



**Attachment B**  
**Overhead Conductor**  
**Replacements**  
**Ex post Review of Ergon**  
**Energy 2018-2023 Capital**  
**Expenditure**

January 2024



## 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 document.

The ex post review submission includes the following documents.

### Ex-post Review of Ergon Energy 2018-2023 Capital Expenditure

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	ICT Capex

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## 1 BACKGROUND

We currently have over 144,754 km<sup>1</sup> of overhead powerlines across its distribution network.

Our expenditure on overhead conductor replacements over the review period<sup>2</sup> was below the AER's forecast by \$16.8 million (\$2024-25). The AER has indicated that an ex post review will assess all areas of spending; not just the overspend in specific categories. In addition, we have conducted a Post Implementation Review (PIR) on overhead conductor replacements to evaluate outcomes and benefits of the expenditure.

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

## 2 ASSET MANAGEMENT OVERVIEW

Our asset management practice is set out in our Asset Management Plan for Overhead Conductor, which is in alignment with the ISO55000 asset management framework. A summary of this is also set out in Section 8.3.3 of our Distribution Annual Planning Report (DAPR) 2022.

Overhead conductor replacements are driven by conductor condition, type, construction, operating environment, and in-service performance history. Targeted programs are based on known problematic conductor types and focused on conductors installed in populated, coastal regions where the likelihood of in-service asset failure is considered greater, and the consequence of failures are greater. Remaining aged populations are managed through routine inspection programs with ongoing monitoring of conductor failure rates and performance metrics.

Based on 2020-21 CA RIN 5.2 information, 36% (51,412 km) of Ergon's overhead conductors are over 50 years old with 6% over the age of 70 years.

**Table 1: Overhead Conductors (km) over 50 years**

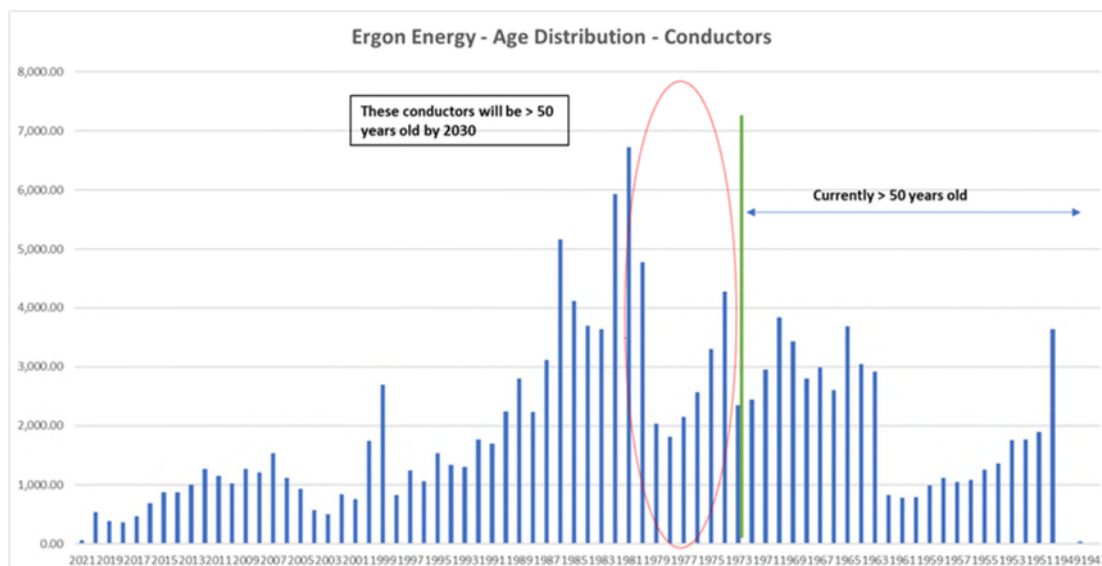
Age	Conductors	Proportion
Over 50 Years	51,412	36%
Over 55 Years	36,409	25%
Over 60 Years	21,288	15%
Over 65 Years	14,985	10%
Over 70 Years	9,121	6%

Details of the assumptions used in reporting our RINs are set out in the RIN Basis of Preparation (BOP) documentation. The age profile of Ergon's overhead conductors is shown in Figure 1 below.

<sup>1</sup> 2021-22 RIN 5.2

<sup>2</sup>The review period as defined in NER S6.2.2A(a1) is 2018-19 to 2022-23

**Figure 1: Conductor age distribution**



### 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's decision on the forecasts provided for overhead conductor replacements. Unless otherwise stated, all values in this section are in are \$2014-15.

Key points in relation to overhead conductor replacements are:

- We submitted its forecast expenditure for overhead conductor replacement in the reset RIN.
- The AER noted that the unit cost submitted in the reset RIN is lower than the historical unit costs.
- The AER adopted the unit cost<sup>3</sup> as submitted by us on the basis that the service provider's own data provided the best estimation of unit cost.
- On page 6-89 of the AER's Final Decision, Attachment 6 – Capital Expenditure Ergon Energy Determination 2015-20 (footnote 203) the AER also stated the following:

*"..we have accepted Ergon Energy's proposed expenditure on pole and overhead conductor replacement (\$84 million and \$216 million, respectively). For these two categories, the estimates from our predictive modelling were higher than Ergon Energy's forecast. For the remaining four asset categories, the AER adopted the outcome of the calibrated repex model, being \$242 million."*

- EMCa, the AER's consultant on capex noted that the proposed expenditure in the RRP is broadly consistent with the last year on the 2010-15 RCP as illustrated on in Figure 2 of the report<sup>4</sup>.

<sup>3</sup> Page 6-89 AER Final Decision, Attachment 6 – Capital Expenditure Ergon Energy Determination 2015-20

<sup>4</sup> EMCa – Review of Review of Proposed Capital Expenditure in Ergon Energy's Revised Regulatory Proposal September 2015

- The AER requested EMCa to provide advice on the prudence and efficiency of our proposed repex of \$36.4m for a 'conductor clearance to ground' backlog remediation program. A detailed analysis of clearance program is set out in section 4.11.2 of EMCa's report<sup>5</sup>.
- EMCa noted that, while a program to address low clearances is likely to be required, it considered the program that we proposed is neither prudent nor efficient<sup>6</sup>.
- Despite EMCa's concerns, the AER included a forecast for the clearance program in the overhead conductor repex. The AER's concluding comments stated the following:

*We note the concerns expressed by EMCa in its report. However, we also note that this program relates to the replacement of overhead line assets on Ergon Energy's network, such that it would fall under the "modelled" asset category of overhead conductor. If the \$37 million proposed by Ergon Energy was included in this category, Ergon Energy's proposal would total \$253 million (\$37 million <sup>7</sup>+ \$216 million). This amount would be lower than the business as usual expenditure estimated by the repex model for this category of \$413 million. Given that, if the expenditure had been proposed as "overhead conductor", we would have accepted the forecast as being lower than the business as usual amount, we consider that the expenditure is likely to reflect the capex criteria, and have included it in our alternative estimate.*

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

**Table 2: 2015-20 Overhead Conductor Replacements<sup>8</sup>**

\$ 2014-2015 (\$,000)	OVERHEAD CONDUCTORS					
	2015-2020 Determination					
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Total
Revised Regulatory Proposal	\$ 48,548	\$ 50,174	\$ 50,441	\$ 50,664	\$ 53,140	\$ 252,966
Repex Model Final Decision	\$ 71,938	\$ 81,970	\$ 92,618	\$ 103,803	\$ 115,441	\$ 465,770
AER Final Decision Forecast	\$ 48,428	\$ 50,054	\$ 50,321	\$ 50,544	\$ 53,020	\$ 252,366
Volume (units)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Total
Revised Regulatory Proposal	493	509	539	514	410	2,466
Repex Model Final Decision	578	656	739	824	913	3,710
AER Final Decision Forecast	493	509	539	514	410	2,466
Unit Cost (\$)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Average
Revised Regulatory Proposal	\$ 98,417	\$ 98,535	\$ 93,529	\$ 98,559	\$ 129,592	\$ 103,726
Repex Model Final Decision	\$ 124,394	\$ 124,894	\$ 125,411	\$ 125,936	\$ 126,460	\$ 125,419
AER Final Decision Forecast	\$ 98,173	\$ 98,299	\$ 93,307	\$ 98,326	\$ 129,299	\$ 103,481

<sup>5</sup> Page 41 EMCa - Review of Ergon Energy revised proposed capex - September 2015\_0

<sup>6</sup> Page 6-104 AER Final Decision Attachment 6 – Capital expenditure | Ergon Energy determination 2015–20

<sup>7</sup> \$37 million is the total for CTG program; amount allocated to overhead conductors was \$16 million over the 5 years

<sup>8</sup> Assumption: Expenditure for clearance of \$36.4 million is included in the AER allowance and spread to Overhead conductor category evenly across the 5 years

## 4 2020-25 DISTRIBUTION DETERMINATION

Unless otherwise stated, all values in this section are in are \$2019-20.

Summary of key points on overhead conductor replacements from the 2020-25 regulatory determination are:

- In the RP, the overhead conductor replacement forecast provided in the reset RIN and repex model for the 2020-25 regulatory control period totalled \$101.5 million.
- Our forecast for our CTG/CTS program was \$14 million. Based on the allocation to modelled and unmodelled asset categories in our proposal, \$1.7 million was included in the overhead conductor category.
- Also included within the RP repex model is the project cost of \$31.7 million for the replacement of 66kV feeder Childers-Gayndah.
- Unlike the RP, the RRP forecast expenditure for CTG/CTS of \$133 million was excluded from the six repex asset categories (including the overhead conductor category) and included in the “Other” category in the repex model.
- In its assessment for its final decision, the AER reallocated costs associated with CTG/CTS back into the relevant asset categories – including \$16 million into the overhead conductors.
- In relation to the project to replace the 66kV line Childers to Gayndah, the estimated cost of \$38.1 million in the RP was revised upwards to \$52.4 million the RRP.
- The AERs forecast of repex for conductors was determined by the repex model. In Ergon’s case, the AER primarily used the Lives Scenario output as the basis of its decision.
- Full details are set out in Lives scenario – output of the AER’s Repex Model for Ergon<sup>9</sup>.
- The basis and rationale of the final AER decisions including a detailed discussion on the CTG/CTS program are set out in Section A3 - Repex of the decision<sup>10</sup>

Details of the replacement of overhead conductors from the 2020-25 regulatory determination process is provided in Table 3 below:

<sup>9</sup> AER - Final Decision - Ergon Energy distribution determination 2020-25 - Repex Model - Public - June 2020

<sup>10</sup> Page 5-24 Final decision - Ergon Energy distribution determination 2020-25 - Attachment 5 - Capital expenditure - June 2020

**Table 3: 2020-25 Overhead Conductor Replacements<sup>11</sup>**

\$ 2019-2020 (\$,000)	OVERHEAD CONDUCTORS					
	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	Total
Regulatory Proposal	\$ 20,016	\$ 20,120	\$ 20,716	\$ 21,078	\$ 19,535	\$ 101,466
Repex Model Draft Decision	\$ 16,083	\$ 18,179	\$ 20,390	\$ 22,703	\$ 25,103	\$ 102,459
AER Draft Decision Forecast	\$ 16,083	\$ 18,179	\$ 20,390	\$ 22,703	\$ 25,103	\$ 102,459
Revised Regulatory Proposal	\$ 22,864	\$ 22,979	\$ 23,723	\$ 24,119	\$ 22,334	\$ 116,020
Repex Model Final Decision	\$ 18,385	\$ 20,608	\$ 22,943	\$ 25,380	\$ 27,911	\$ 115,226
AER Final Decision Forecast	\$ 18,385	\$ 20,608	\$ 22,943	\$ 25,380	\$ 27,911	\$ 115,226
Volume (units)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	Total
Regulatory Proposal	526	573	573	526	526	2,724
Repex Model Draft Decision	449	512	581	653	729	2,923
AER Draft Decision Forecast	449	512	581	653	729	2,923
Revised Regulatory Proposal	577	629	626	573	579	2,984
Repex Model Final Decision	376	428	483	541	602	2,429
AER Final Decision Forecast	376	428	483	541	602	2,429
Unit Cost (\$)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	Average
Regulatory Proposal	\$ 38,067	\$ 35,099	\$ 36,139	\$ 40,087	\$ 37,153	\$ 37,309
Repex Model Draft Decision	\$ 35,836	\$ 35,476	\$ 35,125	\$ 34,784	\$ 34,453	\$ 35,135
AER Draft Decision Forecast	\$ 35,836	\$ 35,476	\$ 35,125	\$ 34,784	\$ 34,453	\$ 35,135
Revised Regulatory Proposal	\$ 39,606	\$ 36,543	\$ 37,909	\$ 42,123	\$ 38,546	\$ 38,946
Repex Model Final Decision	\$ 48,860	\$ 48,182	\$ 47,539	\$ 46,936	\$ 46,375	\$ 47,579
AER Final Decision Forecast	\$ 48,860	\$ 48,182	\$ 47,539	\$ 46,936	\$ 46,375	\$ 47,579

## 5 HISTORICAL EXPENDITURE AND VOLUMES

This section presents data sourced from our RRP for 2015-20 and 2020-15, AER's repex models from the 2015-20 and 2020-25 Regulatory Determinations and our CA RIN 2.2 Repex and CA RIN 5.2 Asset age profile as submitted to the AER.

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

<sup>11</sup> Including allocated expenditure for clearance of \$8.1 million to OH conductor evenly across the 5 years



## 5.1 Actual 2015-20 Performance

**Table 4: Overhead Conductor Replacements 2015-2020**

\$ 2024-2025 (\$,000)	OVERHEAD CONDUCTORS					
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Total
Revised Regulatory Proposal	\$ 64,058	\$ 66,203	\$ 66,556	\$ 66,849	\$ 70,116	\$ 333,783
Repex Model Final Decision	\$ 94,920	\$ 108,157	\$ 122,207	\$ 136,966	\$ 152,321	\$ 614,572
AER Final Decision Forecast	\$ 63,900	\$ 66,044	\$ 66,398	\$ 66,691	\$ 69,958	\$ 332,991
Actual	\$ 40,120	\$ 34,850	\$ 16,881	\$ 20,817	\$ 23,916	\$ 136,583
Volume (units)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Total
Revised Regulatory Proposal	493	509	539	514	410	2,466
Repex Model Final Decision	578	656	739	824	913	3,710
AER Final Decision Forecast	493	509	539	514	410	2,466
Actual	167	208	328	381	356	1,440
Unit Cost (\$)	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Average
Revised Regulatory Proposal	\$ 129,858	\$ 130,014	\$ 123,410	\$ 130,047	\$ 170,993	\$ 136,864
Repex Model Final Decision	\$ 164,135	\$ 164,795	\$ 165,477	\$ 166,170	\$ 166,860	\$ 165,488
AER Final Decision Forecast	\$ 129,537	\$ 129,703	\$ 123,116	\$ 129,739	\$ 170,607	\$ 136,541
Actual	\$ 240,239	\$ 167,547	\$ 51,467	\$ 54,637	\$ 67,180	\$ 116,214

### Key Observations

- Over the 2015-20 regulatory control period, we have underspent the AER's forecast for conductor replacement.
- In the last two years of the RCP that falls within the review period, the actual spend (\$44.7 million) was only 36 percent of the AER's forecast (\$136.8 million).
- The AER's repex model forecast a total replacement of 3,710 km over the RCP compared to our RRP forecast and accepted by the AER in its final decision of 2,466 km of overhead conductors.
- The actual amount of conductor replaced reported in the RIN over the 5 years was 1,440 km.
- It is noted that the average unit cost provided in the AER's forecast is \$136,737 per km compared to the actual of \$116,381 per km.

## 5.2 2020-25 Actual and Estimated Performance

**Table 5: Overhead Conductor Replacements 2020-2025**

\$ 2024-2025 (\$,000)	OVERHEAD CONDUCTORS					
	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	Total
Revised Regulatory Proposal	\$ 27,676	\$ 27,816	\$ 28,716	\$ 29,196	\$ 27,035	\$ 140,438
Repex Model Final Decision	\$ 22,254	\$ 24,945	\$ 27,771	\$ 30,722	\$ 33,785	\$ 139,477
AER Final Decision Forecast	\$ 22,254	\$ 24,945	\$ 27,771	\$ 30,722	\$ 33,785	\$ 139,477
Actual	\$ 31,510	\$ 58,774	\$ 59,768	\$ 43,890	\$ 40,616	\$ 234,558
Volume (units)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	Total
Revised Regulatory Proposal	577	629	626	573	579	2,984
Repex Model Final Decision	376	428	483	541	602	2,429
AER Final Decision Forecast	376	428	483	541	602	2,429
Actual	551	659	577	553	551	2,891
Unit Cost (\$)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	Average
Revised Regulatory Proposal	\$ 47,942	\$ 44,234	\$ 45,888	\$ 50,988	\$ 46,659	\$ 47,142
Repex Model Final Decision	\$ 59,144	\$ 58,323	\$ 57,544	\$ 56,814	\$ 56,136	\$ 57,592
AER Final Decision Forecast	\$ 59,144	\$ 58,323	\$ 57,544	\$ 56,814	\$ 56,136	\$ 57,592
Actual	\$ 57,188	\$ 89,186	\$ 103,511	\$ 79,367	\$ 73,712	\$ 80,593

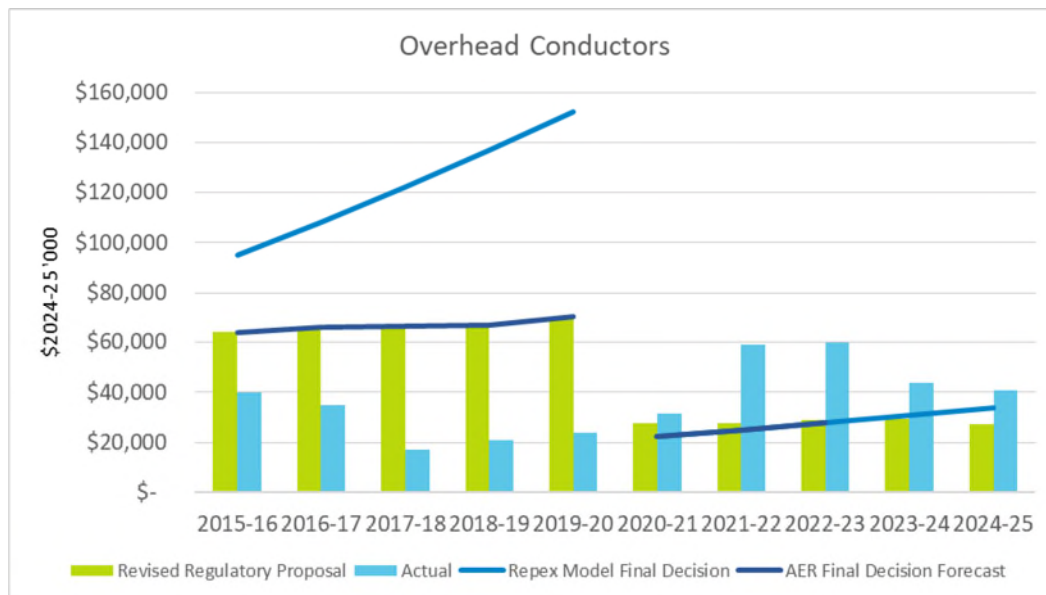
### Key Observations

- In the first 3 years of this current regulatory period, we replaced almost 600 km per year of overhead conductor on average, compared to under 300 km per year in the previous period.
- A contributor to the increase in volume and expenditure is from the replacement of the 66kV feeder from Childers to Gayndah which involves the replacement of approximately 100km of lines.
- The unit rate associated with a sub-transmission project such as this is higher than for our typical distribution voltages, which has seen the unit rate for our overall reconductoring program increase.
- *Attachment – Cost Comparison of Ergon RIN Unit Costs to the NEM* discusses the delivery of our LV and HV re-conductoring programs and confirms that our unit rate in these categories has remained stable.

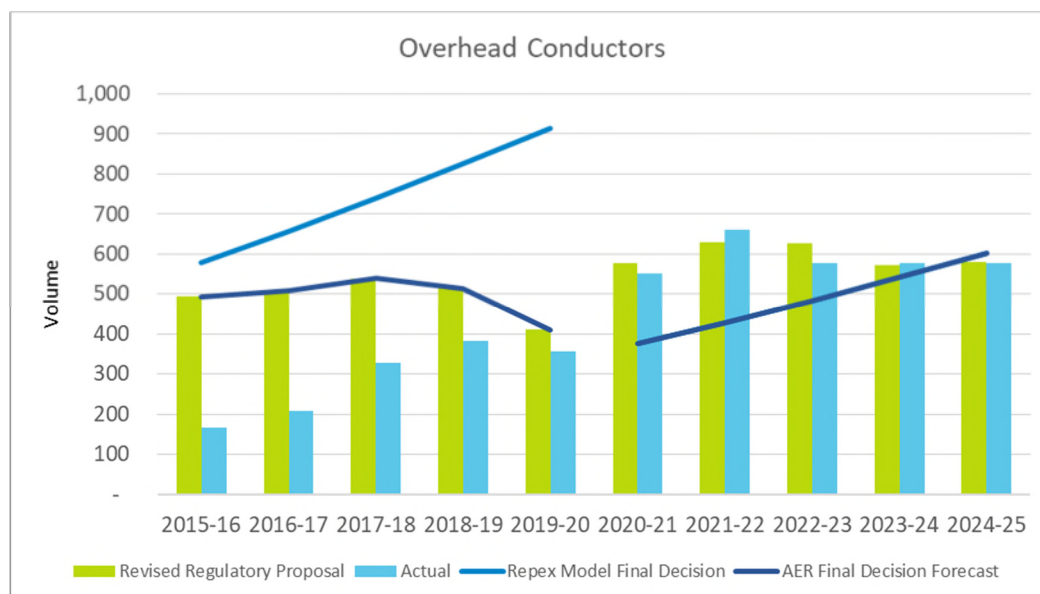
## 5.3 Historical Trends and Performance

Figure 2 and Figure 3 below provide comparisons of the expenditure and volume of conductor replacements from the actual to the applicable RRP, repex models and AER final decisions.

**Figure 2: Overhead Conductor – Expenditure**



**Figure 3: Overhead Conductor – Volume**



**Key observations:**

- A significant reduction in the output of the repex model between 2015-2020 and 2020-2025 regulatory control periods.
- We have increased our overhead conductor replacement in the 2020-25 regulatory control period, with expenditure higher than our RRP forecast and the AER forecast.
- A step up in volume replacements occurred in 2020-21, which is now our ongoing program and expected to increase in the next regulatory control period.

- The unit cost is relatively variable and is dependent on the voltage of conductors being replaced. Our unit rates for HV and LV conductor replacement has remained stable throughout the 2018/19 to 2021/22 regulatory control period, as outlined in *Attachment – Cost Comparison of Ergon RIN Unit Costs to the NEM*.

## 5.4 Analysis of Overhead Conductor Replacements

Unassisted failures of overhead conductors in our network, with a high proportion of them resulting in conductors falling to the ground, has raised safety and network reliability concerns. A review of this failure rate concluded the poor condition of the overhead conductors and that the historical levels of targeted conductor replacement were too low. An increase in replacement volumes was necessary to mitigate safety and reliability risks to customers and the community.

Overhead conductor replacement in Ergon Energy has been increasing since 2015-16. In the 2015-20 regulatory control period, the average annual replacement volume was 288 km. The current replacement rate is over 500 km per year.

## 6 POST IMPLEMENTATION REVIEW

We have undertaken a post implementation review (PIR) of our overhead conductor replacement expenditure to evaluate the benefits of the replacements over the review period and compare with alternative options. The PIR on overhead conductor replacements is set out in Supporting Document Ergon 5.3.13 – PIR – Conductor Replacements.

The basis and assumptions used in the PIR are:

- A cost benefit analysis over a twenty-year time horizon as a period
- The options analysis is based on differing volume of replacements.
- The actual delivery or selected option expenditure and unit cost over the 5-year review period is used as the starting point.
- The base case or counterfactual is based on the implied volume using the AER pole repex forecast and the actual delivery unit cost.
- The actual unit cost is applied across all other options.
- Costs associated with replacements of poles, pole top structures, services, pole transformers and switches undertaken concurrently with pole replacements are included in the cost benefit analysis.
- Costs associated with pole replacements because of other projects or programs (e.g reconductoring, CTG/CTS) are excluded from this cost benefit analysis. They are included in the PIR of the respective asset class.

Based on the assumptions above, the cost benefit analysis in the PIR considered a replacement of 2,524 km of overhead conductors over the review period.

Table 6 sets out the basis of the PIR for overhead conductors and reconciliation to the annual CA RIN 2.2

**Table 6: PIR / RIN reconciliation**

OH Conductors (\$ millions nominal)	2018-19	2019-20	2020-21	2021-22	2022-23	Total
RIN total (\$million)	\$ 16.7	\$ 19.6	\$ 26.1	\$ 49.8	\$ 53.5	\$ 165.8
All included in PIR	\$ 16.7	\$ 19.6	\$ 26.1	\$ 49.8	\$ 53.5	\$ 165.8
<b>Added to PIR for Conductors</b>						
Pole	\$ 2.8	\$ 4.9	\$ 8.5	\$ 19.1	\$ 18.8	\$ 54.1
Pole top	\$ 1.3	\$ 3.9	\$ 6.2	\$ 8.5	\$ 12.1	\$ 32.0
Services	\$ 0.6	\$ 1.3	\$ 2.5	\$ 5.3	\$ 2.5	\$ 12.2
Pole transformers	\$ 1.1	\$ 3.4	\$ 5.3	\$ 6.0	\$ 8.1	\$ 23.9
Fuse	\$ 0.3	\$ 1.3	\$ 2.4	\$ 2.7	\$ 3.1	\$ 9.8
Switches	\$ 0.5	\$ 2.0	\$ 3.4	\$ 5.2	\$ 4.2	\$ 15.3
<b>Total PIR for Conductors</b>	<b>\$ 23.3</b>	<b>\$ 36.4</b>	<b>\$ 54.4</b>	<b>\$ 96.6</b>	<b>\$ 102.3</b>	<b>\$ 313.1</b>

The cost benefits analysis from the post implementation review confirms that the pole replacements undertaken over the review period delivered a net benefit of \$208 million compared to the AER forecast option. It represents a balanced approach and provides an optimum and sustainable path to replacing our fleet of poor condition conductors in the long-term interests of our customers.

## 7 REVIEW PERIOD PERFORMANCE (2018-19 TO 2022-23)

The *review period*<sup>12</sup> for the ex-post review spans across two regulatory control periods and two separate Distribution Determinations.

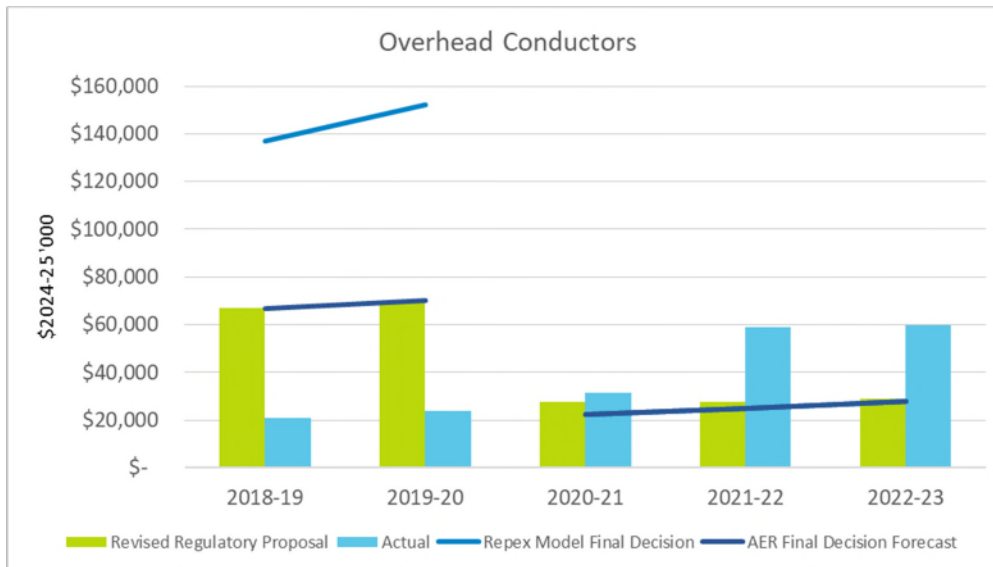
Actual and performance against the forecasts set by the AER over the review period is provided in Table 7 below. Unless otherwise stated, all values have been converted to \$2024-25 for comparison purposes.

**Table 7: Review Period Performance - Overhead Conductor Replacement**

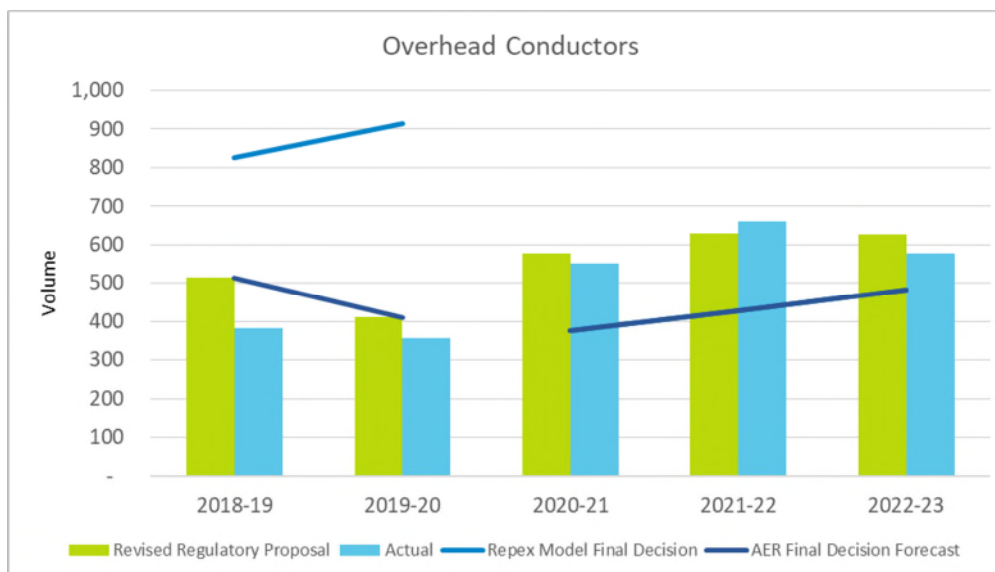
\$ 2024-2025 (\$,000)	OVERHEAD CONDUCTORS					
	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	Total
Revised Regulatory Proposal	\$ 66,849	\$ 70,116	\$ 27,676	\$ 27,816	\$ 28,716	\$ 221,173
Repex Model Final Decision	\$ 136,966	\$ 152,321	\$ 22,254	\$ 24,945	\$ 27,771	\$ 364,258
AER Final Decision Forecast	\$ 66,691	\$ 69,958	\$ 22,254	\$ 24,945	\$ 27,771	\$ 211,620
Actual	\$ 20,817	\$ 23,916	\$ 31,510	\$ 58,774	\$ 59,768	\$ 194,785
Volume (units)	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	Total
Revised Regulatory Proposal	514	410	577	629	626	2,756
Repex Model Final Decision	824	913	376	428	483	3,024
AER Final Decision Forecast	514	410	376	428	483	2,211
Actual	381	356	551	659	577	2,524
Unit Cost (\$)	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	Average
Revised Regulatory Proposal	\$ 130,047	\$ 170,993	\$ 47,942	\$ 44,234	\$ 45,888	\$ 87,821
Repex Model Final Decision	\$ 166,170	\$ 166,860	\$ 59,144	\$ 58,323	\$ 57,544	\$ 101,608
AER Final Decision Forecast	\$ 129,739	\$ 170,607	\$ 59,144	\$ 58,323	\$ 57,544	\$ 95,071
Actual	\$ 54,637	\$ 67,180	\$ 57,188	\$ 89,186	\$ 103,511	\$ 74,340

<sup>12</sup> NER S6.2.2A (a1)

**Figure 4: Overhead Conductor Repex – Review Period**



**Figure 5: Overhead Conductor Replacement Volume – Review Period**



- Over the review period, our expenditure for the replacement of conductor was less than the AER forecast.
- Our expenditure on replacing conductor was \$195.1 million compared to the AER's forecast of \$211.9 million, \$16.8m less than the forecast.
- As discussed in Section 4, in the AER's 2020-25 forecast for overhead conductor replacement, \$8.3 million (\$2019-20)<sup>13</sup> of the CTG/CTS program was notionally included the overhead conductor category.

<sup>13</sup> 12 % of \$69.2 million

- From 2021-22 onwards, the CTG/CTS program has been reported as augex instead of repex as a better reflection of the drivers for our clearance program.

## 7.1 Adjustments for CTG/CTS

As discussed in our overview paper, CTG/CTS programs are better reflected as an augex program. Hence, from 2021-22 onwards all clearance programs have been categorised as augex. Going forward, Ergon Energy will be reporting costs associated with the clearance programs as augex instead of repex.

**Error! Reference source not found.** presents a summary of the AER's forecast with and without the CTG/CTS expenditure where:

- AER Final Decision Forecast: is the forecast with the notional amount of CTG/CTS included.
- Actual as reported in RIN: this is repex for conductor with CTG/CTS in repex in 2018-19, 2019-20 and 2020-21.
- Adjusted AER forecast: is the forecast without the notional amount of CTG/CTS
- Adjusted actual: shows repex with expenditure for CTG/CTS in 2018-19, 2019-20 and 2020-21 removed from the overhead conductor category.

**Table 8: Review Period Performance – excluding CTG/CTS**

\$ 2024-2025 (\$,000)	POLE TOP STRUCTURES					
	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	Total
AER Final Decision Forecast	\$ 66,691	\$ 69,958	\$ 22,254	\$ 24,945	\$ 27,771	\$ 211,620
Actual (as reported in RIN)	\$ 20,817	\$ 23,916	\$ 31,510	\$ 58,774	\$ 59,768	\$ 194,785
Adjusted AER Forecast (without CTG/CTS)	\$ 57,085	\$ 60,352	\$ 20,303	\$ 22,994	\$ 25,820	\$ 186,555
Adjusted Actual (CTG/CTS removed in 18-19,19-20 and 20-21)	\$ 15,880	\$ 17,118	\$ 24,531	\$ 58,774	\$ 59,768	\$ 176,071

As **Error! Reference source not found.** highlights, even adjusting for CTG/CTS programs moving to augex, our repex for overhead conductors is still around \$10.5m below the AER forecast for conductor replacement.

## 8 JUSTIFICATION STATEMENTS AND CONCLUSION

We submit that the expenditure for the replacement of overhead conductors over the *review period* is prudent and efficient as demonstrated by

- The PIR which shows that the replacement of 2,524 km of overhead conductors is prudent and delivers a net benefit of \$208 million.
- The PIR for overhead conductor included expenditure incurred on other asset classes but was driven by reconductoring program.
- *Attachment – Cost Comparison of Ergon RIN Unit Costs to the NEM* shows that the unit cost for our reconductoring programs compares favourably with other DNSPs in the NEM.

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