Technical advice to Energy Consumers Australia

Review of Ergon's revised regulatory proposal

20 January 2020

Contents

NOTE - This report is an independent assessment of Ergon's revised proposal based on our expertise in economic regulation of electricity networks. The views expressed in this document do not necessarily reflect the views of Energy Consumers Australia.

Summary of findings

We have been engaged by Energy Consumers Australia (ECA) to provide expert regulatory advice on Ergon Energy's (Ergon) revised regulatory proposal for the 2020-25 regulatory period. This follows a report we prepared for the ECA in May 2019 which reviewed Ergon's original regulatory proposal.

The ECA has asked us whether Ergon's revised proposal on a 'decision-as-a-whole' basis is capable of acceptance by the Australian Energy Regulator (AER). In coming to this view, we were asked to identify material evidence gaps in the revised regulatory proposal. Our advice will help inform the ECA's submission to the AER on Ergon's revised proposal.

Our analysis has considered whether Ergon's revised regulatory proposal reflects the long-term interests of Queensland electricity customers with respect to price and quality of services. We examined the concerns raised by the AER's draft determination, and the documents submitted in Ergon's revised regulatory proposal. Our review is limited by the short period provided to stakeholders to make submissions on the revised regulatory proposal. We expect the AER would have more time and resources to undertake a deeper review.

At a high level, we consider Ergon has considerable room to improve its efficiency. The network invested heavily in the reliability and security of the network between 2010 and 2015, relative to South Australian and Victorian networks. This has led to a rapid increase in the value of the regulatory asset base that customers will continue to pay off over the next 50 years. Benchmarking evidence also suggests that Ergon's operating expenditure is not efficient compared to its peers in Australia.

In recent years, Ergon Energy has made strides to improving the efficiency of its services under the Energy Queensland merger. However, the AER's draft determination has noted many structural issues with the expenditure proposals of the network including a lack of evidence to support the proposed capital program.

Ergon's revised proposal seeks lower revenue than its original proposal. However, the driver of lower revenue is driven by external factors including a lower rate of return due to financial market factors, and a reduction in tax allowance driven by the completion of the AER's tax review. In contrast, Ergon's internal expenditure programs have marginally increased compared to the original proposal despite the AER's finding that the capital program was not justified.

In our view, Ergon's proposal on a 'decision-as-a-whole' basis is not 'capable of acceptance'. While, we consider Ergon's revised proposal has gone a long way to providing new analysis support its proposals, there are still material evidence gaps that require further explanation.

Table 1 provides a summary of our findings on key elements of Ergon's proposal. We provide a view on whether each element is capable of acceptance, noting any material evidence gaps and its materiality in revenue terms. The table also shows the relevant section of our report which provides more details on our findings.

Our estimate of the evidence gap in Energex's revised proposal is $310 million in revenue. The majority relates to $240 million of incentive rewards that Ergon had chosen to forego in its original proposal. This is inconsistent with the commitments Ergon made to consumer advocates in early engagement on the proposal, and there is no evidence that it is in the long-term interests of customers.

There are also evidence gaps in the capital program particularly the replacement (repex), augmentation (augex), and property capex programs. Our key concern is an additional $200 million of replacement capex compared to the original proposal, which is 50 per cent higher than the AER's draft determination. In total, the value of this gap in capex is about $370 million capex, which roughly translates to about $70 million in revenue.[1]

We commend Ergon for its open approach to providing early versions of business cases. While we remain disappointed with its approach on incentive rewards, we note the professional engagement with Ergon's staff on capital expenditure programs where significant efforts were made to openly discuss issues and provide us with new information.

.

[1] At a high level, we have assumed that the returns on replacement and augmentation capex in 2020-25 is about 10% of the capital costs. This is based on the expected returns of investment for a 50 year asset at 3% real rate of return midway through the regulatory proposal. We have assumed 20% returns for property capex on the basis of a 25 year life. This is a rough estimate for the purpose of estimating the value of the evidence gap.

Table 1 –Summary of findings by element of proposal

Element of proposal	Capable of acceptance	Materiality	Key findings
Operating expenditure (See section 1)	Yes	$0	We note that the AER's draft determination undertook a thorough review of Ergon's proposed opex and formed the view that the proposed opex was reasonable. Ergon has not sought material revisions to the opex accepted by the AER, although we note that it has made some new material available to the AER since its revised proposal.
Capex – Repex (See section 2a)	No	$300 million reduction to proposed capex (About $30 million revenue)	Ergon have included more analysis and justification for its proposed program, including risk quantification. We recognise that safety is paramount, and that a prudent network should be taking action to mitigate risks where cost effective. However, there are evidence gaps in its proposal including addressing benchmarking metrics, no explanation of why Ergon needs to reduce safety risks from its current levels, limited assessment of alternative volume and timings as part of options analysis, limited evidence of risk ranking to help prioritise the program, and no evidence of a deliverability plan.
Capex – Augex (See section 2b)	No	$20 million capex (About $2 million revenue)	The AER already found that Ergon have provided sufficient evidence of its distribution growth and reliability program. However, the AER did not accept Ergon's sub-transmission, network communication and power quality programs. Ergon have provided new information which in our view sufficiently addresses the AER's concerns on its sub-transmission program. However, we still consider there is an evidence gap on the inter-relationships between the programs contained in the network communications program and power quality programs.
Capex – Connections (See section 2c)	Yes	$0 million	The AER's draft determination has already accepted Ergon's proposed capex on connections, and no material revisions have been applied by Ergon.
Capex – ICT (See section 2d)	Yes	$0 million	The AER made significant cuts to Ergon's ICT program, which Ergon has largely accepted. This gives us comfort that there is sufficient information to accept the proposal.
Capex – Property (See section 2e)	No	$50 million capex (About $10 million in revenue)	The AER's draft determination did not accept a material proportion of Ergon's proposed property capex. We note that many of the property business cases have been made confidential, limiting the ability of stakeholders to actively engage in analysis of the propose expenditure. We cannot conclude that the proposed projects are capable of acceptance.

Element of proposal	Capable of acceptance	Materiality	Key findings
Capex – Fleet (See section 2f)	Yes	$0	Ergon have undertaken substantial work on fleet modelling and analysis. We consider there is sufficient evidence to support the program.
Rate of return and tax (See Section 3)	Yes	$0	Ergon have used the parameters in the AER's rate of return guideline and have applied the AER's tax calculations.
Incentive rewards (See Section 4)	No	$240 million	Ergon have not provided evidence that the capital underspend in 2020-25 was due to efficiency rather than delivery issues.

Section 1 – Operating expenditure

In our initial review of Ergon's original regulatory proposal, we considered there was insufficient evidence to conclude that the proposed base year was efficient. We showed that maintenance costs appeared to be much higher than its rural peers such as Essential Energy and Powercor despite a much younger fleet. We also questioned whether merger efficiencies targeted for 2019-20 had been fully incorporated in the 2020-25 opex forecasts. We noted however that Ergon had proposed a very high level of productivity going forward, together with no step changes.

The AER accepted Ergon's proposed opex as efficient. While the AER agreed that Ergon's base year was materially inefficient compared to peers, it found that the proposed productivities were higher than the AER's guidelines. The AER's alternative calculation of forecast opex was higher than Ergon's, and on this basis, it considered that Ergon's proposed opex should be accepted.

Ergon's revised proposal included actual data on the 2018-19 base year, which was significantly higher than estimated in the original proposal. It noted that the main difference related to higher than normal emergency response costs, and this should not be included in the base year forecast. As a result, Ergon's proposed opex is similar to its original proposal.

Given the AER has previously accepted the proposed opex as efficient, we consider the revised proposal is capable of acceptance.

Section 2a – Capex: Repex

In our initial review of Ergon's original proposal, we looked at replacement benchmarking metrics. Our analysis showed that Ergon was proposing a high replacement rate across its asset categories relative to its peers, despite having a relatively young fleet of assets. Our examination of Ergon's detailed project justifications did not find evidence of best practice business cases. The evidence gaps related to poor articulation of need, options assessment, and risk quantification.

The AER made similar observations in its draft determination. In the absence of risk quantification, the AER applied the findings of its repex model and trend analysis, resulting in a 20 per cent reduction to Ergon's proposed opex. The AER left open the prospect of Ergon submitting additional evidence in its revised proposal to further justify the proposed capex.

Ergon's revised proposal seeks an additional 20 per cent repex above its original proposal, which is about 50 per cent more than the AER's draft determination. Ergon has submitted a substantial amount of new information and analysis to justify the revised capex. This includes a new approach to replacement analysis that quantifies risks in dollar terms, and the inclusion of options assessment and cost benefit analysis.

Due to limited time, we have reviewed only a sample of the material replacement projects focusing on core network assets. This includes the business cases for poles, low voltage services and pole top structures. We recognise that Ergon has made significant leaps in the quality of analysis. While it would have been preferable for this material to be available for the original proposal, we nevertheless commend the efforts of Ergon staff to compile this material.

We recognise that Ergon's proposal is seeking to mimimise safety risks for the public, customers and its workers. We agree that this is vitally important, and that all prudent actions should be taken to minimise harm. At the same time, we consider that Ergon need to provide evidence to show that the current level of risk to the public is intolerable or non-compliant, and that all efforts to balance cost and risk have been pursued.

We consider that Ergon have provided some evidence to show that an increase in repex is required on its network. In particular, we note an increase in pole failures and a small increase in shocks that may get worse with the ageing of its network.

However, Ergon's business cases reveal evidence gaps as discussed below. Most relevantly, we consider there is insufficient evidence to support the step change in proposed repex compared to current levels. We consider a more gradual increase over time will help reduce Ergon's risks from current levels, will enable sufficient analysis to target the riskiest assets, and will allow for more efficient delivery. We encourage Ergon to address the issues below.

More evidence to explain benchmarking metrics

We consider that Ergon have not addressed a fundamental concern raised in ECA's submission on the original proposal. Based on our advice, the ECA noted that the replacement rates being proposed by Ergon were high compared to peers, yet the age of its assets were among the lowest in the NEM.

This has subsequently been borne out in the AER's repex model for the draft determination. For example, the model predicts significantly longer lives for SA Power Networks compared to Ergon. This is also apparent in the business cases. For instance, Ergon consider its service lines have a life of 25 to 35 years, yet other networks such as Ausgrid have a high proportion of services over 40 years.

This suggests that Ergon may have lower thresholds for replacement compared to its peers, reflecting a lower tolerance for risk. A key example is Ergon's decision to adopt the more conservative pole replacement threshold of Energex in 2018. This has been the catalyst for the large step change in pole replacement on Ergon's network. We would like to understand if it was prudent for Ergon to adopt a more conservative risk threshold, and whether other networks tolerate a higher amount of risk in their decisions to replace poles. The benchmarking metrics may alternatively suggest that Ergon's assets are more prone to degradation either due to poor quality, installation, maintenance, or weather.

We encourage Ergon to analyse benchmarking data and respond to these high-level concerns.

Demonstrate that current risk is intolerable or non-compliant

Ergon have factually identified safety risks from issues with network assets such as neutral integrity, clearance, and pole failure. For the most part these risks have been known to Ergon management for many years. For example, Ergon have been collecting information on customer shocks. It has previously decided to tolerate the risk. The key question is why Ergon now consider the risk intolerable. We consider that these issues need to be discussed openly so that stakeholders can understand why the risk can no longer be tolerated.

We are concerned that Ergon consider that they have compliance obligations to mitigate these risks, yet have not actively sought to do anything for a number of years.

Consider lower volume options

Ergon have undertaken considerable improvement in the quality of its business case, including comparing the net present value to counter-factual options.

However, the business cases do not identify sub-options that involve lower volumes. Indeed, there is limited discussion (and in some cases, no discussion) of how the volumes and timing have been arrived at in the first place, giving the appearance of an arbitrary rather than risk-based approach. For example, the pole top program simply states that the option is to replace 70,000 structures evenly over 5 years. Ergon do not state how this forecast was developed, why it is the right amount, or cost-risk analysis of lower volumes.

Given Ergon are seeking 50 per cent more repex than 2015-20, we would have expected to see some cost-risk analysis of lower volume programs, including how much more risk could be tolerated at a lower capex.

Undertake further risk prioritisation

The business cases do not priortise the program from most risky to least risky. This has two implications. Firstly, Ergon have not demonstrated that it has sufficient analysis to target assets which are of the highest risk. We consider that the poles business case provides a good case to show that failures are more likely in wet (corrosive) environments, but it does not show which are the most risky areas.

The second implication is that it does not provide a framework for delaying investment that may not have high risk or high consequence. For example, we note that in 2018 Power and Water Corporation's revised regulatory proposal reduced the replacement volume of Alice Spring corroded poles by deferring replacement in sparsely populated zones where it was unlikely that customers would come in contact with fallen conductors. It used ABS population density and infrastructure data as source data to make this assessment. We have not observed best practice risk prioritisation practices in Ergon's business cases.

Provide a clear delivery plan

We have not seen a comprehensive delivery plan for how Ergon expects to increase its volumes of programs for poles, pole top structures, services, switchgear and installation of monitoring devices. In the past two regulatory periods Ergon have spent less capex than the AER's determination, despite stating at the time that the AER allowance was inadequate. After the fact, it has re-prioritised programs, delivering significantly less capex than it proposed. In this revised proposal, it has even sought to claim a reward for not delivering the capex program in the 2015-20 period. In this context, it is difficult for consumers to have trust that Ergon will deliver the program.

Unlike other networks such as Ausgrid, we have not seen a comprehensive delivery strategy. Ausgrid's regulatory proposal was accompanied by a detailed delivery model that broke down the proposed work into labour, contract and material, and overlayed this with a resource plan to fill the delivery gaps.

Section 2b – Capex: Augex

In our initial review, we considered that Ergon's proposed augmentation lacked sufficient evidence of need and options. We also expressed caution at the level of new assets given the falling utilisation of the network from lower energy sales.

The AER reviewed each element of Ergon's proposed augex. It found sufficient evidence to accept Ergon's distribution capacity and reliability program. However, it did not accept the transmission capacity program, the network communication program, and power quality programs.

Ergon's revised proposal has provided more analysis of options underlying its transmission capacity projects. This was to address AER concerns that there were less costly options available. We have undertaken a review of a sample of projects and consider there is sufficient evidence for the revised program to be capable of acceptance.

Ergon has also provided more detail on its intelligent grid enablement, back-up protection, protection schemes and network capacity and coverage. It has made minor reductions to its proposed capex upon review. We recognise that networks with high solar penetration require smart new investment to best utilise the grid. The intelligent grid program is similar to SAPN's program, and we can see the benefits of investing in new IT capabilities rather than traditional augmentation.

We consider there are still residual evidence gaps that Ergon may be able to close. We have not seen sufficient evidence on the costing of the programs. Further unlike SAPN, we have not seen how Ergon's total expenditure on the low voltage network consider inter-relationships between programs.

Section 2c – Capex: Connections

We note that the AER has accepted Ergon's proposed connections capex, including the component of net capex funded by all customers. Ergon has not materially revised its connection forecast except for latest inflation and escalation. We consider there is sufficient evidence for the program to be capable of acceptance.

Section 2d – Capex: Information and Communications Technology (ICT)

In our initial review to the ECA we had noted significant investments by Ergon in ICT capex in the past without demonstration of benefits to customers. In this context, we found that the proposed program needed greater demonstration of customer benefit before it was capable of acceptance. We also questioned the deliverability of such a large program.

The AER found that the cost estimates required further analysis and that the program would face deliverability issues. Ergon has largely accepted the AER's decision in its revised proposal. On this basis we consider the proposed program is capable of acceptance.

Section 2e – Capex: Property

In our initial review, we noted a lack of justification for major property projects in Ergon's original proposal. There was little quantification of need or of viable alternative options.

The AER undertook a review of Ergon's proposed property projects and made similar conclusions. The AER made a very large reduction (almost 50%) to Ergon's proposed capex, but left open the opportunity for Ergon to submit more information.

In its revised proposal, Ergon submitted more detailed business cases for its proposed property projects including options assessment. Unfortunately, the business cases have significant redactions for confidentiality, and do not provide stakeholders with an opportunity to engage with the issues or interrogate the costs of each option. We therefore cannot conclude that the projects are capable of acceptance.

Section 2f – Capex: Fleet

In our initial review, we found Ergon's proposed fleet program seemed generally efficient when benchmarked, but that there was opportunity for a reduction in unit costs.

The AER identified a number of areas for cost improvement including unit costs, volumes and fleet composition. On this basis it reduced Ergon's proposed fleet capex by about 15%.

Ergon has revised the modelling underlying its proposed fleet proposal to address the issues raised by the AER. We consider there is sufficient evidence to show that Ergon have substantively engaged with the issues raised by the AER, and therefore the proposed expenditure at a high level is capable of acceptance.

Section 3 – Rate of return and tax

Ergon's original proposal aligned to the AER's rate of return guidelines. The AER's draft determination adjusted the proposed rate of return based on new market data, which has led to a further reduction. Ergon's revised proposal has updated the rate of return parameters for latest data, and the AER will do so in the final decision. We consider that there are no issues for consumers with this process.

We note that Ergon has raised an issue with the AER's calculation of inflation forecasts. We see merit in the case made by Ergon which suggests that reliance on the mid-point of the RBA's target inflation band may not be an accurate forecast of inflation in the current economic circumstance. We consider this is an issue the AER may wish to re-examine when it undertakes its periodic rate of return guideline review.

Ergon's original proposal included a placeholder tax allowance based on the AER's previous approach for calculating allowed tax. This was due to uncertainty with the AER's calculation in the post tax revenue model (PTRM) under the new approach following the AER's tax review. The AER's draft determination determined zero tax allowance for Ergon based on its final PTRM modelling. Ergon's revised proposal has not contested this calculation. To the extent that Ergon has used the AER's modelling approach, we see that the proposed amount is capable of acceptance.

Section 4 – Incentive rewards

In our initial proposal, we had highly commended Ergon for foregoing its claims for an incentive reward for the Capital Expenditure Sharing Scheme (CESS) and Efficiency Benefit Sharing Scheme (EBSS). We noted this was an integral aspect of its proposal 'as a whole', demonstrating its commitment to affordability principles for its customers. Ergon's proposal had left open the prospect of revisiting its decision to forego the reward.

The AER's draft decision accepted Ergon's decision to forego the CESS and EBSS reward, noting that it had already received a revenue reward for underspending its allowance in the 2015-20 period. The AER however outlined how the reward would be calculated should Ergon choose to re-visit its proposal to forego the reward.

Ergon's revised proposal has chosen to retract its earlier commitment to customers, and has asked for a reward of $194 million for the EBSS and $46 million for the CESS, totaling $240 million. This is roughly the equivalent of seeking an additional $2.4 billion of network capex. Rather than this amount being spent on improving services, it will be provided as profit to the shareholder.

We strongly question whether the capital under-spend is an efficiency. The evidence suggests that Ergon's 2015-20 proposal was an ambit claim, seeking a higher level of capex and opex than what was later revealed to be required.

We are also concerned with the lack of consumer engagement on Ergon's decision which appears to be consistent with working to revenue goals rather than a detailed consideration of the long-term interests of customers.