DRAFT DECISION

AusNet Services Transmission Determination 2022 to 2027

Attachment 6 Operating expenditure

June 2021

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on AusNet Services' 2022–27 transmission determination. It should be read with all other parts of the draft decision.

The draft decision includes the following attachments:

Overview

Attachment 1 – Maximum allowed revenue

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management innovation allowance mechanism

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6 Operating expenditure

Operating expenditure (opex) refers to the operating, maintenance and other non-capital expenses incurred in the provision of network and related services. Forecast opex for prescribed transmission services is one of the building blocks we use to determine a service provider's annual total revenue requirement.

This attachment outlines our assessment of AusNet Services' proposed total opex forecast for the 2022–27 regulatory control period.

6.1 Draft decision

We do not accept AusNet Services' updated transmission opex forecast of $1422.8 million ($2021–22)[1] for the 2022–27 regulatory control period because we are not satisfied that it reflects the opex criteria.[2] AusNet Services originally proposed an opex forecast of $1370.7 million ($2021–22)[3] and subsequently updated its opex forecast after it received its 2020–21 Land Tax Assessment Notice.[4]

Our alternative estimate of total opex is $1318.6 million ($2021–22). This is $104.2 million, or 7.3 per cent, lower than AusNet Services' forecast and largely reflects that we do not consider we currently have sufficient evidence to establish the efficient costs of several step changes. We are satisfied that our alternative estimate of forecast opex reasonably reflects the opex criteria. Table 6.1 sets out AusNet Services' proposal, its updated proposal, our alternative estimate that is the basis for the draft decision and the difference between our draft decision and the updated proposal.

Table 6.1 Comparison of AusNet Services' proposals and our draft decision on opex ($million, 2021–22)

Opex category	AusNet Services' proposal	AusNet Services' updated proposal	AER draft decision	Difference ($)
Base (reported opex in 2020–21)	407.5	407.5	408.4	0.9
Base year adjustments	0.1	0.1	0.1	0.0
Final year increment	2.5	2.5	2.5	0.0
Trend: Output growth	–	–	–	–
Trend: Real price growth	5.0	5.0	5.5	0.5
Trend: Productivity growth	–3.8	–3.8	–3.8	–0.0

1 AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.

2 NER, cll. 6A.6.6(c)-(d).

3 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 133.

4 AusNet Services, *2021 Land Tax Assessment Notice,* February 2021; AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.

Opex category	AusNet Services' proposal	AusNet Services' updated proposal	AER draft decision	Difference ($)
Step changes	108.7	108.7	3.1	–105.5
Category specific forecasts	842.0	894.2	894.2	–
Total opex (excluding debt raising costs)	1362.0	1414.1	1310.1	–104.0
Debt raising costs	8.7	8.7	8.5	–0.2
Total opex (including debt raising costs)	1370.7	1422.8	1318.6	–104.2
Percentage difference to proposal				–7.3%

Source: AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model*, October 2020; AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021; AER analysis.

Note: Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

Figure 6.1 compares AusNet Services' updated opex forecast to its past actual opex, our previous regulatory decisions and our alternative estimate that is the basis for our draft decision.

Figure 6.1 Historical and forecast opex ($million, 2021–22)

Source: AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised,* 18 February 2021; AER, *Draft Decision, AusNet Services transmission determination 2022–27, Opex model*, June 2021; AER, *Draft Decision, AusNet Services transmission determination 2022–27, EBSS model,* June 2021; AER analysis.

Note: Includes debt raising costs.

Our lower alternative total opex forecast is driven by the opex related to step changes being $105.5 million ($2021–22) lower than AusNet Services' proposal. We have not included opex for the cyber security, EPA Amendment Act or the council rates step changes as, despite making further inquiries, we do not consider we currently have sufficient information to determine their efficient costs. We encourage AusNet Services to include further information and evidence relating to these costs in its revised proposal. We also included a lower forecast for the proposed five minute settlement step change to reflect the incremental costs above base opex. Offsetting this:

- our base year opex is $0.9 million ($2021–22) higher as we have updated for the latest actual and inflation forecasts
- our real price growth estimate is $0.5 million ($2021–22) higher as we corrected for an input error in AusNet Services' proposal. We have used updated price growth inputs but maintained the same methodology as AusNet Services proposed (average of the Wage Price Index (WPI) price growth forecasts from Deloitte and BIS Oxford Economics), which had a small impact on the forecast.

6.2 AusNet Services' proposal

AusNet Services used a 'base-step-trend' approach to forecast opex for the 2022–27 regulatory control period in its regulatory proposal, consistent with our standard approach.

AusNet Services originally proposed a total opex forecast of $1370.7 million ($2021–22) for the 2022–27 regulatory control period.[5] This included a forecast easement land tax cost of $815.9 million ($2021–22) based on its 2019–20 renewal notice.[6] AusNet Services updated its opex forecast to $1422.8 million ($2021–22)[7] after it received its 2020–21 tax assessment notice[8] and used the most recent easement land tax cost as the basis to forecast over the next regulatory control period ($868.1 million ($2021–22)).

In applying our base-step-trend approach to forecast opex for the 2022–27 regulatory control period, AusNet Services updated proposal:[9]

- used opex in 2020–21 as the base to forecast ($407.5 million ($2021–22))
- added the final year increment from the base year ($2.5 million ($2021–22))
- applied a rate of change comprising of:
    - no output growth
    - real price escalation ($5.0 million ($2021–22))

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5 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 133.

6 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 154.

7 AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model – Revised*, 18 February 2021.

8 AusNet Services, *2021 Land Tax Assessment Notice,* February 2021.

9 AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.

- and productivity growth (–$3.8 million ($2021–22))

- added forecast step changes for the 2022–27 regulatory control period ($108.7 million ($2021–22))
- added category specific forecasts for the 2022–27 regulatory control period ($894.2 million ($2021–22)) of which $868.1 million ($2021–22) is attributed to easement land tax
- added forecast debt raising costs ($8.7 million ($2020–21)).

AusNet Services' updated total opex proposal is set out in Table 6.2.

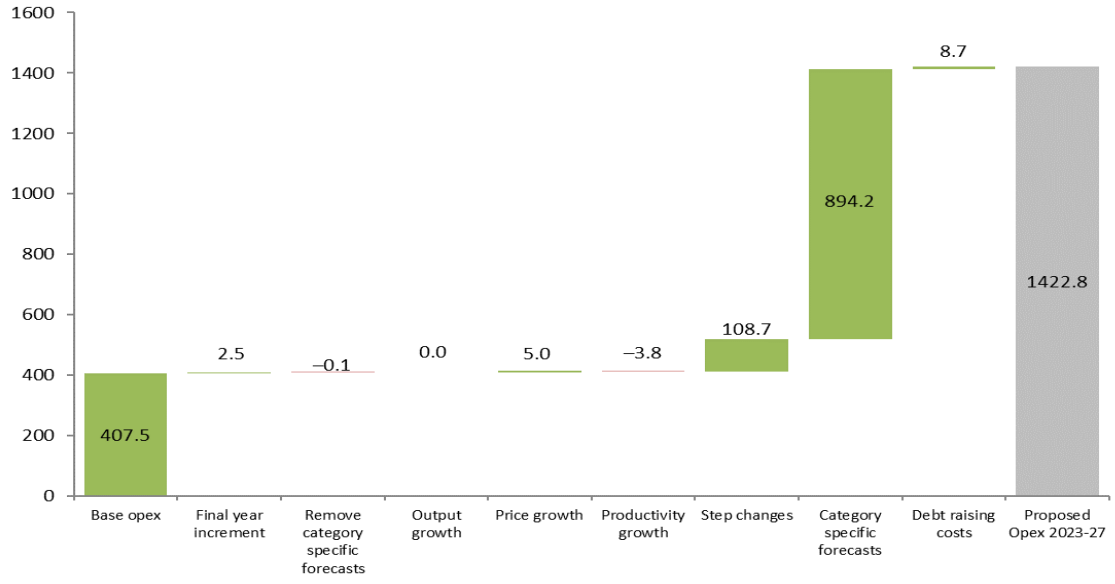
Table 6.2 AusNet Services' updated proposed opex ($million, 2021–22)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Total opex excluding debt raising costs	284.5	283.4	282.2	282.1	281.8	1414.1
Debt raising costs	1.7	1.7	1.7	1.7	1.7	8.7
Total opex	286.3	285.2	284.0	283.8	283.6	1422.8

Source: AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.
Note: Numbers may not add up to totals due to rounding.

Figure 6.2 shows the different components of AusNet Services' opex proposal ($million, 2021–22).

Figure 6.2 AusNet Services' updated opex forecast ($million, 2021–22)



Source: AER analysis

6.2.1 Submissions on AusNet Services' proposal

We received two submissions on AusNet Services' 2022–27 regulatory proposal.

The AER's Consumer Challenge Panel, sub-panel 23 (CCP23) provided commentary on various components of AusNet Services' proposal. A summary of the opex issues raised follows:[10]

- CCP23 noted that based on the AER's 2020 Benchmarking Report, AusNet Services is one of the three more efficient Australian transmission network operators. CCP23 also noted that while its efficiency has dropped away during 2020, it has no reason to believe that AusNet Services' opex is materially inefficient
- CCP23 acknowledged that AusNet Services links the proposed productivity growth improvements to its investment in ICT capex. However it explained it would like to see AusNet Services adopt a more ambitious overall productivity improvement rather than use the industry average
- CCP23 considered the council rates step change are costs which AusNet Services has little control over. CCP23 questioned whether any negotiations have occurred between AusNet Services, local government as well as the Victorian state government, but considered from a regulatory point of view, it could not see how the AER has any choice but to accept the step change
- CCP23 accepted that energy network businesses are a high priority for enhanced cyber security as part of Australia's national cyber security strategy. CCP23 noted it would be important for consumers to understand the difference between the cyber security needs for the distribution and transmission businesses operated by AusNet Services and to be satisfied that costs were allocated appropriately between transmission and distribution businesses
- CCP23 accepted that there are some additional costs for network businesses associated with the implementation of five minute settlement, but noted that the $3.9 million sought by the transmission business must be different from the $3.5 million sought by the distribution business and that a total of $7.4 million is needed across the two businesses
- CCP23 noted in relation to the IT cloud step change, it would be satisfied if the AER confirm that the trade-off between the proposed operating and capital costs produces a better outcome for customers and are appropriately allocated between AusNet Services distribution and transmission businesses
- CCP23 noted that all step changes except for IT cloud are responses to external regulatory requirement and that its support for the proposed step changes was conditional on it satisfying the efficiency criteria established by AER review.

AusNet Services also provided a submission that raised concerns around the potential impacts of Australian Energy Market Operator's (AEMO) proposed structure of

[10] CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, pp. 58–59, 63.

participant fees.[11] AusNet Services explained that AEMO's Draft Determination[12] proposed to allocate a portion of participant fees to network service providers, in contrast to the current fee structure which assigns the entirety of these costs directly to Market Participants and Generators. If implemented, AusNet Services estimated the proposed fee structure could result in the allocation of approximately $5 million of fees per annum to AusNet Services' transmission customers, commencing 1 July 2023.

We have taken these submissions, and any other concerns stakeholders identified into account in developing the positions set out in this draft decision.

6.3 Assessment approach

Our role is to decide whether to accept a business' total opex forecast. We are to form a view about whether a business' forecast of total opex 'reasonably reflects the opex criteria'.[13] In doing so, we must have regard to the opex factors specified in the National Electricity Rules (NER).[14]

The *Expenditure forecast assessment guideline* (the Guideline), together with an explanatory statement, sets out our assessment approach in detail.[15] While the Guideline provides for greater regulatory predictability, transparency and consistency, it is not mandatory. However, if we make a decision that is not in accordance with the Guideline, we must state the reasons for departing from the Guideline.[16]

Our approach is to assess the business' forecast opex over the regulatory control period at a total level, rather than to assess individual opex projects. To do so, we develop an alternative estimate of total opex using a 'top-down' forecasting method, known as the 'base-step-trend' approach.[17] We compare our alternative estimate with the business' total opex forecast to form a view on the reasonableness of the business' proposal. If we are satisfied the business' forecast reasonably reflects the opex criteria, we accept the forecast.[18] If we are not satisfied, we substitute the business' forecast with our alternative estimate that we are satisfied reasonably reflects the opex criteria.[19]

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11 AusNet Services, *Submission to AER for AusNet Services Transmission regulatory proposal*, 12 February 2021.

12 See AEMO, *Electricity Fee Structure – Draft Report and Determination*, November 2020. AEMO's Draft Determination commences the second stage of the NER consultation process conducted by AEMO on the structure of the Participant fees to apply from 1 July 2021 for AEMO's revenue requirements under the NER.

13 NER, cl. 6A.6.6(c).

14 NER, cl. 6A.6.6(e).

15 AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013; AER, *Expenditure forecast assessment guideline*, *Explanatory statement*, November 2013.

16 NER, cl. 6A.2.3(c).

17 A 'top-down' approach forecasts total opex at an aggregate level, rather than forecasting individual projects or categories to build a total opex forecast from the 'bottom up.'

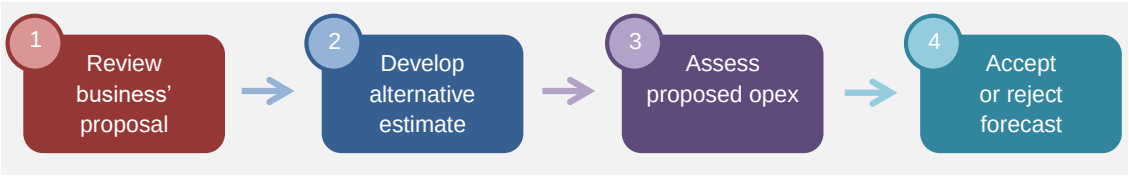
18 NER, cl. 6A.6.6(c).

19 NER, cll. 6A.6.6(d) and 6A.14.1(3)(ii).

In making this decision, we take into account the reasons for the difference between our alternative estimate and the business' proposal, and the materiality of the difference. Further, we take into consideration interrelationships between opex and the other building block components of our decision.[20]

Figure 6.3 summarises the base–step–trend forecasting approach.

Figure 6.3 Our opex assessment approach



1. Review business' proposal

We review the business' proposal and identify the key drivers.

2. Develop alternative estimate

Base

We use the business' opex in a recent year as a starting point (revealed opex). We assess the revealed opex (e.g. through benchmarking) to test whether it is efficient. If we find it to be efficient, we accept it. If we find it to be materially inefficient, we may make an efficiency adjustment.

Trend

We trend base opex forward by applying our forecast 'rate of change' to account for growth in input prices, output and productivity.

Step

We add or subtract any step changes for costs not compensated by base opex and the rate of change (e.g. costs associated with regulatory obligation changes or capex/opex substitutions).

Other

We include a 'category specific forecast' for any opex component that we consider necessary to be forecast separately.

3. Assess proposed opex

We contrast our alternative estimate with the business' opex proposal. We identify all drivers of differences between our alternative estimate and the business' opex forecast. We consider each driver of difference between the two estimates and go back and adjust our alternative estimate if we consider it necessary.

4. Accept or reject forecast

We use our alternative estimate to test whether we are satisfied the business' opex forecast reasonably reflects the opex criteria. We accept the proposal if we are satisfied.

If we are not satisfied the business' opex forecast reasonably reflects the opex criteria we substitute it with our alternative estimate.

[20] NEL, s. 16(1)(c).

6.3.1 Interrelationships

In assessing AusNet Services' total forecast opex we took into account other components of its proposal and our determination, including:

- the efficiency benefit sharing scheme (EBSS) carryover—the level of opex used as the starting point to forecast opex (the final year of the current regulatory control period (2017–22)) should be the same as the level of opex used to forecast the EBSS carryover. This consistency ensures that the business is rewarded (or penalised) for any efficiency gains (or losses) it makes in the final year the same as it would for gains or losses made in other years
- the operation of the EBSS in the 2017–22 regulatory control period, which provided AusNet Services an incentive to reduce opex in the base year
- the impact of cost drivers that affect both forecast opex and forecast capital expenditure (capex). For instance, forecast labour price growth affects forecast capex and our forecast price growth used to estimate the rate of change in opex
- the approach to assessing the rate of return, to ensure there is consistency between our determination of debt raising costs and the rate of return building block
- concerns of electricity consumers identified in the course of AusNet Services' engagement with consumers.

6.4 Reasons for draft decision

We do not accept AusNet Services' transmission updated opex forecast of $1422.8 million[21] ($2021–22) for the 2022–27 regulatory control period because we are not satisfied that it reasonably reflects the opex criteria.[22]

Our draft decision is to include our alternative total opex forecast of $1318.6 million ($2021–22) in AusNet Services' allowed revenue for the 2022–27 regulatory control period. This is $104.2 million, or 7.3 per cent, lower than AusNet Services' total opex forecast of $1422.8 million ($2021–22). We are satisfied our alternative estimate of total forecast opex for AusNet Services reasonably reflects the opex criteria.[23]

Table 6.3 sets out AusNet Services' proposal, its updated proposal, our alternative estimate that is the basis for the draft decision and key differences (to the updated proposal).

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21 AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.

22 NER, cll. 6A.6.6(c)-(d).

23 NER, cl.6A.6.6(c).

Table 6.3 Comparison of AusNet Services' proposals and our draft decision on opex ($million, 2020–21)

	AusNet Services' proposal	Updated proposal	AER draft decision	Difference
Base (reported opex in 2020–21)	407.5	407.5	408.4	0.9
Base year adjustments	0.1	0.1	0.1	0.0
Final year increment	2.5	2.5	2.5	0.0
Trend: Output growth	–	–	–	–
Trend: Real price growth	5.0	5.0	5.5	0.5
Trend: Productivity growth	–3.8	–3.8	–3.8	–0.0
Step changes	108.7	108.7	3.1	–105.5
Category specific forecasts	842.0	894.2	894.2	–
Total opex (excluding debt raising costs)	1362.0	1414.1	1310.1	–104.0
Debt raising costs	8.7	8.7	8.5	–0.2
Total opex (including debt raising costs)	1370.7	1422.8	1318.6	–104.2
Percentage difference to proposal				–7.3%

Source: AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model*, 29 October 2020; AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021; AER analysis.

Note: Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

The main drivers for the differences are set out in section 6.1 and we discuss the components of our alternative estimate below. Full details of our alternative estimate are set out in our opex model, which is available on our website.

6.4.1 Base opex

This section provides our view on the prudent and efficient level of base opex that we consider AusNet Services would need for the safe and reliable provision of services over the 2022–27 regulatory control period.

6.4.1.1 Base year

AusNet Services proposed 2020–21 as the base year to forecast its opex over the 2022–27 regulatory control period.[24] AusNet Services noted that actual costs for 2020–21 were unavailable at the time it submitted its regulatory proposal but will be by the

[24] AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 138.

time the AER makes its final determination in January 2022. AusNet Services considered selecting 2019–20 as the base year, which would incorporate actual costs prior to submission. It submitted that due to the opex forecasting methodology's interaction with the EBSS, AusNet Services is revenue neutral as to the choice of base year being 2019–20 or 2020–21.[25]

AusNet Services provided further details that its opex in 2020–21 has not been materially impacted by COVID–19 and proposed 2020–21 as the base year because it will be the most recently available year of audited opex when the AER's determination is made.[26] AusNet Services also consulted with its customers and stakeholders on the choice of base year at a Deep Dive workshop held on 20 August 2020, which raised questions related to the potential impact of COVID–19 in 2020–21 and whether the choice of base year would have an impact in the subsequent regulatory control period.[27] AusNet Services' summary of the stakeholder engagement noted that the forecast 2020–21 opex was based on three months of actual data and there are unlikely to be any material impacts on opex due to COVID–19.

We consider 2020–21 to be an appropriate base year. While there will be year to year fluctuations in reported opex over the current regulatory period, due to the interaction with the EBSS we do not have concerns with the choice of base year, provided we find AusNet Services' opex in the base year to be efficient.

6.4.1.2 Efficiency of base opex

As outlined in section 6.3, and in the Guideline, our standard approach for forecasting opex is to use a revealed cost approach.[28] This is because opex is largely recurrent and stable at a total level. Where a transmission business is responsive to the financial incentives under the regulatory framework, the actual level of opex it incurs should provide a good estimate of the efficient costs required for it to operate a safe and reliable network and meet its relevant regulatory obligations.

In assessing base opex efficiency, we consider a range of information including AusNet Services' actual opex over time and the benchmarking analysis we undertake. The benchmarking analysis is limited by the small sample size of transmission businesses in the National Electricity Market (NEM), and the limited international data available, among other things. It also does not take into account all the operating environment factor differences between the networks. Reflecting this, we have taken the benchmarking into account but not solely relied on it in forming a view on the efficiency of AusNet Services 2020–21 estimated opex.

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25 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 138.

26 AusNet Services, *Information Request 07 – Q1*, January 2021.

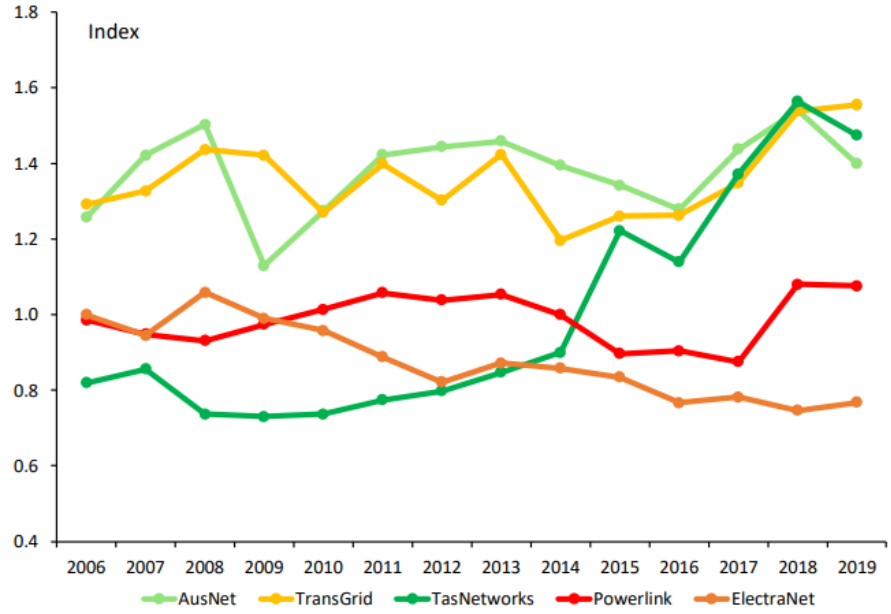
27 Seed Advisory, *Deep Dive Workshop One – Summary Report, AusNet Services Transmission Revenue Reset 2023–2027*, August 2020, pp. 5–6.

28 AER, *Expenditure forecast assessment guideline - transmission,* November 2013, p. 22.

Analysis of AusNet Services' revealed costs, as illustrated in Figure 6.1, shows a relatively stable trend in AusNet Services' total actual and estimated opex over the current regulatory control period, and opex has been close to our approved forecast for this period. Figure 6.1 also illustrates these costs excluding easement land tax. When we exclude easement land tax, AusNet Services reported opex was 12.8 per cent lower than our forecast over the 2017–18 to 2019–20 period and its reported opex in 2019–20 has decreased by 12.7 per cent relative to 2016–17. These results highlight that AusNet Services has outperformed our forecast but easement land tax costs have significantly increased which offsets this performance at the total opex level.

The multilateral partial factor productivity (MPFP) benchmarking results over the 2006–19 period indicates that AusNet Services has performed relatively efficiently over time and is grouped closely with the top three transmission networks in the most recent years.[29] This is shown in Figure 6.4. Its negative growth in 2019 was in large part driven by a single major reliability incident.

Figure 6.4 Opex MPFP index, 2006–19



Source: AER, *2020 transmission network service provider benchmarking report,* November 2020, p. 23.

CCP23 shared these views noting in its submission that AusNet Services is one of the three more efficient Australian transmission network operators. CCP23 also noted that whilst its efficiency has dropped away during 2020, it has no reason to believe that AusNet Services' opex is materially inefficient.[30]

[29] AER, *2020 transmission network service provider benchmarking report,* November 2020, pp. 20–23.

[30] CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, pp. 56–57.

AusNet Services' explained its opex efficiency has been driven in recent years through its refreshed corporate strategy which has a strong focus on operational efficiency. This has resulted in a number of organisational, technological and innovation changes such as outsourcing and automation of key back office functions, including many finance and IT components.[31]

In contrast, AusNet Services' multilateral total factor productivity (MTFP) results show it has been grouped with the bottom performers over time and its productivity deteriorated significantly over 2019 and was close to its 2006 level. This was driven by a single major reliability incident and in 2019 it was the lowest ranked transmission operator in terms of MTFP.[32] However, as the MTFP considers both opex and capital inputs, we rely more heavily on AusNet Services' opex MPFP results for our assessment of base opex.

AusNet Services' partial performance indicator (PPI) are mixed depending on the PPI, but we consider these results are to be expected given the characteristics of its network. AusNet Services had the lowest total cost per end user, likely driven by its denser transmission network relative to other transmission operators. On the other hand AusNet Services reported the highest total cost per kilometre of transmission circuit length,[33] which is reasonable considering it has the lowest circuit length amongst the five transmission businesses.

AusNet Services' opex was subject to the incentives of an ex ante regulatory framework, including the application of the EBSS in the 2017–22 regulatory control period. This gave it a continuous incentive to reduce its opex, including in its proposed base year.

Given these considerations, we are satisfied that the revealed expenditure is not materially inefficient and that it is appropriate to use 2020–21 opex as the starting point for forecasting opex for the 2022–27 regulatory control period.

We will update AusNet Services' base year expenditure with actual information for 2020–21 in our alternative estimate for the final decision.

6.4.2 Rate of change

Having determined an efficient starting point, or base opex, we trend it forward to account for the forecast growth in prices, output and productivity. We refer to this as the rate of change.[34]

In its regulatory proposal, AusNet Services' described its forecasting approach for the rate of change as:

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31 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 138–139.

32 AER, *2020 transmission network service provider benchmarking report,* November 2020, p. 19.

33 AER, *2020 transmission network service provider benchmarking report,* November 2020, p. 26.

34 AER, *Expenditure forecast assessment guideline - transmission*, November 2013, pp. 23–24.

- **Output growth:** it did not account for system growth as these costs are initially handled outside of the revenue cap because of the division of transmission functions in Victoria.[35] Instead system growth opex is accounted for by growth asset roll in expenditure, discussed in section 6.4.4.2
- **Price growth:** it used input price weightings of 70.4 per cent labour and 29.6 per cent non-labour[36] and an average of the Wage Price Index (WPI) price growth forecasts from Deloitte and BIS Oxford Economics for labour price growth. In addition, AusNet Services noted that the latest data available at the time of its submission did not capture the later economic impacts of COVID–19 and is therefore a placeholder that will be updated in its revised regulatory proposal[37]
- **Productivity growth:** used the annual productivity growth rate the transmission industry has been able to achieve over the long term of 0.31 per cent per year.[38]

The rate of change proposed by AusNet Services contributes $1.2 million ($2021–22), or 0.1 per cent, to AusNet Services' proposed total opex forecast of $1422.8 million. This equates to opex increasing on average by around 0.2 per cent each year in the next regulatory control period.[39]

We have included a rate of change that on average increases opex by a similar amount each year in our alternative estimate. We have set out in Table 6.4 AusNet Services' proposal and our alternative estimates for each component of the rate of change. We have set out the reasons for our forecast below.

We received one submission, from CCP23, relating to the rate of change. It acknowledged that AusNet Services links the productivity improvements to its investment in ICT capex. However, it would like to see AusNet Services adopt a more ambitious overall productivity improvement rather than use the industry average.[40] We have considered this submission in making our final decision.

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35 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 143.

36 This is consistent with the AER's 2017 Annual Benchmarking Report for transmission. Also see Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator's 2017 TNSP Benchmarking Report*, 6 November 2017.

37 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 143.

38 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 145.

39 AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.

40 CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, pp. 62–63.

Table 6.4 Forecast rate of change, per cent

	2022–23	2023–24	2024–25	2025–26	2026–27
AusNet Services' proposal					
Price growth	0.3	0.3	0.5	0.7	0.7
Output growth	–	–	–	–	–
Productivity growth	0.3	0.3	0.3	0.3	0.3
Overall rate of change	**–0.0**	**–0.0**	**0.2**	**0.4**	**0.4**
AER final decision					
Price growth	0.5	0.4	0.4	0.5	0.5
Output growth	–	–	–	–	–
Productivity growth	0.3	0.3	0.3	0.3	0.3
Overall rate of change	**0.2**	**0.0**	**0.1**	**0.2**	**0.2**
Overall difference	**0.2**	**0.1**	**–0.1**	**–0.1**	**–0.1**

Source: AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021; AER analysis.

Note: Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

6.4.2.1 Forecast price growth

We have included forecast average annual real price growth of 0.46 per cent in our alternative opex estimate. This compares to AusNet Services' proposed average annual price growth of 0.48 per cent.[41] This increases our alternative estimate of total opex by $5.5 million ($2021–22), instead of $5.0 million ($2021–22) as proposed by AusNet Services.[42] While our average real price growth is lower than AusNet Services' proposal, the overall opex impact is higher as our higher price growth forecast in the first two years of the next regulatory control period is carried through for each year in the that period.

Our real price growth forecast is a weighted average of forecast labour price growth and non-labour price growth:

- to forecast labour price growth we use the forecast of growth in the WPI for the Victorian electricity, gas, water and waste services (utilities) industry. Specifically, we have used an average of forecasts from our consultant Deloitte and the BIS Oxford forecasts submitted by AusNet Services[43]

41 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 142.

42 AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.

43 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 143–144.

- both the AER and AusNet Services applied a forecast non-labour real price growth rate of zero[44]
- both the AER and AusNet Services applied benchmark input price weights of 70.4 per cent and 29.6 per cent for labour and non-labour, respectively.[45]

Consequently, the AER and AusNet Services have applied the same approach to forecast price growth. The differences between our real price growth forecasts and AusNet Services' is that we have:

- corrected an input error in AusNet Services' proposal which it acknowledged during our assessment process.[46] AusNet Services highlighted that the WPI inputs in its proposed opex model were based on earlier calculations which were not updated for the latest BIS Oxford forecasts.
- used updated forecasts for WPI growth from Deloitte.[47] We have also used the WPI growth series for the year ending March as it aligns with AusNet Services' reset period.
- not included superannuation guarantee increases past 30 June 2026, consistent with the legislated super guarantee percentage increases.[48]

These differences are shown in Table 6.5 below.

Table 6.5 Forecast price growth, per cent

	2022–23	2023–24	2024–25	2025–26	2026–27
AusNet Services proposal					
Deloitte	–0.1	–0.1	0.3	0.8	0.8
BIS Oxford Economics	1.2	1.1	1.3	1.4	1.4
Average	0.5	0.5	0.8	1.1	1.1
AER draft decision					
Deloitte	0.3	–0.1	–0.2	0.2	0.3
BIS Oxford Economics	1.2	1.1	1.3	1.4	1.2
Average	0.7	0.5	0.5	0.8	0.7
Difference	0.2	0.0	–0.2	–0.3	–0.4

Source: AusNet Services, *Revenue Proposal 2023–27*, *Operating Expenditure Model - Revised*, 18 February 2021; AusNet Services, *Supporting Model – WPI calculations*, October 2020; AER analysis.

Note: Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

44 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 144.

45 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 143.

46 AusNet Services, *Information Request 07 – Q8*, January 2021.

47 Deloitte Access Economics, *Wage Price Index forecasts,* 1 April 2021, p. xiii.

48 Australian Tax Office, *Super guarantee percentage*, ATO website, 2021, accessed 26 May 2021.

AusNet Services' outlined in its proposal that it intends to commission an updated forecast from BIS Oxford prior to submitting its revised regulatory proposal.[49] We will also use updated Deloitte forecasts for the final decision.

6.4.2.2 Forecast output growth

Consistent with AusNet Services' proposal, we have not included an output growth component in our alternative estimate.[50] This is because AusNet Services is not required to fund the operation and maintenance of new augmentation and connection of assets from its opex forecast over the 2022–27 regulatory control period. The division of transmission network operator functions is explained further in section 6.4.4.2.

6.4.2.3 Forecast productivity growth

We have forecast productivity growth of 0.31 per cent per year in developing our alternative opex forecast. AusNet Services also included forecast productivity growth of 0.31 per cent per year in its opex forecast.[51] This reduces our alternative estimate over the 2022–27 regulatory control period of total opex by $3.8 million ($2021–22), which is the same as proposed by AusNet Services.[52]

We note CCP23's comments in its submission which explained it would like to see AusNet Services adopt a more ambitious overall productivity improvement rather than use the industry average.[53]

Our productivity growth forecast reflects our expectation of the opex productivity growth an efficient service provider in the transmission industry can achieve. It reflects historic industry opex productivity growth to the extent we consider past performance to be a good indicator of future performance under a business-as-usual situation.

We have forecast 0.31 per cent productivity growth based on opex partial factor productivity index analysis over the 2006–19 period.[54] We consider this reflects a reasonable expectation of the benchmark productivity that an efficient and prudent transmission network can achieve for the forecast period.

6.4.3 Step changes

In developing our alternative estimate, we typically include step changes for cost drivers such as new regulatory obligations or efficient capex/opex trade-offs. As we explain in the Guideline, we will generally include a step change if the efficient base

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49 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 144.

50 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 143.

51 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 145.

52 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 145.

53 CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, pp. 62–63.

54 Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator's 2020 TNSP Annual Benchmarking Report*, 15 October 2020, p. 62.

opex and the rate of change in opex of an efficient service provider do not already include the proposed cost for such items.[55]

AusNet Services proposed seven step changes totalling $108.7 million ($2021–22) or 7.6 per cent of its proposed total opex forecast.[56] These are shown in Table 6.6 along with our alternative estimate for the draft decision, which is to include step changes totalling $3.1 million ($2021–22). Our lower alternative estimate largely reflects that we do not consider we currently have sufficient evidence to establish the efficient costs of the proposed step changes for cyber security, EPA regulation changes and council rates. We encourage AusNet Services to include further information and evidence relating to the costs for these step changes in its revised proposal.

Table 6.6 AusNet proposed step changes and our draft decision ($million, 2021–22)

Step change	AusNet Services' Proposal	AER draft decision	Difference
Cyber security	27.9	–	–27.9
5 minute settlement	3.9	0.9	–3.0
EPA regulation change	3.2	–	–3.2
IT cloud	2.3	2.3	0.0
Council rates	71.5	–	–71.5
Total step changes	**108.7**	**3.1**	**–105.5**

Source: AusNet Services, *Revenue Proposal 2023–27,* 29 October 2020, p. 146; AER analysis.

Note: Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

The following sections set out the reasons for our draft decision, including the alternative estimates we have developed.

6.4.3.1 Cyber security

Our draft decision is to not include a forecast for the proposed cyber security step change in our alternative estimate. We consider it prudent for AusNet Services to improve its cyber maturity and agree that a step change is required to fund additional investment to achieve this outcome. However, we seek further information from AusNet Services to inform our assessment of the efficiency of these proposed costs for the final decision.

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55 AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, p. 24.

56 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 146; AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model – Revised*, 18 February 2021.

Table 6.7 Cyber security step change ($million, 2021-22)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' proposal	7.5	6.4	5.0	4.7	4.2	27.9
AER draft decision	–	–	–	–	–	–
Difference	–7.5	–6.4	–5.0	–4.7	–4.2	–27.9

Source: AusNet Services, *Revenue Proposal 2023–27,* 29 October 2020, p. 149; AER analysis.

Note: Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

AusNet Services proposed a $27.9 million ($2021–22) step change to undertake a program of work that will enable it to proactively comply with and maintain the anticipated cyber security obligations to meet the Maturity Indicator Level (MIL) 3 standards set by AEMO's Australian Energy Sector Cyber Security Framework (AESCSF).[57]

AusNet Services stated in its initial proposal that it anticipates AEMO will impose a regulatory obligation on it to uplift its cyber security capability to MIL 3 by 2024 – the highest level cyber security capabilities under the AESCSF.[58] The AESCSF was developed by AEMO in conjunction with industry and government stakeholders and provides a self-assessment framework for measuring cyber security maturity levels against 11 domains. These domains represent groupings of cyber security practices that cover a broad range of areas such as risk management, event and incident response and external party practices such as supply chain and external dependencies management.[59]

We understand there have been further developments in this area with the *Security Legislation Amendment (Critical Infrastructure) Bill 2020* being introduced to Parliament on 10 December 2020.[60] We expect AusNet Services to provide updated information in its revised proposal that accounts for any changes in the obligations that will be placed on it in the next regulatory control period.

AusNet Services' expectation that it would be required to reach MIL 3 was supported by our consultants EMCa in the context of reviewing the proposed cyber security step change for AusNet Services distribution business. EMCa acknowledged that AusNet Services' intention for its transmission business to enhance its cyber security level towards MIL 3 in the next regulatory control period is likely to represent the actions of a prudent transmission operator.[61]

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57 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 149.

58 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 147–148.

59 AEMO, *Australia Energy Sector Cyber Security Framework – quick reference guide*, AEMO website, accessed 26 May 2021.

60 Department of Home Affairs, *Security Legislation Amendment (Critical Infrastructure) Bill 2020,* Department of Home Affairs website, 2020, accessed 26 May 2021.

61 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 149.

In its submission to the AusNet Services' reset, CCP23 accepted that energy network businesses are a high priority for enhanced cyber security as part of Australia's national cyber security strategy. CCP23 noted it would be important for consumers to understand the difference between the cyber security needs for the distribution and transmission businesses operated by AusNet Services and to be satisfied that costs were allocated appropriately between transmission and distribution businesses.[62] More broadly, CCP23 noted that all step changes except for IT cloud are responses to external regulatory requirement and that its support for the proposed step changes was conditional on it satisfying the efficiency criteria established by AER review.[63]

We recognise the increasing cyber risks faced by electricity networks and support the need for additional investment to raise cyber security capabilities generally. We also acknowledge that AusNet Services' transmission business faces an overall higher level of cyber security risk relative to its distribution business, particularly from terror related activities. This higher level of risk is reflected in AusNet Services' proposal to raise its cyber security capabilities to the MIL 3 level as designated under AEMO's AESCSF framework, compared to the MIL 2 level of capability for its distribution businesses. We consider it prudent for AusNet Services to achieve MIL 3 in the next regulatory control period, acknowledging that these requirements are not yet formalised but that a response to meet them likely represents the actions of a prudent operator, and agree that a step change is required to fund additional investment in its cyber capabilities.

AusNet Services' noted in its initial proposal that its program brief on cyber security lists the options considered to meet MIL 3 regulatory obligations, which include a mix of capex and opex.[64]

To assess the efficiency of the proposed step change cost, we have sought to test the reasonableness of the actions, inputs, investments and costs AusNet Services proposed to achieve MIL 3 in the next regulatory control period. However, based on the available information we are unable to determine an efficient cost to include in our alternative estimate for the draft decision. Specifically we require further information to understand how AusNet Services' proposed costs address the capability gaps it identified between its current level of cyber maturity and the level required by MIL 3 across each of the 11 domains under the AESCSF framework. Further details can be found in confidential Appendix A setting out the information provided by AusNet Services that we have relied on and our assessment.

Consequently, we have not included this step change in our alternative estimate of total opex for the draft decision. We will continue to engage with AusNet Services to clarify what further information is required in its revised proposal to enable the AER to make a determination in the final decision.

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62 CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, pp. 58–59.

63 CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, p. 63.

64 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 148. AusNet Services proposed a complimentary capital expenditure to meet MIL 3. The assessment of the capex proposal can be found in Attachment 5.

6.4.3.2 Five minute settlement rule change

Our draft decision is to include a forecast of $0.9 million ($2021–22) for the proposed five minute settlement step change in our alternative estimate.

Table 6.8 Five minute settlement rule change step change ($million, 2021–22)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' proposal	0.9	0.9	0.9	0.6	0.6	3.9
AER draft decision	0.2	0.2	0.2	0.2	0.2	0.9
Difference	–0.7	–0.7	–0.7	–0.5	–0.5	–3.0

Source: AusNet Services, *Revenue Proposal 2023–27,* 29 October 2020, p.150, October 2020; AER analysis.

Note: Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

AusNet Services initially proposed a step change of $3.9 million ($2021–22)[65] to comply with the new five minute settlement rule by the Australian Energy Market Commission (AEMC) that will come into effect on 1 October 2021.[66] This was later revised down by AusNet Services to $0.9 million ($2021–22) as the $3.9 million ($2021–22) originally proposed had not removed existing base year costs from its meter service provider.[67]

AusNet Services explained that in the NEM, there is currently a mismatch between dispatch and settlement periods. Dispatch prices are calculated every five minutes where as the market is settled on the time-weighted average of six five-minute dispatch prices over a 30-minute trading interval. The AEMC has amended the NER so that operational dispatch and financial settlement occur at five minute intervals.[68] We are satisfied that the five minute settlement rule represents a change to AusNet Services' regulatory obligations and that the proposed expenditure for these new obligations is prudent and efficient.

In order to meet its regulatory obligations under the new market settlement rule, AusNet Services is required to enhance its system capabilities relating to Type 1 and Type 2 meters so that these systems can process and report on five minute interval data. AusNet Services has a service agreement with Mondo, its meter data provider. Mondo will be required to undertake additional investments in order to meet AusNet

65 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 150.

66 AEMC, *Rule Determination: National Electricity Amendment (Delayed Implementation of Five Minute and Global Settlement) Rule 2020*, 9 July 2020.

67 AusNet Services, *Information request 02 – Q3*, November 2020.

68 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 149–150.

Services' new regulatory obligations. The $0.9 million ($2021–22) step change represents Mondo's increased service charge to AusNet Services.[69]

CCP23 considered that there are some additional costs for network businesses associated with the implementation of five minute settlement, but noted that the $3.9 million sought by the transmission business must be different from the $3.5 million sought by the distribution business and that a total of $7.4 million is needed across the two businesses.[70] We have taken the potential of duplicated costs across AusNet Services' distribution and transmission business into account in our assessment and do not consider there is any duplication in costs. AusNet Services also confirmed that the step change solely related to meter data services provided to its transmission business when we sought further information.[71]

We view the updated proposed costs as reasonable and believe that AusNet Services' response to the new regulatory obligation is prudent and efficient. Therefore, we have included the updated $0.9 million ($2021–22) step change in our alternative estimate.

6.4.3.3 Environment Protection Amendment Act 2018

Our draft decision is to not include a forecast for the proposed EPA step change in our alternative estimate. We consider it prudent for AusNet Services to comply with the new requirements of the *Environment Protection Act 2017* (as amended by the *Environment Protection Amendment Act 2018 (VIC))* (*the amended Environment Protection Act 2017*) and agree that a step change may be required to fund these additional obligations. However, we seek further information from AusNet Services to inform our assessment around the efficiency of these costs for the final decision.

Table 6.9 Environment Protection Amendment Act step change ($million, 2021–22)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' proposal	0.6	0.6	0.6	0.7	0.7	3.2
AER draft decision	–	–	–	–	–	–
Difference	–0.6	–0.6	–0.6	–0.7	–0.7	–3.2

Source: AusNet Services, *Revenue Proposal 2023–27, Appendix 5B Standalone EPA step change*, 29 October 2020, p. 3; AER analysis.

Note: Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

69 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 150.

70 CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, p. 59.

71 AusNet Services, *Information request 02 – Q4,* November 2020.

AusNet Services proposed a step change of $3.2 million ($2021–22) to comply with its new obligations under the amended *Environment Protection Act 2017*.[72] The changes under the amended *Environment Protection Act 2017* include specific elements around the General Environment Duty (GED), to notify the Environment Protection Authority Victoria (EPA Victoria) of pollution incidents, permissions, duties for contaminated land and enforcement powers for EPA Victoria.[73]

Under the amended *Environment Protection Act 2017*, AusNet Services considered that the introduction of the GED, and the specific obligations relating to land contamination, are the main drivers of additional operational activities and expenditure over the 2022–27 regulatory control period.[74] Accordingly, it proposed the following activities to comply with the amended *Environment Protection Act 2017*:[75]

- detailed risk assessments for 10 sites per annum commencing in 2021–22
- annual groundwater testing with the assumption of 10 sites per annum commencing in 2022–23, increasing to 54 sites per annum by 2026–27
- producing environmental management plans for each site and asset type
- noise testing
- one internal full-time equivalent resource to manage the above activities on an ongoing basis, including increased liaison with EPA Victoria.

The new GED, which is the cornerstone of the amended *Environment Protection Act 2017*, establishes a proactive regulatory approach to preventing waste and pollution impacts, rather than managing the impacts after they occur.[76]

We understand that the GED puts the onus of determining the appropriate risk-management control on the regulated entity and is not prescriptive about what activities may be required in order to discharge the obligation. The amended *Environment Protection Act 2017*'s Fact sheet states that the GED aligns with the way many businesses and industries already manage risk. Its concept is familiar to businesses through the well-established model of protection provided by Victoria's Occupational Health and Safety laws, which are also centred around a general duty to

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72 AusNet Services, *Revenue Proposal 2023–27, Appendix 5B Standalone EPA step change*, 29 October 2020, p. 1; AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.

73 Environment, Water, Land and Planning Victoria, *Environment Protection Amendment Act 2018 – Fact Sheet,* p. 1. The amended *Environment Protection Act 2017* will include the amendments under the *Environment Protection Amendment Act 2018*.

74 AusNet Services, *Revenue Proposal 2023–27, Appendix 5B Standalone EPA step change*, 29 October 2020, pp. 1–2.

75 AusNet Services, *Information request 03,* December 2020.

76 Environment, Water, Land and Planning Victoria, *Environment Protection Amendment Act 2018 – Fact Sheet,* p. 1. The amended *Environment Protection Act 2017* will include the amendments under the *Environment Protection Amendment Act 2018*.

take reasonably practicable measures to reduce the risk of harm.[77] The GED require a proportionate, risk-based and evidence-based approach guided by historical knowledge of sites.[78] If no contamination is suspected, the GED will apply when undertaking activities such as excavating soil and the impacts this could have on human and environmental health. Under the GED, there must be a system for identifying and responding to such risks when undertaking such activities.[79]

We are satisfied that the amended *Environment Protection Act 2017* represents a change to AusNet Services' regulatory obligations. However, based on the available information we are unable to determine an efficient cost to include in our alternative estimate for the draft decision. We have examined the activities AusNet Services proposed to undertake and the associated cost estimates. We are concerned that some of the proposed actives and associated costs may be part of AusNet Services' business as usual activities (e.g. record keeping, inspections, testing) already undertaken to monitor performance, conditions and environmental risks at these sites. For example, AusNet Services proposed an additional $290,000 per year to undertake detailed risk assessments of sites and $100,000 per year to produce environmental management plans for each site. We are not satisfied that AusNet Services proposed actions and costs are an efficient response to the new regulatory obligation. AusNet Services would already hold extensive knowledge and information about the condition, performance and environmental risks of its sites and assets from its historical business as usual inspections, testing and maintenance of these sites. Further, there should be existing environmental management plans under current environmental protection obligations.

We are also concerned that some of AusNet Services' assumptions regarding the proposed level of monitoring and environmental risk assessment of sites appears disproportionate and not risk-based or evidence-based. For example, AusNet Services has proposed to undertake a significant amount of groundwater testing annually. AusNet Services has not demonstrated that a significant number of its sites are suspected of having groundwater contamination and present a risk of harm to human or environmental health. Additionally, we do not consider it an efficient response for AusNet Services to hire noise testing contractors when we would expect AusNet Services routinely conducts proactive asset inspections and maintenance work that could include noise monitoring at no material increase of operational cost. Further, AusNet Services has not demonstrated that noise pollution at its sites has been a historical concern and therefore that its proposed approach is proportionate, based on risk and historical evidence.

Consequently, we have not included this step change in our alternative estimate of total forecast opex. We will continue to engage with AusNet Services to clarify what

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77 Environment, Water, Land and Planning Victoria*, Environment Protection Amendment Act 2018 – Fact Sheet,* p. 1. The amended *Environment Protection Act 2017* will include the amendments under the *Environment Protection Amendment Act 2018*.

78 Environment Protection Authority Victoria, *1915: Contaminated land policy*, p. 7.

79 Environment Protection Authority Victoria*, 1915: Contaminated land policy*, p. 6.

further information can be provided in its revised proposal to enable the AER to make a determination in the final decision. For example, this could include information to demonstrate that the proposed activities and associated costs are required in addition to what AusNet Services is already undertaking as part of it business as usual activities. This could be in the form of an independent expert opinion to validate its claims that the proposed level of monitoring and testing is necessary to meet its obligations under the amended *Environment Protection Act 2017*.

6.4.3.4 IT cloud

Our draft decision is to include a forecast of $2.3 million ($2021–22) for the proposed IT cloud step change in our alternative estimate consistent with AusNet Services' proposal. We have included this step change in our alternative estimate as we consider the capex/opex trade-off results in forecast expenditure that is likely to be prudent and efficient.

Table 6.10 IT cloud step change ($million, 2021–22)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' proposal	0.5	0.5	0.5	0.5	0.5	2.3
AER draft decision	0.5	0.5	0.5	0.5	0.5	2.3
Difference	0.0	0.0	0.0	0.0	0.0	0.0

Source: AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 152; AER analysis.

Note: Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

AusNet Services proposed a $2.3 million ($2021–22) step change to replace critical IT applications that are reaching end-of-life or needing upgrades, with a migration to cloud-based services at a lower cost.[80]

AusNet Services explained it identified opportunities to move to a cloud-based system progressively in four ICT programs:[81]

- corporate enablement
- corporate telecommunications
- information management
- workforce collaboration.

AusNet Service categorised this step change as a capex-opex tradeoff.[82] We have noted in our recent decisions[83] for us to accept a step change on the basis of a capex-

[80] AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 152.

[81] AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 151–152.

[82] AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 151–152.

opex trade-off criteria, we would need to be satisfied that the proposed expenditure is prudent and efficient through robust cost benefit analysis to demonstrate clearly how increased opex would be more than offset by capex savings. We sought further information from AusNet Services to better understand the capex/opex trade off and how the additional opex savings identified in its proposal have been factored into the step change amount.[84]

The CCP23 considered it would be satisfied if the AER confirm that the trade-off between operating and capital costs produces a better outcome for customers and the costs are appropriately allocated between AusNet Services distribution and transmission businesses.[85]

Our internal technical advice identified that the proposed opex for corporate telecommunications and workforce collaboration is prudent and efficient. In relation to corporate enablement, the proposed cloud preparation work appear to be one-off costs and may not be ongoing. For costs related to information management, it was not clear whether potential cost savings from enhancing the platform have been appropriately accounted for.

While there are concerns about the proposed corporate enablement and information management costs, we consider that the amounts are not material. We consider the proposed step change meets the requirements for a capex/opex trade off and based on the options considered, is the lowest cost option in order for AusNet Services to meet its cloud migration program.

6.4.3.5 Council rates

Our draft decision is to not include a forecast for the proposed council rates step change relating to a new calculation methodology in our alternative estimate. We do not consider we have sufficient information from AusNet Services in relation to the timeframe or new methodology being introduced to determine the efficient costs of this change.

Table 6.11 Council rates step change ($million, 2021–22)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' proposal	14.3	14.3	14.3	14.3	14.3	71.5
AER draft decision	–	–	–	–	–	–
Difference	–14.3	–14.3	–14.3	–14.3	–14.3	–71.5

Source: AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 152; AER analysis.

Note: Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

[83] AER, *Final Decision, AusNet Services Distribution Determination 2021–26, Attachment 6 Operating expenditure*, June 2020, p. 49.

[84] AusNet Services, *Information request 03,* December 2020.

[85] CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, p. 59.

AusNet Services proposed a step change of $71.5 million ($2021–22) to account for an increase in council rates due to a new methodology being used by the Victorian Valuer-General to calculate Council rates.[86] Due to a change in the methodology used by the Victorian Valuer-General to calculate rates for terminal station assets, AusNet Services expected its council rates to rise from $1 million ($2021–22) per annum to $14.3 million per annum.[87]

We have consulted with both AusNet Services and the Victorian Valuer-General in relation to the possible changes. At this stage we have been unable to establish a clear timeframe for this change coming into effect, the details supporting the new methodology or the resulting estimate of efficient Council rate costs over the 2022–27 regulatory control period. Therefore, we have been unable to establish a clear view on the reasonableness of the proposed forecast and consequently we have not included this step change in our alternative estimate.

We took into account CCP23's submission which considered the council rates step change are costs which AusNet Services has little control over. CCP23 questioned whether any negotiations have occurred between AusNet Services, local government as well as the Victorian state government, but considered from a regulatory point of view, CCP23 cannot see how the AER has any choice but to accept the step change.[88]

In its revised proposal, we expect AusNet Services to provide updated information about the timing and methodology put in place by the Valuer-General and how this informs the efficient step change forecast over the 2022–27 regulatory control period.

6.4.4 Category specific forecasts

There are three expenditure items we have included in our alternative estimate of total opex which we did not forecast using the base-step-trend approach. These are debt raising costs, growth asset roll in and easement land tax.

6.4.4.1 Debt raising costs

We have included debt raising costs of $8.5 million ($2021–22) in our alternative estimate. This is $0.2 million ($2021–22) lower than the $8.7 million forecast ($2021–22) proposed by AusNet Services.[89]

Debt raising costs are transaction costs incurred each time a business raises or refinances debt. The appropriate approach is to forecast debt raising costs using a benchmarking approach rather than a service provider's actual costs in a single year. This provides consistency with the forecast of the cost of debt in the rate of return building block.

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86 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 147.

87 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 147.

88 CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, p. 58.

89 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 154.

We used our standard approach to forecast debt raising costs which is discussed further in Attachment 3 to the draft decision.[90]

6.4.4.2 Growth asset roll in

We have included growth asset roll in opex of $26.1 million ($2021–22) as a category specific forecast in our alternative estimate. This is consistent with AusNet Services' proposal.[91]

Table 6.12 Growth asset roll in ($million, 2021–21)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' proposal	5.2	5.2	5.2	5.2	5.2	26.1
AER draft decision	5.2	5.2	5.2	5.2	5.2	26.1
Difference	–	–	–	–	–	–

Source: AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 146; AER analysis.

Note: Numbers may not add due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

In Victoria during any regulatory control period, AEMO or a distribution business may request AusNet Services to augment the transmission network or distribution connection services. We do not roll these assets into the regulated asset base until the subsequent revenue determination.

The opex associated with these growth assets at this point (prior to rolling the assets into the RAB) charged to customers outside the revenue cap and is not reflected in reported opex. Consequently we need to increase our opex forecast for the additional expenses associated with the operation and maintenance of the growth assets that we roll into the RAB.[92] This arrangement is a transfer of existing costs rather than new costs being passed on to customers. Therefore, it does not impact the current price being paid by customers (just who it is paid to). Currently, AEMO and the Victorian distribution businesses fund and pass these costs onto customers. When these assets are rolled into AusNet Services' RAB, AusNet Services then fund operation and maintenance of growth assets through its opex allowance.[93] The value of the assets proposed to be rolled into the RAB in April 2022 is $294 million ($2021–22).[94]

AusNet Services' forecasted the roll-in of growth asset opex in accordance with current recovery rates specified under existing contracts with AEMO and Victorian distribution

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90 AER, *Draft Decision, AusNet Services Transmission Determination 2022–27, Attachment 3 Rate of return*, June 2021, section 3.3.2.

91 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 146; AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021.

92 In accordance with NER, cl. 11.6.21(c)

93 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 145.

94 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 187.

businesses. In a small number of cases (representing approximately 5 per cent of total asset value) where these recovery rates were not available, AusNet Services applied the average percentage of known growth assets opex as compared to the total roll in amount (equalling 1.4 per cent) to these projects to determine the associated opex.[95]

We clarified with AusNet Services that the proposed growth asset opex forecast is intended to reflect only the incremental operation and maintenance costs that are directly attributable to the relevant growth asset over the life of that asset, plus an allowance for overhead costs.[96] AusNet Services provided further information to reflect how the current recovery rates specified under existing contracts aligned with the negotiating principles in the NER.[97]

Following our assessment of this information and AusNet Services' proposed methodology of using 1.4 per cent for projects where recovery rates were not available – we consider this is a reasonable approach to forecast opex associated with growth assets.

6.4.4.3 Easement land tax

We have included a category specific forecast for easement land tax of $868.1 million ($2021–22) as a category specific forecast in our alternative estimate. This is consistent with AusNet Services' updated proposal.[98]

Table 6.13 Easement land tax ($million, 2021–21)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' proposal	173.6	173.6	173.6	173.6	173.6	868.1
AER draft decision	173.6	173.6	173.6	173.6	173.6	868.1
Difference	–	–	–	–	–	–

Source: AusNet Services, *Revenue Proposal 2023–27, Operating Expenditure Model - Revised*, 18 February 2021; AER analysis.

Note: Numbers may not add due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

AusNet Services' network is built on a series of easements, which are subject to the Victorian Government's easement land tax. AusNet Services is required to forecast its easement land tax liability as part of the forecast opex. Where the forecast we include in our opex forecast differs (higher or lower) from the actual tax paid, AusNet Services is entitled to apply for a cost pass through.[99]

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95 AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 145.

96 AusNet Services, *Information Request 03 – Q6a*, November 2020.

97 NER (v109), cl. 6A.9.1; AusNet Services, *Information Request 08*, February 2021.

98 AusNet Services, *Revenue Proposal 2023–27*, *Operating Expenditure Model - Revised*, 18 February 2021.

99 NER, cl. 6A.7.3.

AusNet Services initially proposed an easement land tax amount of $815.9 million ($2021–22),[100] which was based on its most recent tax assessment notice (2019–20) at the time of submitting its regulatory proposal. AusNet Services subsequently updated its easement land tax forecast to $868.1 million ($2021–22) based on its (2020–21) tax assessment notice.[101]

We consider AusNet Services' updated forecast is a reasonable approach to forecast easement land tax over the 2022–27 regulatory control period as it reflects the latest valuations. As noted above, a pass–through provision provides assurance that neither AusNet Services, nor its customers, will receive a windfall gain (or loss) due to the actual land tax payments required of AusNet Services being lower (or higher) than forecast in its revenue determination.

6.4.5 Assessment of opex factors

In deciding whether we are satisfied the service provider's forecast reasonably reflects the opex criteria we have regard to the opex factors.[102] Table 6.14 summarises how we have taken the opex factors into account in making our draft decision.

Table 6.14 AER consideration of opex factors

Opex factor	Consideration
The most recent annual benchmarking report that has been published under rule 6A.31 and the benchmark operating expenditure that would be incurred by an efficient network service provider over the relevant regulatory control period.	There are two elements to this factor. First, we must have regard to the most recent annual benchmarking report. Second, we must have regard to the benchmark operating expenditure that would be incurred by an efficient transmission network service provider over the period. The annual benchmarking report is intended to provide an annual snapshot of the relative efficiency of each service provider. The second element, that is, the benchmark operating expenditure that would be incurred by an efficient provider during the forecast period, necessarily provides a different focus. This is because this second element requires us to construct the benchmark opex that would be incurred by a hypothetically efficient provider for that particular network over the relevant period. The benchmarking analysis is limited by the small sample size of transmission businesses in the National Electricity Market (NEM), and the limited international data available, among other things. It also does not take into account all the operating environment factor differences between the networks. Noting these limitations, we have taken the benchmarking results into account but not solely relied on it when assessing the efficiency of AusNet Services' proposed total forecast opex.

[100] AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 153–154.

[101] AusNet Services, *2021 Land Tax Assessment Notice,* February 2021; AusNet Services, *Revenue Proposal 2023–27*, *Operating Expenditure Model - Revised*, 18 February 2021.

[102] NER, cl. 6A.6.6(e).

Opex factor	Consideration
The actual and expected operating expenditure of the transmission network service provider during any proceeding regulatory control periods.	Our forecasting approach uses the service provider's actual opex as the starting point. We have compared several years of AusNet Services' actual past opex with that of other service providers as a part of forming a view about whether its revealed expenditure is sufficiently efficient to rely on.
The extent to which the operating expenditure forecast includes expenditure to address the concerns of electricity consumers as identified by the Network Service Provider in the course of its engagement with electricity consumers.	We understand the intention of this particular factor is to require us to have regard to the extent to which service providers have engaged with consumers in preparing their revenue proposals, such that they factor in the needs of consumers.[103] We consider the Deep Dive workshop AusNet Services conducted with its consumers covered a number of areas related to opex including the choice of base year and some of the proposed step changes. CCP23 also considered AusNet Services listened actively and responsively to consumers on the topics on which were engaged.[104]
The relative prices of capital and operating inputs	We have considered capex/opex trade-offs in considering AusNet Services' proposed step changes. For example the IT cloud step change where AusNet Services' proposed a $2.3 million ($2021–22) step change to replace critical IT applications (that are reaching end-of-life or needing upgrades) with a migration to cloud-based services at a lower cost. We also have had regard to multilateral total factor productivity benchmarking when deciding whether or not forecast opex reflects the opex criteria. Our multilateral total factor productivity analysis considers the overall efficiency of networks with in the use of both capital and operating inputs with respect to the prices of capital and operating inputs.
The substitution possibilities between operating and capital expenditure.	Some of our assessment techniques examine opex in isolation—either at the total level or by category. Other techniques consider service providers' overall efficiency, including their capital efficiency. We have had regard to several metrics when assessing efficiency to ensure we appropriately capture capex and opex substitutability. In developing our benchmarking models we have had regard to the relationship between capital, opex and outputs.
Whether the operating expenditure forecast is consistent with any incentive scheme or schemes that apply to the network service provider under clauses 6A.6.5, 6A.7.4 or 6A.7.5.	The incentive scheme that applied to AusNet Services' opex in the 2017–22 regulatory control period, the EBSS, was intended to work in conjunction with a revealed cost forecasting approach. We have applied our estimate of base opex consistently in applying the EBSS and forecasting AusNet Services' opex for the 2022–27 regulatory control period.

103 AEMC, *Rule Determination*, 29 November 2012, pp. 101, 115.

104 CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal,* 12 February 2021, p. 1.

Opex factor	Consideration
The extent the operating expenditure forecast is preferable to arrangements with a person other than the network service provider that, in the opinion of the AER, do not reflect arm's length terms.	Some of our techniques assess the total expenditure efficiency of service providers and some assess the total opex efficiency. Given this, we are not necessarily concerned whether arrangements do or do not reflect arm's length terms. A service provider which uses related party providers could be efficient or it could be inefficient. Likewise, for a service provider that does not use related party providers. If a service provider is inefficient, we adjust their total forecast opex proposal, regardless of their arrangements with related providers.
Whether the operating expenditure forecast includes an amount relating to a project that should more appropriately be included as a contingent project under clause 6A.8.1(b).	This factor is only relevant in the context of assessing proposed step changes (which may be explicit projects or programs). We did not identify any contingent projects in reaching our draft decision.
The most recent Integrated System Plan and any submissions made by AEMO, in accordance with the NER, on the forecast of the Transmission Network Service Provider's required operating expenditure	We have had regard to AEMO's most recent Integrated System Plan and consider this to be consistent with AusNet Services' forecast opex.[105]
The extent the network service provider has considered, and made provision for, efficient and prudent non-network alternatives.	We have not found this factor to be significant in reaching our draft decision.
Any relevant project assessment conclusions report required under 5.16.4.	We have not identified any RIT–T project that has been submitted by the AusNet Services and would impact the total forecast opex. We are unaware of any RIT–T project being submitted by AusNet Services.
Any other factor the AER considers relevant and which the AER has notified the service provider in writing, prior to the submission of its revised Revenue Proposal under 6A.12.3, is an operating expenditure factor.	We did not identify and notify AusNet Services of any other opex factor.

Source: AER analysis.

[105] AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 20–22.

Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	capital expenditure
CPI	consumer price index
EBSS	efficiency benefit sharing scheme
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PTRM	post-tax revenue model
RIN	regulatory information notice
STPIS	service target performance incentive scheme
TNSP	transmission network service provider