SA Power Networks

4 November 2020

Mr W Anderson
General Manager, Network Financing and Reporting
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

Email: inflationReview2020@aer.gov.au
Copy: [redacted]

Dear Mr Anderson

Submission to the AER Review of Regulatory Inflation Estimation

SA Power Networks welcomes the opportunity to provide a submission in response to the AER's Draft Position Paper on Regulatory Inflation. We welcome the AER's review and we are actively participating in the review both directly and through the ENA.

We appreciate the AER's action to delay its final determination for our Reset in June this year to incorporate the latest trimmed mean inflation forecasts from the RBA. This went some way to addressing the over-estimation of regulatory inflation under the AER's previous approach. However, as you know we remain extremely disappointed with the very low allowed real return on equity of 2.23% set in our determination on the basis of a high inflation forecast of 2.27%. We note the Brattle report commissioned by the AER indicates that the closest allowance by any other comparable regulator is 73% higher (and this assumes inflation is forecast correctly).

This submission sets out SA Power Networks' responses to the AER's Draft Position Paper and identifies a number of issues and actions that we consider to be particularly important. It also identifies a number of issues that pertain specifically to our own recent regulatory determination.

In addition, SA Power Networks has contributed to, and fully endorses, the ENA submission into this process.

SA Power Networks supports the move to a 5-year inflation estimate

The Draft Position Paper is clear about the role that the inflation parameter plays within the AER's regulatory framework. Specifically, the AER seeks to match the deduction from allowed revenues that occurs in the PTRM with the expected benefit of RAB indexation that occurs in the RFM. Because the RFM adds back 5 years of inflation, the PTRM deduction must be set equal to the expected value of 5 years of inflation.

The Draft Position Paper is also clear about the fact that the regulatory inflation parameter does not play the role of deducting the component of the allowed return on equity or debt that might be compensation for inflation. If that were the goal, a 10-year term would be appropriate.

That is, there are two possible roles for the regulatory inflation parameter that are mutually exclusive. The deduction for inflation can either be set equal to what is expected to be added back via RAB indexation (implying a 5-year term), or it can be set equal to an estimate of the inflation component of the allowed return on debt or equity (implying a 10-year term).

The Draft Position Paper is clear about the fact that the first interpretation is adopted in the AER's regulatory framework. Thus, the term of inflation is determined by the RFM and set to 5 years.

SA Power Networks strongly endorses this approach.

SA Power Networks supports the additional weight applied to current market data under the glide path approach

We begin by noting that the 'old' and 'new' approaches both construct estimates of regulatory inflation by applying weight to three pieces of evidence: the RBA 1-year and 2-year forecasts, and the 2.5% mid-point of the RBA target band. The different weightings are summarised in the table below.

	'Old' approach	'New' approach
RBA 1-year	10%	20%
RBA 2-year	10%	40%[1]
2.5% mid-point	80%	40%[2]

We note that the RBA forecasts are made in light of all evidence available at the time, including market evidence. Thus, under the old approach only 20% of the inputs to the regulatory inflation figure reflected any market evidence, whereas that proportion rises to 60% under the new approach.

SA Power Networks strongly endorses the increased weighting applied to market estimates, and the reduction in weighting applied to policy targets under the new approach.

Concerns about bias in RBA forecasts of inflation

Although SA Power Networks welcomes the increased weighting on RBA forecasts relative to the policy target, we have real concerns about the reliability of RBA forecasts in the prevailing market conditions.

The figure below[3] shows that, over the last decade, the RBA forecasts of inflation have been persistently and materially higher than actual inflation outcomes. Thus, over that period, what would have been 'taken out' is materially more than the average of what would have been 'put back in' under the new approach.

The figure indicates that, although RBA forecasts might be unbiased over the long run, there appears to be a consistent upward bias in low-inflation conditions, such as we are experiencing now. Such a bias might eventuate from the fact that the RBA has a clear imperative to drive inflation upwards towards the target band, and that 'talking up' inflation can assist in that regard.

[1] 20% weight for Year 2, 20%×$\frac{2}{3}$ weight for Year 3, and 20%×$\frac{1}{3}$ weight for Year 4.

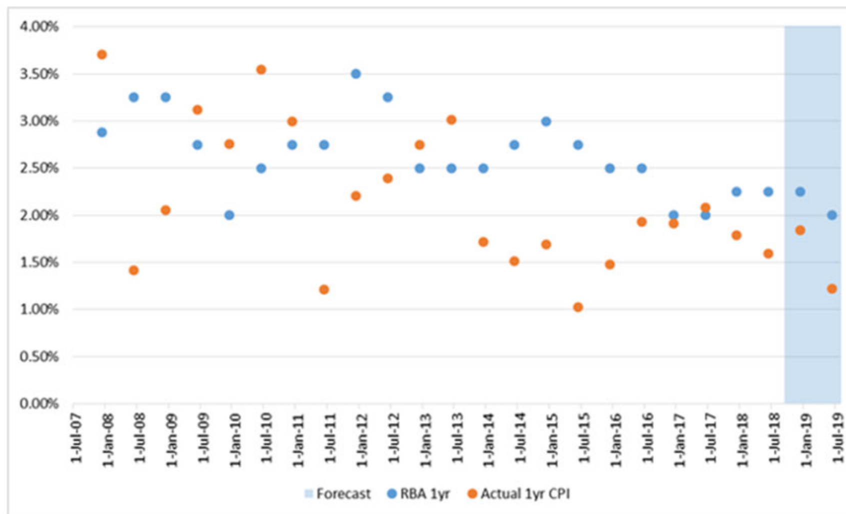
[2] 20% weight for Year 5, 20%×$\frac{2}{3}$ weight for Year 4, and 20%×$\frac{1}{3}$ weight for Year 3.

[3] Drawn from Section 4.3 of the ENA submission.

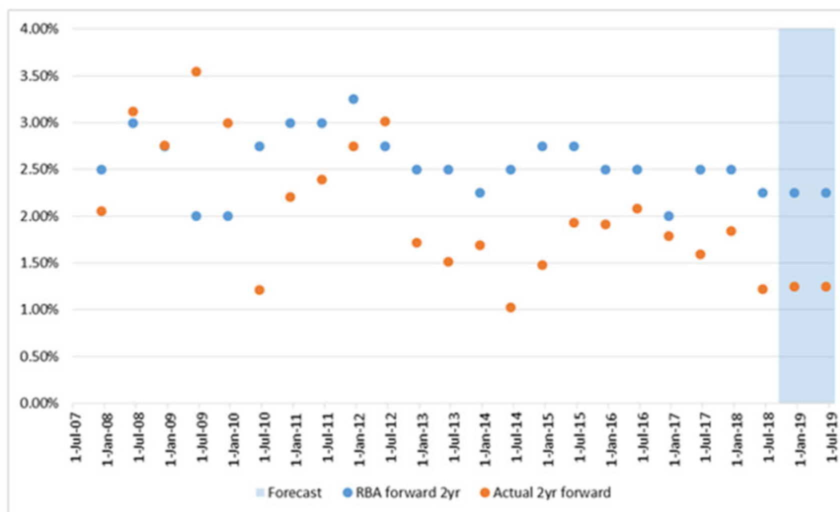
In this context, it is important to recognise that what we require is the best possible forecast of future outturn inflation. This is because the AER seeks to 'take out' what it expects to 'put back,' and what it puts back is determined by outturn inflation.

It is possible that the RBA's forecasts of inflation are the best possible forecasts, and that outturn inflation has turned out to be below those forecasts by random chance. But as we are approaching 10 years of consistent over-forecasting, it is becoming less likely that the difference can be explained by random chance and more likely that there is a systematic bias in low-inflation conditions.

Year 1 forecast vs. actual

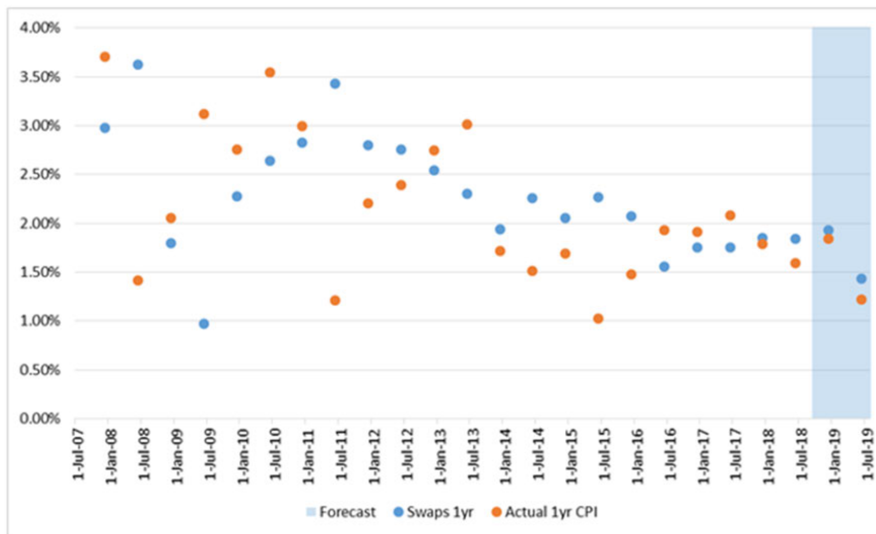


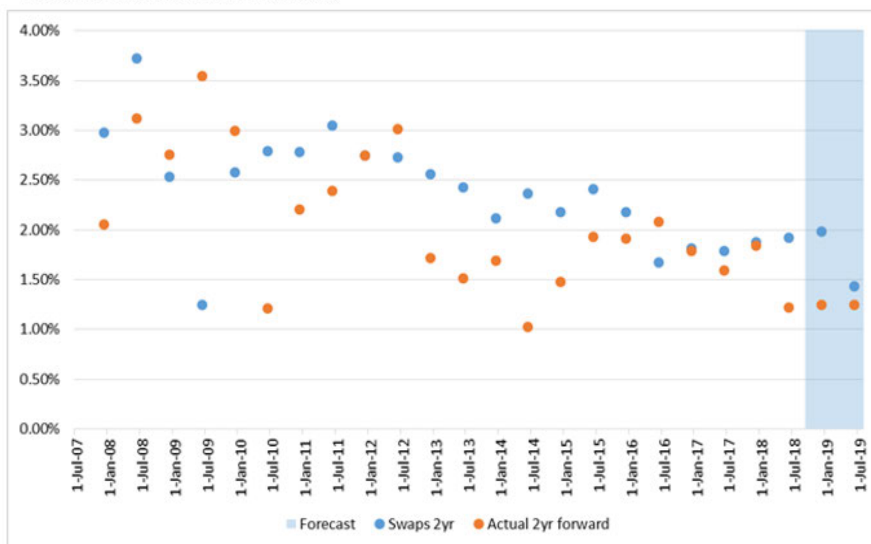
Year 2 forecast vs. actual



The figure below[4] shows that the inflation swaps estimates of inflation have been materially closer to actual inflation outcomes over the last decade. That is, the swaps market has provided a superior forecast of inflation relative to the RBA forecast.

[4] Drawn from Section 4.3 of the ENA submission.





The ENA submission also demonstrates that, over the last decade, the swaps estimate has been statistically superior to the RBA forecasts according to standard statistical metrics as illustrated in the table below.

Forecast error: RBA vs. inflation swaps: June 2010 to June 2019

Time period	Root mean squared error		Mean absolute deviation	
	RBA	**Swaps**	**RBA**	**Swaps**
Year 1 forecasts	0.92%	0.72%	0.78%	0.52%
Year 2 forecasts	0.89%	0.74%	0.81%	0.58%

Source: Bloomberg; RBA; CEG calculations.

The Draft Position Paper sets out a number of features of the inflation swaps estimate that have the potential to introduce a bias into the forecast of future inflation. We would make two points in this regard:

- for stakeholders to have confidence in the regulatory regime, it is important that evidence is assessed in a balanced manner. Thus, it is important to weigh any potential bias in the swaps estimates against any potential bias in the RBA estimates - such as those identified in the data above and in the fact that the RBA's policy objective is assisted by it 'talking up' future inflation; and
- irrespective of any theoretical biases, the figures above show that the swaps estimates have been superior to the RBA estimates over the last decade. That is, theoretical explanations of why the swaps market *might* not do as good a job of forecasting future inflation as the RBA are redundant in light of evidence that, for the last decade, the swaps estimate *has* been superior.

Moreover, it is important that the AER adopts the best estimate of expected inflation at the time of each determination. This requires the best estimate in the prevailing market conditions. In this regard, it is not enough to show that a particular approach or method produces an unbiased estimate on average over the long run if that approach performs poorly in the current prevailing market conditions.

SA Power Networks submits that the Final Position Paper should contain an analysis of potential biases in the RBA Year 2 inflation forecasts in a low inflation environment, addressing the points set out above.

Merits of the ENA's proposed hybrid approach

We consider that the hybrid approach proposed in the ENA submission has a number of benefits for networks and consumers. SA Power Networks endorses the ENA's submission that it is important to better understand consumer perspectives and the AER's reasoning in relation to this issue. We set out the main rationale for the hybrid approach and the main benefits of that approach below.

Under the incentive-based regulatory framework, the AER sets what it considers to be a benchmark efficient allowance. Networks are free to try to replicate that allowance or to depart from it. If a network departs from the assumed benchmark efficient approach, that network bears the risk that its actual costs might be above (or below) the regulatory allowance.

In this regard, the AER sets the allowed return on debt on the basis of a trailing average of nominal returns. That is, the regulatory allowance is set on the basis that the AER considers that the benchmark efficient approach is for a firm to issue nominal debt on a staggered maturity basis. The AER could set the allowed return on debt on the basis that the benchmark efficient approach is to issue inflation-indexed debt, or some other approach, but it has not done that. As noted above, networks are free to try to mimic the regulatory allowance, or to depart from it as they see fit.

Once the AER has determined what it considers to be the benchmark efficient cost of debt, it is important that the regulatory regime delivers an allowance accordingly. But the current regime does not do that. The current regime delivers a regulatory allowance that is sometimes above the AER's estimate of the efficient cost of debt and sometimes below it.

We do not suggest that the regulatory allowance should match the cost of staggered maturity nominal debt because that is what networks actually do, or because that is what networks consider to be efficient. We suggest that the regulatory allowance should match the cost of staggered maturity nominal debt because that is what the AER has adopted as the benchmark efficient approach.

Whereas the AER can be agnostic about what approach any particular network adopts to raising debt finance, it cannot be agnostic about what approach it considers the benchmark efficient firm would adopt - because the AER needs some basis for setting the regulatory allowance.

The hybrid approach proposed by ENA has the great benefit of ensuring that the regulatory regime delivers an allowed return that is commensurate with the AER's estimation of the benchmark efficient cost of debt.

Negative NPAT

The AER's June 2020 Final Decision provides a benchmark regulatory allowance to SA Power Networks that embeds negative net profit after tax (NPAT).

In this regard, Sapere has identified that a regulatory allowance that forces benchmark networks into a loss-making position is potentially evidence of an "underlying inconsistency" that "would not be consistent with the efficient investment and efficient operation of an NSP."

SA Power Networks considers this to be a critically important issue that requires the AER's urgent attention. Any firm that records negative NPAT for 10 straight years (two regulatory determinations) will experience issues in maintaining credit ratings and attracting investment - regardless of expectations or promises about future appreciation in asset values.

The Draft Position Paper has not addressed this issue, other than to note that Google has not yet paid a dividend to its shareholders. Clearly there is much more to be done on this very important issue that has real practical ramifications for regulated networks.

SA Power Networks endorses Sapere's recommendation that a serious review of the causes, and potential consequences, of this issue should be undertaken. An appropriate forum for such a review would be the AER's process for considering profitability and financeability metrics.

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SA Power Networks has consistently raised the inflation issue and requests further consultation

The Draft Position Paper (pp. 14-16) sets out the chronology of SA Power Networks' engagement with the AER in relation to regulatory inflation, including:

- 5 September 2019: SA Power Networks participated in the AER Inflation Working Group meeting;
- 20 September 2019: SA Power Networks wrote to the AER, setting out concerns and requesting the opening of a review process in relation to regulatory inflation;
- 11 November 2019: SA Power Networks wrote to the AER again setting out concerns and requesting the opening of a formal review process in relation to regulatory inflation;
- 28 November 2019: SA Power Networks participated in the AER Inflation Working Group meeting;
- December 2019: SA Power Networks drew attention to the issues in relation to regulatory inflation in its revised regulatory proposal; and
- March 2020: SA Power Networks wrote to the AER again setting out concerns and requesting the opening of a formal review process in relation to regulatory inflation.

The AER's June 2020 Final Decision for SA Power Networks adopted the AER's 'old' approach to regulatory inflation, albeit using the RBA's trimmed mean inflation forecast. At the time of that decision, the AER's new approach to inflation would have produced a materially different figure (1.85%) than that adopted for the 5-year regulatory period of 2020-2025 (2.27%).

We note that the Draft Position Paper is clear about the fact that the AER considers the new approach to produce the best estimate of expected inflation that best promotes the NEO and NGO. It is also clear about the fact that the AER considers the new approach to be superior to the old approach. This, of course, also follows from the fact that there can be only one best estimate at any point in time and that the AER would not have made a material change to its approach unless it considered the new approach to be superior.

We also note that, in all relevant respects, the market conditions are materially unchanged since the June 2020 Final Decision. Consequently, it would appear to follow that the inflation figure adopted in the June 2020 Final Decision was not the best estimate that best promotes the NEO and NGO. In this regard, it would seem to be impossible that two materially different figures only a few months apart could both be best estimates that best promote the NEO and NGO.

SA Power Networks is now a few months into a 5-year regulatory period. Our allowed revenues will be based on an inflation figure that is materially different from what the AER now considers to be the best estimate that best promotes the NEO and NGO. This has occurred in spite of SA Power Networks raising the problems with the 'old' approach on multiple occasions during its regulatory review.

In particular, had the draft inflation decision applied to SA Power Networks the regulatory inflation figure would have reduced from 2.27% to 1.85%, thereby increasing the allowed real return on equity from 2.23% to 2.66%.

If the AER's proposed new approach does produce the best estimate of expected inflation, SA Power Networks will be in a situation where the allowed inflation figure, for the next five years, is 2.27% whereas the best estimate is 1.85%. In this situation, the nominal expected return on equity that SA Power Networks will receive over 2020-25 will reduce from 4.56% to 3.51%.[5]

That is, if the AER's new approach does produce the best estimate of expected inflation, SA Power Networks investors should expect to receive a nominal return of 3.51% - materially less than the AER's allowed return of 4.56% (which is already an historically low allowance).

Even then there is evidence to suggest that the AER's new methodology will continue to overstate inflation in the current low-inflation low-growth environment (as established in the figures and tables above).

Consequently, SA Power Networks will continue to advocate for the hybrid approach. This would at least allow us to recover our efficient 2020-25 debt costs through an adjustment to our RAB in 2025. If inflation turns out to be 1.85%, in line with the AER's proposed best estimate, we estimate that the required adjustment to the RAB will be in the order of $51m. That is, $51m more will be 'taken out' than what is expected to be 'put back' in relation to the return on debt allowance.

[5] The allowed return on equity will be reduced by 2.27% whereas the best estimate of the expected benefit of RAB indexation is only 1.85%. This amounts to a shortfall of 0.42%. The equity holders are also required to cover the shortfall in relation to debt finance. Thus, the total shortfall is $\frac{100}{40} \times 0.42\% = 1.05\%$.

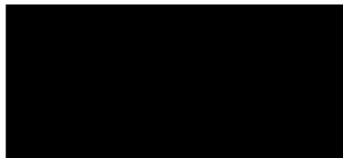
It is important to note that SA Power Networks is simply seeking to recover the benchmark efficient debt costs - no more and no less - via appropriate indexation of the RAB in 2025. The ENA submission explains that the hybrid approach has a minimal impact on consumer process, but it would materially improve our ability to fund our operations by ensuring that the regulatory allowance is commensurate with the benchmark efficient financing costs.

Most importantly, we are not looking to disturb the revenue outcome for 2020-25.

We consider that there are some obvious problems with a process that locks in an inferior estimate for almost 5 years after a superior approach has been developed and adopted, and where the problems with the inferior estimate were consistently raised prior to it being adopted.

SA Power Networks seeks to understand whether the AER considers that there is a real and legitimate economic issue here. If the AER considers that there is a real economic issue here, SA Power Networks would welcome further engagement about potential methods to address it. We have not yet had the opportunity to hold detailed discussions with the AER on how this issue might be addressed and would welcome the opportunity to do so.

Yours sincerely



Rob Stobbe
CHIEF EXECUTIVE OFFICER
GPO Box 77, ADELAIDE SA 5001