SACOSS Submission to Australian Energy Regulator on SA Power Networks 2015 – 2020 AER Preliminary Decision

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South Australian Council of Social Service

47 King William Road
Unley, SA, 5061 Australia
Ph (08) 8305 4222
Fax (08) 8272 9500
Email: sacoss@sacoss.org.au
Website: www.sacoss.org.au

Executive Summary

The AER Preliminary Decision on the SA Power Networks Determination 2015-20 provided some welcome relief to South Australian households who have endured steep electricity price increases particularly during the current 5 year regulatory period.

SACOSS believes that the AER Preliminary Decision made significant progress in determining the rate of return. However, SACOSS believes that in this respect, the AER Final Decision should be for a lower allowed rate of return than in the Preliminary Decision. SACOSS has commissioned an independent analysis from the South Australian Centre for Economic Studies (SACES - report attached). SACOSS supports all of the findings of the SACES report and particularly notes the findings as they relate to the market risk premium and equity beta.

In our view, ongoing growth in opex is clearly unsustainable and the AER in its Preliminary Decision is right not to accept SA Power Networks proposed opex. However, SACOSS notes that the opex levels allowed for in the AER Preliminary Decision are still well above those from the 2005-10 period. SACOSS urges the AER to review its finding related to opex and determine what the material causes for such significant increases in opex in 2010-15 were.

SACOSS is extremely concerned about the size of SA Power Networks proposed capital expenditure program and believes that if approved, this would significantly increase the size of the regulatory asset base (RAB) and lock consumers into completely unsustainable future prices should the cost of capital return to GFC levels. This seems particularly inappropriate and imprudent given SAPN's own assessment of the future need for electricity distribution. SACOSS supports the AER Preliminary Decision as a move in the right direction towards significantly lowering SA Power Networks proposed capex.

SACOSS supports the Preliminary Decision with respect to metering.

Contents

Rate of return

SACOSS believes that the AER Preliminary Decision made significant progress in determining the rate of return. However, SACOSS believes that in this respect, the AER Final Decision should be for a lower allowed rate of return than in the Preliminary Decision. SACOSS has commissioned an independent analysis from the South Australian Centre for Economic Studies (SACES - report attached). SACOSS supports all of the findings of the SACES report and particularly notes the findings as they relate to the market risk premium and equity beta. SACES found that:

> "…the appropriate point estimate for the market risk premium should be slightly lower than the 6.5 per cent adopted by the AER; somewhere between 6.2 per cent and 6.4 per cent would seem to better reflect the underlying data and its limitations."[1]

SACES also found that:

> "…countervailing factors suggest to us that it would be more appropriate to select a value for β slightly above the empirical estimates, either 0.5 or 0.6."[2]

SACOSS also notes the SACES finding that in terms of choice of credit rating:

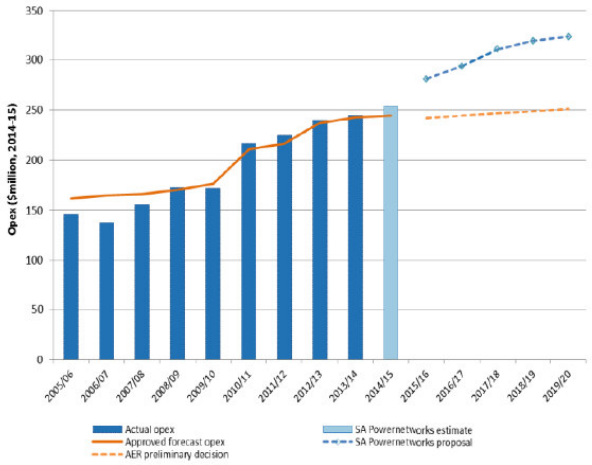
> "there is merit in also drawing on the equivalent data for AAA and AAA- rated securities to produce an estimate that is likely to be closer to the true cost of debt for the benchmark efficient entity".[3]

Operating expenditure

SAPN is proposing to continue its upward trajectory of operating expenditure and to include some significant step changes in the 2015-20 Regulatory Period. This is illustrated in Figure 1 below from the AER[4]:

[1] SACES (2015) Analysis of AER Preliminary Decision on SA Power Networks 2015-20 (attached): p.3
[2] SACES (2015) p.4
[3] SACES (2015) p.4
[4] AER (2015) Fact sheet at http://www.aer.gov.au/sites/default/files/AER%20-%20Preliminary%20decision%20SA%20Power%20Networks%20distribution%20determination%20-%20Fact%20sheet%20-%20April%202015.pdf : p.2

AER preliminary decision compared to SA Power Networks' past and proposed opex ($million, 2014-15)



In our view, the ongoing growth in opex is clearly unsustainable and the AER in its Preliminary Decision is right not to accept SA Power Networks proposed opex. However, as illustrated in figure 1, SACOSS notes that the opex levels allowed for in the AER Preliminary Decision are still well above those from the 2005-10 period. SACOSS urges the AER to review its finding related to opex and determine what the material causes for such significant increases in opex in 2010-15 were.

Some items are worthy of specific comments such as:

a. The overall IT spend (capex and opex) appears to be part of a strategic re-positioning of the business to cement its monopoly on customer data. SACOSS supports the Preliminary Decision not to allow significant increases in non-recurrent expenditure as it is unclear why it is in the consumer interest to provide SAPN with the funds to do this entirely out of regulated revenue. However, SACOSS urge the AER to also review the recurrent expenditure.
b. Step changes in relation to 'customer driven initiatives' are vegetation management 'service improvements' justified on the basis of WTP research. For the multitude of reasons discussed in our submission on the regulatory proposal and for those in the Oakley Greenwood report commissioned by the AER, SACOSS does not accept that this research is sufficiently robust to justify this expenditure.
c. Opex step changes based on impacts of capital program impacts are rejected as consequential to a capex program that cannot be justified as efficient or prudent.
d. SACOSS does not accept the $105m requested for 'legal and regulatory' changes. In particular, $42m for asset inspections is not accepted as a 'step change' and is considered to be part of the routine activities of a prudent operator.
e. SACOSS does not accept SAPN's claim that a 'productivity adjustment factor' should not apply to the proposal[5]. In our view, it is important that consumers are confident that efficiencies are being pursued and the benefits shared with consumers. The absence of such a signal serves to further remove the business from the economic realities faced by other businesses in the South Australian economy.

[5] RP p. 269

Capital expenditure

SACOSS is very concerned that SA Power Networks regulatory proposal attempts to justify a near doubling of 'replacement capital expenditure' (repex) on having the 'oldest average asset life of all NEM distributors' [Issues paper p12]. The proposal does not seem to discuss the extent that this result is skewed by the 85 year plus asset lives of the stobie pole compared with around half that for the timber poles used by other distributors. In the context of an uncertain future, it is our view that a prudent operator would be aiming to strategically reduce the asset base to minimize the risk of stranded assets over the foreseeable future. The proposal presented little evidence that this has been a consideration.

SACOSS notes the submission on the regulatory proposal by the South Australian Government and particularly the comments related to capital expenditure. SACOSS endorses those comments, particularly as they relate to asset replacement, safety related network augmentation, high bushfire risk areas and reliability related network augmentation.

In relation to safety related network augmentation, SACOSS agrees with the South Australian Government that the Department of Planning, Transport and Infrastructure and the Motor Accident Commission are best placed to assess the requirements for safety initiatives.

In relation to high bushfire risk areas, SACOSS notes that SA Power Networks has the capacity to disconnect the distribution network in the case of extreme weather in order to minimize the risk of a catastrophic bushfire. SACOSS understands that this was a recommendation of the Victorian Bushfires Royal Commission but one which was not adopted by the Victorian Government. SACOSS believes that this provision in South Australia provides the distribution business with a critical capacity for response in high bushfire risk areas.

SACOSS supports the AER Preliminary Decision not to accept SA Power Networks' proposals for bushfire mitigation and road safety capex because they do not reflect a prudent operator's efficient costs. For the multitude of reasons discussed in our submission on the SA Power Networks regulatory proposal, SACOSS does not accept that WTP research which is used to support these capex proposals is sufficiently robust to justify this expenditure.

SACOSS notes that the Oakley Greenwood report commissioned by the AER provides further support for this position.

Further, it is entirely unclear that SA Power Networks should be seeking electricity consumer revenue for services that may be more appropriately funded through other means - as is already the case for road safety. Further, the most efficient solutions to the risk of bushfires are more likely to be revealed from analysis of a broad range of technical and management options, not just those that SA Power Networks believes can be funded through the regulatory framework.

SA Power Networks divided its IT expenditure proposal into 'recurrent' and 'non-recurrent' segments. Recurrent proposed was $126m, Non-recurrent proposed was $182m plus associated 'business change' costs of $46m – a total of $354m over 5 years. Given that the 'non-recurrent' is considered to be more likely to be discretionary, SACOSS appreciates that the AER has initially focussed its review on this segment and accepted the 'recurrent' segment in totality. However, SACOSS notes that the AER's review was highly critical of the 'non-recurrent' expenditure projects and has inserted its own allowance of $87.6m in the Preliminary Decision – removing $140m from the SA Power Networks proposal (around 60% of the proposal for this segment). SACOSS endorses this decision. The remaining expenditure allowance across the two segments is, overall, still a 34% increase on 2010-15 actual expenditure. SACOSS therefore proposes that a more detailed review of the 'Recurrent' expenditure segment is warranted given the issues identified with the segment that the AER has examined.

Consumer Engagement

SACOSS endorses the AER Preliminary Decision as it relates to consumer engagement. SACOSS believes that SA Power Networks would be well served by evolving its consumer engagement methods in light of feedback received from stakeholder organisations.

Metering

SACOSS supports the Preliminary Decision in not approving large upfront metering transfer or exit fees which would be a barrier to a contestable market. SACOSS also endorses the Preliminary Decision as it relates to the annual metering service charge, price caps for new and upgraded connections and installation of smart ready interval meters as the standard meter for new and replacement meters.

Network Tariffs

SACOSS notes that the Preliminary Decision does not appear to reference the SA Power Networks proposals as they relate to new tariff designs for the 2015-20 regulatory control period. SACOSS notes that the regulatory proposal indicates that SA Power Networks propose to introduce a monthly demand tariff from 1 July 2017 and that smart ready meters will be required to support the new tariff. SACOSS believes that the appropriate context for this discussion is the Tariff Structure Statement process and will be looking towards that process for a full and comprehensive discussion of related issues.

Background

In April 2015 the Australian Energy Regulator (AER) released its Preliminary Decision on the SA Power Networks determination 2015/16 to 2019/20.

An important input into the price determination process will be an estimate of the weighted average cost of capital (WACC) for SA Power Networks. The WACC is the expected cost on average for all the various components of capital (equity and debt) used by the firm. Alternatively, it represents an estimate of the expected rate of return on company assets. All other things being equal, the higher the estimated WACC then the higher will be the efficient prices allowed by a regulator.

The South Australian Council of Social Service (SACOSS) has asked the South Australian Centre for Economic Studies of the University of Adelaide and Flinders University to undertake an independent review of the parameters used in the calculation of the proposed Weighted Average Cost of Capital (WACC).

The key parameters used in calculating the WACC are set out in Table 1, from the rate of return guideline and the preliminary decision.

Table 1: WACC Parameters, AER Rate of Return Guidelines and Preliminary Decision on the SAPN determination, point estimates (ranges in brackets)

Parameter	Rate of return guideline	Preliminary decision
WAC Capital parameters		
Proportion of equity in total financing	0.4	0.4
Proportion of debt in total financing (i.e. gearing)	0.6	0.6
Parameters for estimating return on equity		
Forecast inflation		2.55
Risk free rate (r_f)		2.55
Market risk premium (r_m - r_f)	6.5 (5.0 to 7.5)	6.5
Equity beta (β)	0.7 (0.4 to 0.7)	0.7
Equity risk premium	4.55	4.55
Nominal post tax return on equity		**7.1**
Parameters for estimating return on debt		
Credit rating	BBB+	BBB+
Bloomberg BBB BVAL		
RBA		
Weighted average of above (50%:50%)		
Debt allowance		4.35
Imputation credits		
Value of imputation credits (γ)	0.5	0.4
Payout ratio or distribution rate (F)	0.7	0.7
Utilisation rate (θ)	0.7	≈0.6
Nominal Vanilla WACC		**5.45**

Source: Australian Energy Regulator (2013a, 2013b, and 2015).

Postal: PO Box 3192, Rundle Mall South Australia 5000
Telephone (+61-8) 8313 5555 Facsimile (+61-8) 8313 4916 Email: saces@adelaide.edu.au
Physical: 3rd Floor, Nexus Tower, 10 Pulteney Street, Adelaide

The process followed by the AER was as outlined in the Rate of Return Guideline (AER 2013a), with the starting point being a foundation model. Quantitative analysis was drawn on to identify appropriate ranges for the parameters of the model. Where relevant, other information was then drawn on to select a point estimate from within the range identified by the analysis.

The final parameters chosen, in almost all cases, match those selected in the development of the rate of return guideline. The only material difference is the adoption of a lower value for the value of imputation credits as a result of feedback from stakeholders and a reappraisal of the available evidence. We have commented on the value chosen for each key parameter in turn below.

Comment

Forecast inflation

We agree with the AER's suggested approach to calculating expected inflation.

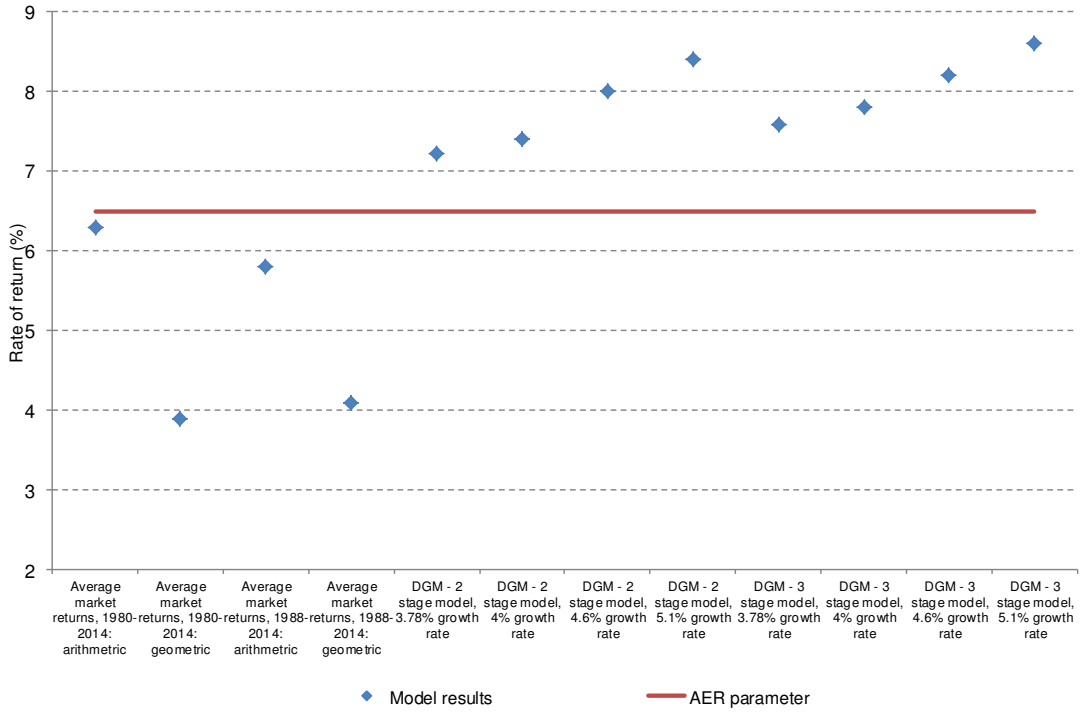
Risk free rate

We agree with the AER that the contemporary 10 year Commonwealth government bond represents the most appropriate choice for a 'risk free rate' in the context of Australian equities, and that there is no evidence to suggest that current real rates of return on Commonwealth government bonds are abnormal relative to returns on equity.

Market risk premium (MRP)

The AER has retained the point estimate of 6.5 per cent for the market risk premium – refer Figure 1. This stability in the choice of point estimate reflects two countervailing changes to the underling analysis. The most recent update of MRP estimates made using dividend growth model approaches are slightly higher than those included in the rate of return guideline, but as a result of feedback the AER is now giving consideration to geometric averages of the historic market return as well as the arithmetic average.

Figure 1: Quantitative estimates of market risk premium, and value selected by the AER



Note: DGM = dividend growth model.
Source: AER, 2015.

We are broadly in agreement with the approach taken by the AER to identifying the market risk premium, particularly their decision to most highly weight the evidence from dividend growth models, and from the geometric and arithmetic averages of the historic returns on the stock market.

However, we believe that the AER have perhaps given too high a weight to DGMs given their limitations, including the extreme variability of their estimates[1], and the range of factors that suggest they are likely to overstate required rates of return (McKenzie and Partington, 2014, Partington, 2015).

We also note that there is evidence that long-run estimates of the market risk premium from historical data are potentially biased upwards due to the high inflation environment that prevailed from the mid-1970s to the late 1980s which, in retrospect, appears to have been anomalous.

We suggest that taking these factors into consideration suggests that the appropriate point estimate for the market risk premium should be slightly lower than the 6.5 per cent adopted by the AER; somewhere between 6.2 per cent and 6.4 per cent would seem to better reflect the underlying data and its limitations.

Equity Beta

The expert advice commissioned by the AER (Henry 2014) tested a wide range of analysis periods, data frequencies and variations between analysis at the individual firm level and for weighted portfolios of firms to identify values for the Equity Beta of listed electricity and gas distribution firms. He also tested a range of hypotheses relating to the stability of the underlying data including calculating Dimson's βs to adjust for the potential impact of thin trading, and testing whether data from the GFC period should be excluded from the analysis.

Henry's three preferred models all used the longest available sample, and weekly data, and included a firm level analysis, an analysis using a fixed portfolio with equal weighting, and an analysis using a fixed portfolio with a value weighting. Henry concluded that the evidence points to β lying between 0.3 and 0.8 (p. 63) for regulated utility distribution firms, with the average value from this set of most reliable results being 0.4463 (or 0.480 if the average is calculated only from the means). Analysis by the ERA in 2013 produced a very similar set of estimates (results of the ERA analysis are taken from AER 2013a).

The AER drew on this analysis to identify their most likely range for the value of β as being between 0.4 and 0.7. They then drew on other information to select the highest point in the range. The main results from Henry's analysis and from the analysis by the ERA are summarised in Figure 2 together with the point estimate selected by the AER.

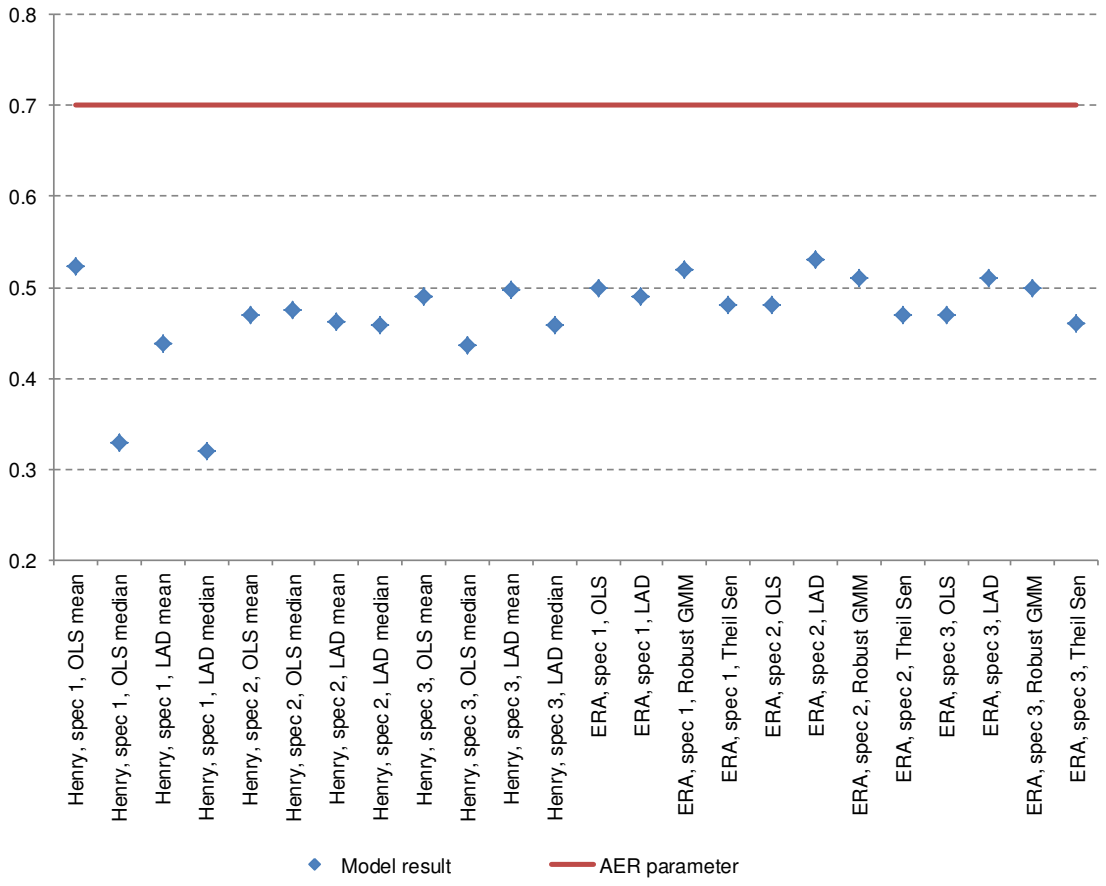
We believe that the factor drawn on by the AER to choose a relatively higher value of β (the evidence from the Black CAPM that SL-CAPM models may have a tendency to understate the degree of variance in returns of those firms with a β below 1; and the estimated βs of similar international firms) are all material and should be drawn on in choosing the appropriate point estimate.

However, we note that other potential material evidence that would suggest a lower required rate of return does ***not*** appear to have been used in selecting the point estimate. In particular, the time period over which Henry's results are calculated relate to the previous regulatory approach in which the distribution utilities bore some of the volume risk. However, in this determination period the AER has switched to a revenue cap approach, which effectively eliminates any volume risk faced by the regulated distribution utilities. This should result in the idiosyncratic risk of holding equity in an electricity or gas distribution firm falling further relative to the market as a whole, and therefore it would be reasonable to expect the value of beta to be in the lower range modelled by Henry.

[1] For example, looking at the start of year MRP estimates from the graph provided by the AER in the Explanatory Statement to the Rate of Return Guideline (2013a, p. 118) gives MRP estimates of 4 per cent in 2008, 10 per cent in 2009, 6 per cent in 2010 etc.

These countervailing factors suggest to us that it would be more appropriate to select a value for β slightly above the empirical estimates, either 0.5 or 0.6.

Figure 2: Quantitative estimates of equity beta and value selected by the AER



Notes: Henry, specification 1: Firm level analysis, longest available sample, weekly frequency
Henry, specification 2: Fixed portfolio construction, equal weighting, longest available sample, weekly frequency
Henry, specification 3: Fixed portfolio construction, value weighting, longest available sample, weekly frequency
ERA, specification 1: Firm level analysis, monthly frequency
ERA, specification 2: Equal weighted portfolio, monthly frequency
ERA, specification 3: Value weighted portfolio, monthly frequency
Source: Henry, 2014, AER, 2013a

The value used for β is significant in the final result of the calculation of the equity risk premium. The use by the AER of a value of 0.7 rather than the average result from Henry's preferred models (0.446) results in an equity risk premium that is 162.5 basis points higher, and a nominal vanilla WACC which is 60 basis points higher than if the average of Henry's estimates had been used.

Choice of credit rating

We agree with the AER's continued use of BBB+ as the appropriate credit rating for the benchmark efficient entity.

We also agree that the RBA and Bloomberg 'BBB' series represent a reasonable source of data for cost of debt, although we would note that as each of these series draws on firms with credit ratings of BBB+, BBB and BBB- each series is likely, all other factors being equal, to slightly overstate the cost of debt for the benchmark efficient entity. We still believe that there is merit in also drawing on the equivalent data for AAA and AAA- rated securities to produce an estimate that is likely to be closer to the true cost of debt for the benchmark efficient entity.

Value of imputation credits

In its preliminary decision, the AER has adjusted downwards slightly its estimate of the value of imputation credits (γ). This is in response to re-examining the evidence related to the utilisation rate.

We agree with the AER's decision to use a lower estimate (our preferred estimate of γ is 0.36, using a higher estimate of the payout ratio than the AER and a lower estimate of the utilisation rate; but given the AER is reporting this parameter to 1 decimal place our preferred estimate concurs with the AER's at that level of precision).

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