network operation IT capex. SAPN states that network operational IT capex is required to enable continuous day to day operation and monitoring of our distribution and telecommunications network. In 2020-25 SAPN is seeking \$22.2 million for this category, compared with an allocation of \$30.1 million in the 2015-20.⁵⁹

As for the general IT category, SAPN notes that most of this IT is for replacement of business-as-usual systems as they reach the end of their support life. For example, SAPN notes that the Schneider Electric ADMS system installed in 2015 will need to be replaced commencing around 2020 as the current system becomes unsupported.⁶⁰

IT systems expenditure needs to be assessed through the lens of an understanding of when the IT systems are likely to become unsupported if this is to set the length of useful life of the system. If this is after 5 years, then effectively the systems have a 5 year life span which should be assessed to determine if the expenditure is justifiable. SAPN needs to ensure it has determined the length of IT support for systems prior to original purchase and taken steps to assure itself that the vendor is likely to stick around to provide support for this length of time. The IT business case needs to be assessed against the determined life of support, and the life of support should be reported transparently to the AER and public at the time of purchase of major systems.

SAPN is part of a major international company and should be able to use its bargaining power to obtain a discount on IT systems such as the SAP upgrade.

Labour costs

SAPN is proposing average labour price growth in real terms as shown in Table 1 below, which is drawn from the SAPN regulatory proposal.⁶¹

Table 1: SAPN 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%

It is important to stress that the labour growth rates are in real terms, meaning the growth in labour costs above inflation.

Three observations can be made:

- The labour rate forecasts presented by SAPN's consultant, BIS Oxford, are significantly higher than for the AER's consultant, Deloitte Access Economics. The reason for the discrepancy between the two sets of forecasts needs to 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; and

⁵⁸ SAPN 2019, *2020-25 Regulatory Proposal: Capital Expenditure - Attachment 5*, p. 101.

⁵⁹ SAPN 2019, *2020-25 Regulatory Proposal: Capital Expenditure - Attachment 5*, p. 103.

⁶⁰ SAPN 2019, *2020-25 Regulatory Proposal: Capital Expenditure - Attachment 5*, p. 105.

⁶¹ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 6 – Operating Expenditure*, p. 32, table 6-8.

- In the BIS Oxford forecasts, but not so much the Deloitte forecasts, wages are forecast to rise higher after the first year, 2020-21, and the reasons for this need to be evaluated, particularly in light of the fact that the forecast for 2020-21 are likely to be the most accurate given they are closer in time and more information is available.

The wage forecasts are made against a backdrop of weak wage growth. The BIS Oxford report notes:⁶²

- “Wages growth has slowed markedly over the past 5 years
- “The unemployment rate has been trending down in recent quarters, but it remains above the NAIRU ... of around 5 per cent
- “Australia’s underemployment rate¹ is now at historic highs
- “expect employment growth to weaken over the next two years
- “Aggregate wage growth has slowed significantly since December 2012 due to a collapse in wage increases awarded to the 47 per cent of non-managerial full-time workers who are on individual agreements (contracts) with their employers
- “The latest data suggests that we are at the bottom of the current wage cycle
- “Wage growth is then predicted to accelerate from 2020/21 as a broadening in economic growth and accelerating investment drives stronger economic and employment increases.
- “Longer-term, tight labour markets will emerge once again given the ageing population and become a chronic problem for non-tradeables inflation
- “With more people retiring, the supply of labour is expected to increase at a slower rate through the coming decade.

In this low wage growth scenario, significant wage growth above inflation is unlikely.

BIS supports the higher forecasts of wage growth for the utilities sector despite the weak general economy based on:⁶³

- *Strong capital works programs.* However, capital spending programs are abating both in SA and on the east coast of Australia. For example, while SAPN was awarded \$1,845.8 million in \$2015-16 for the 2015-2020 regulatory control period, it is only seeking \$1,745.8 in 2019-20 for the 2020-25 regulatory control period,⁶⁴ a substantial drop as the new investment wave in networks winds back. The weaker forward capex program should ease upward pressure on wages, particularly for specialist workers in the sector.
- *Powerful unions in the sector.*
- *Improvements in the economy after 2021.* While the economy may improve post 2021, this is more speculative than in the closer term.
- *High productivity in the sector.* However, BIS Oxford notes the decline in productivity in the sector since 2000, which undermines this reason.
- *Competition for workers from high-wage paying sectors such as mining.* However, the wage pressures from mining have abated somewhat with the reduced demand in the mining sector since the GFC and then the second rise in mining activity around 2011-12.

More importantly, the weak forecasts for labour productivity made by BIS Oxford noted above⁶⁵ do not seem have been fully factored into the forecasts of wage growth. Weak growth in productivity would not

⁶² SAPN 2019, *2020-25 Regulatory Proposal: Supporting document 6.6: BIS Oxford Economics Utilities Construction Wage Forecasts to 2024-25*, pp. 20-23.

⁶³ SAPN 2019, *2020-25 Regulatory Proposal: Supporting document 6.6: BIS Oxford Economics Utilities Construction Wage Forecasts to 2024-25*, p. 25, p. 29, p. 30.

⁶⁴ SAPN 2019, *2020-25 Regulatory Proposal: Overview*, p. 33

⁶⁵ SAPN 2019, *2020-25 Regulatory Proposal: Supporting document 6.6: BIS Oxford Economics Utilities Construction Wage Forecasts to 2024-25*, p. 36, figure 10.

tend to support significant real wage growth. BIS Oxford does not appear to have accounted fully for the fact that networks are unable to support real wage growth in an environment of fall or declining labour productivity.

SACOSS would argue that the Deloitte Access Economics forecasts are likely to be a more accurate forecast of likely wage growth and should be weighted accordingly.

Finally, SACOSS would argue that the higher wage growth forecast by BIS Oxford (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. It would be worthwhile for the AER to assess whether the upward trend forecast by BIS Oxford is more or less supportable than the relatively flatter trend forecast by Deloitte.

Network reliability

Reliability is an important customer-focussed outcome of network revenue allowances.

Reliability is principally delivered by capital expenditure, particularly augmentation expenditure and reliability expenditure.

An assessment of SAPN's existing performance and customer levels of satisfaction with the trade-off between existing prices and existing levels of reliability should indicate whether there is justification in lifting capex in these areas to improve reliability.

The AER Issues Paper notes that "the actual performance outcome of the current regulatory period has been much better than the performance targets".⁶⁶

SAPN's performance during the 2015-20 regulatory control period is set out in Attachment 10 of its 2020—25 regulatory proposal, which deals with performance against the Service Target Performance Incentive Scheme (STPIS).⁶⁷ SAPN performed well under the SAIDI and SAIFI targets set by the STPIS in each of the years of the 2015-20 regulatory control period.⁶⁸ SAPN generally performed under the targets for different regions, except in the CBD region in three of the five years.⁶⁹

The SA jurisdictional regulator, ESCOSA, reviewed the network reliability performance of SAPN for the purpose of setting reliability standards for the 2020-25 regulatory control period.⁷⁰ The ESCOSA report found that:

- Unplanned SAIDI and SAIFI performance was reasonably consistent, while noting some areas were adversely affected in 2016-17 by severe weather or equipment failure.⁷¹
- Over the period 2013 to 2017, SAPN performed well against other networks with comparable customer densities (Powercor, TasNetworks, AusNet) in terms of SAIDI and SAIFI.⁷²

It decided that:⁷³

⁶⁶ AER 2019a, pp. 32 -33.

⁶⁷ The STPIS is set by the AER to provide networks with an incentive to maintain and improve service performance: AER 2019a, p. 32.

⁶⁸ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 10 – STPIS*, p. 10, figure 10-1 and 10-2.

⁶⁹ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 10 – STPIS*, p. 11- 14.

⁷⁰ See the ESCOSA website at <https://www.escosa.sa.gov.au/projects-and-publications/projects/electricity/sa-power-networks-2020-reliability-standards-review>.

⁷¹ ESCOSA 2019, *SA Power Networks reliability standards review, Final Decision*, January, p. 6.

⁷² ESCOSA 2019, *SA Power Networks reliability standards review, Final Decision*, January, pp. 8-9.

⁷³ See <https://www.escosa.sa.gov.au/projects-and-publications/projects/electricity/sa-power-networks-2020-reliability-standards-review>.

Network reliability standards will be set to require SA Power Networks to maintain reliability at current levels, rather than improve or reduce performance.

This approach is supported by results of a customer survey showing customers are satisfied with reliability outcomes, and have limited willingness to pay for reliability improvements. Results of economic assessments show no clear economic benefit in setting targets to improve performance.

ESCOSA noted that SAPN's submission to the draft decision supported the decision to maintain reliability performance at current levels and that this reflected customer satisfaction with current reliability levels.⁷⁴ It found that 73 per cent of customers were satisfied or very satisfied with existing reliability and a further 15 per cent were neither satisfied nor dissatisfied.⁷⁵

ESCOSA reported that Business SA "supports the approach of understanding willingness to pay for reliability" and "asks that the Commission be mindful of recent electricity price rises in determining if and how to increase any of [SAPN's] reliability standards". Business SA went on to support ten per cent reliability improvements for low reliability feeder customers and noted its concern that 73 per cent of customers are satisfied with reliability, which was down from 88 per cent satisfied in the 2013 survey.⁷⁶

ESCOSA reviewed the potential benefits of improving the performance of low reliability feeders. It found that only one reliability improvement scenario had net benefits – an average 10 per cent reduction in interruption frequency. It noted that the benefits accrued to a minority of customers, would involve a level of subsidy from other customers, and these customer may already have contingency plans to cope with the reliability outcomes including on-site generation. ESCOSA considered off-grid and emerging technologies may be the lowest cost way of improving reliability for these customers.⁷⁷ Breaking customers into six groups (metro, non-metro, and low reliability feeder residential and business customers), ESCOSA's survey found that no more than 21 per cent in any group was dissatisfied or very dissatisfied (low reliability feeder residential customers).⁷⁸ ESCOSA considered that dissatisfaction levels in the survey results could have been increased by recent major weather-related outages during the 18 months prior to the survey being undertaken.

Perhaps surprisingly in view of ESCOSA's final decision, overall customer feedback, and its own submission to the ESCOSA review process, SAPN is proposing significant capex on reliability improvement. Specifically, SAPN is proposing:

- \$64.9 million on reliability augex.⁷⁹ This is augex aimed at improving reliability through new assets or upgrades rather than like-for-like replacements or refurbishments of existing assets. The proposed reliability augex is a significant increase (22 per cent) on allowed reliability augex in the 2015-20 regulatory control period of \$53.2 million (which was 9 per cent above the AER allowance).⁸⁰ The expenditure will be aimed at maintaining underlying reliability, hardening the network against major events, and improving the performance of low reliability feeders.⁸¹
- \$154.6 million on capacity augex.⁸² Many of these capacity augex projects have a reliability aspect. SAPN notes that whilst "the majority of projects included in the capacity driven augex forecast for

⁷⁴ ESCOSA 2019, *SA Power Networks reliability standards review, Final Decision*, January, pp. 10-11.

⁷⁵ ESCOSA 2019, *SA Power Networks reliability standards review, Final Decision*, January, pp. 13- 14.

⁷⁶ ESCOSA 2019, *SA Power Networks reliability standards review, Final Decision*, January, p. 11.

⁷⁷ ESCOSA 2019, *SA Power Networks reliability standards review, Final Decision*, January, p. 13.

⁷⁸ ESCOSA 2019, *SA Power Networks reliability standards review, Final Decision*, January, p. 14.

⁷⁹ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 69.

⁸⁰ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 68.

⁸¹ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 69.

⁸² SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 61.

the 2020-25 RCP are driven by capacity constraints, many are driven by constraints unrelated to future load growth for the asset(s) concerned”.⁸³

The reliability augex is mainly aimed at improving reliability in more remote and less reliable parts of the network. SAPN argues that it received significant customer feedback supporting the improved reliability including from business and general groups.⁸⁴ However, it has quoted little specific feedback from customers to this effect. By contrast, as noted above, the ESCOSA review found customers did not want to pay more for improved reliability.

Many of the capacity augex projects by dollar value also aim to improve reliability. SAPN identified in their 2020-25 regulatory proposal that “[t]he drivers of the projects contained within our DSPR can be classified as either independent or dependent of the future load growth”.⁸⁵ The projects include projects related to regulatory compliance and security driven augmentations, with \$101.2 million (or 65 per cent) of the proposed capacity augex budget allocated to regulatory compliance, or “programs necessary to maintain regulatory compliance. Including QoS, LV monitoring and voltage regulation ...”.⁸⁶ The programs are aimed at managing voltage excursions due to the increase in distributed energy resources, principally the increasing advent of behind-the-meter solar installations.⁸⁷ SAPN proposes to install power quality monitors on the LV network and rectify voltage regulation. Another 10 per cent or \$14.8 million of the proposed capacity augex budget is for security projects, which again are reliability-related in the sense that they are aimed at ‘minimising the duration of network outages or preventing cascade outages within the network’.⁸⁸

SACOSS is concerned at the high level of reliability-related capex in SAPN’s capex budget in light of:

- the strong view by ESCOSA that reliability levels should stay as they are;
- the superior performance of SAPN 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.

SACOSS strongly urges the AER to corral and assess all reliability-related capex in different parts of the proposed capex budget with a view to allocating capital sufficient to maintain existing levels of reliability in line with prevailing customer preferences.

Another point about the reliability projects presented is that it is not clear that they have been fully evaluated against alternatives. For example, the ‘regulatory compliance’ projects relate to address voltage variations and challenges that can arise from significant installation of solar panels at a residential level. It would be important to evaluate these projects against a do nothing option, against use of batteries for voltage response, emerging technologies, or the extent of any constraints on solar panel export. In Queensland, Energy Queensland was able to address to a significant extent and in the short to medium term the voltage impacts of solar panel installation by negotiating with the regulator a drop in voltage from 240 volts to 230 volts. It will be important to assess how creatively SAPN has been in applying a range of options to managing the voltage excursions.

⁸³ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 62.

⁸⁴ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, pp. 68-72.

⁸⁵ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 62.

⁸⁶ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 63.

⁸⁷ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 63.

⁸⁸ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 5 – capital expenditure*, January, p. 66.

Estimated allowance for taxation costs

Background

The AER calculates the taxation allowance in the overall revenue building block by its assessment of three components:

- the taxable income of the business
- the benchmark taxation rate (percentage) applied to the taxable income
- the value of imputation credits.

The net taxable income is derived by deducting from the regulated revenue path, the regulated return on capital applied to the tax asset base (TAB), the tax depreciation of the TAB and network operating costs. The TAB and tax depreciation schedules differ from the regulatory asset base (RAB) and the regulatory depreciation. For example:

- The RAB is indexed annually for CPI, the TAB is not indexed and over time this will drive a wedge between the value of the RAB and the value of the TAB.
- Tax depreciation reflects the size and components of the TAB and the requirements of corporate tax law.

Consumers have long been concerned that the tax allowance in the revenue building block overstated the actual tax paid by the non-government NSPs (or their owners). Consumers argued that the purpose of the regulatory process was to ensure that consumers paid only the efficient costs of supplying the services; it follows then that the taxation allowance in the regulatory building block analysis should only reflect the efficient revealed taxation costs for a non-government owned benchmark NSP.

The Australian Taxation Office (ATO) confirmed that there was in fact a discrepancy between the tax allowed and the actual taxation costs particularly for the non-government NSPs⁸⁹. In 2018, the Commonwealth Government requested the AER to conduct a review of the of the AER's approach to assessing the taxation cost allowance and provide a final report and recommendations by December 2018.⁹⁰ In parallel to this, the AER conducted a review of its rate of return guideline including an assessment of the value of imputation credits.

In December 2018, the AER published its final Rate of Return Instrument⁹¹ and its final report on the regulatory tax approach.⁹² The two reviews set out, inter alia, the following conclusions.

- **Taxable Income:** The current regulatory approach to the assessment of the tax allowance did not reflect the actual taxation practices of private sector NSPs and as a result, the assumed taxable income (and therefore, the taxable cost allowance) was generally overstated. The ATO and the AER identified a range of factors that explained the differences between its assessment of the NSP's

⁸⁹ ATO, *Note to the AER-Comparison of regulatory tax allowances and tax paid*, 10 April 2018. The AER states that the review was initiated by the publication of the ATO's note in April 2018. The ATO has provided further advice to the AER over the course of the AER's review..

⁹⁰ The Hon Josh Frydenberg, Minister for the Environment and Energy, *Letter to the AER re: tax allowances*, 3 May 2018.

⁹¹ AER 2018, *Rate of return instrument*, December. The Instrument replaced the 2013 Rate of Return Guideline from January 2019. The Instrument sets out mandatory values and approaches for NSPs to adopt in their regulatory proposals for the next 4 years including fixed values for key parameters such as the gearing ratio, equity beta, the market risk premium and the value of imputation credits.

⁹² AER, *Final Report, Review of regulatory tax approach*, December 2018. The AER also published a report by its expert advisors. See, PwC, *AER tax review 2018, Expert advice*, 26 October 2018.

taxable income and the actual taxable income as assessed by the ATO. Given timing and other constraints, the AER determined that they would limit the changes in their approach to two interrelated areas, and that these two changes would apply to all revenue decisions made from July 2019. These two areas were:

- *The calculation of the depreciation cost schedule for the TAB* – The AER decided to adopt the diminishing value (DV) method of tax depreciation for almost all future assets in the TAB,⁹³ in place of its current assumption of straight-line (SL) depreciation. This decision was based on the empirical evidence that the large majority of non-government businesses adopted the DV approach to calculating taxable income in their tax returns.
- *The immediate expensing of some categories of replacement capex (“refurbishment capex”)* – The AER noted that some non-government businesses adopted immediate expensing of a proportion of their replacement capex in their tax returns.⁹⁴ The AER, however, assumed all capex was depreciated over the economic life of the assets for both the RAB and the TAB. However, the AER also observed a very wide range of practices across NSPs. The AER’s advisor (PwC) advises the AER that there may be different views and interpretation of what constitutes a functional asset [the ATO’s test for expensing]. The AER tax review refers to PwC conclusion that:⁹⁵

...whether replacement assets are repairs, improvements to an existing asset or a separate new depreciating asset is a contentious area of law and the appropriate income tax treatment is situation and fact specific.

As a result, the AER’s review has not set an industry wide benchmark for the proportion of replacement capex that could qualify as “refurbishment” and which may be immediately expensed for taxation purposes⁹⁶. Rather, the AER has adopted what it calls an ‘actuals informed approach’, i.e. a hybrid approach that combines the AER’s assessment of the circumstances facing each individual network assessment and a sector wide benchmark. The AER states that:⁹⁷

This process can more thoroughly consider the particular circumstance of each network, including the ongoing nature of refurbishment capex, and individual capitalisation policies which may impact the applicability of the ‘actuals informed approach’. The specific interrelationships between opex and capex and the treatment of immediately deductible capex can be considered in greater detail in that process.

- **Benchmark tax rate:** The current regulatory approach adopts the legislated company tax rate of 30% irrespective of the actual tax rate applied to the taxable income of each NSP. However, the analyses by the ATO and the AER/PwC identified that there were a range of entity structures and ownership

⁹³ Noting that exception for a limited number of assets that must be depreciated using the SL approach in accordance with taxation law.

⁹⁴ The ATO allows immediate expensing of some assets, such as “refurbishment” assets. These assets would generally be included as part of a NSP’s replacement capex proposal and be included in the RAB and TAB. The ATO rulings on what counts as refurbishment, however, leave room for different interpretations by individual NSPs. In addition, NSPs differ in their practices with respect to their tax approach to refurbishment and replacement.

⁹⁵ AER December 2018, *Tax review 2018 – Final Report*, p. 61.

⁹⁶ Note that it is not mandatory for a business to expense assets classified as refurbishment, and a number of the NSPs do not adopt this practice. Others vary in the extent to which they classify replacements as refurbishment for the purposes of their taxation calculations.

⁹⁷ AER, *Tax Review 2018, Final Report*, December 2018, p. 66.

arrangements across NSPs that incur different legal taxation rates.⁹⁸ These tax rates ranged from 0% to 30%. Although the AER recognised this fact, it decided to retain the conservative assumption of a 30% rate for all NSPs irrespective of their actual tax rates.

- **Value of imputation credits:** Following an extensive review of the value of imputation credits as part of the rate of return guideline review, the AER amended the value of imputation credits from 0.4 to 0.585.⁹⁹

Overall, the AER's decision to change its approach to taxation (particularly with respect to the taxable income) has the effect of reducing the taxation allowance for NSPs in the building block revenue calculation. However, the impact of the AER's changed approach on individual NSPs will vary as a function of the current practices of the NSP and, in particular, the difference between the taxable income determined under the AER's revised approach and the NSP's actual assessment of its taxable income as submitted to the ATO.

It would appear that the changes to the AER's approach to more closely reflect the actual taxation practices of networks, will have a significant impact on SAPN compared to some other NSPs. In particular, the AER's changes to the treatment of immediately expensed capex is most relevant to SAPN as it has included a relatively large component of refurbishment capex in its overall replacement capex.

SAPN appears to have sought to address part of this issue by categorising some of its proposed capex expenditure to opex rather than treating it as replacement capex, thereby increasing its opex proposal by some \$68m. This represents some 41 per cent of the total real increase SAPN's proposed opex.

An important task for the AER, therefore, is to assess whether this capex/opex trade off is in the long-term interests of consumers. In particular, SAPN's capex/opex trade off proposal relates to what it calls "cable and conductor minor repairs". SACOSS looks to the AER to assess whether \$68m is the appropriate quantum, and whether these 'minor repairs' are appropriately regarded as maintenance expenditure (i.e. opex) or whether they should be classified as refurbishment or replacement.

These issues with SAPN's approach to the taxation allowance are discussed further below.

SAPN's proposed taxation allowance

In its proposal, SAPN correctly observed that at the time of submitting its draft proposal (January 2019), the AER had not finalised its approach to modelling the changes in its regulatory calculations of the tax allowance. The amendments to the AER's key regulatory models, (the PTRM and the RFM), were not available until April 2019 although the AER's intent was set out in its December report.

SAPN stated that the "placeholder" taxation allowance in its proposal was set to a value of \$1, with the expectation that the allowance would be reviewed following the finalisation of the PTRM and the RFM models. In coming to this placeholder proposal, SAPN argued that:¹⁰⁰

If SA Power Networks was to use the current PTRM model to determine the estimated cost of corporate income tax to be included in its Proposal, the resulting amount would be material and would create the impression that SAP Power Networks is seeking a tax allowance well in excess of the tax allowance that would be approved under the recommendations of the Final Tax Report. SA Power

⁹⁸ For example, the current legislated taxation rate for entities owned by for example superannuation bodies or stapled security structures, will have taxation rates less than 30%. Flow through structures also complicate the issue of determining a taxation rates

⁹⁹ See AER 2018, Rate of return instrument, December, para 27.

¹⁰⁰ SAPN 2019, 2020-25 Regulatory Proposal – Attachment 7 – Corporate income tax, , January, pp. 10-11.

Networks believes that adopting this approach (i.e. using the current PTRM) would create confusion and unnecessary debate prior to the finalisation of the revised PTRM later in the year.

We think that this notional value [\$1] will turn out to be very close to the estimate of corporate income tax which will eventually be determined and included in our Revised Regulatory Proposal following the finalisation and adoption of the new AER models and using the above rates and values [30% tax rate and 0.585 value for imputation credits].

To summarise, under our Proposal (in \$2020):

- *our taxation allowance for the 2020-25 RCP [regulatory control period] will fall as compared to our taxation allowance for the 2015-20 RCP by an estimated \$270 million;*
- *the proposed step change for cable and conductor minor repairs will increase opex for the 2020-25 RCP by \$68 million*
- *the net regulatory depreciation changes from accelerating shorter life assets are \$7 million; and*
- *the RAB as at the end of the 2020-25 RCP will be around \$83 million lower than it would otherwise have been if the above changes were not adopted in our Proposal.*

SAPN states that it estimates the net reduction in revenue for the 2020-25 RCP as a result of these changes is still “very significant”.¹⁰¹ It estimates that the reduction in its total allowed revenue arising from these changes is around \$209 million for the 2020-25 period compared to SAPN applying the previous approach to the assessment of taxation allowance for the 2020-25 period.¹⁰² SAPN’s proposed tax allowance of \$1 also means that SAPN’s proposed tax allowance is \$262m less than the taxation allowance in the previous period, representing a reduction of around 7% of total proposed revenue.¹⁰³

SACOSS is concerned that SAPN should provide a realistic estimate of their proposed taxation allowance as estimates that are either too high or low, will impact on consumers’ perception of the reasonableness of the overall proposal. For example, if SAPN underestimates the 2020-25 tax allowance in its proposal, then the proposed revenue and tariff changes will be too low and final price path is likely to exceed the proposed price path.

We are not in a position to quantify this risk for SAPN and, therefore, SACOSS looks forward to the AER’s assessment of the taxation allowance, including the impact of the changes to the depreciation schedule and changes to the approach to expensing some capex, in its Draft Determination and to SAPN’s revised proposal. However, we make the following observations:

- Given that the AER will be applying its DV approach only to new assets to new capex added to the TAB, SACOSS does not expect to see any significant impact of this change in the 2020-25 regulatory period. However, we note in this context the significant IT expenditure and given an assumed depreciation life of 5 years for IT, adopting the DV approach will increase the tax cost allowance in the early years of the regulatory period. In addition, it is important to clarify the distinction between IT investment that can be depreciated using the DV approach and IT investment subject to the

¹⁰¹ In a presentation to Macquarie Conference in May 2019, Spark Infrastructure (SKI) – who have 49% equity in SAPN, announced that the total impact on its revenue from SAPN of the AER’s changes to ‘refurbishment capex and capitalised direct overheads would be in the range of \$20m to \$25m per annum, which changes to DV depreciation will be in the order of \$2-\$4m. This indicates a total impact of some \$110-\$145m, consistent with the above assessments. See: *Sparkinfrastructure, “Delivering Future Energy”, Macquarie Conference, 2 May.*

<https://wcsecure.weblink.com.au/pdf/SKI/02101707.pdf>

¹⁰² SAPN 2019, *2020-25 Regulatory Proposal – Attachment 7 – Corporate income tax*, January, pp. 10-11.

¹⁰³ See for instance, AER March 2019, *Issues Paper*, Figure 3, p. 13.

requirement under taxation law to adopt the SL approach.¹⁰⁴ At this stage, it is not clear what assumptions SAPN has made, or what analysis the AER will adopt in its Draft Determination.

- The AER’s review noted the difficulty in deriving a benchmark figure for the proportion of replacement expenditure that could be categorised as “refurbishment” and therefore may be ‘immediately expensed’. As noted above, the AER therefore decided to adopt a hybrid approach using historical practices of the network, individual network characteristics and an industry benchmark – the AER calls this the “actuals informed approach”, the outcome of which will be determined as part of each regulatory determination process. However, the AER’s tax review does not clarify how this hybrid calculation will be undertaken in practice. For example, the AER’s Tax Review states:¹⁰⁵

When rolling forward the TAB for actual capex incurred, the actual (audited) amount of regulatory capex claimed as immediately expensed would need to be provided to ensure the actual capex entering the TAB does not include such capex. The actual amounts provided would inform the proportion of forecast capex to be treated as immediately deducted. This data will also be used to better inform our future assessment. As part of the reset process we will also review and consult on the reasonableness of using the past actual amounts expensed to inform the forecasts.

It is important that the AER’s Draft Decision makes clear how it has determined this proportion for SAPN, particularly as we understand that SAPN has been one of the NSPs that have adopted this approach in their actual taxation assessment.

- As noted previously, SAPN is proposing a capex/opex trade-off, namely an opex step change of some \$68 million, for “cable and conductor minor repairs”. SAPN previously included these activities in their capex proposal and therefore these costs were captured in both the RAB and the TAB. However, these capex investments were immediately expensed for the purposes of SAPN’s actual taxation assessment. SAPN suggests that this decision is in the long-term interests of consumers and provides the appropriate incentives for efficient expenditure.

The AER addressed this issue in its tax review. The AER concluded that NSPs are currently able to propose changes to their capitalisation policies as part of their regulatory proposals. The AER further states that:¹⁰⁶

We consider that such a change would be assessed as a ‘step change’ to opex, and the efficiency of this step change would be assessed as part of the regulatory determination process. An NSP proposing such a ‘step change’ would be required to justify that this change is efficient and in the long-term interests of consumers consistent with the NEO and NGO.

SACOSS expects the AER’s Draft Determination to clearly outline if, and to what extent, SAPN’s proposed capex/opex trade off is in the long-term interests of consumers.

¹⁰⁴ See section 40.72 of the ITAA 1997. This section identifies that that capital expenditures relating to intangible assets such as in-house software, buildings and equity raising costs, must be depreciated using the SL depreciation approach. SACOSS is not clear how this distinction has been assessed by SAPN in its proposal or how the AER might interpret the tax law requirements.

¹⁰⁵ AER December 2018, *Tax Review 2018 – Final Report*, p. 67.

¹⁰⁶ *Ibid*, p. 70.

In this context we note SAPN’s statement that their proposal represents “a balanced and proportional response” and that “future customers will not bear the costs of works undertaken for the benefit of today’s customers”.¹⁰⁷

SAPN has raised this issue of inter-generational equity in various contexts to justify changes in its approach, including the proposed capex/opex trade-off (discussed above) and, more generally, with respect to depreciation of certain assets (discussed below). SACOSS notes the assessment of intergeneration equity presented by the Consumer Challenge Panel (CCP) as part of its response during the tax review process. The CCP concluded that the question of intergenerational equity is best addressed through the relevant asset depreciation schedules rather than the taxation allowance. SACOSS agrees and also notes the AER’s conclusion that: “In our view this helps to mitigate any inter-generational equity issues”.¹⁰⁸

SACOSS’s preliminary assessment, therefore is that the changes to the AER’s PTRM and RFM address the issue of intergenerational equity and do so in a way that is preferable to adopting treating these refurbishment expenditures as opex. We welcome the AER’s perspective on this complex issue.

- SAPN makes a similar reference to intergenerational equity with respect to its assessment of the economic age of refurbished and other short-life substations and transformer assets. SAPN is proposing to create a new asset class, which it defines as:¹⁰⁹

‘Substations and transformers – short life’ – for refurbished and other short life substation assets and refurbished transformers with a standard asset life for regulatory purposes of 20 years.

SAPN then states:¹¹⁰

The economic life of refurbished and other short life substation assets and refurbished transformers will be much shorter than for new assets.

Again, applying the same economic lives that apply currently to new assets to refurbished and shorter life substation assets (45 years) and transformers (45 years/55 years) creates an inter-generational equity issue whereby future customers bear the costs of assets that they will not get the benefit of.

SACOSS understands that the AER has acknowledged the concerns of some NSPs, including SAPN, regarding the treatment of refurbished assets and associated changes to the regulatory asset life. The AER has concluded that:¹¹¹

The decision on whether to include new asset classes (and their approved lives) is considered at each regulatory determination, with regard to the information from the NSP on the type of capex that will be allocated to the asset class. We consider that reviewing the regulatory asset life of ‘refurbishment’ capex proposed by NSPs will go some way to addressing the major intergenerational equity and cash flow concerns raised in submissions to the discussion paper.

¹⁰⁷ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 7 – Corporate income tax*, January, p. 11.

¹⁰⁸ See, AER 2018, *Tax Review – Final Report*, December, p. 77.

¹⁰⁹ SAPN 2019, *2020-25 Regulatory Proposal – Attachment 4 –Regulatory depreciation*, January, p. 9.

¹¹⁰ Ibid,

¹¹¹ AER 2018, *Tax Review 2018 – Final Report*, December, p. 65.

SACOSS is not in a position to comment on whether SAPN's proposal to shorten the asset lives of refurbished and other short-lived assets is efficient or whether the treatment of these shortened lives within the calculation of the taxable income and the TAB is appropriate.

However, we do note that SAPN proposes to apply this approach of shortened asset lives to a number of asset categories in addition to the ones discussed above,¹¹² and that this proposal will potentially have a negative impact on prices facing current consumers. For instance, shortened asset lives are likely be one of several factors contributing to the significant increase in regulatory depreciation (and tax depreciation) in SAPN's 2020-25 proposal, compared to the estimated costs of depreciation in the current period despite SAPN's claim of overall aging of its assets.¹¹³

We are pleased therefore to note the AER's commitment (as set out above) to examine this issue of shortened asset lives on a case-by-case basis and we expect the AER to provide additional clarity on its approach in its Draft Determination. SACOSS would also welcome the opportunity to engage further with the AER on these complex issues and interrelationships.

We thank you in advance for consideration of our comments. If you have any questions relating to this submission, please contact Rebecca Law on rebecca@sacoss.org.au or 08 8305 4212.

Yours sincerely,



Ross Womersley
Chief Executive Officer

¹¹² For instance, SAPN proposes a new asset class for electronic network assets. See SAPN 2019, *2020-25 Regulatory Proposal – Attachment 4 –Regulatory depreciation*, January, p. 10.

¹¹³ SAPN's regulatory depreciation costs for 2020-25 increase by some \$215m compared to 2015-20. See for instance, AER 2019, *Issues Paper, SA Power Networks proposal for 20120-25*, March, Figure 3, p. 13. All other things being equal, as assets age on average, depreciation costs should decrease. SACOSS recognizes that one important factor in the increase is the greater expenditure on CIT assets with 5 – 10 year depreciation life. However, it is possible that the factors listed above are relevant too.