30 November 2023

Ausgrid's 2024-29 Revised Proposal

Attachment 6.1: Proposed operating expenditure

Empowering communities for a resilient, affordable and net-zero future.

Contents

1. Introduction

The purpose of this document is to provide additional detail on our revised operating expenditure (**opex**) forecast for the 2024-29 regulatory control period (**2024-29 period**). It is part of our Revised Proposal to the Australian Energy Regulator (**AER**) in response to its Draft Decision (**Draft Decision**). This document includes references to other supporting documents that provide supplementary information relevant to our opex forecast.

In developing our revised opex forecast for the 2024-29 period, we have responded to the feedback we received from the AER, our 2023 Voice of Community (**VoC**) Panel, consisting of residential end-use customers, and the Reset Customer Panel (**RCP**), consisting of energy expert customer advocates, on our Initial Proposal. We are continuing to prioritise areas such as climate resilience and innovation that have strong customer support. In recognition of the increased cost of living pressures, we have identified additional affordability measures in our opex forecast, including absorbing additional cost increases over and above what we identified in our Initial Proposal submitted to the AER in January 2023 (**Initial Proposal**).

We accept or substantially accept key elements of the AER's Draft Decision. Where we have disagreed with an aspect of the Draft Decision we have provided additional analysis to support our position. We have also updated our forecasts to reflect the most recent information available. We are confident our approach to opex is prudent and efficient, complies with the National Electricity Rules (**NER**) and is capable of acceptance by the AER in its April 2024 Final Decision.

In particular, we note, in real, $ FY24:[1]

- Our revised forecast opex (excluding debt raising costs) is $188 million (or 8%) lower than our Initial Proposal;
- Our step changes proposal is $23 million (or 36%) lower than our Initial Proposal;
- Our forecast opex is 0.8% higher than current period actual opex; and
- We have included around $100 million in affordability initiatives which will be fully passed through to our customers, which include absorbing $16 million in cost increases, and continuing to treat software as a service (**SaaS**) implementation costs as capex, resulting in a reduction in revenue of around $94.7 million in nominal terms.

We strongly disagree with the AER's approach to rejecting some of our proposed step changes on the basis that the expenditure is not 'material'. The AER's approach of considering the materiality of proposed step changes individually will understate the cumulative effects of external factors on costs, as a number of non-material increases can sum to a material amount. This approach could result in a total forecast that would deprive Ausgrid the opportunity to recover its prudent and efficient costs, which is inconsistent with the opex objectives.

[1] All dollar values in this document are in real $ FY24 unless otherwise stated.

We have provided further information on each of our proposed step changes in **Section 4** below, including explaining how they are not already captured in the base year opex or output and real price growth aspects of the forecasting approach.

Our revised opex forecast recognises our customers' concerns regarding affordability, as well as their desire to reduce costs in the future, while seeking to balance the community's expectation that we play a more substantial role in driving a faster transition to net zero. We are proposing to:

- Build on the significant cost reductions implemented since 2015;
- Incorporate additional affordability initiatives, reflecting the current external environment where external macroeconomic pressures, including increasing interest rates with persistently high inflation are contributing to increasing cost of living pressures; and
- Invest in smart meter data and real-time smart meter functionality to enable more efficient growth capital expenditure (**capex**), lower opex, and enhanced safety benefits and outcomes for customer energy resources (**CER**) customers.

1.1 Our revised forecast

Our revised proposal is $2,233.7 million compared to the AER's Draft Decision of $2,254.3 million and our Initial Proposal forecast of $2,420.5 million. The main drivers that have informed the development of our revised 2024-29 forecast are:

- Updated FY23 actual opex;
- More recent forecasts for insurance costs, inflation and updated output weights from the AER's 2023 annual benchmarking econometric models; and
- Publication of the AEMC's Metering Review Final Decision.[2]

Figure 1.1 sets out our revised opex forecast, and how it compares to our Initial Proposal and the AER's Draft Decision and **Figure 1.2** presents our revised opex by year.

Figure 1.1: Our revised opex forecast compared to our Initial Proposal and the Draft Decision ($m, real FY24)

$m, real FY24	Initial Proposal	Draft Decision	Revised Proposal	Change from Draft Decision
Base year opex	2,042.8	2,055.0	2,087.6	32.6
Base year adjustments				
Base year non-recurrent efficiency gains	0.0	(26.3)	(26.3)	0.0
Base year adjustment: Updated Cost Allocation Method (**CAM**)	36.7	36.7	35.0	(1.7)
Base year adjustment: SaaS	154.7	74.3	0.0	(74.3)

[2] AEMC (2023), Review of the regulatory framework for metering services: Final Report.

$m, real FY24	Initial Proposal	Draft Decision	Revised Proposal	Change from Draft Decision
Base year adjustment: Nature induced costs	21.8	0.0	0.0	0.0
Base year adjustment: Remove ongoing leases	0.0	(0.3)	(0.3)	0.0
Total base year adjustments	213.2	84.5	8..5	(76.0)
2022-23 to 2023-24 increment	10.1	10.0	10.0	0.0
Remove category specific forecasts	0.2	0.2	0.2	0.0
Trend				
Trend: Output growth	30.5	28.9	27.5	(1.5)
Trend: Price growth	49.3	43.8	45.4	1.6
Trend: Productivity growth	(35.2)	(33.4)	(32.7)	0.7
Total trend	44.6	39.3	40.1	0.8
Step changes				
Step change: Insurance premiums	9.5	0.0	11.3	11.3
Step change: Climate resilience	8.4	0.0	5.9	5.9
Step change: Cyber security	20.6	19.0	18.1	(0.9)
Step change: Smart meter data	24.9	10.7	10.2	(0.5)
Step change: ICT enablement program for CER integration	10.4	4.6	6.4	1.8
Step change: Property strategy	(14.5)	(14.5)	(15.3)	(0.8)
Total step changes	59.2	19.8	36.5	16.7
Category specific forecasts				
Category specific forecast: Network Innovation Program	5.0	0.0	4.5	4.5
Total opex, excluding debt raising costs	**2,375.0**	**2,208.7**	**2,187.4**	**(21.4)**
Debt raising costs	45.4	45.6	46.3	0.7
Total opex, including debt raising costs	**2,420.5**	**2,254.3**	**2,233.7**	**(20.6)**

Figure 1.2: Our revised opex forecast ($m, real FY24)

	FY25	FY26	FY27	FY28	FY29	Total
Opex excluding debt raising costs	429.2	435.8	436.8	440.8	444.7	2,187.7
Debt raising costs	9.2	9.3	9.3	9.3	9.3	46.3
Total opex	**438.4**	**445.0**	**446.1**	**450.1**	**454.0**	**2,233.7**

Our revised 2024-29 opex forecast responds to the key issues raised in the Draft Decision as well as recent developments since our Initial Proposal. **Figure 1.3** sets out a summary of how our Revised Proposal responds to the main issues the AER raised in its Draft Decision in relation to our opex forecast.

Figure 1.3: How we've responded to the AER's Draft Decision

Opex component	Draft Decision	Our response relative to our Initial Proposal		More information
Base year				
Base year	The AER found our base year of $408.6 million was not materially inefficient and used our forecast as the base year for their alternate opex forecast.	We accept the Draft Decision to use our FY23 actual opex as the base year for our opex forecast. We have updated our base year forecast to reflect our actual underlying opex (excluding non-recurrent costs) for FY23, consistent with the AER's standard methodology.	**▲$44.7m** *higher than Initial Proposal*	**Section 2.1**
Base year adjustments				
Lease costs accounting treatment change	Alignment of accounting treatment of expenditure within a regulatory period with the approved expenditure for that period (change in accounting treatment of lease costs compared to the 2019-24 regulatory period).	We accept the Draft Decision to adjust our base year opex due to the reclassification of ongoing lease costs as capex. Further, we accept the AER's Draft Decision to remove $5.3 million from our forecast opex for the removal of non-ongoing lease costs from forecast opex via a non-recurrent efficiency adjustment.	**▼$26.3m** *lower than Initial Proposal*	**Section 2.2**
SaaS implementation costs	A timing mismatch between calculating costs and benefits biased Ausgrid's economic analysis for its preferred option.	Our ERP transformation will enable critical peak pricing for EVs that will accommodate EVs through flexible tariffs rather than costly network investment. In response to AER feedback, our revised forecast removes a 20% contingency and phases the project over a longer period to enhance deliverability and allow time for 'hypercare'. This results in a lower forecast for SaaS implementation costs related to the ERP transformation during the 2024-29 period. We are proposing to continue to treat SaaS as capex, consistent with the historical accounting treatment of these costs for regulatory purposes, as an affordability measure to reduce price impacts on our customers.	**▼$154.7m** *lower than Initial Proposal*	**Section 2.2** **Attachment 5.1 Proposed capital expenditure**

Opex component	Draft Decision	Our response relative to our Initial Proposal		More information
Use of historical data to calculate the CAM adjustment	The use of historical data to calculate the CAM adjustment may understate the efficient base adjustment amount.	We accept the Draft Decision to adjust our base year opex to account for the effect of our new CAM. We investigated an alternative method to forecast the base year adjustment to account for the changes to our CAM, however found that this resulted in a forecast that was not materially different to our Initial Proposal forecast. As such, we have not revised our forecast base year adjustment. Our revised estimate is $1.7 million lower than the Initial Proposal as a result of more recent inflation data and actual FY23 cost information.	**▼$1.7m** *lower than Initial Proposal*	**Section 2.2**
Nature induced costs	The AER did not include a base year adjustment for nature induced costs, as it would only be required if abnormally low (or high) nature induced costs lead to abnormally low (or high) total opex. Historically this has not been the case.	We accept the Draft Decision to not include a base year adjustment for nature induced costs. In response to information requests from the AER, we provided further information about our year-to-date actual expenditure, which indicated that our actual costs in 2022-23 were now unlikely to be materially different to the historic average, and a base year adjustment is not required. However, we remain committed to the principle that such a base year adjustment may be required where the impact is more material.	**▼$21.8m** *lower than Initial Proposal*	**Section 2.2**
Step changes				
Insurance premiums	Insurance premium increases likely to be captured in the non-labour price growth (CPI) component of the rate of change.	We disagree with the AER's view in its Draft Decision that the increases in our insurance premiums are capable of being captured by the non-labour price growth (CPI) component of the rate of change. We have provided additional detail to demonstrate that these costs are not covered by the non-labour price growth component of the rate of change, as well as updating our forecasts for more up-to-date information.	**▲$1.9m** *higher than Initial Proposal*	**Section 4.2**

Ausgrid

Opex component	Draft Decision	Our response relative to our Initial Proposal		More information
Climate resilience[3]	The AER did not accept this step change, noting it did not consider that our proposal met the step change criteria, or that the forecast reflects prudent and efficient costs.	Our revised forecast provides additional analysis to support our overall climate resilience package (including both capex and opex components), including undertaking sensitivity analysis of key modelling inputs. We have also provided further information to demonstrate that these costs are not covered by other components of our total forecast opex.	*No change to updated business case for resilience*	**Section 4.3** **Attachment 5.5 Climate Resilience business case**
Smart meter data	Ausgrid's visibility target was above the range of 20 – 25% observed in other distributors' regulatory proposals and Ausgrid did not demonstrate the need for, or benefit of, obtaining smart meter data more frequently than once per day.	We revisited the forecast step change amount to respond to the AER's feedback and have taken into account the AEMC's Final Decision on Metering, which, when implemented, will allow networks access to basic smart meter data at least daily at no cost. We note there is significant uncertainty around the timing and detail of how this recommendation will be implemented. Our revised forecast amount is $0.5 million less than the AER's Draft Decision.	**▼$14.7m** *lower than Initial Proposal*	**Section 4.4**
Cyber security	Ausgrid has not demonstrated its proposed expenditure for cyber security reasonably reflects prudent and efficient costs.	We maintain that the criticality of our network requires the highest level of cyber protection but, in response to the AER's feedback, have embedded productivity improvements within our program that lowers our forecast costs to achieve this outcome. We have accepted the Draft Decision on our cyber security step change, due to lower opex associated with the reduction in the cyber security capex program.	**▼$2.5m** *lower than Initial Proposal*	**Section 4.5** **Attachment 5.1 Proposed capital expenditure**

[3] In our Initial Proposal this step change was named 'community resilience' as the opex components of the resilience program related predominately to community resilience activities. We have renamed it to 'climate resilience' to be consistent with how we are referring to the overall climate resilience program across our Revised Proposal.

Opex component	Draft Decision	Our response relative to our Initial Proposal		More information
ICT enablement program for CER integration	Ausgrid's proposed upgrades to connections processes are likely to materially exceed projected connections requirements, and a staged investment at lower cost is likely to still realise forecast benefits.	We have revised our modelling for the dynamic service capabilities aspect of the CER integration step change to address the AER's comments on the modelling assumptions, and provide further justification to support our proposed expenditure program. We have also removed the SaaS component from this step change.	**▼$4.0m** *lower than Initial Proposal*	**Section 4.6** **Attachment 5.1 Proposed capital expenditure**
Property strategy	The AER's Draft Decision included our proposed negative step change in its alternative opex forecast.	We accept the Draft Decision to include our proposed negative step change in their forecast opex, arising from property sales in the current 2019-24 period that reduce land tax and other costs associated with properties sold. We have updated the forecasts to account for more recent inflation data.	**▼$0.8m** *lower than Initial Proposal*	**Section 4.1**
Category specific forecasts				
Network Innovation Program	Ausgrid should provide additional justification for its innovation projects, including to explain why existing innovation schemes and forecast opex are insufficient.	We have updated our innovation program to respond to the AER's feedback that programs must be 'genuinely transformative'. We have also provided a strong commitment to progressing innovation. In developing our Revised Proposal, we have adopted a partial self-funding approach, which mirrors elements of other regulated frameworks such as Ofgem in the UK. We have also changed these costs to be category specific forecasts in response to feedback from the AER about the nature of the expenditure and basis of the forecast.	**▼$0.5m** *lower than Initial Proposal*	**Section 5.1** **Attachment 5.8 Network innovation program**

2. Base year opex

The purpose of the base year in the base-step-trend approach is to provide a reasonable starting point for our prudent and efficient opex forecast. Our base year shows what we currently incur for recurrent activities and reflects our on-going requirements to maintain the quality, safety and reliability of our network during the next regulatory period, consistent with our customers' expectations.

2.1 Selection of base year

We accept the AER's Draft Decision to use our FY23 actual opex as the base year for forecasting opex. As set out in our Initial Proposal,[4] we have updated our base year forecast to reflect our actual underlying opex (excluding non-recurrent costs) for FY23, consistent with the AER's standard methodology.[5]

We used the AER's opex roll forward models and the latest benchmarking results to estimate whether our revised base year can be considered efficient, or not materially inefficient, according to the AER's preferred methodology.

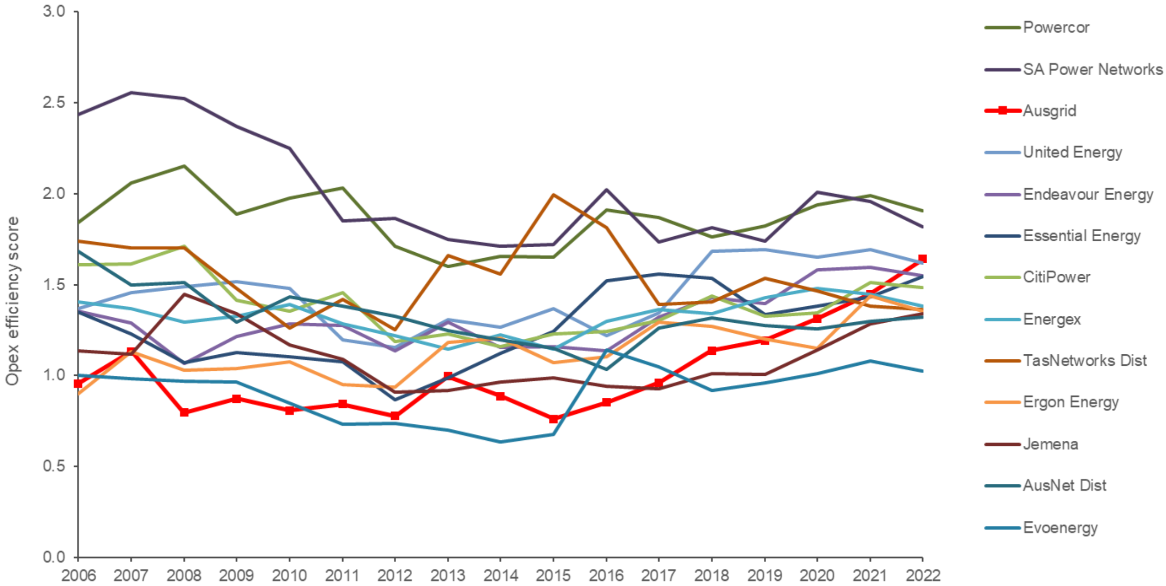
As set out in our Initial Proposal, we have significantly reduced our costs since 2015, which has resulted in significantly improving our efficiency relative to other distribution network service providers (**DNSPs**). Since 2016 our productivity has improved at a greater rate than any of our peers, demonstrating that our transformation strategies are unlocking efficiency savings for our customers (see **Figure 2.1**). In FY16 we ranked last on the AER's opex efficiency benchmarking rankings of the 13 distributors in the NEM. As at FY22, we ranked third.[6]

[4] Ausgrid (2023), 2024-29 Regulatory Proposal, Attachment 6.1 – Proposed operating expenditure, pg. 14.

[5] The AER's standard forecasting methodology, as outlined in the Expenditure Forecast Assessment Guideline, and the AER's Draft Decision, adopts actual operating expenditure as the base year. Consistent with this approach, we have excluded categories of opex from our forecast opex, including movement in provisions, Demand Management Innovation Allowance (**DMIA**), leases and RoLR bad debt which was written off in FY23. Under accounting rules we must report the revenue written off from failed retailers as bad debts (opex). However, the AER (following recent ROLR events) has agreed that we should recover this cost through unders/overs in revenue, therefore we have not included in the regulatory opex because it is not an actual cost.

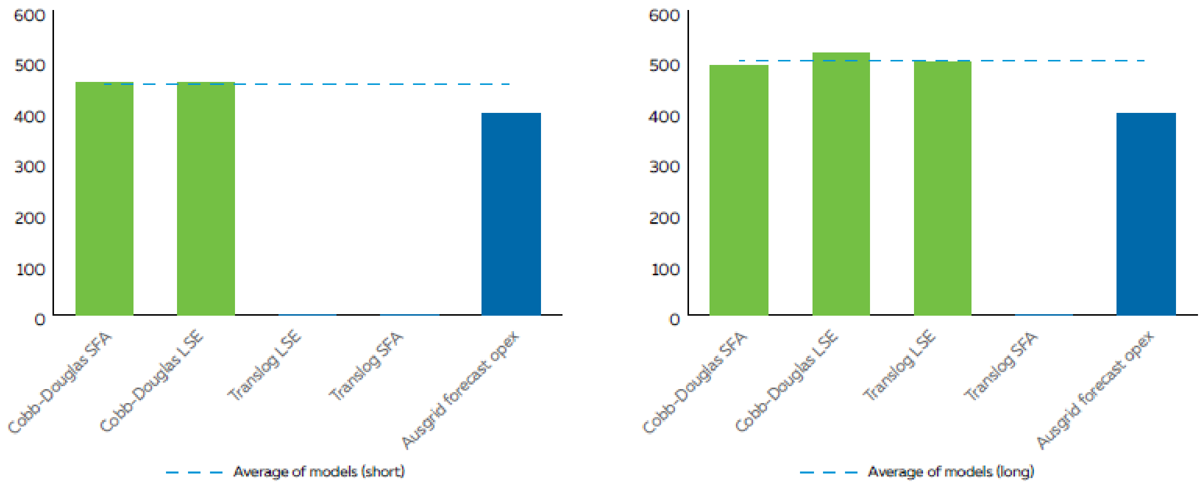
[6] AER (2023), 2023 Annual benchmarking report: Electricity distribution network service providers. We note that the AER has made changes to its MTFP and MPFP models to address differences in capitalisation practices between DNSPs. This has contributed to our improved performance in the 2023 Annual benchmarking report. When considering our performance using the AER's previous MTFP and MPFP models, we ranked 7th.

Figure 2.1 DNSP multilateral opex partial factor productivity indexes (AER preferred approach to addressing capitalisation differences), 2006-2022[7]



Our FY23 actual opex is comparable to the forecast included in our Initial Proposal, which the AER indicated was not materially inefficient in the Draft Decision.[8] As shown in **Figure 2.2**, our Revised Proposal base year opex compares well with the AER's benchmark comparators.

Figure 2.2: Base year efficiency ($m, real FY24; short period LHS, long period RHS)



[7] AER (2023), 2023 Annual benchmarking report: Electricity distribution network service providers, pg 36.
[8] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 6 Operating expenditure, pg. 11.

2.2 Base year adjustments

AER accepted the adjustment for CAM, did not accept nature induced costs, and included revised estimates for SaaS. Between our Initial Proposal and the AER's Draft Decision we agreed to remove the nature induced cost adjustment and the reclassification of leases. Our response to the AER's Draft Decision on each of our proposed base year adjustments is set out in **Figure 2.3** and described in more detail below.

Figure 2.3: Summary of proposed 2024-29 period base year adjustments

Base year adjustment	Response to the AER Draft Decision	
Base year non-recurrent efficiency gains	Accept	We accept the Draft Decision to remove $5.3 million from our forecast opex for the removal of non-ongoing lease costs from forecast opex via a non-recurrent efficiency adjustment.
Updated CAM	Accept	We investigated an alternate method to forecast the base year adjustment to account for the changes to our CAM, however found that this resulted in a forecast that was not materially different to our Initial Proposal forecast. As such, we have not revised our forecast base year adjustment and accept the Draft Decision to include an adjustment of $7.0 million to our base year opex.
SaaS	Refined analysis	We have undertaken additional analysis to address the AER's concerns on our proposed capex ICT. As a result, our SaaS costs have reduced from our Initial Proposal. For our Revised Proposal, we are proposing to continue to treat SaaS costs as capex for regulatory purposes. We are proposing this change as part of our proposed affordability measures for our customers in order to balance our response to driving a faster transition to net zero in line with customers' expectations, and affordability of our overall Revised Proposal.
Nature induced costs	Accept	We accept the Draft Decision to not include a base year adjustment for nature induced costs. In response to information requests from the AER, we provided further information about our year-to-date actual expenditure, which indicated that our actual costs in 2022-23 were now unlikely to be materially different to the historic average, and a base year adjustment is not required. However, we remain committed to the principle that such a base year adjustment may be required where the impact is more material.
Ongoing leases	Accept	We accept the Draft Decision to adjust our base year opex due to the reclassification of ongoing lease costs as capex.

2.2.1 Treatment of lease costs

Our base year is higher than in our Initial Proposal due to a change in how we have treated operational lease costs in the context of changes to accounting standards. In our Initial Proposal we had treated operating lease expenditure as capex in the Regulatory Information Notices for the 2019-24 regulatory period, consistent with the accounting rules that came into effect on 1

July 2019.[9] However, we sought to work with the AER to resolve unintended consequences of treating operational leases as opex in the current period and applying the accounting change from the start of the 2024-29 period, consistent with the AER's preferred approach.[10]

Since we submitted our Initial Proposal, we have worked with the AER to resolve the issue relating to the major lease which started and ended in the 2019-24 regulatory period so that we could recover the efficient cost of the lease without affecting the Efficiency Benefit Sharing Scheme (**EBSS**). We have accepted the AER's Draft Decision position to treat operational leases as opex in the current period, and reallocate these lease costs to capex from the 2024-29 period, consistent with the accounting change. We then removed the costs associated with the major lease from our base year opex using a non-recurrent efficiency adjustment, and removed ongoing lease costs as a base year adjustment, consistent with the AER's Draft Decision.

2.2.2 Updated CAM

In October 2022 Ausgrid submitted a revised CAM to the AER to apply from 1 July 2024, which the AER approved on 26 October 2022. The new CAM results in some costs moving from alternative control services (**ACS**) opex to standard control services (**SCS**) opex.

In our Initial Proposal, we calculated the base year adjustment for the change to our CAM based on historical costs from FY19 to FY23. Since submitting our Initial Proposal, we have undertaken further analysis to test whether relying on historical data to calculate the base year adjustment would understate the efficient base adjustment amount. This was because the revised CAM allocates shared costs to the relevant distribution service category using a weighted average revenue allocator. Relying on historical revenue may not reflect future cost shares, as changes to public lighting and metering services over the 2024-29 period will result in reduced revenues for the next regulatory period compared to historical revenue. For public lighting, the pre-2009 revenue reduces significantly as the asset base is depreciating. For metering, significant reductions in the number of our metering customers over the 2024-29 period results in materially lower metering revenue compared to historical revenues.

We developed an alternate forecast for the change in our CAM for our Revised Proposal based on forecast revenue for each line of business over the next regulatory period to test whether this would better reflect the efficient base adjustment amount. Forecast revenue for 2024-29 was estimated on the following basis:

- **Regulated services –** forecast revenue was based on the AER's Draft Decision
- **Unregulated services –** forecast revenue was developed on the basis of internal forecasts for these services.

We found that the adjustment amount using this alternative forecast was not materially different to relying on historical costs, and as such have accepted the AER's Draft Decision to include an adjustment of $7.3 million to our base year opex. Our revised estimate is $1.7 million lower than

[9] Department of Finance, Guide to implementing AASB 16 Leases, Resource Management Guide 110, June 2020
[10] The AER provided advice in August 2022 to align the accounting treatment of expenditure within a period with the approved expenditure treatment for that period.

the Initial Proposal as a result of more recent inflation data and actual FY23 cost information. This data is shown in **Attachment 6.3 – Step changes model**.

2.2.3 SaaS

In April 2021, the International Financial Reporting Interpretations Committee (**IFRIC**) released prescriptive guidance in relation to the treatment of costs associated with implementing SaaS IT solutions. In particular, the IFRIC clarified that such costs cannot be capitalised as an asset if an entity does not control the software. This is a change from our previous accounting treatment where such costs have been capitalised. It means that these costs must now be treated as opex for accounting purposes.

In our Initial Proposal we followed AER guidance that we should continue to treat costs identified as SaaS under the new guidance as capex in the current period for regulatory purposes, and change to opex in the 2024-29 period. We applied the IFRIC decision after we forecast total costs for ICT projects for the 2024-29 period and moved SaaS implementation costs from capex to opex as a base year adjustment.

Our analysis for the 2024-29 period identified and quantified the split between opex and capex implementation costs for ICT projects in our Revised Proposal that include SaaS solutions to be $131 million and $273 million respectively (inclusive of CER ICT SaaS). This is $26 million lower than our Initial Proposal as a result of changes in our capex ICT costs (see discussion of capex ICT costs in **Attachment 5.1 – Proposed capital expenditure**).

For our Revised Proposal, we are proposing to continue to treat SaaS costs as capex for regulatory purposes – that is to apply a different regulatory treatment to the accounting treatment of these costs. We are proposing this change as part of our proposed affordability measures for our customers in order to balance our response to driving a faster transition to net zero in line with customers' expectations, and the affordability of our overall Revised Proposal.

This approach results in a reduction in revenue of approximately $94.7 million in nominal terms over the 2024-29 period. **Figure 2.4** and **Figure 2.5** compare the revenue impact of our proposed approach with the AER's approach in the 2024-29 and 2029-34 periods. This analysis shows that:

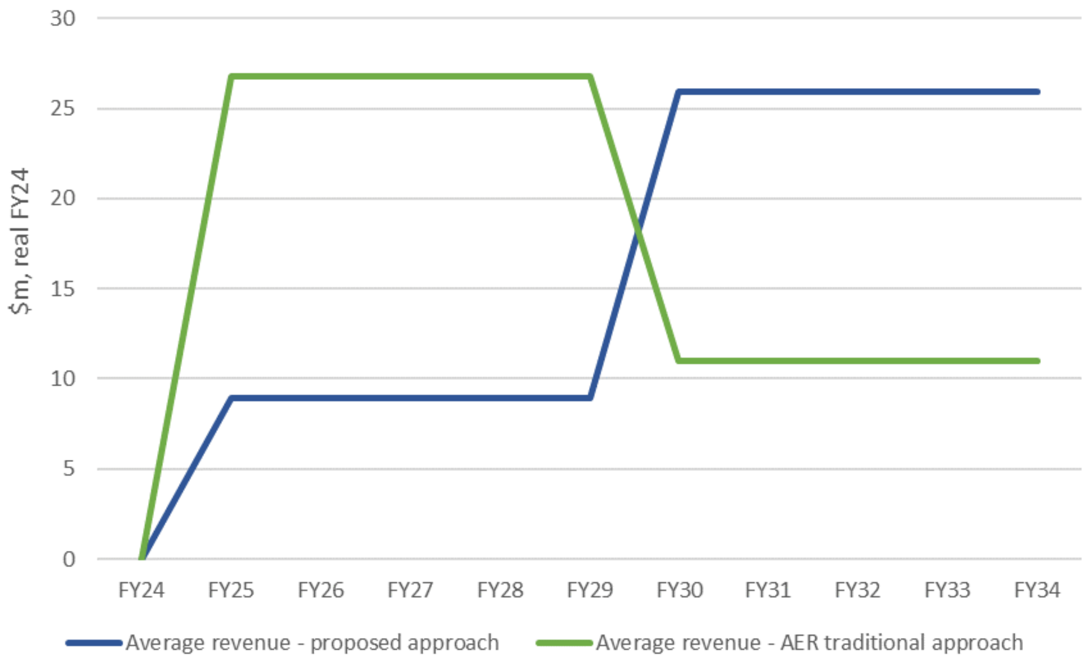
- While it defers the impact of the change in accounting treatment of SaaS to the 2029-34 period, our proposed approach smooths the revenue impact of the change in treatment of SaaS over the longer-term, with a revenue (and pricing) uplift at the start of both the 2024-29 period and the 2029-34 period. When consulting with our customers in developing our Regulatory Proposal for the 2029-34 period, we will test affordability in coming to a position on whether we continue to treat SaaS as capex in future, or transition to a regulatory treatment of these costs that is consistent with the accounting treatment;
- The AER's approach results in a significantly greater revenue (and pricing) uplift at the start of the 2024-29 period, and a material reduction at the start of the 2029-34 period. This movement is inconsistent with customer preferences on price movements that were tested in relation to revenue smoothing; and
- The net revenue impact across the 2024-29 and 2029-34 periods of treating SaaS as capex during the 2024-29 period is $14.5 million ($, real FY24) lower revenue than if SaaS were treated as opex from the start of the 2024-29 period.

Figure 2.4 Impact of treating SaaS as capex, 2024-29 and 2029-34 periods ($ million, real FY24)[11]

		2024-29 period					2029-34 period				
		FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
Proposed approach	Return on and of capital	0	4.7	8.5	13.5	18.0	22.2	17.9	14.7	11.5	8.4
Proposed approach	Opex (excl. debt raising costs)	0.0	0.0	0.0	0.0	0.0	11.1	10.0	7.2	11.4	15.2
Proposed approach	**Total Revenue**	**0.0**	**4.7**	**8.5**	**13.5**	**18.0**	**33.4**	**27.9**	**22.0**	**22.8**	**23.6**
AER traditional approach	Return on and of capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AER traditional approach	Opex (excl. debt raising costs)	22.3	21.8	33.2	29.3	27.4	11.1	10.0	7.2	11.4	15.2
AER traditional approach	**Total revenue**	**22.3**	**21.8**	**33.2**	**29.3**	**27.4**	**11.1**	**10.0**	**7.2**	**11.4**	**15.2**
Revenue impact of treating SaaS as capex		**-22.3**	**-17.1**	**-24.7**	**-15.8**	**-9.4**	**22.2**	**17.9**	**14.7**	**11.5**	**8.4**

[11] Note, this analysis excludes tax, debt raising costs and has assumed that the BaU SaaS costs in the 2024-29 period would continue in the 2029-34 period. It also includes ERP SaaS costs in FY30 and FY31.

Figure 2.5 Average revenue impact of treating SaaS as capex, 2024-29 and 2029-34 periods ($ million, real FY24)



We believe the proposed approach to continue to treat SaaS as capex for regulatory purposes is consistent with the National Electricity Objective (**NEO**), as:

- It smooths price impacts for customers over the longer-term, rather than recovering costs within the next regulatory period;
- There is no impact on the quantum or efficiency of forecast SaaS costs from the different regulatory treatment of the cost;
- There are no windfall gains or losses as a result of this proposed change; and
- It is consistent with the previous regulatory treatment of costs, so maintains consistency of opex and capex forecasts with the opex and capex objectives and criteria.

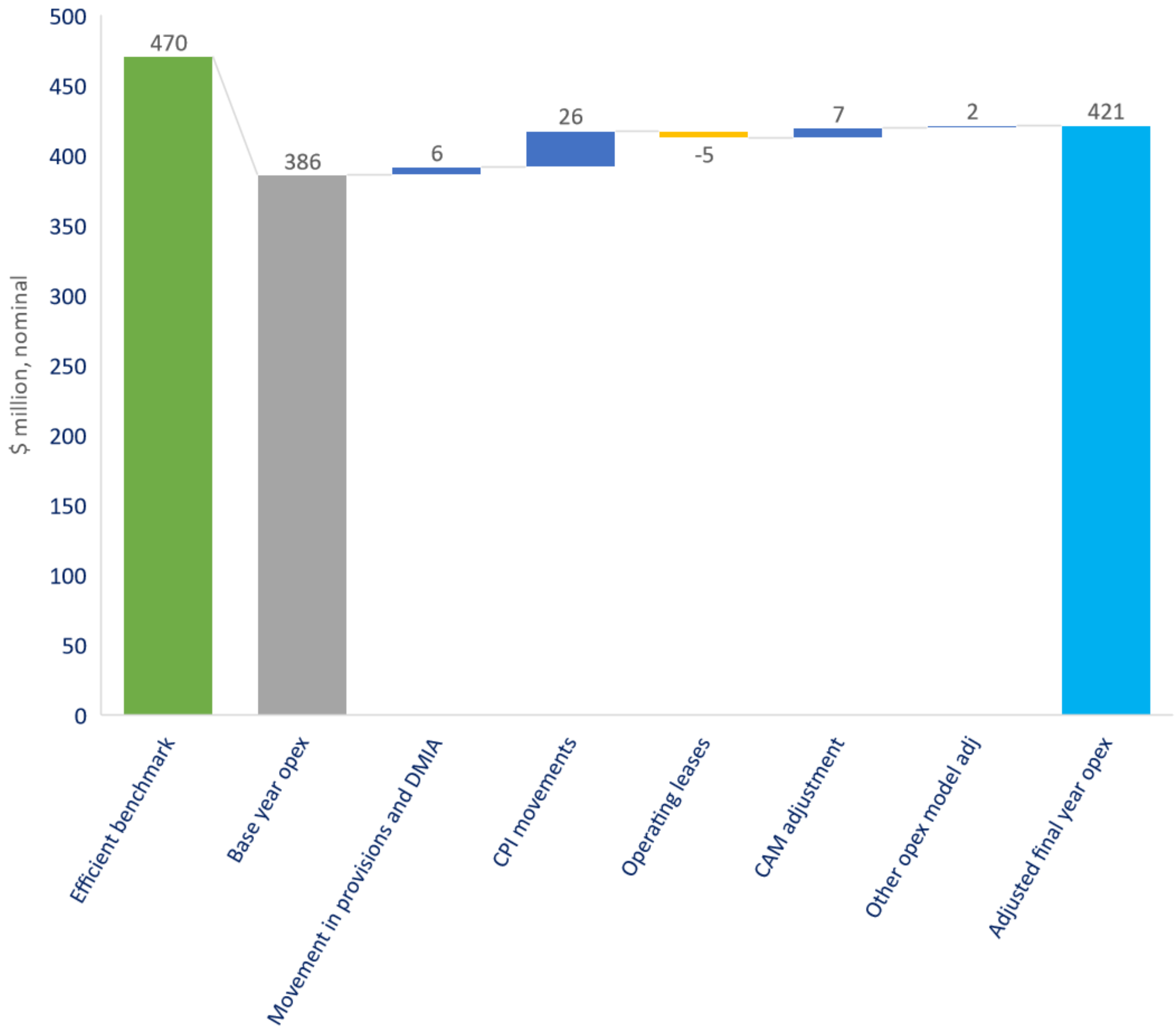
We recognise that this may be difficult for the AER to implement, as it could result in different treatment of SaaS costs between DNSPs. However, we encourage the AER to consider permanently implementing this across all DNSPs. While the new treatment may suit accounting requirements, expensing SaaS implementation costs does not align with the characteristics of opex for the purpose of economic regulation. As noted in the Expenditure Forecast Assessment Guideline, opex is considered to be largely recurrent[12], whereas SaaS implementation costs are not. Further, these costs have an economic life of a number of years over which customers derive benefit, which is a characteristic of a capitalised asset. Of course, any consideration of changing this treatment across all networks would require consultation and take some time but we believe there is a genuine case for SaaS implementation costs to be treated as capex for regulatory purposes.

[12] AER, Expenditure Forecast Assessment Guideline, November 2013, p 10.

2.2.4 Final year adjustment

The AER's opex model estimates final year opex – FY24 in our case – by adding an increment of the difference between the AER's allowances between the base year and final year to our efficient base year opex and adjusting for inflation. The model uses the final year forecast as the base to forecast next period opex. **Figure 2.6** shows the adjustments used to estimate FY24 opex.

Figure 2.6: Estimate of FY24 opex ($m, nominal)



3. Trend

We 'trend' our base year forward to take account of how opex changes over time in accordance with the AER's Better Resets Handbook[13] and Expenditure forecast assessment guideline (Distribution).[14] To do this we have factored in:

- **Real price growth –** to reflect expected changes in the price of our cost inputs, including our labour costs;
- **Output growth** – to account for changes in costs based on how much output we expect to deliver; and
- **Productivity growth** – to reflect expected industry-wide improvements in finding more efficient ways of delivering services.

While these trend factors capture a significant portion of cost drivers for our operating costs, they do not cover all cost drivers, for example:

- Growth in CER assets is not adequately reflected in any of the outputs considered when forecasting output growth; and
- Changes in Ausgrid's external environment, such as changes to regulatory requirements or climate change.

Changes in such drivers that impact our operating costs are instead covered through step changes in the base-step-trend forecasting approach.

We accept the AER's Draft Decision approach to forecasting each rate of change estimate. We have updated our forecasts to take into account more recent forecasts for each of the components of the rate of change:

- Our revised real price growth estimate includes updated forecasts from our consultant BIS Oxford Economics (**Attachment 9.6 – Real labour escalation report**) and the AER's consultant forecasts included in the Draft Decision; and
- Our output growth factor reflects updated output elasticities from the 2023 AER Annual benchmarking report.

Figure 3.1 summarises our updated trend factors. These have been applied in **Attachment 6.2 – Opex model**.

Figure 3.1: Forecast rate of change (%, year-on-year)

Trend factor	FY25	FY26	FY27	FY28	FY29
Price	0.80%	0.84%	0.53%	0.48%	0.58%
Output	0.28%	0.35%	0.42%	0.83%	0.78%
Productivity	(0.50)%	(0.50)%	(0.50)%	(0.50)%	(0.50)%
Total	**0.57%**	**0.69%**	**0.44%**	**0.81%**	**0.85%**

[13] AER (2021), Better Resets Handbook, pg. 26-27.
[14] AER (2022), Expenditure Forecast Assessment Guideline for Electricity Distribution, pg. 25-26

3.1 Real price growth

For our Revised Proposal forecast, we have updated our real price forecast with the latest forecast change in real labour costs using the same approach as we applied in the Initial Proposal.[15] See **Attachment 9.6 – Real labour escalation report** for the methods and data used to develop the revised forecasts. We also used KPMG's Wage Price Index forecasts provided for the AER Draft Decision.[16]

Figure 3.2 shows the data and calculations used to calculate the price growth factor.

Figure 3.2: Real labour price escalation

Trend factor	FY25	FY26	FY27	FY28	FY29
BISOE (a)	1.42%	1.20%	0.94%	0.71%	1.01%
KPMG (b)	0.29%	0.65%	0.85%	0.93%	0.95%
Average (c) = (a+b)/2	0.85%	0.93%	0.89%	0.82%	0.98%
Superannuation guarantee increases (d)	0.50%	0.50%	0.00%	0.00%	0.00%
Average + Super guarantee increases (e) = c+d	1.35%	1.43%	0.89%	0.82%	0.98%
Weighting (f)	59.20%	59.20%	59.20%	59.20%	59.20%
Real price growth factor (g) = e*f	0.80%	0.84%	0.53%	0.48%	0.58%

3.2 Output growth

We have updated our output growth forecasts for the Revised Proposal, taking into account updated information about the output elasticities from the 2023 AER Annual Benchmarking Report. We have not updated the customer numbers, circuit length or ratcheted maximum demand forecasts from the Initial Proposal. The output weights that we have used in our estimate of opex are set out in **Figure 3.3**. These are calculated from the results in the AER 2023 Annual Benchmarking Report, using the preferred option to adjusting for capitalisation differences.

Figure 3.3: Output weights (%)

Factor	SFA CD	LSE CD	LSE TLG	SFA TLG
Customer numbers	38.92%	57.66%	42.15%	43.17%
Circuit length	12.73%	17.68%	19.14%	9.95%
Ratcheted maximum demand	48.34%	24.67%	38.70%	46.89%
Total output growth	100.00%	100.00%	100.00%	100.00%

[15] Ausgrid (2023), Ausgrid's 2024-29 Regulatory Proposal: Attachment 6.1: Proposed operating expenditure, pg. 38
[16] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 6 Operating expenditure, pg. 24, KPMG (2023), Wage Price Index Forecasts: Report 3 – Australian Energy Regulator

Our forecasts for the three relevant factors are consistent with forecasts in other parts of Ausgrid's 2024-24 regulatory proposal. For example, the circuit length aligns with the assumptions behind the capex forecast.

3.3 Productivity

We accept the AER's Draft Decision to apply an average productivity growth of 0.5% per year.[17] We have applied this to our revised opex forecast.

[17] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 6 Operating expenditure, pg. 26.

4. Step changes

The AER accepted our proposed negative step change for property; did not include our proposed step changes for insurance, network innovation and community resilience; and included alternate estimates for the cyber security, CER integration and smart meter data step changes.

We accept or substantially accept the AER's Draft Decision on smart meter data and property. We do not agree with the AER's Draft Decision on the remaining step changes and have provided updated analysis to address the AER's feedback on these step changes in the section below.

4.1 Revised step changes

Figure 4.1 summarises our proposed revised step changes and the relevant associated categories outlined in the AER's Better Resets Handbook. These step changes have been revised to incorporate the latest available information and to respond to issues raised in the AER's Draft Decision.

Figure 4.1: Summary of proposed 2024-29 period opex step changes

Step change	Response to the AER Draft Decision		AER category
Insurance premiums	Refined analysis	Our revised forecast reflects the latest insurance market information, and the AER's alternate approach to estimating the increase in our insurance premiums compared to current costs. We have also provided further information to demonstrate these costs are not covered by other components of our total forecast opex.	Major external factor
Climate resilience	Refined analysis	Our revised forecast provides additional analysis to support our overall climate resilience package (including both capex and opex components), including undertaking sensitivity analysis of key modelling inputs. We have also provided further information to demonstrate that these costs are not covered by other components of our total forecast opex.	Major external factor
Smart meter data	Updates to reflect AER feedback	We revisited the forecast step change amount to respond to the AER's feedback and have taken into account the AEMC's Final Decision on Metering, which allows networks access to basic smart meter data at no cost. Our revised forecast amount is $0.5 million lower than the AER's Draft Decision.	Major external factor
Cyber security	Accept	We maintain that the criticality of our network requires the highest level of cyber protection but, in response to the AER's feedback, have	New regulatory obligation

Step change	Response to the AER Draft Decision		AER category
		embedded productivity improvements within our program that lowers our forecast costs required to achieve this outcome. We have accepted the AER's draft decision on our cyber security step change, due to lower opex associated with the reduction in the capital program.	
ICT enablement program for CER integration	Refined analysis	We accept the AER's Draft Decision to include a step change for the network modelling and connection.	Capex to opex
Property strategy	Accept	We accept the AER's Draft Decision to include our proposed negative step change in their forecast opex, arising from property sales in the current 2019-24 period that reduce land tax and other costs associated with properties sold. We have made minor updates to our forecasts to account for more recent inflation data.	Negative step change

Figure 4.2 sets out the proposed costs for each step change. The proposed costs reflect forecast efficient expenditure not captured by base year opex, or output and real price growth, which would be incurred by a prudent service provider acting efficiently to achieve the opex objectives and meet the opex criteria in the NER. The following sections provide further information on each of our proposed step changes and describes how we have addressed the AER's concerns raised in the Draft Decision.

Figure 4.2: Proposed opex step changes 2024-29 ($m, real FY24)

Step change	FY25	FY26	FY27	FY28	FY29	Total
Insurance	1.7	2.4	2.6	2.5	2.1	11.3
Climate resilience	0.8	1.6	1.2	1.2	1.2	5.9
Cyber security	2.0	3.0	4.0	4.3	4.7	18.1
Smart meter data	2.8	3.3	1.1	1.4	1.6	10.2
ICT enablement program for CER integration	0.4	1.1	1.6	1.6	1.7	6.4
Property strategy	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(15.3)
Total	**4.7**	**8.3**	**7.4**	**8.0**	**8.2**	**36.5**

There are other costs that we have identified that are not in our base year, which we are proposing to absorb, in recognition of cost-of-living pressures that our customers are facing. These are shown in **Figure 4.3**.

Figure 4.3: Opex costs being absorbed 2024-29 ($m, real FY24)

Item	FY25	FY26	FY27	FY28	FY29	Total
Customer (GSL) payments	0.5	0.5	0.5	0.5	0.5	2.7
Graduates and apprentices	2.1	2.4	2.4	2.5	2.5	11.9
Climate resilience	0.4	0.4	0.4	0.4	0.4	2.0
Total	3.5	3.8	3.8	3.9	3.9	16.6

4.1.1 Materiality of step changes

The AER's Draft Decision rejects our insurance and climate resilience step changes on the basis that the expenditure is not 'material'. We agree with the position Powercor put forward in its Revised Proposal for the 2021-26 period that this approach has no basis in the NEL or the NER.[18] In summary, there is no express materiality threshold under the NER for the purposes of assessing whether opex should be included in the forecast, and the approach is inconsistent with the requirements of the NER and NEL, as the AER is required to make an assessment of total opex and not the individual forecast expenditure components[19] – that is, the cumulative impact of expected changes is the relevant consideration and not the individual components.

The AER's approach of considering the materiality of proposed step changes individually will understate the cumulative effects of external factors on costs, as a number of non-material increases can feasibly sum to a material amount. This approach could result in a total forecast that would deprive Ausgrid of the opportunity to recover its prudent and efficient costs, which is inconsistent with the opex objectives and the NEO.

In its Final Decision for Powercor, the AER noted that:

> *For clarity, when we consider materiality in the context of step change assessments, what we mean is whether the costs of the step change are double counted in other elements of the opex forecast.*[20]

We have reviewed the step changes we included in our Initial Proposal, and this Revised Proposal, applying the AER's guidance in the Expenditure Forecast Assessment Guideline,[21] and the above clarification in its Final Decision for Powercor. Our proposed step changes are not already captured within the base year opex or output and real price growth aspects of the forecasting approach because:

[18] Powercor (2020), Revised regulatory proposal 2021 – 2026: Other step changes, pg. 12-14.
[19] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 6 Operating expenditure, pg. 8.
[20] AER (2021), Powercor Distribution Determination 2021 to 2026 Final Decision: Attachment 6 Operating Expenditure, pg. 32
[21] AER (2022), Expenditure forecast assessment guideline, pg. 26.

- We have passed through material and non-material cost reductions to our customers through negative step changes and lower opex compared to the previous period through the application of the revealed cost methodology and EBSS;
- We are absorbing additional cost pressures rather than passing them through to customers, as highlighted in our Initial Proposal[22] and **Figure 4.3**, amounting to $16.3 million;
- The econometric measures for capturing output growth do not incorporate growth in CER assets;
- The measures for output and real price growth do not address changes in major external factors, such as increased cyber security threats or climate change risks. Therefore, such factors are not reflected in any of the outputs considered in our forecasting of output growth, and increased costs to address these factors would not be captured by applying the output and real price growth factors to our base year opex;
- Insurance costs are growing at rates higher than non-labour price growth (i.e. CPI); and
- As set out in **Sections 4.3** and **5.1**, base year opex does not include any expenditure for climate resilience or innovation.

In addition to there being no basis in the NEL or the NER for the AER to apply a materiality threshold to opex step changes and the fact that Ausgrid has not double counted other elements of our opex forecast, we consider it is not appropriate to apply a materiality threshold to our opex step changes for our 2024-29 period opex proposal as:

- The AER's benchmarking shows that we are an efficient DNSP, and our base year operating expenditure was assessed as not materially inefficient in the AER's Draft Decision (as discussed in **Section 2.1**);
- We are proposing real non-labour price growth of zero (i.e. equal to CPI);
- There is no upward bias in the total operating expenditure in our revised proposal. We are including a productivity growth factor of 0.5%, which has the effect of reducing real expenditure allowances in the 2024-29 period by $32.7 million, and are passing through efficiency improvements and other decreases in costs through our base year, which is $165.0 million lower than the base year for our 2019-24 period;
- We are passing through reductions in our operating costs to our customers through the inclusion of the negative step change arising from property sales, which is of equivalent materiality to our insurance cost increases;[23] and
- We are proposing to absorb a number of cost increases in addition to those outlined in our Initial Proposal, in recognition of our customer's affordability challenges.[24] This includes

[22] Ausgrid (2023), 2024-29 Regulatory Proposal, Attachment 6.1 – Proposed operating expenditure, pg. 40.
[23] We note the AER has previously said "*If we were to include step changes for immaterial costs in our alternative estimate, then arguably we should also include negative step changes for decreases in immaterial costs*" (AER (2020), Draft Decision Powercor, Distribution Determination 2021-2026, Attachment 6: Operating expenditure, pg. 62). In our Draft Decision, the AER has included negative step changes for decreases in immaterial costs but not increases in immaterial costs.
[24] Ausgrid (2023), 2024-29 Regulatory Proposal, Attachment 6.1 – Proposed operating expenditure, pg. 40.

aspects of our climate resilience program, and self-funding a proportion of our innovation program.

We have responded to the AER's assessment on each of our proposed step changes in the sections below.

4.2 Insurance premiums

4.2.1 Context

As outlined in our Initial Proposal, insurance costs are increasing across the industry. For us, key drivers of these increases are climate change, which is causing more damage to networks, and the significantly higher risk of cyber security breaches.

Our insurance premiums have increased by 87% over the last two years and are forecast to increase another 35% between now and FY29, even with concerted efforts to manage these costs. For this reason, we have included a step change of $11.3 million to our insurance costs so we can continue to appropriately manage risk at the lowest sustainable cost.

4.2.2 AER Draft Decision

The AER noted that our forecast insurance costs were largely consistent with their consultant, Taylor Fry's expectations of future premiums given prevailing market conditions.[25]

In calculating their alternate estimate, the AER applied its historical assessment methodology for step changes – to calculate the step change with reference to the base year of the current regulatory period. This was different to the approach we used in our Initial Proposal, which was to calculate the proposed step change with reference to costs in the final year of the current regulatory period following discussions with AER staff.

The AER's alternate forecast was $6.2 million higher than our proposed step change. However, the AER did not include this estimate in its alternate opex forecast on the basis that:

> *the costs do not represent a material proportion of opex and are not materially above the non-labour price growth (CPI) included in the rate of change, with the higher insurance premiums therefore likely to be offset by other non-labour costs rising by less than CPI.*[26]

4.2.3 Our Revised Proposal

We have revised our estimate of insurance costs to take into account the most recent information on the market for all insurances obtained by Ausgrid. We obtained an updated report from our insurance consultants Marsh – see **Attachment 6.4 – Marsh Insurance Report.**

The Marsh Insurance Report forecasts material increases in general liability (bushfire), professional indemnity, directors' and officers' liability, industry special risks for property and cyber across the 2024-29 period. Key drivers for the increases are:

[25] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 6 Operating expenditure, pg. 28.

[26] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 6 Operating expenditure, pg. 29.

- Significant increases in the premiums that Ausgrid must pay to continue purchasing Property and Liability coverage;
- Increasing (but moderating) premium cost and the availability of Cyber Insurance in the insurance market for critical infrastructure; and
- Increases in deductibles will increase Ausgrid's expected value of uninsured risks.

The key change in market conditions since we submitted our Initial Proposal is that the rate of increase in the cost of Cyber Insurance is moderating.

The step change in our Revised Proposal has increased by $1.9 million compared to our Initial Proposal due to:

- Calculating the step change relative to our insurance spend in our base year FY23 instead of FY24, which is consistent with the approach the AER adopted in its Draft Decision;
- Updated forecasts by Marsh, taking into account changes in the relevant insurance markets; and
- Changes to inflation forecasts.

As noted in **Section 4.1.1** above, there is no basis for considering materiality of proposed step changes individually in the NER or the NEL. This step change is driven by a major external factor outside of our control and does not include (i.e. double count) forecast growth that is already accounted for in the trend factor.

Further, the efficient costs of this step change are not provided by other components of our total forecast opex, including base year opex. Our total 2024-29 opex forecast will not allow us to achieve the opex objectives and reflect the opex criteria unless this step change is included, as it will allow us to continue to appropriately manage risk at the lowest sustainable cost.

4.3 Climate resilience

4.3.1 Context

In response to the increasing intensity and frequency of extreme weather events we planned a range of initiatives to maintain the resilience of electricity distribution services to current and emerging climate risks across the period 2024 to 2050. We included a step change for climate resilience of $8.4 million in our Initial Proposal for the implementation of community-based resilience initiatives. Following the submission of the Initial Proposal, we refined the 'Climate Resilience Program' business case through further consultation with our customers, which reduced the proposed step change to $5.9 million.

Our Climate Resilience Program delivers on the objective to maintain current customer and community service outcomes by enhancing the resilience of electricity distribution services on our network in line with the projected growth in risk of disruptive climate events across the period 2024 to 2050. The proposed investments have been co-designed with our customers throughout our engagement in preparing our regulatory proposal for the 2024-29 period using the decision-making framework *Promoting the long-term interests of consumers in a changing climate: A decision-making framework.*[27]

Climate resilience is aligned to the National Electricity Objective and Ausgrid's role as a critical infrastructure provider, in particular:

- The *Security of Critical Infrastructure Act 2018* (**SOCI Act**) requires us, as far as it is reasonably practicable, to minimise material risks, including those hazards exacerbated by climate change;
- NSW's State Infrastructure Strategy advises us to "Develop place-based resilience and infrastructure adaptation strategies that assess local risk and incorporate infrastructure and non-infrastructure solutions for vulnerable locations;"[28] and
- Meeting the expectations of customers, who over 18 months of regulatory engagement, have consistently supported resilience as a key priority for them.

4.3.2 AER Draft Decision

The AER did not accept this step change, noting it did not consider that our proposal met the step change criteria, or that the proposed step change costs are prudent and efficient:

- While recognising these costs are driven by a major external factor (climate change), the AER did not accept that we had demonstrated that the impact on the costs of providing network services is not capable of being otherwise managed through our forecast opex;
- The AER noted that it was not clear that Ausgrid, as a distributor, is necessarily the appropriate entity to drive effective community-based climate changed focused resilience initiatives; and
- The proposed expenditure is for projects the AER considers to be an extension of BAU activities and relatively immaterial in the context of Ausgrid's total forecast opex.

4.3.3 Our Revised Proposal

Our Revised Proposal includes a step change of $5.9 million for opex-based climate resilience initiatives. In developing this step change for our Revised Proposal we undertook further analysis to address the AER's feedback on our Initial Proposal and engaged further with our customers to refine our resilience program:

- We assessed community priorities and streamlined these into efficient programs of work. For example, six communications related solutions across the three LGAs were refined to a single scope, delivering further efficiencies;
- We engaged again with our customers to test affordability;
- We have tested refinements with the market and our finance teams to validate and further detail costings;

[27] Ausgrid (2022), Promoting the long-term interests of consumers in a changing climate: A decision-making framework.
[28] Infrastructure NSW (2023), Staying Ahead: State Infrastructure Strategy 2022-2042.

- We have done more work with other resilience actors to further refine our role, address the AER's feedback on Ausgrid's role in driving community-based resilience initiatives and adjust investments to align with this, for example for the Community Resilience Plan;
- We assessed every element of the opex step-change to identify where costs can be absorbed in our forecast, to address affordability concerns raised by our customers. We propose to absorb $1.74 million of the proposed opex resilience program; and
- We undertook additional options analysis to demonstrate our proposed options are the most prudent and efficient way to deliver the objectives of our resilience program and meet the short and long-term interests of our customers.

Our consideration of targeted climate resilience investment responds to the expectations and priorities of our customers. Customers have remained overwhelmingly supportive of climate resilience investments throughout our engagement process, even as cost of living pressures have increased. Our customers have told us they expect Ausgrid to respond to the emerging risks of climate change and have urged us to act now for our most vulnerable communities and customers.

We have taken the carefully considered priorities of our customers and developed these into a series of integrated and complementary projects that meaningfully contribute toward achievement of the program objective. This ensures prudent, efficient, and no-regrets investment while delivering on the unique local priorities and needs of our most vulnerable communities. This investment is also in the long-term interests of consumers and is targeted at maintaining the reliability, safety and security of our network, and therefore aligns with the NEO. The elements of the resilience program that have an opex component are summarised in **Figure 4.4** below. Further details on each resilience program is provided in **Attachment 5.5 – Climate Resilience business case** including:

- Greater detail around the causal link between climate change and the investments; and
- Revised modelling that addresses the AER's feedback in the Draft Decision

Figure 4.4: Community-based climate resilience programs

Program	Description	Revised proposal ($m, real FY24)
Bushfire resilience	Deliver prudent and efficient, no regrets investment to maintain climate resilience to the expected bushfire peril to 2050, at 2023 levels	$0.20m
Heat resilience	Develop a knowledge base of the heat peril and its potential impacts on Ausgrid's assets, including the need to co-exist with third party green-infrastructure investment, and the needs of vulnerable customers. This knowledge will provide a credible evidence base for community consultation and future potential investment needs.	$1.75m
Community resilience	Ensure vulnerable communities can develop additional capacity over time to withstand and recover from expected climate change related outages and major event days to 2050.	$3.15m
Emergency response effectiveness	Maintain the response time for all hazards to 2050, at 2023 levels	$0.40m

Program	Description	Revised proposal ($m, real FY24)
Network Resilience: Climate Impact Assessments & program assurance	Monitor resilience expenditure outcomes within the 2024–2029 regulatory period to assess their efficacy and inform adaptive planning and investment decisions, and provide timely and credible evidence to the community that expenditure decisions are aligned to their objectives	$0.35m
Total		**$5.85m**

The key changes from our Initial Proposal step change are:

- We have included a heat resilience program, in response to concerns raised by stakeholders at the AER predetermination conference;
- We are proposing to absorb $1.74 million in resilience program costs, comprising strategic vegetation management for priority substation solutions into Ausgrid's BAU vegetation management program ($0.49 million), implementation of new investments including training, coordination and processes ($0.9 million), and climate resilience planning ($0.35 million); and
- We have reduced costs of the data sharing liaison role by reducing the scope of the role by streamlining communities unique prioritised activities into a single program of work, and capitalising some of the costs ($0.65 million reduction in opex) and the communications activities ($0.25 million).

Each of the investments recommended in this business case has been tested against other options in their own investment cases to demonstrate that they are the most prudent and efficient way to deliver against the program objectives (included in **Attachment 5.5 – Climate Resilience business case**).

The proposed package of projects allows us to:

- Meet the program objective, to maintain the resilience of electricity distribution services to current and emerging climate risks across the period 2024 to 2050;
- Meet Ausgrid's obligations under the *Security of Critical Infrastructure (**SOCI**) Act* to identity and, as far as it is reasonably practicable to do so, minimise material risks relating to critical infrastructure, which can include climate change-related risks;
- Balance the priority that customers place on resilience with the current cost of living pressures by staging investments and manage the risk of delay by protecting the interests of the most vulnerable through climate resilience initiatives;
- Be economically prudent and efficient, with the projects with the highest return on investment delivered in the first regulatory period;
- Balance the needs of today's customers with those of future customers; and
- Enable and promote learning and adaptive cycles to ensure so that we can make good future resilient decisions, and actively share learnings with other DNSPs.

In its Draft Decision the AER did not accept we had demonstrated that we are not capable of managing these costs through our forecast opex. The AER considered these costs were an absorbable extension of BAU activities. We have undertaken further analysis to identify where this is possible and where new funding is essential to enable us to realise the customer benefits of the resilience program:

- **Limited absorbable costs:** Ausgrid has reviewed the opex step change and analysed what can feasibly be absorbed in forecast BAU. These opportunities predominantly occur in other investment categories where we have more established existing workstreams (e.g. vegetation management, workforce training). In this community resilience project, we are able to accommodate the community resilience plan and an uplift in safety and outage messaging (reduced to $0.25 million) (dependent on leveraging components of the Blackout Plan). Without explicit funding, these initiatives will not go ahead despite strong customer support for them.
- **Existing communications budget:** Ausgrid dedicates a small amount of communication funding annually to meet our safety obligations (~$0.3-0.4 million). Some of this funding is contributed from other project specific sources (e.g. online asset development) and we do not seek specific communication allowances like some other regulated entities.

Purposeful and effective delivery of the climate resilience communications requires a 126% increase on communications expenditure according to our market testing, an increase not absorbable in our BAU expenditure. The average annual communications budget has reduced 47% between the 2014-19 and 2019-24 periods, significantly reducing our capacity to absorb new costs. We anticipate a similar or better efficiency gain over time with resilience communications, acknowledging that establishment and set-up costs should be one-off costs if done well.

- **Future opex/capex trade-offs:** This investment will contribute to an evidence base that will enable Ausgrid and others to better quantify the benefit of community resilience investments more easily and potentially inform efficient future opex/capex trade-offs.
- **Costs not captured in output and real price growth:** Climate change will continue to drive new costs not reflected in our forecast opex across most or all aspects of our business. These cost pressures are also not captured in the output and real price growth factors of the opex forecasting approach. By making an efficient, purposeful and direct investment in this period, Ausgrid can establish the resources to play our role in supporting our customer to navigate a changing future.

We have found efficiencies and identified opportunities to streamline, and wherever possible absorb, each component of this work. Wholesale absorption of these costs under forecast BAU would significantly undermine our ability to deliver on customer expectations and realise long-term benefits.

Our total forecast opex will not allow us achieve the opex objectives and reflect the opex criteria unless this step change is included as it will allow us to achieve an efficient capex/opex trade-off for resilience expenditure. It will also allow us to meet our customers' changing expectations of how we manage and respond to extreme weather events.

4.4 Smart meter data

4.4.1 Context

As outlined in our Initial Proposal, we plan to purchase smart meter data and advanced smart meter services that will enable us to better understand two-way energy flows associated with CER and monitor potential electricity faults that can cause customer and employee safety hazards.

As noted in our Initial Proposal, the benefits of more data and additional real-time smart meter functionality will lead to:

- More efficient use of resources through a reduction in customer callouts, outages and safety incidents, as demonstrated in the case studies below;
- Enhanced safety benefits through neutral integrity monitoring and life support validation;
- Implement more efficient growth capex through more granular and timely information about CER assets. This will result in faster and more accurate decision-making to integrate CER into our network so that these assets are better utilised and we can reduce the risk of curtailing CER; and
- Have additional growth benefits through connectivity validation, voltage compliance and dynamic network management.

The RCP noted the importance of smart meter data to detect safety issues, and that the safety benefits of smart meters have been significant in Victoria. The RCP was also highly supportive of the use of smart meter data.

Case Study: Neutral integrity

Through initial smart meter data trials, Ausgrid has detected and resolved more than 30 Broken Neutrals. This was on a small sample of 20,000 meters or ~1% customer/meter visibility. This would indicate there are likely 1,000+ existing (backlog) cases out there that are unknown (i.e. an evolving safety risk not yet reported by customers).

Based on this sample of 20,000 meters we are detecting and fixing (so they are confirmed genuine) at a rate of ~3 new neutrals per month on average. Extrapolated to our customer base that would indicate potentially 15 issues per month or 180 per annum on an ongoing basis if we had 100% visibility. All extrapolations are simplistic but our sample is random.

Case Study: PV solar installation

As inverter data is not available to DNSPs, smart meter data is a great substitute to identify non-compliant PV installations. Ausgrid has recently commenced purchasing smart meter data for 215,000 customers as part of a trial under our Network Innovation Program. A large number of these customers have solar installations. Preliminary investigation of this data is showing that around 84% of the inverters are installed non-compliantly, which aligns with recent discussions with original equipment manufacturers (**OEMs**), e.g. inverter manufacturers. If DNSPs had ubiquitous access to smart meter data we could identify where solar installations were non-compliant with the Australian Standards (AS4777.2:2020 Australia A).

For example, a customer (customer X) complained to Ausgrid that they were having voltage curtailment issues. Ausgrid was able to assess this using their smart meter data. Ausgrid's investigation showed that the customer's installer had installed their inverter with the wrong settings. Further investigation at this low voltage distributor identified that 8 out of the 10 other solar customers connected to the same low voltage distributor had the wrong inverter settings. The overvoltage was caused by non-compliant inverter settings leading to the voltages on this low voltage distributor being raised above the normal operating voltage of the network. In particular, one customer's inverter was not limiting its output nor providing reactive support and was effectively blocking any other system from operating, and potentially creating a safety issue by operating above the allowed operating voltage.

4.4.2 AER Draft Decision

The AER accepted the need to increase our low voltage network visibility, however they did not agree with our proposed visibility target, noting it was higher than other DNSPs' targets, and that we had not adequately justified why this was needed.[29] The AER included an alternate estimate of $10.7 million for our smart meter data step change.

The AER also noted the release of the AEMC's final report for its review of the regulatory framework for metering services and that it may impact on our proposed step change.

4.4.1 Our Revised Proposal

We revisited our forecasts for the purchase of smart meter data to address the AER's Draft Decision feedback and take into account the AEMC's Metering Review Final Decision's impact on smart meter data purchases. Other impacts of the AEMC's Metering Review Final Decision are considered in **Attachment 9.1 – Alternative Control Services** and **Attachment 10.1 – Service classification**.

The AEMC Metering Review Final Decision recommends DNSPs receive basic metering data at no cost once per day. This recommendation will need to be implemented through a rule change, the process for which has yet to commence.[30] While this recommendation is still to be implemented, we have some clarity on the type and frequency of data that will be provided to DNSPs as a result. However, until the rule change is finalised and implemented, uncertainty remains as to the specifics of what the regulatory requirements will be, and when they will come into effect. This uncertainty exists for all market participants, and could have broader-ranging impacts on the market for meter data services.

Consistent with the form of the AEMC's recommendations, we have assumed the rule change will be implemented and have revised our forecasts accordingly to take into account the likely provision of basic smart meter data through the new mechanisms from 1 January 2026 on a daily basis.[31]

Recently Ausgrid commenced receiving data from approximately 215,000 smart meters (up from previous volume of 20,000 smart meters) under the Network Innovation Program to test safety outcomes for customer installations, service connections and the network. Our Revised Proposal maintains our position to seek additional smart meter data and advanced smart meter functionality (i.e. meter enquiry functionality) to enable us to better understand potential use cases, including two-way energy flows associated with CER and monitoring of potential

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[29] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 6 Operating expenditure, pg. 34.

[30] A rule change request was submitted to AEMC on 29 September 2023 to implement the AEMC's Metering Review Final Decision recommendations. The AEMC had not initiated this rule change request at the time we submitted our Revised Proposal.

[31] We have assumed that basic smart meter data will be available to DNSPs from 1 January 2026 on the basis of the timelines shared in the AEMO Metering Services Review working group.

electricity faults that can cause safety hazards (as shown in the above case studies that relied on this data).

We have revised the types and volume of smart meter data we intend to purchase during the 2024-29 period, taking into account the likely provision of basic metering data at no cost once the AEMC's Metering Review Final Decision recommendations are implemented. We have also reviewed the meter enquiry and data analytics components of the proposed step change.

Our revised step change includes the purchase of the following smart meter data:

- Basic meter data until the AEMC's recommendations are implemented through a rule change (as noted above, this is assumed to be no earlier than 1 January 2026)
- Small volumes of near-real time data we understand will not be provided as part of the metering rule change, but is essential to commence testing and proving use cases related to dynamic pricing services in the future
- Meter enquiries where real time status and data can be polled on-demand from a smart meter in order to improve life support customer management, customer experience and outage management.

We have significantly reduced the data analytics component included as part of this step change in the Initial Proposal as a result of investments we have made in the current period since the Initial Proposal was lodged.

Our Initial Proposal estimated the cost for purchasing data on the basis of a single 'unit rate' (per meter) calculated from our existing commercial arrangements for smart meter data purchases. At the time we estimated meter enquiries would be charged per enquiry. Since we submitted the Initial Proposal, we have received quotes from Metering Providers for meter enquiry services.[32] Actual pricing for these services is based on enabling the capability across their meter fleet, rather than on a 'per enquiry' basis which was assumed for the Initial Proposal estimate.

We have updated our cost estimates for the meter enquiry functionality in this step change on the basis of these quotes. We estimated that we would need to enable meter enquiry functionality across 25% of the available smart meter population across the network in order to improve life support customer management, customer experience and outage management.

This Revised Proposal will continue to deliver the benefits we outlined in our Initial Proposal.[33] This is because we anticipate receiving additional volumes of basic smart meter data as the AEMC's Metering Review Final Decision recommendations are implemented, and the roll out of smart meters accelerates.

This step change is driven by the major external factor of forecast higher penetrations of smart meters across the network, which enable significant benefits as outlined in the AEMC's Final Report. This includes the ability to prevent safety issues that could result in a customer fatality,

[32] We note that these quotes were received prior to the release of the AEMC's Metering Final Decision. Noting the uncertainty of how the Final Decision recommendations will be implemented, pricing of these services are subject to change. We forecast these prices to increase in order to help recover to the cost of the soon to be no-cost services.

[33] Ausgrid (2023), 2024-29 Regulatory Proposal, Attachment 6.1 – Proposed operating expenditure, pg. 32.

and to manage the increasing CER uptake in our network through increased visibility of our network.

The efficient costs of this step change are not provided by other components of Ausgrid's total forecast opex. For example:

- The cost to purchase additional smart meter data is not in our FY23 base year;
- The econometric measures for capturing output growth do not incorporate growth in new activities such as smart meter data purchases, or CER uptake; and
- We have only applied real price growth to labour.

The total forecast opex will not allow Ausgrid to achieve the objectives in NER clause 6.5.6(a) unless this step change is included because our ability to maintain quality, reliability and security of supply of standard control services would be compromised. In particular, we will not have the funding to develop to the network visibility we require to manage the safety of customers' connections to our network, as well as integrate our expected growth in CER assets, without voltage and other technical issues emerging. More granular and timely information on our low voltage network will result in long-term reliability and safety benefits and greater customer benefits by reducing the curtailment of customers' CER exports, consistent with the NEO.

The total forecast opex will not reasonably reflect the criteria in clause 6.5.6(c) of the NER unless this step change is included because we will not be able to efficiently maintain quality, reliability and security of supply of standard control services, without the network visibility across multiple use cases that our smart meter data acquisitions will offer.

4.5 ICT enablement program for CER integration

4.5.1 Context

In our Initial Proposal, we proposed a step change to invest in supporting higher uptake of CER. Some of this included upgrading ICT systems to enable CER integration.

Our ICT enablement program for CER integration over the 2024-29 period aims to build foundational capabilities needed to become a dynamic platform. This includes:

- Making improvements to our connections processes to support the anticipated increase in the number and types of CER customers we will connect to our network;
- Uplifting our modelling and forecasting capabilities to allow us to make as much network capacity available to customers as possible without breaching network limits. This will also take advantage of increased low voltage network visibility due to purchasing smart meter data as outlined in **Section 3.4** above; and
- Providing customers with more flexible network service options that reward them for their flexibility through investing in dynamic operating envelopes and dynamic network pricing.

4.5.2 AER Draft Decision

The AER provided an alternative estimate of $4.6 million to our Initial Proposal for our proposed CER integration program, agreeing it was prudent for us to invest to increase our capabilities to manage growth in CER on our network. While the AER agreed with our proposed investment to uplift our modelling and analytics capabilities, it provided an alternative forecast for our proposed investments to improve our connections processes and did not agree with our proposed dynamic service capabilities.[34]

As set out in **Attachment 5.1 – Proposed capital expenditure**, the Draft Decision acknowledged the importance of allowing customers to get the most out of their CER investments by enabling virtual power plant (**VPP**) participation. However, the AER requested that we explore a way of modelling market efficiency benefits of dynamic services through Customer Export Curtailment Values (**CECVs**) rather than wholesale price differences.

4.5.3 Our Revised Proposal

Our Revised Proposal includes a step change of $6.4 million for CER integration.[35] We accept the AER's inclusion of an opex step change for the uplift in our modelling and analytics capabilities and their alternative opex forecast to improve our connections processes, and have provided additional justification for the dynamic service capabilities aspect of CER.

We have revised our modelling for the dynamic service capabilities aspect of the CER integration step change to address the AER's comments on the modelled benefits. As outlined in **Attachment 5.7.1 – CER Dynamic Services business case**, our Revised Proposal analysis employs the following updated data and input assumptions:

- Using Oakley Greenwood's 2023 CECVs, instead of differences in wholesale energy prices, to quantify the benefits of the shift in generation and load resulting from the optimisation, in accordance with the Draft Decision;
- Revising the prices and structure of tariffs to reflect the EA025 structure and the indicative prices proposed in our Revised Proposed Tariff Structure Statement (**TSS**) and TSS Explanatory Statement (See: **Attachment 8.1: Tariff Structure Statement** and **Attachment 8.2: TSS Explanatory Statement**).
- Updating the projections of VPP and EV take-up, based on AEMO's 2023 Inputs Assumptions and Scenarios report.

The revised NPV of the dynamic services investments remains positive after the revised analysis, although lower than in the initial proposal.

The efficient costs of this step change are not provided by other components of Ausgrid's total forecast opex. For example:

- The costs we will incur are not captured in our FY23 base year;
- Growth in CER assets, which is the driver of this step change, is not a direct input into the forecasting of output growth, and is not adequately reflected in any of the outputs considered when forecasting output growth. Further, the AER has recognised that output growth does not fully account for growing CER;[36] and

[34] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 6 Operating expenditure, pg. 33.
[35] For clarity, this step change does not include SaaS enablement costs, which were included in this step change in our Initial Proposal.
[36] AER (2021), Powercor Distribution Determination 2021 to 2026 Final Decision: Attachment 6 Operating Expenditure, pg. 33.

- We have only applied real price growth to labour.

Our total forecast opex will not allow us to achieve the opex objectives[37] unless this step change is included because our ability to efficiently manage and deliver services to CER customers would be compromised.

[37] NER, clause 6.5.6 (a)

5. Category specific forecasts

We have included one category specific forecast in our revised opex proposal for our Network Innovation Program, which was included as a step change in our Initial Proposal.

5.1 Network Innovation Program

5.1.1 Context

In our Initial Proposal, we included a step change of $5.0 million for our network innovation program, which comprised a range of research and development related to trials and pilots covering leading edge energy technologies to support the rapidly evolving electricity sector.

The network innovation program has strong customer support from the Reset Customer Panel, the Voice of Community as well as the Network Innovation Advisory Committee (**NIAC**). These groups recognise the benefits to customers that can be realised through implementation of innovative ideas and projects.

5.1.2 AER Draft Decision

The AER did not include a step change for our network innovation program in their alternate opex forecast. The AER stated that Ausgrid had not provided sufficient information to support the prudency and efficiency of the proposed network innovation program. The Draft Decision outlines guidance that the AER expect Ausgrid to consider in the Revised Proposal including:

- More detailed information on each proposed project including why the project is transformative;
- Explanations of how alternative sources of funding (e.g. DMIA, Australian Renewable Energy Agency (**ARENA**), regulatory sandboxing) have been considered and genuinely exhausted;
- Broad implications of regulatory incentive schemes on higher risk innovation investment;
- Demonstration of how the findings from the current program has informed our proposed projects; and
- Details of intended knowledge sharing activities.

The AER also provided feedback that this step change would be better treated as a category specific forecast given that these costs are not forecast on a recurrent cost basis.

5.1.3 Our Revised Proposal

As discussed in **Attachment 5.1 – Proposed capital expenditure** and **Attachment 5.8 – Network innovation program**, our Revised Proposal responds to the AER's feedback at the program and project level:

- At the project level, we have tightened the list of proposed projects, prioritising those considered transformative as well as those with high expected benefits.

- At the program level, our Revised Proposal emphasises the need to understand the uncertainties that come with innovation projects and the safeguards we have embedded in the program to maximise the potential benefits to customers. This includes the strong program governance that has been developed over the last four years, the higher investment threshold used (benefit to cost ratio) when proposing potential projects and how asset related projects are deployed in areas of network need, realising risk reductions and/or benefits where successful.

We have also provided a strong commitment to progressing innovation. In developing our Revised Proposal, we have adopted a partial self-funding approach, which mirrors elements of other regulated frameworks such as the UK's Ofgem.

The network innovation program has significant potential benefits in delivering improved service to customers in an efficient and secure manner during the 2024-29 period. The opex innovation allowance will enable us to:

- Select the most efficient options for customers, particularly in the technology domain, with licence costs from the increasing trend towards SaaS and Product as a Service (**PaaS**) offerings;
- Fund opex associated with related network innovation capex projects, such as maintenance of new assets; and
- Conduct ongoing research on community attitudes, expectations and preferences related to issues relevant to the network innovation program, including solution options and equipment standards.

The expenditure is expected to also create long-term capex savings through the application of innovative solutions. Our proposed network innovation program costs are set out in **Figure 5.1**.

Figure 5.1: Proposed network innovation program costs 2024-29 ($m, real FY24)

Category specific forecast	FY25	FY26	FY27	FY28	FY29	Total
Network innovation program	0.90	0.90	0.90	0.90	0.90	4.5

In order to determine the appropriate level of opex for the 2024-29 period and address the AER's feedback on considering alternative funding options, we considered alternative program options. Ausgrid is committed to better meeting the needs of our customers by continuing to invest in innovation, and also to share the risk of this type of investment with our customers. We are proposing to deliver the full program under the continued guidance of the NIAC, whilst self-funding the equivalent of 10% of total program costs. To maintain the sharing of investment risk with our customers, if we underspent our allowance, we would commit to:

- Forgoing the CESS rewards that would otherwise accrue; and
- Adjusting our proposed FY25-29 adjustment such that customers funded 90% of the actual spend.

We note that the AER's Draft Decision agreed with our Initial Proposal position to exclude the network innovation program opex from the calculation of efficiency gains or losses for the EBSS reward or penalty, as these costs were not forecast use a single year revealed cost forecasting approach.[38]

For more details on our proposed network innovation program see **Attachment 5.8 – Network innovation program**.

We have changed the treatment of these costs to be a category specific forecast rather than a step change following consultation with AER staff. As these costs are not forecast on the basis of a single year revealed cost forecasting approach, and the nature of the expenditure is likely to be non-recurrent, it is more accurate to treat these as a category specific forecast so that they do not automatically become part of recurrent expenditure in future regulatory periods.

The efficient costs for our network innovation program are not provided by other components of Ausgrid's total forecast opex because our base year opex does not include any expenditure for our network innovation program. Ausgrid's total forecast opex will not allow us to achieve the opex objectives and reflect the opex criteria unless this step change is included as it is required for us to broaden the scope of the existing network innovation program which currently only includes capex.

[38] AER (2023), Ausgrid Regulatory Proposal 2024 to 2029 Draft Decision: Attachment 8 – Efficiency Benefit Sharing Scheme, pg. 8.