



Attachment I Other Replacements Ex post Review of Ergon Energy 2018-2023 Capital Expenditure

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Part of Energy Queensland

Note

This attachment forms part of Ergon Energy's justification of the ex post review of its 2018-2023 capital expenditure for submission to the AER as part of its 2025-30 Regulatory Proposal.

It should be read in conjunction the main overview document and the following attachments:

Overview of Ergon Energy RDP 2025 Ex Post Review

Attachment A	Pole Replacements
Attachment B	Overhead Conductor Replacements
Attachment C	Pole Top Structure Replacements
Attachment D	Switchgear Replacements
Attachment E	Transformer Replacements
Attachment F	Underground Cable Replacements
Attachment G	Service Replacements
Attachment H	SCADA Replacements
Attachment I	Other Replacements
Attachment J	Non Network Capex
Attachment J1	ICT
Attachment J2	Property
Attachment J3	Fleet
Attachment J4	Tools and Equipment

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1 INTRODUCTION

The Other asset category is a mix of system enabling technologies and assets, split by functionality. In our 2022-23 RIN, we reported the following:

- 2,667 Voltage Transformers (VTs)
- 6,759 Current Transformers (CTs)
- 161 Capacitor Banks
- 5 Static Variable Compensators (SVC)

Our expenditure on Other replacements over the review period¹ was above the AER's forecast by \$61.4 million ²(\$2024-25).

This paper provides the background and analysis of Ergon Energy's expenditure on transformer replacements to identify the causes and drivers behind the increase in expenditure.

2 BACKGROUND

Table 1 shows the level of expenditure for the ex-post review period across the various asset categories within the Other asset class.

Table 1 – Breakdown of Expenditure by Asset Category - \$2024-25, (\$'000)

Asset Category	2018-19	2019-20	2020-21	2021-22	2022-23	Total
CTs	3,186	3,440	4,633	4,497	4,858	20,615
VTs	4,886	3,840	3,965	3,523	3,063	19,279
Cap Banks	183	79	42	-	-	305
SVCs	796	83	-	-	-	163
Other	6,843	10,757	10,497	14,671	10,319	53,088

As Table 1 demonstrates, the most significant portion of expenditure in this category is attributable to Other, with CTs and VTs making up the top three categories. The Other group comprise of primarily fencing, DC systems, batteries and miscellaneous civil works.

¹The review period as defined in NER S6.2.2A(a1) is 2018-19 to 2022-23

² This amount is overstated. To account for escalation variations, the AER forecast has been adjusted down for the ex post analysis while the actual included public lighting costs in 2018-19 and 2019-20

3 2015-20 DISTRIBUTION DETERMINATION

A high-level review of the 2015-20 Regulatory Determination process was undertaken to determine the basis and reasons of the AER decision on the allowances provided for the unmodelled Other asset class. Unless otherwise stated, all values in this section are provided in \$2014-15 as used in the 2015-20 Distribution Determination.

Table 2 is a summary of information on Other replacements from the 2015-20 regulatory determination.

Table 2: 2015-20 Other Replacements

\$ 2014-2015 (\$,000)	Other					Total
	2015-2020 Determination					
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	
Revised Regulatory Proposal	\$ 5,258	\$ 5,657	\$10,190	\$10,318	\$ 5,987	\$ 37,410
AER Final Decision Forecast	\$ 7,893	\$ 3,839	\$ 5,432	\$ 6,656	\$ 3,612	\$ 27,433

Key points to note:

- The AER's alternative forecast for repex by asset categories was \$786.6 million, with the final repex allowance after adjusting for escalations being \$740.2 million. For the purpose of this ex post review, the forecast for unmodelled categories have been pro-rated to align with the final total repex allowance of \$740 million. That is, to align with the final forecast we have adjusted the unmodelled asset categories to reconcile the overall repex forecast. Hence, the total repex forecast for Other shown in Table 2 is \$27.4 million instead of \$37.4 million which was published in the AERs final decision.
- On page 6-103 of the AER's Final Decision, Attachment 6 – Capital Expenditure Ergon Energy Determination 2015-20 (footnote 203) the AER stated the following:

We consider that, given EMCa's advice, and that the proposed expenditure is in line with expenditure on this category from the 2010–15 regulatory control period, Ergon Energy's forecast repex of \$42 million ³is likely to reflect the capex criteria and have included this amount in our alternative estimate of total forecast capex..”

4 2020-25 DISTRIBUTION DETERMINATION

Details of the expenditure and volume from the 2020-25 regulatory determination process is provided in Table 3 below. Unless otherwise stated, all values in this section are in \$2019-20 as used in the 2020-25 Distribution Determination.

³ There were two different numbers in the Reset RIN submitted to the AER - \$ \$37.4 million and \$43 million. For the purpose of the ex post review, we adopted for 37.5 million for reconciliation and analysis purposes.

Table 3: 2020-25 Other Replacements⁴

\$ 2019-2020 (\$,000)	Other					Total
	2020-25 Determination					
	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	
Regulatory Proposal	\$18,274	\$21,289	\$24,693	\$27,948	\$36,250	\$ 128,454
Revised Regulatory Proposal	\$19,650	\$28,340	\$32,226	\$29,606	\$38,547	\$ 148,368
AER Final Decision Forecast	\$ 8,800	\$ 8,800	\$ 8,800	\$ 8,800	\$ 8,600	\$ 43,800

The AER's Draft and Final Determinations adopted trend analysis to determine the substituted forecast for this asset category.

5 HISTORICAL EXPENDITURE OF OTHER REPLACEMENTS

This section presents data from various sources including our RRP, AER's Final Decisions, our CA RIN 2.2 Repex and CA RIN 5.2 Asset age profile as submitted to the AER annually.

Unless otherwise stated, all values have been converted to \$2024-25 for comparison purposes.

5.1 Actual 2015-20 Performance

A summary of the actual expenditure of Other replacements over the 2015-20 regulatory control period is provided in Table 4 below.

Table 4: Other Repex 2015-2020

\$ 2024-2025 (\$,000)	Other					Total
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	
Revised Regulatory Proposal	\$55,759	\$ 7,464	\$13,446	\$13,614	\$ 7,899	\$ 98,182
AER Final Decision Forecast	\$10,415	\$ 5,066	\$ 7,168	\$ 8,783	\$ 4,766	\$ 36,198
Actual	\$10,910	\$ 5,105	\$16,270	\$20,562	\$26,355	\$ 79,201

Key observations:

- Repex in over the 2015-20 regulatory control period was above the AER's forecast, however was below our Revised Regulatory Proposal forecast over the period.
- An increase in expenditure occurred in 2017-18 and has continued into the 2020-25 control period.
- Our expenditure on CTs and VTs follows closely our expenditure on other substation asset categories like transformers and switchgear.
- The Other category in this asset class is a catchall for asset replacements that don't relate to a specific primary asset. These include bunding, fencing, earth mats and other miscellaneous assets. As such, the increase in this category can be attributed to our general increase in program expenditure and are typically consequential replacements related to the replacement of a primary asset.

⁴ The regulatory process does not require a submission of a revised reset RIN with an RRP. In lieu of Reset RIN, a selection of updated RIN templates with detailed information of the forecast volumes and costs was provided to the AER. Data is sourced from this file. To align with the AER's FD, CTG/CTS cost are re-allocated from Others to the modelled and unmodelled asset categories as per the Regulatory Proposal. Including CTG/CTS, RRP for Others was \$278.8 million

5.2 2020-25 Actual and Estimated Performance

A summary of the actual expenditure of Other replacements over the 2020-25 regulatory control period is provided in Table 5 below.

Table 5: Other Repex 2020-2025

\$ 2024-2025 (\$,000)	OTHER					Total
	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	
Revised Regulatory Proposal	\$23,785	\$34,304	\$39,008	\$35,837	\$46,659	\$ 179,594
AER Final Decision Forecast	\$10,652	\$10,652	\$10,652	\$10,652	\$10,410	\$ 53,018
Actual	\$19,111	\$22,661	\$18,214	\$42,077	\$40,065	\$ 142,127

Key observations:

- Our expenditure during the 2020-2025 regulatory control period has been consistently around \$20 million per year compared to the AER's forecast of \$10 million per year.
- The Other category in this asset class is a catchall for asset replacements that don't relate to a specific primary asset. These include bunding, fencing, earth mats, DC systems, batteries, civil works, and other miscellaneous assets.
- As such, the increase in this category can be attributed to our general increase in program expenditure and are typically consequential replacements related to the replacement of a primary asset.
- We have also instigated a program for the replacement of security fencing and transformer bunding replacements following an audit of our substations to ensure community safety around electrical assets.

6 REVIEW PERIOD PERFORMANCE (2018-19 TO 2022-23)

The *review period* for ex post review spans across two regulatory control period and two separate Distribution Determinations.

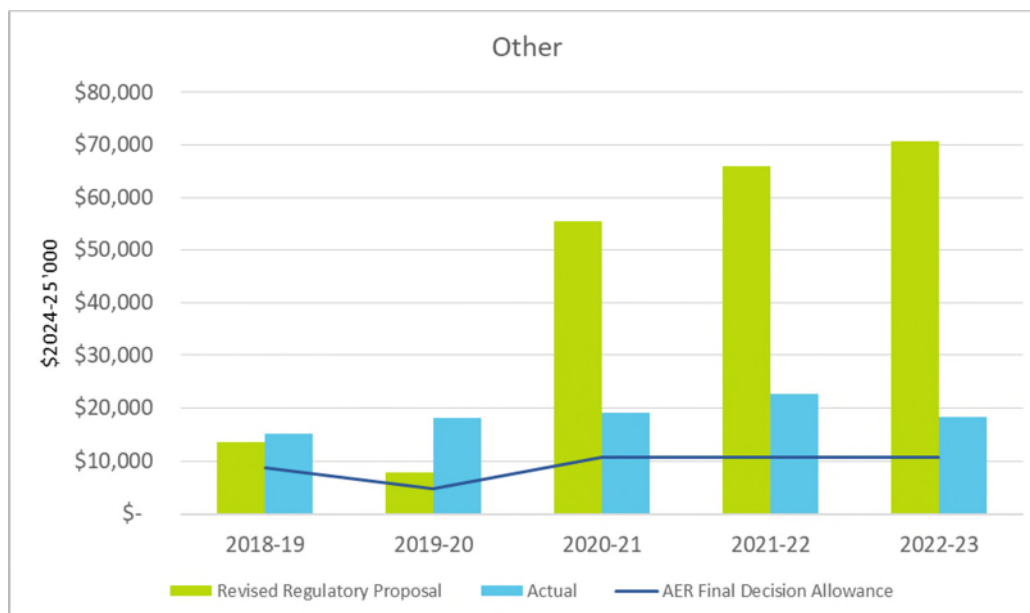
Actual and estimated performance against the allowances set by the AER over the *review period* is provided in Table 7 below. Unless otherwise stated, all values have been converted to \$2024-25 for comparison purposes.

Table 6: Review Period Performance – Other⁵

\$ 2024-2025 (\$,000)	Other					Total
	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	
AER Final Decision Forecast	\$ 8,783	\$ 4,766	\$10,652	\$10,652	\$10,652	\$ 45,505
Actual	\$20,562	\$26,355	\$19,111	\$22,661	\$18,214	\$ 106,903

⁵ The actual for 2018-19 and 2019-20 included \$13.6 million of public lighting spend undertaken and reported in the RIN as SCS in 2018-19 (\$5.4 million) and 2019-20 (\$8.2 million)

Table 7: Review Period Performance – Other



Reasons and drivers of overspend on Other replacements;

- Our expenditure for the ex-post period is above the AER’s forecast by 135%⁶. By comparison, our overall repex program 120% above the AERs forecast.
- The increase in the Other expenditure category reflects the increase in our overall repex, with most of this expenditure the result of consequential replacements with other assets.

7 JUSTIFICATION STATEMENTS AND CONCLUSION

We submit that the expenditure for replacement of our Other assets over the review period is prudent and efficient. These are ancillary assets that support the replacement of primary assets and network operations to ensure integrity and security of the distribution grid. The increase in expenditure is driven by the general repex increase in the other asset categories.

We therefore submit that all the repex on Other assets incurred over the review period are required and should be rolled into our RAB.

⁶ This amount is overstated. To account for escalation variations, the AER forecast has been adjusted down for the ex post analysis while the actual included public lighting costs in 2018-19 and 2019-20