3 July 2015

Mr Sebastian Roberts
General Manager - Networks Branch
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

Dear Mr Roberts

RE: SUBMISSION TO AER PRELIMINARY DECISION SA POWER NETWORKS

Origin Energy Electricity Limited (ABN 33 071 052 287, "Origin") appreciates the opportunity to provide input to the Australian Energy Regulator's (AER) assessment of the regulatory proposal submitted by SA Power Networks (SAPN) under the National Electricity Rules to determine its revenue allowance for the period 2015-20.

Origin agrees in principle with the approach taken by the AER to establish efficient costs with respect to operating and capital expenditure using benchmarking techniques as provided for under the Rules. The AER's approach has delivered significant but appropriate cost savings for consumers.

In recent decisions for NSW and Queensland network businesses, the AER has lowered the operating cost efficiency benchmark. While Origin does not agree with this change, we recognise the AER's methodical and detailed explanation of the steps it adopted to arrive at its quantitative result. We consider that this approach should also apply to explaining SAPN's efficiency results, particularly with reference to its raw efficiency score and how this compares to the efficiency benchmark.

Origin supports the reductions made by the AER with respect to SAPN's proposed capital expenditure. We also not that the majority of reductions are associated with a small number of discrete projects. We consider there may be provision for further reductions through the application of lower unit rates that could apply uniformly across the program of work.

In terms of the AER's approach to the weighted average cost of capital, Origin maintains its view that the AER has adopted a balanced and pragmatic approach that provides certain and predictable outcomes for investors and provides a balance between the views of consumer groups and the network businesses.

Origin Energy Electricity Limited ABN 33 071 052 287 • Level 45, Australia Square, 264-278 George Street, Sydney NSW 2000
GPO Box 5376, Sydney NSW 2001 • Telephone 02 8345 5000 • Facsimile (02) 9252 9244 • www.originenergy.com.au

Finally, Origin has concerns regarding the AER's revised position with respect to the structure of metering charges. Metering technology is interlinked to network tariff reform, which underpins the achievement of long run efficient investment in network infrastructure. We consider that the AER has not undertaken sufficient and robust analysis to fully understand the long-term implications of its decision on metering contestability or indeed if there is a more preferable approach. Where the AER feels it is constrained in making a decision that is in the long term interest of consumers, we believe this impediment can still be removed as a matter of priority through the AEMC metering contestability Rule change process before it is finalised.

If you have any questions regarding this submission please contact Sean Greenup in the first instance on (07) 3867 0620.

Yours sincerely

Keith Robertson
Manager, Wholesale and Retail Regulatory Policy
(02) 9503 5674 keith.robertson@originenergy.com.au

Response to the AER's Preliminary Decision for SA Power Networks Regulatory Proposal for the regulatory control period 2015-20

Origin Submission

3 July 2015

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- Support the AER's approach to determine business as usual replacement capital. Support position that historic unit costs are more likely to reflect a realistic expectation of future input costs.
- Consider further efficiencies in unit costs could be achieved by moving SAPN further towards the first quartile of efficient costs.
- Consider efficiencies could be imposed to SAPN's augmentation program to reflect its conservative risk and cost benefit forecasting.
- Consider that the AER could provide greater guidance on its minimum expectations with respect to WTP studies.

1.1 Replacement Capex

SAPN's proposed replacement capex of $792 million ($2014-15) compares to actual replacement expenditure over the 2010-15 period of $382M (excluding safety related replacements), an increase of 107%.[1]

SAPN stated that during the 2010-15 regulatory period, it increased the frequency and scope of its asset inspections which resulted in the identification of an increased number of defects. This led to an increase in network risk which it states exceeds the acceptable risk levels under its ESCOSA approved Safety, Reliability, Maintenance and Technical Management Plan (SRMTMP).

SAPN also stated that it has a legal obligation through South Australian legislation to comply with the approved SRMTMP. As a result, SAPN claimed that increased defect rectification work is required to return the network risk level to acceptable levels.

The AER has approved an allowance of $609 million ($2014–15). The AER has separated its assessment into: (1) business as usual expenditure; and (2) un-modelled replacement expenditure.

The AER applied the following techniques to assess SAPN's proposed business as usual replacement expenditure (repex):[2]

- analysis of SAPN's long term repex trends;
- predictive modelling of SAPN's' assets in commission;
- technical review of SAPN's approach to forecasting, costs, work practices and risk management; and
- consideration of various asset health indicators.

The AER considered the best estimate of business as usual repex is provided by using calibrated asset replacement lives and unit costs derived from SAPN's recent forecast expenditure. The AER assessed this finding in the context of its technical review.

The calibrated scenario gives an output of $487 million for historical unit costs and $674 million for forecast unit costs. The difference is attributable to the fact that SAPN's forecast unit costs for the next five years are, on average, higher than its unit costs over the last five years

The AER considered that SAPN's historical unit costs are more likely to reflect a realistic expectation of future input costs than its forecast costs. Accordingly, the AER adopted SAPN's historical unit costs for the purpose of calculating a business as usual repex estimate. For this

[1] SAPN, Regulatory Proposal 2015-20, p. 182.
[2] AER, Preliminary Decision, SAPN determination, Attachment 6 – Capital Expenditure, p.91.

reason, the AER considered that a forecast of $487 million forms the most reasonable business as usual estimation of repex.

In previous submissions we have supported the AER's position that in the absence of evidence to demonstrate otherwise, to the extent that forecast unit costs are higher than historical unit costs, that historic unit costs are more likely to reflect a realistic expectation of future input costs. We maintain our support for this approach in the AER's assessment of SAPN's repex.

However, we also note that based on the AER's industry benchmark unit costs, the AER concluded that SAPN's direct historical unit costs are lower than the average of distributors in the NEM, but above those distributors in the first quartile. On this basis, we question whether further efficiencies are possible by moving SAPN further towards the most efficient quartile.

1.2 Augmentation Capex

SAPN proposed an augmentation expenditure program of $884 million for the 2015-20 regulatory period. This compared to an actual spend in the previous period of $436 million.

The AER did not accept SAPN's proposed expenditure, instead approving a lesser amount of $463 million ($2014–15). This represents a reduction of 45% relative to SAPN's proposal.[3]

Despite a forecast of flat peak demand growth in the next regulatory period, the AER has made only modest reductions to SAPN's demand related augmentation expenditure with the vast majority of reductions to the programs associated with bushfire mitigation ($212.5 million) and road safety ($74.2 million).

In support for its bushfire mitigation expenditure, SAPN relied on a Willingness-To-Pay (WTP) survey conducted by NTF Group (NTF). In response, the AER concluded that the WTP survey had not been based on a well-represented sample of SAPN's customer base and that the survey was narrowly focussed.

The AER noted that a well-represented WTP survey would sample across all of SAPN's customer base especially as the costs of the program would be borne by all SA Power Networks customers. The AER stated that it had provided further views in a confidential appendix.

We recognise that the manner with which a business undertakes research, including WTP studies, should be a matter for the business. However, we also consider that it would be instructive to both the businesses and stakeholders for the AER to provide greater guidance on what its minimum expectations are regarding the attributes and scope of such studies for future decisions. This would allow businesses to progress its studies with a greater level of certainty and for stakeholders to provide more meaningful input.

SAPN proposed $186 million ($2014–15) for network augmentation in response to localised demand growth and existing capacity constraints on its network.

Based on the forecast trends in network utilisation, the AER considered that SAPN's proposed demand-driven augmentation expenditure is reasonably explained by the need to meet expected localised demand growth and to alleviate forecast capacity constraints.

However, the AER identified two aspects of SAPN's forecasting methodology which indicate that its methodology is not a sufficient basis on which to conclude that its proposed total forecast capex reasonably reflects the capex criteria. These are: [4]

- SAPN's forecasting methodology generally applies a bottom-up build (or bottom-up assessment) to estimate the forecast expenditure for all its capex categories; and

[3] AER, Preliminary Decision, SAPN determination, Attachment 6 – Capital Expenditure, p. 38.
[4] AER, Preliminary Decision, SAPN determination, Attachment 6 – Capital Expenditure, p. 22.

- SAPN's cost-benefit evaluation of each of its capital projects or programs reveals that its underlying risk assessment is excessively conservative.

Furthermore, as part of its own technical review, the AER considered there may be a level of conservatism and subjectivity embedded in some of SAPN's forecasting approaches. For example, the AER highlighted that some of SAPN's options analysis appears limited, and consequence and criticality rankings have an excessive degree of subjectivity.[5]

Despite these findings the AER has approved SAPN's demand driven augmentation in full. In similar findings for Queensland, the AER provided detailed findings by its independent consultant that identified how conservative risk and cost benefit assessment were likely to result in expenditure forecasts that were overstated.

Origin seeks clarification whether the AER has sought or received the same level of detailed and independent analysis of SAPN's forecasts and whether similar efficiencies should be imposed on SAPN to recognise these shortcomings in its methods.

[5] AER, Preliminary Decision, SAPN determination, Attachment 6 – Capital Expenditure, p. 103.

2 Forecasts Opex

2.1 Summary

- Consider that the AER has not provided sufficient demonstration on how it has arrived at the conclusion that SAPN's base opex is not materially inefficient.
- Maintain our support for the AER's decision not to include SAPN's step change costs in its opex allowance.

2.1 Base Year Opex

The AER concluded that, in light of SAPN's good performance in the benchmarking metrics over the historical period, it has decided that SAPN's base opex is not materially inefficient.

However, Origin considers the level of analysis provided by the AER to come to this conclusion is insufficient.

With respect to the AER's decisions for Queensland and NSW, the AER adopted a methodical explanation of its decision making process. This included identifying the quantitative results with each of the following steps:

- developing a raw efficiency score applying the AER's preferred economic benchmarking model. For example, this model delivered raw efficiency scores of 61.8% for Energex and 48.2% for Ergon;
- comparing the raw efficiency scores of the businesses with a benchmark. As part of the AER's Preliminary Decision for Queensland and the Final Decision for NSW this was the lowest of the efficiency scores in the top quartile of possible scores;
- adjusting the efficiency benchmark to take account of operating environment factors; and
- adjusting the results to account for trending the opex at the midpoint and escalating to 2014-15 dollars.

It is not clear to Origin what raw efficiency score applied to SAPN, what operating environment factors were included and what SAPN's efficiency is relative to the AER's benchmark.

While Origin has not agreed with the AER's decision to lower the efficiency benchmark for base opex efficiency for Queensland and NSW businesses, we recognise the methodical and logical explanation undertaken by the AER in setting out how it arrived at its decision.

To provide stakeholders with a more thorough understanding of how the AER has arrived at its decision for SAPN, we consider it fundamental that the AER adopt a consistent approach to setting out its decisions. This will not only provide stakeholders with the opportunity to make direct comparison across the businesses, but it will also assist in improving stakeholder's knowledge of the approach which will make for more informed submissions in the future.

2.1 Step Change Costs

As part of its regulatory proposal, SAPN has proposed $216.8M in opex step changes.

In our submission in response to SAPN regulatory proposal we set out a number of concerns with SAPN's proposed costs. We maintain our position set out in that submission and support the AER's decision to not accept SAPN's proposed step change costs.

3 WACC

3.1 Summary

- Consider the AER has adopted a balanced and pragmatic approach to WACC that provides certain and predictable outcomes for investors and provides a balance between the views of consumer groups and the DNSPs.
- Support the AER decision to adopt an equity point estimate of 0.7 on the basis it provides a certain and predictable and a balance between the views of consumer groups and the DNSPs.
- Support the AER decision to adopt a MRP of 6.50% as this better reflects the efficient financing costs of a business exposed to the level of risk that applies to an Australian regulated network businesses.

3.1 Equity Beta

The Rules require that the return on equity for a regulatory control period must be estimated such that it contributes to the achievement of the allowed rate of return objective.

SAPN has proposed an equity beta point estimate of 0.91, well in excess of the equity beta of 0.7 approved by the AER in its recent final decision for NSW.

SAPN put forward the argument that the AER's Australian sample data is too small and the estimate too variable in response to the choice of statistical method.

For its NSW final decision, the AER accepted the equity beta estimates derived by its consultant (Henry 2014). This empirical analysis used a comparator set of nine Australian energy network firms, using available data from 29 May 1992 to 28 June 2013 and showed an extensive pattern of support for an empirical equity beta within a range of 0.3 to 0.8.

The AER considered the equity beta estimates presented by Henry were generally consistent with other empirical studies based on Australian energy network firms. The AER also considered that international comparators were less representative of the benchmark efficient entity and therefore should not be used as the primary determinant of the equity beta range or point estimate.

Origin considers that for energy network businesses, increases in financial risk as leverage increases is relatively low, largely due to the minimal risks that exist in the current regulatory framework and the ability of the businesses to effectively pass on borrowing costs to consumers.

In our submission in response to SAPN's regulatory proposal we supported the AER's approach to determine systematic risk based on empirical studies of Australian energy network firms. We supported the position of the AER and its consultants (notably McKenzie and Partington) that the current regulatory framework creates a very low business and financial risk environment. For these reasons, Origin supports the AER's approach to determine systematic risk based on empirical studies based on Australian energy network firms.

Origin also agrees that international comparators should not be used as primary determinants of risk to the extent that the risks faced by these firms are not directly comparable to Australian conditions.

Origin notes that the data supports an argument for an equity beta lower than the upper range adopted by the AER. However, we maintain the view we have taken in previous submissions that the AER has adopted a balanced and pragmatic decision to adopt 0.7 on the basis it is a modest step down from previous regulatory determinations, thereby providing a certain and predictable outcome for investors and a balance between the views of consumer groups and the network businesses.

3.2 Market Risk Premium

The AER's Rate of Return Guidelines set out its proposed approach, including the relevant material that it proposes to use, to inform its final estimate of the expected return on equity.

SAPN has proposed a MRP estimate of 7.72% based on the views of its consultant SFG Consulting. SFG Consulting largely use 'the same universe of information'[6] as used by the AER. This includes the outputs of a weighting of historic averages, dividend discount model and independent valuation reports.

While the information used by SFG Consulting and the AER is consistent, what differs is the judgement regarding the extent to which different information should be relied upon to determine the estimate of the MRP. Specifically:

- the material relied upon by SAPN produces an estimate of the MRP that is significantly higher than the historic decisions by regulators, including decisions by jurisdictional regulators across multiple regulated industries; and
- the material relied upon by the AER produces an estimate that is stable and consistent with historic decisions.

Origin maintains its position that the material relied upon by the AER is commensurate with the efficient financing costs of a business exposed to the level of risk that applies to an Australian regulated DNSP and should be preferred over the estimated provided by SAPN.

[6] SAPN, Regulatory Proposal 2015-20, p. 317.

4 Metering Services

4.1 Summary

- Origin does not support the AER's revised method. We consider that the AER has not undertaken sufficient and robust analysis to fully understand the long-term implications of its decision on metering contestability or indeed if there is a more preferable approach.

4.2 AER Methodology

Origin considers that decisions relating to the introduction of contestability to previously monopoly activities, need to be predictable as this is an essential requirement to allow potential new entrants to confidently develop positions that will not be generally threatened by unexpected changes in the regulatory environment.

With respect to metering and data services, the AER initially proposed an approach where the residual asset costs would be recovered through standard control service (SCS) charges. At the time, Origin strongly supported this position.

The AER has subsequently altered this position between its Draft and Final decisions for NSW via a consultation paper. Following this paper, the AER adopted an approach where metering charges are recovered via two components:[7]

- capital —metering asset base (MAB) recovery; and
- non-capital—operating expenditure and tax.

In the event that a customer with an existing regulated metering connection chooses to switch to an alternative metering service provider (and no longer receives a regulated type 5 or 6 metering service), they stop paying the non-capital component of the regulated annual metering charge. However, they will continue to pay the capital charge.

In our response to the AER's Consultation Paper we expressed concern that there was limited information about metering costs because distribution businesses do not record information about asset type or age at the individual customer level. For these reasons we encouraged to the AER to undertake further and more detailed analysis to fully understand both the short and long term movements in costs over time associated with its decision. We maintain the view that the AER has not included a level of analysis that demonstrates the benefits of one option over any other in supporting competition in metering and data services, or whether there may be more preferable alternatives.

The analysis provided by the AER in its Consultation Paper is limited to an illustrative example provided by Ausgrid. As a result, it is not clear how the unavoidable annual charges behave under different churn rates, across different tariff classes and metering configurations, and over time and whether there are potential unintended consequences because future prices are unknown under all conditions. It is critical that the appropriate analysis is undertaken to inform stakeholders fully of the impact of both the avoidable and unavoidable charges for each metering option over time.

We remain concerned that the AER's preferred approach effectively imposes an exit fees to those customers who migrate to a 'smart meter'; the only difference is that a customer taking a smart meter will bear the cost of legacy metering investments for the remaining life of the asset base rather than as a lump sum. An exit fee is an outcome the AER rejected in its NSW DNSP draft decisions and should reject again in its final determinations.

[7] AER, Alternative approach to the recovery of the residual metering capital costs through an alternative control services annual charge, March 2015.

The structure and level of metering charges has a direct impact on how effective and timely advanced metering technology can be rolled out into the existing market. Metering technology is also interlinked to network tariff reform, which underpins the achievement of long run efficient investment in network infrastructure. Indeed, it is now difficult to imagine a future world without home generation, battery technology, electric vehicles and more sophisticated energy management. Yet the efficient adoption and use of these technologies and realisation of consumer benefits will be dependent on a market led deployment of smart meters, which, in turn, will be heavily influenced by the AER's treatment of residual metering costs.

A decision based on fully informed and robust analysis is a materially preferable outcome than the current AER position. For this reason the AER must undertake the necessary analysis. Where it is constrained in making a decision that is in the long term interest of consumers, this impediment should be removed as a matter of priority through the AEMC metering contestability Rule change process before it is finalised.