Revised Regulatory Proposal
Repex Summary

energex

1 Executive Summary

The AER's Repex assessment for Energex in its Draft Decision considered in detail a range of proposals for the 2020-25 regulatory control period. The AER also identified some themes in terms of the adequacy of our investment proposals.

This document forms part of our Revised Regulatory Proposal (RRP). It addresses in detail our response to both the comprehensive feedback on individual business cases plus the general themes identified by the AER. It provides a linkage between our RRP document and the individual business cases that have been re-submitted to the AER.

We appreciate the feedback from the AER on a range of issues regarding our proposals. We also obtained feedback from our customers on these proposals. In regard to some of our proposals, we've accepted the AER's position in the Draft Decision. For some of our other proposals we have worked to address the feedback from the AER's Draft Decision and address the issues identified both in this document plus in individual business cases.

Contents

1. Introduction

This document provides details of the changes Energex has made from the Regulatory Proposal to the Revised Regulatory Proposal in the Repex category in response to feedback that we have received from the AER and our customers.

1.1 Purpose of document

This document summarises the changes that have occurred between the Regulatory Proposal and the Revised Regulatory Proposal in Repex based on the feedback received from our discussions with the AER and from the Draft Decision.

1.2 Scope of document

The scope of this document is limited to the areas where there have been material changes in our forecast Repex, or where there was specific feedback from the AER that we have to address as part of our Revised Regulatory Proposal. It does not include projects and programs that have been accepted as prudent and efficient expenditure by the AER in its Draft Decision.

1.3 Overview of Draft Decision

The table below has been extracted from AER's draft decision[1].

Table 1 : AER's Draft Decision on Repex

Table 5.5 Draft decision on Energex's forecast repex ($ million, 2019–20)

	2020–21	2021–22	2022–23	2023–24	2024–25	Total
Energex's regulatory proposal	144.0	124.5	124.7	126.6	123.7	643.4
Draft decision	142.3	116.1	109.5	109.7	105.1	582.8
Difference	-1.7	-8.4	-15.2	-16.9	-18.6	-60.6

Source: AER analysis and Energex.
Note: Numbers may not add up due to rounding.

In this Revised Regulatory Proposal, we have carefully considered the feedback from the AER and our customers. We have reviewed our plans to determine whether there is scope to reduce capex by revisiting each project based on the specific feedback provided by the AER. We have examined the potential to make better use of existing assets and have reviewed programs where appropriate. In

[1] AER Draft Decision, Energex Distribution Determination 2020-25, Attachment 5 Capital Expenditure, October 2019

addition, we have examined AER's feedback on some themes in terms of adequacy of our investment proposals and these themes have been addressed, as detailed below.

2 How We've Addressed AER's General Feedback

The AER has provided significant and valuable feedback in its draft decision regarding our capex proposals in general. Several key points have emerged from this feedback and each of these is discussed below:

2.1 Lack of Necessary Material to Demonstrate Prudency and Efficiency

What the AER Found: The AER found in its draft decision that we had sometimes not provided adequate supporting evidence that each of our proposals / business cases represented a prudent and efficient investment.

What We've Done: We've thoroughly reviewed each of our investment proposals and re-written our business cases as necessary. We've adopted several different approaches depending on the feedback:

- In some proposals, we've accepted that the investment is not required to the same level as originally proposed or that a better option is available – in these instances we've accepted the AER's reduction to our investment proposal.
- In other proposals we've examined the short-fall in our evidence base and re-written the business case to add additional evidence.
- In a number of proposals, we've tested the AER's assessment of our investment and provided clarifying comments and additional evidence to support our proposal.
- In every case that we've re-submitted, we've provided clearer and more succinct documentation to assist the AER in its review process.

2.2 Inadequate Cost Benefit Analysis

What the AER Found: The AER found in its draft decision that our business cases did not always provide a rigorous cost benefit analysis. The AER found that many of our business cases provided least cost options without any real examination of risks or benefits. The AER also found that our business cases did not test alternative options adequately through a rigorous sensitivity analysis.

What We've Done: We've thoroughly reviewed each of our investment proposals and re-written our business cases to address the AER's concerns. We've included the following key elements in every business case:

- A clear and well document business case, including a NPV analysis in every case. In a limited number of cases this remains a least NPV cost approach, however this is the only feasible approach in some cases and the rationale for this is fully documented.
- We've carried out sensitivity analysis, in every case where it is appropriate to do so.
- We've carried out a Value of Regret analysis in every case to provide greater insights into the merits of our proposed option.

2.3 Establish the Need for Investment and Address Capex Criteria

What the AER Found: The AER found in its draft decision that our business cases did not always clearly identify a need for investment. This is linked to a related finding that our proposals did not address the provide a rigorous cost benefit analysis.

What We've Done: We've thoroughly reviewed each of our investment proposals and re-written our business cases to address the AER's concerns. We've included the following key elements in every business case:

- We've included a section in every business case to clearly identify the need for the investment. This is linked to a range of drivers including compliance and risk.
- We've included a table in every business case that details the alignment of the proposal with the NER capital expenditure requirements as set out in Clause 6.5.7 of the NER.

2.4 Risk Quantification

In its Draft Decision, the AER noted that Energex's business cases need to include risk quantification, especially in regard to our Repex programs. Ergon Energy and Energex have undertaken significant risk quantification as part of the RRP process. This work is detailed in the Aurecon Risk Quantification Methodology. This risk quantification work has been modelled on the Australian Energy Regulator, Industry Application Note, Asset Replacement Planning, January 2019 and it includes the following programs and projects.

Program / Project Name	Program / Project Description
Ergon Energy Clearance to Structure / Clearance to Ground (CTS/CTG)	Remediation program to address known clearance defects
Ergon Energy LV Services	Replacement program to address defective assets
Energex LV Services	Replacement program to address defective assets
Energy Queensland LV Safety program	Program of LV monitoring to detect neutral integrity failures
Ergon Energy Poles	Replacement program to address defective assets
Ergon Energy Pole Top Structures	Replacement program to address defective assets
Ergon Energy Childers to Gayndah feeder	Condition based replacement program of 66kV overhead line
Ergon Energy Circuit Breakers	Replacement program to address end of life equipment
Ergon Energy Power Transformers	Replacement program to address end of life equipment

3 Specific Projects and Programs – Modelled Repex

In its Draft Decision the AER identified some specific projects and programs that need to be addressed in our RRP. These projects are discussed below.

3.1 Modelled Repex Programs

In its draft decision AER assessed that Energex's modelled repex was a suitable part of the overall capex that reasonable reflects the capex criteria. No business cases have been submitted as part of the RP for Energex's modelled repex.

4 Specific Projects and Programs – Unmodelled Repex

The AER identified two programs in Energex's unmodelled repex program that require further justification.

4.1.1 LV Safety

What the AER Found[2]: The AER provided significant commentary on this program that Energex did not adequately justify this program as follows:

- Energex did not provide sufficient material that the current programs (LV Services replacements) are inadequate.
- There was inadequate options analysis to support the program.
- Ergon's program of service inspection and replacement appears to be in line with industry best practice and there has been no change in regulatory obligations.
- The costs may be grossly disproportionate to the benefits from the program.
- The program does not solve the cause of the risk that it is trying to mitigate.

What We've Done: We've thoroughly reviewed our investment proposal, reconsidering the options based on AER's feedback. Our further work includes the following:

- Risk quantification work has been completed for both the Energex and Energex LV services replacement programs. In this analysis we found that significant risks remain after the services replacement programs are completed. Further to this, experience from our own trials, plus experience interstate has shown that monitoring of LV electrical quantities can provide immediate identification of dangerous broken neutral situations. These situations would only otherwise be detected by periodic inspection programs or by a shock complaint from a customer. Given the safety risks from broken neutral conductors and related customer and network connection components, a further program can be justified based on safety risk mitigation.
- We've completed the risk assessment for both Energex and Energex and an overall LV safety monitoring approach.
- Alternative options have been considered taking into account other viable options to reduce customer safety risks.
- We've re-written this business case and provided a clear and succinct examination of the need for investment and the linkages to the NER capex criteria.
- We've re-done the options analysis, and NPV analysis to address the AER's concerns, including a detailed sensitivity analysis, and Value of Regret Analysis.
- We've proposed an approach that does not depend on a specific technology, but rather can use network quantities from Smart meters or from purpose-build monitoring devices.
- Full details are provided in the business case for this project.

Cost Change Summary: The direct cost of the Energex component of the program has decreased from $56.6M to $30.9M following rework of the business case.

4.1.2 Asbestos Prioritised Removal Program

What the AER Found[3]: The AER provided significant commentary on this program that Energex did

[2] AER Draft Decision comments have been summarised, rather than repeated in full
[3] AER Draft Decision comments have been summarised, rather than repeated in full

not adequately justify this program as follows:

- Energex did not demonstrate the need for this project on economic, safety or legislative grounds.
- Energex has not established its current risk exposure, the need to undergo this project or the costs and benefits compared with current practices.

What We've Done: We've thoroughly reviewed our investment proposal, reconsidering the options based on AER's feedback. Our further work includes the following:

- We've re-written this business case and provided a clear and succinct examination of the need for investment and the linkages to the NER capex criteria.
- We've re-done the options analysis, and NPV analysis to address the AER's concerns.
- Full details are provided in the business case for this project.

Cost Change Summary: The direct cost of the Energex project remains the same as originally proposed at $8.0M.