

# Final Decision

## AusNet Services Transmission Determination 2022 to 2027

January 2022

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# Summary

The Australian Energy Regulator (AER) makes a transmission determination for each transmission network service provider (TNSP) in accordance with chapter 6A of the National Electricity Rules (NER).<sup>1</sup>

This document is our transmission determination for AusNet Services for the regulatory control period 1 April 2022 to 31 March 2027. Our reasons are included in the AER's final decision on AusNet Services' transmission determination (January 2022) which is to be read in conjunction with this document.

Our transmission determination for AusNet Services consists of:<sup>2</sup>

- a revenue determination in respect of the provision by AusNet Services of prescribed transmission services (section 1)
- a determination relating to AusNet Services' negotiating framework (section 2)
- a determination that specifies the negotiated transmission service criteria (NTSC) that apply to AusNet Services (section 3)
- a determination that specifies the pricing methodology that applies to AusNet Services (section 4)
- a determination that specifies pass through events that will apply to this determination in addition to those specified in the NER (section 5).

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<sup>1</sup> NER, clause 6A.2.1.

<sup>2</sup> NER, clause 6A.2.2; 6A.7.3(a1).

# 1 Revenue

We calculate the amount of revenue that AusNet Services requires each year of the regulatory control period in accordance with a building block approach.<sup>3</sup> This is referred to as the annual building block revenue requirement. The annual building block revenue is then used to calculate the expected maximum allowed revenue (MAR) for each year of the 2022–27 regulatory control period. The annual MAR that AusNet Services may earn from providing prescribed transmission services is subject to adjustments to account for factors such as inflation, approved pass through costs and annual performance rewards or penalties.

Our revenue determination specifies the following matters:<sup>4</sup>

- the amount of the estimated total revenue cap for the regulatory control period and the method of calculating that amount
- the annual building block revenue requirement for each regulatory year of the regulatory control period
- the amount of the MAR for each regulatory year of the regulatory control period or the method of calculating that amount
- the regulatory asset base (RAB) as at the commencement of the regulatory control period
- the methodology that will be used for the indexation of the RAB
- the values that are to be attributed to the performance incentive scheme parameters for the purposes of the application to AusNet Services of the service target performance incentive scheme (STPIS) that applies in respect of the regulatory control period
- the values that are to be attributed to the efficiency benefit sharing scheme parameters for the purposes of the application to AusNet Services of the efficiency benefit sharing scheme (EBSS) that applies in respect of the regulatory control period
- how the capital expenditure sharing scheme (CESS) is to apply to AusNet Services
- how the demand management innovation allowance (DMIAM) is to apply to AusNet Services
- the commencement and length of the regulatory control period covered by this determination
- depreciation for establishing the RAB as at the commencement of the following regulatory control period is to be based on forecast capital expenditure.

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<sup>3</sup> NER, cl. 6A.5.4

<sup>4</sup> NER, cl. 6A.4.2

## 1.1 Method for calculating estimated total revenue cap

We determine an estimated total MAR of \$2,876.6 million (\$nominal) for AusNet Services for the 2022–27 regulatory control period as shown in Table 1. The total annual expected MAR is also known as the total revenue cap. It is the sum of the annual expected MAR for each regulatory year.<sup>5</sup>

**Table 1 AER's final determination on AusNet Services' annual expected maximum allowed revenue (\$million, nominal)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Annual expected MAR (smoothed)	570.7	573.0	575.3	577.6	579.9	2,876.6
X factor (%) <sup>a</sup>	n/a <sup>b</sup>	2.00%	2.00%	2.00%	2.00%	n/a

Source: AER analysis.

- (a) The X factors will be revised to reflect the annual return on debt update. Under the CPI–X framework, the X factor measures the real rate of change in annual expected smoothed revenue from one year to the next. A negative X factor represents a real increase in revenue. Conversely, a positive X factor represents a real decrease in revenue.
- (b) AusNet is not required to apply an X factor for 2022–23 because we set the 2022–23 MAR in this decision. The MAR for 2022–23 is around 1.3% lower than the approved MAR for 2021–22 in real terms, or 1.1% higher in nominal terms.

We determine the annual expected MAR by using the X factors to smooth the annual building block revenue requirement, as set out below.

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<sup>5</sup> NER, cl. 6A.5.3.

## 1.2 Annual building block revenue requirement

We determine the annual building block revenue requirement for AusNet Services as shown in Table 2.

**Table 2 AER's final determination on AusNet Services' annual building block revenue requirement (\$million, nominal)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Return on capital	168.8	167.1	166.6	167.3	166.9	836.6
Regulatory depreciation <sup>a</sup>	96.1	81.9	91.1	101.0	109.6	479.7
Operating expenditure <sup>b</sup>	284.4	291.6	297.8	305.6	313.3	1,492.8
Revenue adjustments <sup>c</sup>	25.7	15.8	14.4	12.7	–0.5	68.1
Net tax allowance	0.8	0.0	0.0	0.0	0.0	0.8
<b>Annual building block revenue requirement (unsmoothed)</b>	<b>575.8</b>	<b>556.4</b>	<b>569.9</b>	<b>586.6</b>	<b>589.3</b>	<b>2,878.0</b>

Source: AER analysis.

- (a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening regulatory asset base.
- (b) Includes debt raising costs.
- (c) Includes revenue adjustments from the efficiency benefit sharing scheme, the capital expenditure sharing scheme, a shared assets adjustment, and the demand management innovation allowance mechanism.

## 1.3 Method for calculating maximum allowed revenue

We use an expected inflation rate in our post-tax revenue model (PTRM) to calculate the expected MAR (as shown in Table 1) in nominal dollar terms. The calculation of the actual annual MAR will therefore require an adjustment for actual inflation. To this end, the actual MAR from the second year onwards is adjusted for actual inflation. As discussed in the *Rate of return instrument*, the MAR is also subject to adjustment to reflect our update of AusNet Services' return on debt annually.<sup>6</sup> This means the actual MAR from the second year onwards will be adjusted for revised X factors after the annual return on debt update. The method of this annual revenue adjustment process is set out below.

To enable the formula for the annual revenue adjustment process to operate correctly, we will refer to the expected MAR determined in this determination using the building block costs as the allowed revenue (AR). This is because the expected MAR determined using the building block costs does not incorporate performance incentive scheme revenue adjustments and pass through amounts that may apply to each regulatory year.

<sup>6</sup> AER, *Rate of return instrument*, December 2018, cl. 24, note 29.

We determine the 2022–23 AR of \$570.7 million for AusNet Services. AusNet Services then applies an annual adjustment to determine its AR for each subsequent year of the 2022–27 regulatory control period, based on the previous year's AR and using the CPI–X methodology.<sup>7</sup> That is, the subsequent year's AR is determined by adjusting the previous year's AR for actual inflation and the X factor determined after the annual return on debt update:

$$AR_t = AR_{t-1} \times (1 + \Delta CPI) \times (1 - X_t)$$

where:

AR = the allowed revenue

t = time period/financial year (for t = 2 (2023–24), 3 (2024–25), 4 (2025–26), 5 (2026–27))

$\Delta CPI$  = the annual percentage change in the ABS Consumer price index all groups, weighted average of eight capital cities from September in year t – 2 to September in year t – 1

X = the smoothing factor determined in accordance with the PTRM as approved in the AER's final decision, and annually revised for the return on debt update in accordance with the formula specified in the *Rate of return instrument* calculated for the relevant year.<sup>8</sup>

The MAR used for transmission pricing is determined annually as part of the annual revenue adjustment process in accordance with the NER by adding to (or deducting from) the allowed revenue:

- the STPIS revenue increment (or revenue decrement)<sup>9</sup>
- any approved pass through amounts.<sup>10</sup>

The annual MAR is established according to the following formula:

$$\begin{aligned} MAR_t &= (\text{allowed revenue}) + (\text{performance incentive}) + (\text{pass through}) \\ &= AR_t + \left( \left( AR_{t-2} \times \frac{3}{12} \right) + \left( AR_{t-1} \times \frac{9}{12} \right) \right) \times S_{ct} + P_t \end{aligned}$$

<sup>7</sup> In the case of making the annual adjustment for year 2, the previous year's AR would be the same as the approved expected MAR for year 1 as contained in the PTRM.

<sup>8</sup> AER, *Rate of return instrument*, December 2018, cl. 9.

<sup>9</sup> NER, cl. 6A.7.4.

<sup>10</sup> NER, cl. 6A.7.2 and 6A.7.3.



where:

- MAR = the maximum allowed revenue
- AR = the allowed revenue
- S = the percentage revenue increment or decrement determined in accordance with the STPIS
- P = the pass through amount (positive or negative) that the AER has determined in accordance with clauses 6A.7.2 and 6A.7.3 of the NER
- $t$  = time period/financial year (for  $t = 2$  (2023–24), 3 (2024–25), 4 (2025–26), 5 (2026–27))
- $ct$  = time period/calendar year (for  $ct = 2$  (2022), 3 (2023), 4 (2024), 5 (2025)).

AusNet Services may also adjust the MAR for under- or over-recovery amounts.<sup>11</sup> That is, if the revenue amounts earned from providing prescribed transmission services in previous regulatory years are higher or lower than the sum of the approved MAR for those years, the difference can be included in the subsequent year's MAR. In the case of an under-recovery, the amount is added to the subsequent year's MAR. In the case of an over-recovery, the amount is subtracted from the subsequent year's MAR.

Table 3 sets out the timing of the annual calculation of the AR and performance incentive:

**Table 3 Timing of the calculation of allowed revenues and the performance incentive for AusNet Services**

$t$	Allowed revenue (financial year)	$ct$	Performance incentive (calendar year)
2	1 April 2023–31 March 2024	2	1 January 2022–31 December 2022
3	1 April 2024–31 March 2025	3	1 January 2023–31 December 2023
4	1 April 2025–31 March 2026	4	1 January 2024–31 December 2024
5	1 April 2026–31 March 2027	5	1 January 2025–31 December 2025

Note: The performance incentive for 1 January 2021–31 December 2021 is to be applied to the AR determined for 2022–23 ( $AR_1$ ).

<sup>11</sup> NER, cl. 6A.23.3(e)(5).

## 1.4 Regulatory asset base

We determine an opening RAB value of \$3,575.1 million as at the commencement of the 2022–27 regulatory control period for AusNet Services.

## 1.5 Method for indexation of the regulatory asset base

The method for indexing AusNet Services' RAB for each year of the 2022–27 regulatory control period will be the same as that used to escalate its AR for that relevant year—that is, to apply the annual percentage change in the published ABS CPI all groups, weighted average of eight capital cities.<sup>12</sup> For AusNet Services, this will be the September quarter CPI. This method will be used as part of the roll forward of AusNet Services' opening RAB for the purposes of the AER's transmission revenue determination for the regulatory control period commencing on 1 April 2027.

## 1.6 Service target performance incentive scheme parameters

We will apply version 5 of the transmission STPIS to AusNet Services in the 2022–27 regulatory control period.<sup>13</sup>

Attachment 10 to our final decision sets out:

- The values for service component caps, floors and targets for 2022–27
- Market impact component (MIC) parameter values for 2022–27
- Our final decision on the Network capability component for 2022–27

Attachment 10 to our final decision also provides further clarification and guidance on the application of the MIC in response to AusNet Services' concerns regarding the impact of increasing level of semi-scheduled renewable generation in the NEM.

## 1.7 Efficiency benefit sharing scheme parameters

The values for the efficiency benefit sharing scheme (EBSS) parameters that will apply to AusNet Services in the 2022–27 period, subject to adjustments required by the EBSS, are set out in Table 4.

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<sup>12</sup> ABS, *Consumer price index, Australia*.

<sup>13</sup> AER, *Electricity transmission network service provider Service target performance incentive scheme, Version 5 (corrected)*, October 2015.

**Table 4 Forecast total opex for the EBSS (\$million, 2021–22)**

	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27
Forecast total opex	251.4	251.9	277.6	277.8	277.0	277.4	277.6
Less easement land tax	-148.5	-148.5	-173.6	-173.6	-173.6	-173.6	-173.6
Less AEMO participant fees*	-	-	-	-1.4	-1.6	-1.7	-1.8
Less debt raising costs	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7
<b>Forecast total opex for the EBSS</b>	<b>101.1</b>	<b>101.7</b>	<b>102.3</b>	<b>101.1</b>	<b>100.1</b>	<b>100.5</b>	<b>100.5</b>

Source: AER, *AusNet Services 2022–27 – Final Decision – Post tax revenue model*, January 2022; AER, *AusNet Services 2022–27 – Final Decision – EBSS model*, January 2022; AER analysis.

\* In the event AEMO participant fees must be paid for from AusNet Services' standard control services opex, and we use AusNet Services' revealed costs to forecast these in the regulatory control period commencing in 2027–28, we will include them in the EBSS.

Note: Numbers may not add up due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

In calculating EBSS carryover amounts, we will exclude the following costs from the EBSS:

- easement land tax
- debt raising costs
- Australian Energy Market Operator (AEMO) participant fees, in the event the NER is changed to allow transmission networks to recover their actual AEMO participant fees outside of the revenue determination process
- rebates under AEMO's availability incentive scheme
- priority projects approved under the network capability component of STPIS.

In addition to these excluded cost categories we will also:

- adjust forecast opex to add (subtract) any approved revenue increments (decrements) made after the initial regulatory determination, such as approved pass through amounts or opex for contingent projects
- adjust reported actual opex for the 2022–27 regulatory control period to reverse any movements in provisions
- adjust actual opex to add capitalised opex that has been excluded from the regulatory asset base
- adjust forecast opex and actual opex for inflation<sup>14</sup>

<sup>14</sup> AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, p. 7.

- exclude categories of opex not forecast using a single year revealed cost approach for the next regulatory control period beginning in 2027–28 where doing so better achieves the requirements of clause 6A.6.5 of the NER.<sup>15</sup>

## **1.8 Application of capital expenditure sharing scheme**

We will apply the CESS as set out in version 1 of the capital expenditure incentives guideline to AusNet Services in the 2022–27 regulatory control period.<sup>16</sup> The guideline provides for the exclusion from the CESS of capex the service provider incurs in delivering a priority project approved under the network capability component of the service target performance incentive scheme (STPIS) for transmission network service providers.<sup>17</sup>

## **1.9 Application of demand management innovation allowance mechanism**

In May 2021, we published the Demand management innovation allowance mechanism (DMIAM).<sup>18</sup> We will apply the DMIAM to AusNet Services for the 2022–27 regulatory control period, without any modification.

## **1.10 Commencement and length of regulatory control period**

The regulatory control period will be five years, commencing on 1 April 2022, and ending on 31 March 2027.

## **1.11 Depreciation for establishing the regulatory asset base as at the commencement of the next regulatory control period**

The depreciation approach to be applied to establish AusNet Services' RAB at the commencement of the 2027–32 regulatory control period will be based on the depreciation schedules (straight-line) using forecast capital expenditure at the asset class level approved for the 2022–27 regulatory control period.

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<sup>15</sup> AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, p. 7.

<sup>16</sup> AER, *Capital Expenditure Incentive Guideline*, November 2013, pp. 5–9; cl. 6A.6.5A(e).

<sup>17</sup> AER, *Capital Expenditure Incentive Guideline*, November 2013, p. 6.

<sup>18</sup> AER, *Demand management innovation allowance mechanism, Electricity transmission network service providers*, May 2021

## 2 Negotiating framework

AusNet Services must comply with its negotiating framework and its NTSC (see Section 3 of this determination) when it is negotiating the terms and conditions of access for negotiated transmission services to be provided to a person.

AusNet Services' negotiating framework sets out the procedure to be followed during negotiations between AusNet Services and any person who wishes to receive a negotiated transmission service from AusNet Services, as to the terms and conditions of access for provision of the service.

The negotiating framework submitted by AusNet Services in its revised proposal and dated 1 September 2021<sup>19</sup> must be adopted by AusNet Services for the regulatory control period covered by this determination.

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<sup>19</sup> [AusNet Services - TRR 2023-27 - Appendix 11B Victorian Negotiating Framework - 1 September 2021](#)

### 3 Negotiated transmission service criteria

AusNet Services must comply with its negotiating framework (see section 2 of this determination) and its NTSC when it is negotiating the terms and conditions of access for negotiated transmission services to be provided to a person.

AusNet Services' NTSC sets out the criteria that are to be applied:

- by AusNet Services in negotiating:
  - the terms and conditions of access for negotiated transmission services, including the prices that are to be charged for the provision of those services by AusNet Services for the regulatory control period
  - any access charges which are negotiated by AusNet Services during the regulatory control period
- by a commercial arbitrator in resolving any dispute, between AusNet Services and a person who wishes to receive a negotiated transmission service, in relation to:
  - the terms and conditions of access for the negotiated transmission service, including the price that is to be charged for the provision of that service by AusNet Services
  - any access charges that are to be paid to or by AusNet Services.

The following NTSC will apply to AusNet Services for the regulatory control period covered by this determination.

#### National Electricity Objective

1. The terms and conditions of access for a negotiated transmission service, including the price that is to be charged for the provision of that service and any access charges, should promote the achievement of the National Electricity Objective.

#### Criteria for terms and conditions of access

##### Terms and conditions of access

2. The terms and conditions of access for a negotiated transmission service must be fair, reasonable, and consistent with the safe and reliable operation of the power system in accordance with the NER.
3. The terms and conditions of access for negotiated transmission services, particularly any exclusions and limitations of liability and indemnities, must not be unreasonably onerous. Relevant considerations include the allocation of risk between the TNSP and the other party, the price for the negotiated transmission service and the cost to the TNSP of providing the negotiated service.
4. The terms and conditions of access for a negotiated transmission service must take into account the need for the service to be provided in a manner that does not adversely affect the safe and reliable operation of the power system in accordance with the NER.

## Price of services

5. The price of a negotiated transmission service must reflect the cost that the TNSP has incurred or incurs in providing that service and must be determined in accordance with the principles and policies set out in the Cost Allocation Methodology.
6. Subject to criteria 7 and 8, the price for a negotiated transmission service must be at least equal to the avoided cost of providing that service but no more than the cost of providing it on a stand-alone basis.
7. If the negotiated transmission service is a shared transmission service that:
  - (a) exceeds any network performance requirements which it is required to meet under any relevant electricity legislation; or
  - (b) exceeds the network performance requirements set out in schedule 5.1a and 5.1 of the NER

then the difference between the price for that service and the price for the shared transmission service which meets network performance requirements must reflect the TNSP's incremental cost of providing that service (as appropriate).

8. For shared transmission services, the difference in price between a negotiated transmission service that does not meet or exceed network performance requirements and a service that meets those requirements should reflect the TNSP's avoided costs. Schedule 5.1a and 5.1 of the NER or any relevant electricity legislation must be considered in determining whether any network service performance requirements have not been met or exceeded.
9. The price for a negotiated transmission service must be the same for all Transmission Network Users. The exception is if there is a material difference in the costs of providing the negotiated transmission service to different Transmission Network Users or classes of Transmission Network Users.
10. The price for a negotiated transmission service must be subject to adjustment over time to the extent that the assets used to provide that service are subsequently used to provide services to another person. In such cases the adjustment must reflect the extent to which the costs of that asset are being recovered through charges to that other person.
11. The price for a negotiated transmission service must be such as to enable the TNSP to recover the efficient costs of complying with all regulatory obligations associated with the provision of the negotiated transmission service.

## Criteria for access charges

### Access charges

12. Any access charges must be based on the costs reasonably incurred by the TNSP in providing Transmission Network User access. This includes the compensation for foregone revenue referred to in clause 5.4A(h) to (j) of the NER and the costs that are likely to be incurred by a person referred to in clause 5.4A(h) to (j) of the NER (as appropriate).

## 4 Pricing methodology

The pricing methodology submitted by AusNet Services in its revised proposal and dated 1 September 2021<sup>20</sup> must be adopted by AusNet Services for the regulatory control period covered by this determination.

The role of AusNet Services' pricing methodology is to answer the question 'who should pay how much' in order for AusNet Services to recover its costs. AusNet Services' pricing methodology provides a 'formula, process or approach' that when applied:

- allocates the aggregate annual revenue requirement to the categories of prescribed transmission services that a transmission business provides and to the connection points of network users
- determines the structure of prices that a transmission business may charge for each category of prescribed transmission services.

AusNet Services' pricing methodology relates to prescribed transmission services only.

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<sup>20</sup> [AusNet Services - TRR 2023-27 - Appendix 11A Revised Proposed Pricing Methodology - 1 September 2021](#)



## 5 Pass through events

A pass through event is one which entails AusNet Services incurring materially lower or higher costs in providing prescribed transmission services than it would have incurred but for that event (a negative or positive change event, respectively).<sup>21</sup> Where a pass through event occurs AusNet Services may seek our approval to, or we may require AusNet Services to, pass those costs through to its users.<sup>22</sup>

The NER include the following pass through events for all transmission determinations:<sup>23</sup>

- a regulatory change event,
- a service standard event,
- a tax change event,
- an insurance event, and
- an inertia shortfall event<sup>24</sup>
- a fault level shortfall event

In addition to these prescribed events, other (nominated) pass through events may be specified in a determination for a regulatory control period.<sup>25</sup>

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<sup>21</sup> NER, Chapter 10 Glossary

<sup>22</sup> NER, clause 6A.7.3(a), (b);

<sup>23</sup> NER, cl. 6A.7.3(a1)(1)–(4). Each of these prescribed events is defined in Chapter 10 (Glossary) of the NER.

<sup>24</sup> This type of event does not apply in Victoria (see NER, cl 5.20B.4(a)).

<sup>25</sup> NER, cl. 6A.7.3(a1)(5).

**Table 5 AER nominated pass through event definitions**

Proposed event	Definition
Insurance coverage event	<p>An insurance coverage event occurs if:</p> <ol style="list-style-type: none"> <li>1. AusNet Services:               <ol style="list-style-type: none"> <li>a) makes a claim or claims and receives the benefit of a payment or payments under a relevant insurance policy or set of insurance policies; or</li> <li>b) would have been able to make a claim or claims under a relevant insurance policy or set of insurance policies but for changed circumstances; and</li> </ol> </li> <li>2. AusNet Services incurs costs:               <ol style="list-style-type: none"> <li>a) beyond a relevant policy limit for that policy or set of insurance policies; or</li> <li>b) that are unrecoverable under that policy or set of insurance policies due to changed circumstances; and</li> </ol> </li> <li>3. The costs referred to in paragraph 2 above materially increase the costs to AusNet Services in providing prescribed transmission services.</li> </ol> <p>For the purposes of this insurance coverage event:</p> <p>'changed circumstances' means movements in the relevant insurance liability market that are beyond the control of AusNet Services, where those movements mean that it is no longer possible for AusNet Services to take out an insurance policy or set of insurance policies at all or on reasonable commercial terms that include some or all of the costs referred to in paragraph 2 above within the scope of that insurance policy or set of insurance policies.</p> <p>'costs' means the costs that would have been recovered under the insurance policy or set of insurance policies had:</p> <ol style="list-style-type: none"> <li>i. the limit not been exhausted; or</li> <li>ii. those costs not been unrecoverable due to changed circumstances.</li> </ol> <p>A relevant insurance policy or set of insurance policies is an insurance policy or set of insurance policies held during the regulatory control period or a previous regulatory control period in which AusNet Services was regulated; and</p> <p>AusNet Services will be deemed to have made a claim on a relevant insurance policy or set of insurance policies if the claim is made by a related party of AusNet Services in relation to any aspect of AusNet Services' network or business; and</p> <p>AusNet Services will be deemed to have been able to make a claim on a relevant insurance policy or set of insurance policies if, but for changed circumstances, the claim could have been made by a related party of AusNet Services in relation to any aspect of AusNet Services' network or business.</p> <p>Note for the avoidance of doubt, in assessing an insurance coverage event through application under rule 6A.7.3(j), the AER will have regard to:</p> <ol style="list-style-type: none"> <li>i. the relevant insurance policy or set of insurance policies for the event;</li> <li>ii. the level of insurance that an efficient and prudent TNSP would obtain, or would have sought to obtain, in respect of the event;</li> <li>iii. any information provided by AusNet Services to the AER about AusNet Services' actions and processes; and</li> <li>iv. any guidance published by the AER on matters the AER will likely have regard to in assessing any insurance coverage event that occurs.</li> </ol>

Proposed event	Definition
Terrorism event	<p>Terrorism event means an act (including, but not limited to, the use of force or violence or the threat of force or violence) of any person or group of persons (whether acting alone or on behalf of or in connection with any organisation or government), which:</p> <p>from its nature or context is done for, or in connection with, political, religious, ideological, ethnic or similar purposes or reasons (including the intention to influence or intimidate any government and/or put the public, or any section of the public, in fear); and changes the costs to AusNet Services in providing prescribed transmission services.</p> <p>Note: In assessing a terrorism event pass through application, the AER will have regard to, amongst other things:</p> <ol style="list-style-type: none"> <li>i. whether AusNet Services has insurance against the event;</li> <li>ii. the level of insurance that an efficient and prudent NSP would obtain in respect of the event; and</li> <li>iii. whether a declaration has been made by a relevant government authority that a terrorism event has occurred.</li> </ol>
Natural disaster event	<p>Natural disaster event means any natural disaster including but not limited to cyclone, fire, flood or earthquake that occurs during the 2022–27 regulatory control period that changes the costs to AusNet Services in providing prescribed transmission services, provided the cyclone, fire, flood, earthquake or other event was:</p> <ol style="list-style-type: none"> <li>a) a consequence of an act or omission that was necessary for the service provider to comply with a regulatory obligation or requirement or with an applicable regulatory instrument; or</li> <li>b) not a consequence of any other act or omission of the service provider.</li> </ol> <p>Note: In assessing a natural disaster event pass through application, the AER will have regard to, amongst other things:</p> <ol style="list-style-type: none"> <li>(1) whether AusNet Services has insurance against the event;</li> <li>(2) the level of insurance that an efficient and prudent NSP would obtain in respect of the event.</li> </ol>
Insurer credit risk event	<p>An insurer credit risk event occurs if an insurer of AusNet Services becomes insolvent, and as a result, in respect of an existing or potential claim for a risk that was insured by the insolvent insurer, AusNet Services:</p> <ol style="list-style-type: none"> <li>a) is subject to a higher or lower claim limit or a higher or lower deductible than would have otherwise applied under the insolvent insurer's policy; or</li> <li>b) incurs additional costs associated with funding an insurance claim, which would otherwise have been covered by the insolvent insurer.</li> </ol> <p>Note: in assessing an insurer credit risk event pass through application, the AER will have regard to, amongst other things:</p> <ol style="list-style-type: none"> <li>i. AusNet Services' attempts to mitigate and prevent the event from occurring by reviewing and considering the insurer's track record, size, credit rating and reputation; and</li> <li>ii. in the event that a claim would have been covered by the insolvent insurer's policy, whether AusNet Services had reasonable opportunity to insure the risk with a different provider.</li> </ol>
Victorian Energy Minister's power to direct augmentation event	<p>Victorian Energy Minister's power to direct augmentation event occurs if each of the following conditions are satisfied:</p> <ol style="list-style-type: none"> <li>a) the Minister makes an order under section 16Y(1) of the <i>National Electricity (Victoria) Act 2005</i> (Vic) (Order);</li> <li>b) complying with the Order, increases the cost to AusNet Services of providing prescribed transmission services and AusNet Services is unable to recover such costs from any other prevailing cost recovery arrangements.</li> </ol>

Source: AER analysis

## Shortened forms

Shortened form	Extended form
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CESS	capital expenditure sharing scheme
CPI	consumer price index
DMIAM	demand management innovation allowance mechanism
EBSS	efficiency benefit sharing scheme
MAR	maximum allowed revenue
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
NSP	network service provider
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
STPIS	service target performance incentive scheme
TNSP	transmission network service provider

# Final Decision

## AusNet Services Transmission Determination 2022 to 2027 Attachment 1 Maximum allowed revenue

January 2022

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AER reference: 65242

## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final 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 12 – Pricing methodology

Attachment 13 – Pass through events

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# 1 Maximum allowed revenue

This attachment sets out our final decision on AusNet Services' maximum allowed revenue (MAR) for the provision of prescribed transmission services over the 2022–27 regulatory control period. Specifically, we set out our final decision on:<sup>1</sup>

- the estimated total revenue cap, which is the sum of the annual expected MAR
- the annual building block revenue requirement
- the annual expected MAR
- the X factor.

We determine AusNet Services' annual building block revenue requirement using a building block approach. We determine the X factors by smoothing the annual building block revenue requirement over the regulatory control period. The X factor is used in the CPI–X methodology to determine the annual expected MAR (smoothed).

## 1.1 Final decision

We determine a total annual building block revenue requirement for AusNet Services of \$2,878.0 million (\$ nominal, unsmoothed) for the 2022–27 regulatory control period. This is a decrease of \$35.8 million (\$ nominal) or 1.2% to AusNet Services' revised proposal and reflects the impact of our final decisions on the various building block costs.

We determine the annual expected MAR and X factor for each regulatory year of the 2022–27 regulatory control period by smoothing the annual building block revenue requirement. Our final decision is to approve an estimated total revenue cap of \$2,876.6 million (\$ nominal) for AusNet Services for the 2022–27 regulatory control period. Our approved X factor for 2023–24 to 2026–27 is 2.00% per annum.<sup>2</sup>

Table 1.1 sets out our final decision on AusNet Services' annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap for the 2022–27 regulatory control period.

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<sup>1</sup> NER, cl. 6A.4.2(a) (1)–(3), 6A.5.3(c), 6A.5.4 and 6A.6.8.

<sup>2</sup> AusNet Services is not required to apply an X factor for 2022–23 because we set the 2022–23 MAR in this decision.

**Table 1.1 AER's final decision on AusNet Services' annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor (\$million, nominal)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Return on capital	168.8	167.1	166.6	167.3	166.9	836.6
Regulatory depreciation <sup>a</sup>	96.1	81.9	91.1	101.0	109.6	479.7
Operating expenditure <sup>b</sup>	284.4	291.6	297.8	305.6	313.3	1492.8
Revenue adjustments <sup>c</sup>	25.7	15.8	14.4	12.7	–0.5	68.1
Net tax amount	0.8	0.0	0.0	0.0	0.0	0.8
Annual building block revenue requirement (unsmoothed)	575.8	556.4	569.9	586.6	589.3	2878.0
<b>Annual expected MAR (smoothed)</b>	570.7	573.0	575.3	577.6	579.9	<b>2,876.6<sup>d</sup></b>
X factor (%) <sup>e</sup>	n/a <sup>f</sup>	2.00	2.00	2.00	2.00	n/a

Source: AER analysis.

- (a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening regulatory asset base (RAB).
- (b) Includes debt raising costs.
- (c) Includes revenue adjustments from the efficiency benefit sharing scheme (EBSS), the capital expenditure sharing scheme (CESS), a shared assets adjustment and the demand management innovation allowance mechanism (DMIAM).
- (d) The estimated total revenue cap is equal to the total annual expected MAR.
- (e) The X factors will be revised to reflect the annual return on debt update. Under the CPI-X framework, the X factor measures the real rate of change in annual expected revenue from one year to the next. A negative X factor represents a real increase in revenue. Conversely, a positive X factor represents a real decrease in revenue.
- (f) AusNet Services is not required to apply an X factor for 2022–23 because we set the 2022–23 MAR in this decision. The MAR for 2022–23 is around 1.33% lower than the approved MAR for 2021–22 in real terms, or 1.09% higher in nominal terms.

## 1.2 AusNet Services' revised proposal

AusNet Services' revised proposal included a total (smoothed) revenue cap of \$2,911.1 million (\$ nominal) for the 2022–27 regulatory control period. Table 1.2 sets out AusNet Services' revised proposed annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap.

**Table 1.2 AusNet Services' revised proposed annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor (\$million, nominal)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Return on capital	170.1	168.3	167.5	167.8	167.1	840.8
Regulatory depreciation <sup>a</sup>	103.0	88.9	98.1	107.9	116.4	514.3
Operating expenditure <sup>b</sup>	283.8	290.5	296.1	303.3	310.3	1,484.0
Revenue adjustments <sup>c</sup>	25.6	15.8	14.4	12.7	–0.2	68.2
Net tax amount	2.1	0.7	0.9	1.2	1.5	6.4
Annual building block revenue requirement (unsmoothed)	584.6	564.2	576.9	592.9	595.0	2,913.7
<b>Annual expected MAR (smoothed)</b>	<b>584.6</b>	<b>583.4</b>	<b>582.2</b>	<b>581.0</b>	<b>579.8</b>	<b>2,911.1<sup>d</sup></b>
X factor (%) <sup>e</sup>	n/a <sup>f</sup>	2.40%	2.40%	2.40%	2.40%	n/a

Source: AusNet Services, *Revised Revenue Proposal 2023–27, Post Tax Revenue Model*, 1 September 2021.

- (a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening RAB.
- (b) Includes debt raising costs.
- (c) Includes revenue adjustments from EBSS, CESS and a shared assets adjustment.
- (d) The estimated total revenue cap is equal to the total annual expected MAR.
- (e) The X factors will be revised to reflect the annual return on debt update. Under the CPI–X framework, the X factor measures the real rate of change in annual expected revenue from one year to the next. A negative X factor represents a real increase in revenue. Conversely, a positive X factor represents a real decrease in revenue.
- (f) AusNet Services is not required to apply an X factor for 2022–23 because we set the 2022–23 MAR in this decision.

## 1.3 Assessment approach

We did not change our assessment approach for the MAR from our draft decision. Attachment 1 (section 1.3) of our draft decision details that approach.<sup>3</sup>

## 1.4 Reasons for final decision

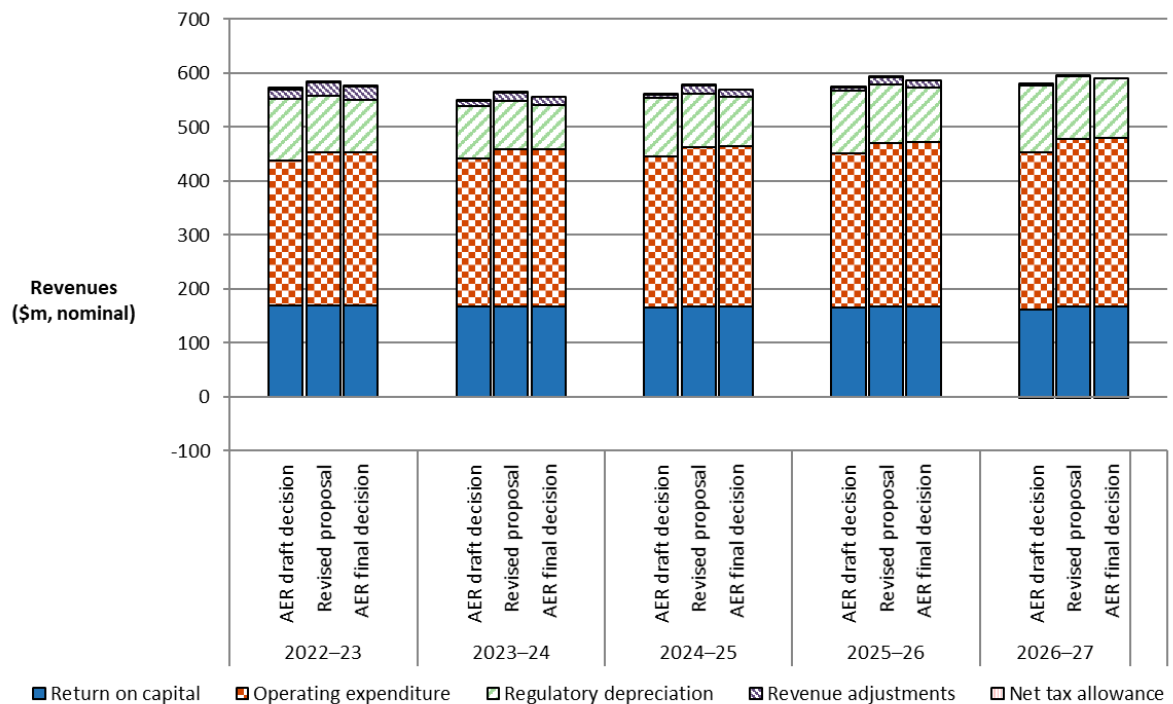
For this final decision, we determine a total annual building block revenue requirement of \$2,878.0 million (\$ nominal) for AusNet Services for the 2022–27 regulatory control period. This is a decrease of \$35.8 million (\$ nominal) or 1.2% to AusNet Services' revised proposed total annual building block revenue requirement of \$2,913.7 million (\$ nominal) for this period. This reflects the impact of our final decision on the various building block costs.

<sup>3</sup> AER, *Draft decision, AusNet Services Transmission Determination 2022 to 2027, Attachment 1 Maximum allowed revenue*, June 2021, pp. 6–12.

Figure 1.1 shows the building block components from our final determination that make up the annual building block revenue requirement for AusNet Services, and the corresponding components from its revised proposal and our draft decision. The most significant changes made to AusNet Services' revised proposal (\$ nominal) include:

- a decrease in the return on capital of 0.5% (section 2.2 of the Overview)
- a decrease in the regulatory depreciation of 6.7% (attachment 4)
- a decrease in revenue adjustments of 0.3% (section 2.6 of the Overview)
- a decrease in the cost of corporate income tax of 87.6% (attachment 7), although the proposed amount was already relatively small, which explains the large percentage change.

**Figure 1.1 AER's draft and final decision, and AusNet Services' revised proposed annual building block revenue requirement (\$million, nominal)**



Source: AusNet Services, *Revised Revenue Proposal 2023-27, Post Tax Revenue Model*, 1 September 2021; AER analysis.

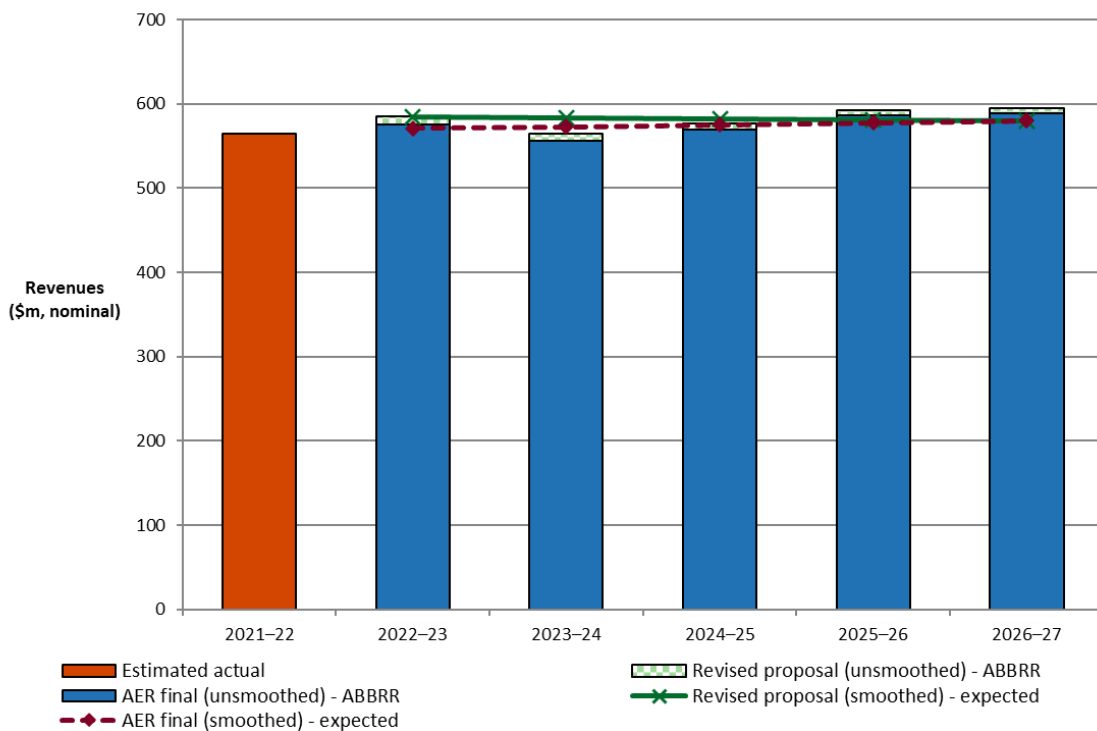
Note: Revenue adjustments include EBSS, CESS, shared assets adjustment and DMIAM amounts. Opex includes debt raising costs.

### 1.4.1 X factor, annual expected MAR and estimated total revenue cap

For this final decision, we determine an X factor for AusNet Services of 2.00% per annum for the four years of the regulatory control period from 2023–24 to 2026–27.<sup>4</sup> The net present value (NPV) of the annual building block revenue requirement is \$2,520.1 million (\$ nominal) as at 1 July 2022. Based on this NPV and applying the CPI–X method, we determine that the annual expected MAR (smoothed) for AusNet Services is \$570.7 million in 2022–23 increasing to \$579.9 million in 2026–27 (\$ nominal). The resulting estimated total revenue cap for AusNet Services is \$2,876.6 million for the 2022–27 regulatory control period.

Figure 1.2 shows our final decision on AusNet Services' annual expected MAR (smoothed revenue) and the annual building block revenue requirement (unsmoothed revenue) for the 2022–27 regulatory control period.

**Figure 1.2 AER's final decision on AusNet Services' revenue for the 2022–27 regulatory control period (\$million, nominal)**



Source: AER analysis.

Note: Annual building block revenue requirement (ABRR).

<sup>4</sup> AusNet Services is not required to apply an X factor for 2022–23 because we set the 2022–23 MAR in this decision.

To determine the expected MAR for AusNet Services, we have set the MAR for the first regulatory year at \$570.7 million (\$ nominal) which is \$5.1 million lower than the annual building block revenue requirement. We then apply an expected inflation rate of 2.45% per annum and an X factor of 2.00% per annum to determine the expected MAR in subsequent years.<sup>5</sup> We consider that our profile of X factors results in an expected MAR in the last year of the regulatory control period that is as close as reasonably possible to the annual building block revenue requirement for that year.<sup>6</sup>

Our final decision results in an average increase of 0.5% per annum (\$ nominal) in the expected MAR over the 2022–27 regulatory control period.<sup>7</sup> This consists of an initial increase of 1.1% from 2021–22 to 2022–23, followed by average annual increases of 0.4% during the remainder of the 2022–27 regulatory control period.<sup>8</sup> Our final decision also results in a decrease of 3.9% in real terms (\$2021–22) to AusNet Services' average annual allowed revenue relative to that in the 2017–22 regulatory control period. This decrease is primarily because of a lower rate of return in this final decision for the 2022–27 regulatory control period than that approved in the 2017–22 determination. There has also been a significant decrease in the net tax allowance across those periods.

Figure 1.3 compares our final and draft decision building blocks for AusNet Services' 2022–27 regulatory control period with AusNet Services' proposed and revised proposed revenue requirement for the same period, and the approved revenue for the 2017–22 regulatory control period.

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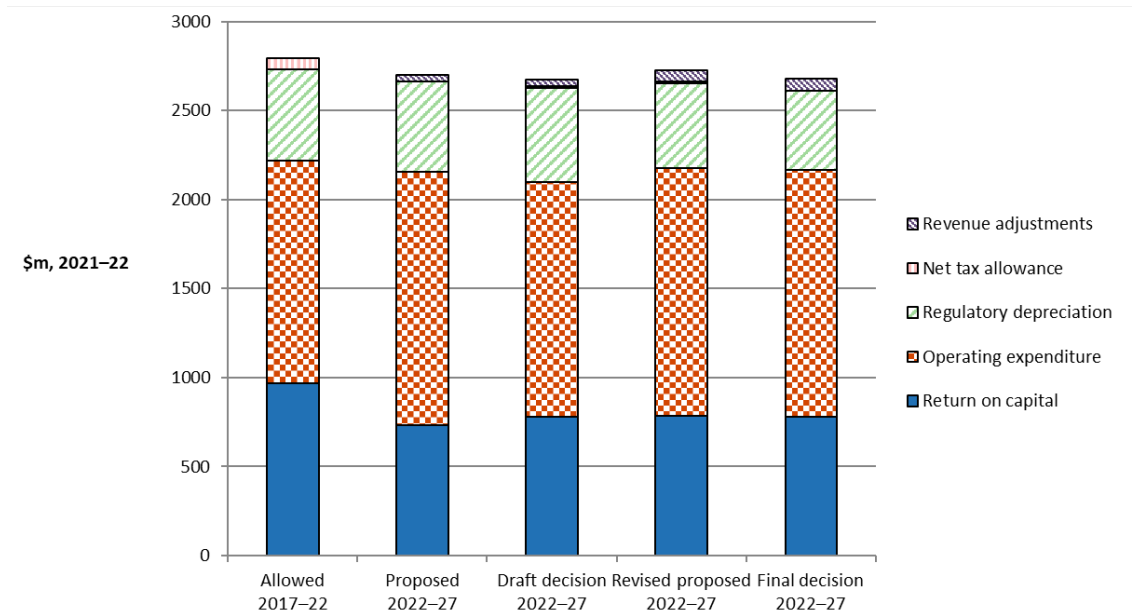
<sup>5</sup> NER, cl. 6A.5.3(c)(3).

<sup>6</sup> NER, cl. 6A.6.8(c)(2). We consider a divergence of up to 3% between the expected MAR and annual building block revenue requirement for the last year of the regulatory control period is appropriate, if this can achieve smoother price changes for users over the regulatory control period. In the present circumstances, based on the X factors we have determined for AusNet Services, this divergence is around 1.59%.

<sup>7</sup> In real 2021–22 dollar terms, the average decrease in our approved expected MAR for AusNet Services is 1.9% per annum over the 2022–27 regulatory control period.

<sup>8</sup> In real 2021–22 dollar terms, this consists of an initial decrease of 1.3% from 2021–22 to 2022–23, followed by a subsequent average annual change of 2.0% during the remainder of the 2022–27 regulatory control period.

**Figure 1.3 Total revenue by building block components (\$million, 2021–22)**



Source: AER analysis.

### 1.4.2 Shared assets

Our final decision is to apply a shared assets revenue adjustment to AusNet Services' total expected MAR for the 2022–27 regulatory control period.

In our draft decision, we accepted AusNet Services' proposal to apply a shared assets revenue adjustment to its revenues. However, we did not accept AusNet Services' proposal to include an offset to the shared assets revenue adjustment. We considered the assets used to calculate the benefits were not shared assets and could not be used to determine an offset under the AER's *Shared asset guideline*.<sup>9</sup> We therefore required the removal of the proposed offset.<sup>10</sup>

AusNet Services' revised proposal adopted the changes required in our draft decision on the shared assets revenue adjustment.<sup>11</sup> We therefore accept this aspect of the revised proposal. Consistent with the draft decision, we confirm our assessment that AusNet Services' forecast unregulated revenues from shared assets for the 2022–27 regulatory control period are reasonable. Our final decision will see \$10.8 million (\$2021–22) shared with customers across the 2022–27 regulatory control period, using the same assessment approach as the draft decision.

<sup>9</sup> AER, *Shared asset guideline*, November 2013.

<sup>10</sup> AER, *Draft decision, AusNet Services Transmission Determination 2022 to 2027, Attachment 1 Maximum allowed revenue*, June 2021, pp. 15–19.

<sup>11</sup> AusNet Services, *Revised revenue proposal 2023–27*, September 2021, p. 32.

Table 1.3 compares the shared asset revenue adjustments in AusNet Services' revised proposal and our final decision.

**Table 1.3 AER's final decision on AusNet Services shared asset revenue adjustment (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' revised proposal	-1.8	-1.9	-2.1	-2.4	-2.6	-10.8
<b>AER's final decision</b>	<b>-1.8</b>	<b>-1.9</b>	<b>-2.1</b>	<b>-2.4</b>	<b>-2.6</b>	<b>-10.8</b>

Source: AusNet Services, *Revised Revenue Proposal 2023–27, Post Tax Revenue Model*, 1 September 2021; AER analysis.

### 1.4.3 Indicative transmission charges

AusNet Services is the main transmission network service provider for Victoria. Therefore, our final decision on AusNet Services' expected MAR will ultimately affect the annual electricity bills paid by customers in Victoria. There are several steps required to translate our revenue decision into indicative transmission charges, and then to estimate bill impact.

Since we regulate AusNet Services' prescribed transmission services under a revenue cap, changes in the consumption of electricity will affect the transmission charges ultimately paid by customers. We estimate the indicative effect of our final decision on forecast average transmission charges in Victoria by:

- taking AusNet Services' annual expected MAR determined in this draft decision, and
- dividing it by the forecast annual energy delivered in Victoria as published by Australian Energy Market Operator (AEMO).<sup>12</sup>

As noted in our draft decision we have used the energy delivered data from the AEMO's 2021 *Electricity Statement of Opportunities* for our final decision to calculate the average transmission charges and indicative customer bill impacts. We consider this approach is appropriate because it reflects the best available forecast at this time.<sup>13</sup>

<sup>12</sup> AEMO, *National Electricity and Gas forecasting - 2021 Electricity Statement of Opportunities, Electricity and consumption forecast for Victoria (operations out)*;

See <http://forecasting.aemo.com.au/Electricity/AnnualConsumption/Operational>, accessed on 2 November 2021.

<sup>13</sup> AER, *Draft decision, AusNet Services Transmission Determination 2022 to 2027, Attachment 1 Maximum allowed revenue*, June 2021, p. 20.

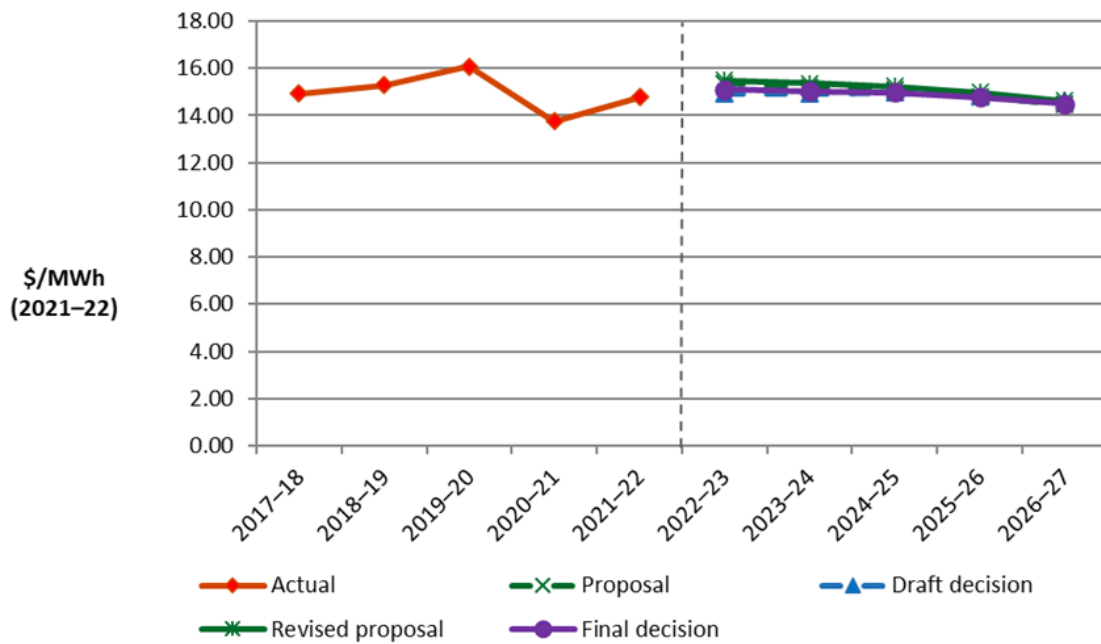
Our draft decision used the average of AEMO's 2019 and 2020 energy delivered forecast in the average transmission charges calculation because of the uncertainty created by COVID-19 on the projected energy demand. Our draft decision stated that we would account for the updated energy delivered forecast from AEMO's 2021 *Electricity Statement of Opportunities* (ESOO) for our final decision. AEMO's 2021 ESOO energy forecast is



Based on our approach, we estimate that this final decision will result in an increase in annual average transmission charges from 2021–22 to 2026–27.<sup>14</sup>

Figure 1.4 shows the indicative average transmission charges over the period 2017–22 to 2022–27 in real 2021–22 dollar terms based on the expected revenues established in our final decision, compared to AusNet Services’ revised proposed revenue requirement. The average transmission charges are expected to reduce from around \$14.8 per MWh in 2021–22 to \$14.5 per MWh in 2026–27.

**Figure 1.4 Indicative transmission price path for Victoria (\$/MWh, \$2021–22)**



Source: AER analysis.

Notes: The price path for the transmission network is based on actual and forecast energy throughput amounts for AusNet Services’ transmission network across Victoria.

### 1.4.4 Expected impact on electricity bills

The annual electricity bill for customers in Victoria reflects the combined cost of all the electricity supply chain components—wholesale energy generation, transmission, distribution, metering, and retail costs. This final decision primarily relates to the transmission charges for AusNet Services’ prescribed transmission services, which

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largely the same as contained in its 2020 ESOO, and is lower than the 2019 ESOO forecast which was prepared prior to the start of the COVID-19 pandemic.

<sup>14</sup> On average, the final decision transmission revenues will increase by 0.5% (\$ nominal) per annum from 2021–22 to 2026–27. The forecast energy delivered in Victoria is expected to decrease by an average of 1.2% per annum across that period. As a result, the indicative transmission charge is expected to increase by 1.8% (\$ nominal) per annum from 2021–22 to 2026–27.

represent approximately 5.5% and 5.3% on average for residential customers' and small business customers' annual electricity bill in Victoria respectively.<sup>15</sup>

We estimate the expected bill impact by varying AusNet Services' transmission charges in accordance with our final decision, while holding all other components constant. This approach isolates the effect of our final decision on the core transmission charges for AusNet Services only. However, this does not imply that other components will remain unchanged across the regulatory control period.<sup>16</sup>

Based on this approach, we expect that the transmission component of the average annual residential electricity bill in 2026–27 will increase by about \$7 (\$ nominal) or 0.5% from the 2021–22 total bill level. This outcome is substantially the same as the revised proposal.

Our estimated impact is based on the typical annual electricity usage of 4000 kWh per annum for a residential customer in Victoria.<sup>17</sup> Therefore, customers with different usage will experience different changes in their bills. We also note that there are other factors, such as metering, wholesale and retail costs, which affect electricity bills.

Similarly, for an average small business customer in Victoria, we have estimated the bill impact for two customer categories:<sup>18</sup>

- Small business (low usage) customers consuming 12,000 kWh per annum.
- Small businesses (high usage) customers consuming 20,000 kWh per annum.

We expect the transmission component of the average annual electricity bill for a low usage small business customer in 2026–27 to increase by about \$15 (\$ nominal) or 0.5% from the 2021–22 total bill level.

Likewise, the transmission component of the average annual electricity bill for a high usage small business customer in 2026–27 is expected to increase by about \$26 (\$ nominal) or 0.5% from the 2021–22 total bill level.

Table 1.4 shows our estimated impact of our final decision and AusNet Services' revised proposal on the average annual electricity bills for residential and small business customers in Victoria over the 2022–27 regulatory control period.

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<sup>15</sup> AusNet Services, *Regulatory Proposal 2023–27, Reset RIN Workbook 7*, 29 October 2020.

<sup>16</sup> It also assumes that actual energy consumption will equal the forecast adopted in our draft decision. Since AusNet Services operates under a revenue cap, changes in energy consumption will also affect annual electricity bills across the 2022–27 regulatory control period.

<sup>17</sup> Essential Services Commission of Victoria, *Victorian Default Offer 2021, Final decision*, 25 November 2020, p. 47.

<sup>18</sup> Estimated bill data sourced from: Essential Services Commission of Victoria, *Victorian Default Offer 2021, Final decision*, 25 November 2020, pp. 4–5, 47; Essential Services Commission of Victoria, *Victorian Energy Market update*, June 2021, p. 6.

**Table 1.4 Estimated impact of AusNet Services' revised revenue proposal and the AER's final decision on average annual electricity bills for the 2022–27 regulatory control period (\$ nominal)**

	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27
<b>AER final decision</b>						
Residential annual electricity bill	1358	1360	1362	1363	1364	1365
Annual change		2 (0.2%)	1 (0.1%)	2 (0.1%)	1 (0.1%)	0 (0%)
Small business with 12,000 kWh consumption annual bill	3157	3162	3166	3169	3171	3172
Annual change		5 (0.2%)	3 (0.1%)	4 (0.1%)	2 (0.1%)	1 (0%)
Small business with 20,000 kWh consumption annual bill	5488	5497	5503	5509	5512	5514
Annual change		9 (0.2%)	6 (0.1%)	7 (0.1%)	3 (0.1%)	2 (0%)
<b>AusNet Services revised proposal</b>						
Residential annual electricity bill	1358	1362	1363	1365	1365	1365
Annual change		4 (0.3%)	1 (0.1%)	1 (0.1%)	0 (0%)	–0 (–0%)
Small business with 12,000 kWh consumption annual bill	3157	3166	3169	3172	3172	3172
Annual change		9 (0.3%)	2 (0.1%)	3 (0.1%)	1 (0%)	–0 (–0%)
Small business with 20,000 kWh consumption annual bill	5488	5504	5509	5513	5515	5514
Annual change		16 (0.3%)	4 (0.1%)	5 (0.1%)	1 (0%)	–0 (–0%)

Source: Essential Services Commission of Victoria, *Victorian Default Offer 2021, Final decision*, 25 November 2020, pp. 4–5, 47; Essential Services Commission of Victoria, *Victorian Energy Market update*, June 2021, p. 6. AusNet Services, *Regulatory Proposal 2023–27, Reset RIN Workbook 7*, 29 October 2020; AEMO, *National Electricity and Gas forecasting - 2021 Electricity Statement of Opportunities, Electricity and consumption forecast for Victoria (operations out)*, August 2021.

See <http://forecasting.aemo.com.au/Electricity/AnnualConsumption/Operational>, accessed on 2 November 2021.

Note: Energy consumption figures used in the bill calculation are based on AEMO's 2021 *Electricity Statement of Opportunities* demand forecasts.

## Shortened forms

Shortened form	Extended form
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CESS	capital expenditure sharing scheme
CPI	consumer price index
DMIAM	demand management innovation allowance mechanism
EBSS	efficiency benefit sharing scheme
MAR	maximum allowed revenue
NER	National Electricity Rules
NPV	net present value
opex	operating expenditure
RAB	regulatory asset base

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# Final Decision

**AusNet Services Transmission  
Determination 2022 to 2027  
Attachment 2  
Regulatory asset base**

January 2022

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AER reference: 65242

## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final 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

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Attachment 13 – Pass through events

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## 2 Regulatory asset base

Our revenue determination includes AusNet Services' opening regulatory asset base (RAB) value as at 1 April 2022 and the projected RAB value for the 2022–27 regulatory control period.<sup>1</sup> The value of the RAB substantially impacts AusNet Services' revenue requirement, and the price consumers ultimately pay. Other things being equal, a higher RAB would increase both the return on capital and return of capital (depreciation) components of the revenue determination.<sup>2</sup> This final decision sets out:

- the opening RAB as at 1 April 2022
- the forecast closing RAB as at 30 March 2027
- that depreciation based on forecast capital expenditure (capex) is to be used for establishing the RAB as at the commencement of the 2027–32 regulatory control period.<sup>3</sup>

### 2.1 Final decision

#### Opening RAB as at 1 April 2022

Our final decision is to determine an opening RAB value of \$3575.1 million (\$ nominal) as at 1 April 2022 for AusNet Services. This amount is \$0.7 million (or less than 0.1%) lower than AusNet Services' revised proposed opening RAB of \$3575.7 million (\$ nominal) as at 1 April 2022.<sup>4</sup> It reflects our update to the roll forward model (RFM) for our amended inputs for the final year asset adjustments for capitalised leases, 'growth assets' and actual consumer price index (CPI) for 2021–22. This final decision is \$29.2 million (or 0.8%) higher than our draft decision value for AusNet Services' opening RAB of \$3545.9 million (\$ nominal).<sup>5</sup>

To determine the opening RAB as at 1 April 2022, we have rolled forward the RAB over the 2017–22 regulatory control period to arrive at a closing RAB value at 31 March 2022 in accordance with our RFM. This roll forward includes an adjustment at the end of the 2017–22 regulatory control period to account for the difference between actual 2016–17 capex and the estimate approved in the 2017–22 determination.<sup>6</sup> All other adjustments are applied as part of the final year adjustments

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<sup>1</sup> NER, cl. 6A.14.1(5D).

<sup>2</sup> The size of the RAB also impacts the benchmark debt raising cost allowance. However, this amount is usually relatively small and therefore not a significant determinant of revenues overall.

<sup>3</sup> NER, cl. 6A.14.1(5E).

<sup>4</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, p. 111.

<sup>5</sup> This is mainly driven by higher indexation of the RAB because the updated 2021–22 actual inflation (3.0%) used in the final decision RFM is higher than the inflation estimate (1.9%) used in the draft decision.

<sup>6</sup> The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2017–22 determination.

at 30 March 2022 to establish the opening RAB value at 1 April 2022.<sup>7</sup> The roll forward also includes an adjustment for new assets—labelled ‘growth assets’—added to the opening RAB at 1 April 2022 and a true-up for the difference between actual and forecast ‘growth assets’ rolled in at the 2017–22 determination.<sup>8</sup> Expenditure on growth assets occurs throughout the regulatory control period, but this capex is not added to the RAB each year (as is usually the case). Instead, these assets are added to the RAB at the commencement of each regulatory control period.<sup>9</sup>

Table 2-1 sets out our final decision on the roll forward of AusNet Services' RAB for the 2017–22 period.

**Table 2-1 AER's final decision on AusNet Services' RAB for the 2017–22 period (\$ million, nominal)**

	2017–18	2018–19	2019–20	2020–21	2021–22 <sup>a</sup>
Opening RAB	3170.0	3188.1	3221.4	3249.2	3229.9
Capital expenditure <sup>b</sup>	131.0	147.6	156.5	144.3	137.8
Inflation indexation on opening RAB	58.0	60.1	53.9	22.5	97.3
Less: straight-line depreciation <sup>c</sup>	170.9	174.3	182.7	186.1	167.9
Interim closing RAB	3188.1	3221.4	3249.2	3229.9	3297.1
Difference between estimated and actual capex in 2016–17					–45.5
Return on difference for 2016–17 capex					–13.0
Final year asset adjustment (excluding growth assets) <sup>d</sup>					46.2
Growth assets adjustments <sup>e</sup>					290.2
<b>Closing RAB as at 31 March 2022</b>					<b>3575.1</b>

Source: AER analysis.

<sup>7</sup> These end of period adjustments are applied at the end of the final year of the roll forward period which in this case is 31 March 2022. For AusNet Services this includes adjustment for capitalised leases, growth assets and reallocation for accelerated depreciation purposes associated with insulators and instrument transformer assets. Our final decision on the latter is set out in section 4.2 of attachment 4 of this final decision.

<sup>8</sup> The growth assets are capital expenditure (capex) works done by AusNet Services during a regulatory control period as a result of requests from Australian Energy Market Operator (AEMO) or distribution network service providers. While the assets constructed due to these requests provide prescribed transmission services, the forecast capex associated with these assets sit outside of the revenue determination. This is because AusNet Services is not responsible for the planning of these expenditures. These growth assets sit outside of the RAB and are governed by commercial contracts until such time as they are rolled into the RAB at the subsequent revenue determination. That is, the residual value of the capex amounts are rolled into the RAB at the start of the next regulatory control period. AusNet Services has proposed and the AER has accepted the inclusion of growth assets into the RAB in previous regulatory control periods, which at the time the assets were labelled as ‘group 3 assets’.

<sup>9</sup> This adjustment may include estimated expenditure where actual expenditure is not yet known; so there is an additional true-up required at the next revenue determination.

- (a) Based on estimated capex provided by AusNet Services. We will true-up the RAB for actual capex at the next reset.
- (b) As-incurred, net of disposals, and adjusted for actual CPI and half-year WACC.
- (c) Adjusted for actual CPI. Based on forecast as-commissioned capex.
- (d) Includes final year asset adjustment of \$48.1 million for the residual value of capitalised leases and – \$1.9 million adjustment for revaluation of inventories.
- (e) Roll-in of 'growth assets' at 1 April 2022, and true-up for difference between actual and estimated growth assets rolled in at the 2017–22 determination.

In the draft decision, we accepted AusNet Services' proposal to capitalise the value of its existing leases due to a change in the accounting reporting standard. We also accepted the roll-in of 'growth assets' into the opening RAB as at 1 April 2022. However, we amended the input values for these final year (end of period) adjustments associated with capitalised leases and growth assets.<sup>10</sup> We also updated the following inputs for the RFM resulting in a reduction to AusNet Services' proposed opening RAB as at 1 April 2022:<sup>11</sup>

- the forecast straight-line depreciation inputs for 2020–21 and 2021–22 to be consistent with the values calculated in our 2021–22 return on debt update and approved cost pass through in the 2017–22 post-tax revenue model (PTRM)
- the estimated inflation input for 2020–21 of 1.92% using the actual September 2020 CPI of 0.69% published by the Australian Bureau of Statistics (ABS)
- the 2021–22 weighted average cost of capital (WACC) input following the return on debt and cost pass through update for that year in the 2017–22 PTRM.

We noted the roll forward of AusNet Services' RAB included estimated capex for 2020–21 and 2021–22, and estimated inflation for 2021–22, because these actual values were not yet available.<sup>12</sup>

In its revised proposal, AusNet Services has adopted all of our draft decision changes.<sup>13</sup> In addition, it has updated 2020–21 estimated capex with actuals and

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<sup>10</sup> We have also amended the proposed end of period reallocation for the 'Insulators' and the 'Instrument transformers' asset classes for accelerated depreciation purposes. This does not change the overall value of the opening RAB as at 1 April 2022 as the amendment only changes the allocation of the value of these assets between asset classes.

<sup>11</sup> AER, *Draft decision: AusNet Services transmission determination 2022 to 2027, attachment 2 – Regulatory asset base*, June 2021, pp. 4–5.

<sup>12</sup> AER, *Draft decision: AusNet Services transmission determination 2022 to 2027, attachment 2 – Regulatory asset base*, June 2021, pp. 15–16.

<sup>13</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, p. 109; AusNet Services, *Revised regulatory proposal 2023–27, RFM*, September 2021.

revised the 2021–22 capex estimate with latest figures.<sup>14</sup> AusNet Service has also updated the final year adjustments for capitalised leases and growth assets.<sup>15</sup>

We have checked the 2020–21 actual capex in the revised proposal and are satisfied it reconciles with the values presented in AusNet Services' annual regulatory accounts for that year. We accept AusNet Services' revision to the 2021–22 net capex estimate of \$137.8 million (\$ nominal) for this final decision.<sup>16</sup> This amount is \$3.4 million higher than what we approved in our draft decision, reflecting more recent data. We note that the financial impact of any difference between actual and estimated capex for 2021–22 will be accounted for at the next reset.

Our final decision also updates the estimated inflation input for 2021–22 in the RFM with actual CPI of 3.01%. This value is based on the September 2021 CPI published by the ABS, which became available after AusNet Services submitted its revised proposal.

As part of its updates to the final year adjustment in the revised proposed RFM for:

- Capitalised leases – AusNet Services submitted that there should be a further amendment to include an additional return on capital component.<sup>17</sup> We do not consider this is necessary and engaged with AusNet Services on this issue. We explained that the roll-in of the capitalised leases at the end of the period means that these assets earn a return from 1 April 2022 onwards and therefore the proposed additional return component is not required. In its response, AusNet Services agreed with our position and provided a revised estimate for the value of the final year adjustment associated with the capitalised leases.<sup>18</sup> We are satisfied with AusNet Services' revision for the capitalised leases final year adjustment, which resulted in a \$1.6 million (\$ nominal) decrease to the opening RAB as at 1 April 2022.
- 'Growth assets' – AusNet Services submitted that the roll-in value of these assets is \$6 million (\$ nominal) lower than the draft decision due to updates for CPI, and revisions to contract values and in-service dates for certain completed projects.<sup>19</sup> For this final decision, we are satisfied with the revised proposed value for the final year adjustment associated with the growth assets after verifying this value against

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<sup>14</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, p. 110; AusNet Services, *Revised regulatory proposal 2023–27, RFM*, September 2021.

<sup>15</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, pp. 110, 112–113; AusNet Services, *Revised regulatory proposal 2023–27, RFM*, September 2021.

<sup>16</sup> This amount is on an as-incurred basis and includes a half-year WACC allowance to compensate for the six month period before capex is added to the RAB.

<sup>17</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, p. 110.

<sup>18</sup> AusNet Services, *Follow up Response to AER Information Request #018*, 8 October 2021.

Other than removing the return on capital component, the revised estimate also corrected an error in the reported value of the capitalised lease for 2021–22. In combination, the two changes resulted in a \$1.6 million reduction to the value of the final year adjustment for capitalised leases.

<sup>19</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, pp. 112–113.

the project cost information provided by AusNet Services.<sup>20</sup> This approach is consistent with our draft decision where we noted that the method applied by AusNet Services to calculate the roll-in value of growth assets was the same as that approved in our previous determinations. We therefore accept that the revised proposed \$291.5 million of growth assets is the appropriate amount to be rolled into the RAB as at 1 April 2022.<sup>21</sup>

We also consider the extent to which our roll forward of the RAB to 1 April 2022 contributes to the achievement of the capital expenditure incentive objective.<sup>22</sup> As discussed in the draft decision, the review period of past capex for this transmission determination will apply to 2015–20 capex.<sup>23</sup>

AusNet Services' actual capex incurred for 2015–16 to 2019–20 is below the forecast amount set at the previous transmission determinations. Therefore, the overspending requirement for an efficiency review of past capex has not been satisfied.<sup>24</sup> Given this, we consider the capex incurred in those years are consistent with the capital expenditure criteria and can therefore be included in the RAB.<sup>25</sup>

For this final decision, we have included AusNet Services' actual capex for 2020–21 and estimated capex for 2021–22 in the RAB roll forward to 1 April 2022. At the next reset, the actual capex for 2020–22 will form part of the review period for whether past capex should be excluded for inefficiency reasons.<sup>26</sup> Our RAB roll forward applies the incentive framework approved in the previous transmission determination, which included the use of a forecast depreciation approach in combination with the application of the capital expenditure sharing scheme (CESS).<sup>27</sup> As such, we consider that the 2017–22 RAB roll forward contributes to an opening RAB (as at 1 April 2022) that includes capex that reflects prudent and efficient costs, in accordance with the capital expenditure criteria.<sup>28</sup>

## Forecast closing RAB as at 31 March 2027

Once we have determined the opening RAB as at 1 April 2022, we roll forward that RAB by adding forecast capex and inflation, and reducing the RAB by depreciation to

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<sup>20</sup> AusNet Services, *Response to AER Information Request #018*, 17 September 2021.

<sup>21</sup> Any difference between the estimated and the actual value of the growth asset rolled in for the 2022–27 regulatory control period will be trued-up at the next 2027–32 determination. This amount does not include the growth assets trued-up adjustment (–\$1.3 million) for the difference between forecast and actuals approved in the 2017–22 determination.

<sup>22</sup> NER, cl. 6A.14.2(b) and 6A.5A(a).

<sup>23</sup> AER, *Draft decision: AusNet Services transmission determination 2022 to 2027, attachment 2 – Regulatory asset base*, June 2021, pp. 17–18.

<sup>24</sup> NER, cl. S6A.2.2A(c).

<sup>25</sup> NER, cl. S6A.2.2A(c).

<sup>26</sup> Here, 'inefficiency' of past capex refers to three specific assessments (labelled the overspending, margin and capitalisation requirements) detailed in NER, cl. S6A.2.2A. The details of our ex-post assessment approach for capex are set out in AER, *Capital expenditure incentive guideline*, November 2013, pp. 12–20.

<sup>27</sup> AER, *Final decision: AusNet Services transmission determination 2017–22*, attachment 2, April 2017, p. 14.

<sup>28</sup> NER, cl. 6A.5A(a), 6A.6.7(c) and 6A.14.2(b).

arrive at a forecast closing value for the RAB as at the end of the 2022–27 regulatory control period.<sup>29</sup>

For this final decision, we determine a forecast closing RAB value at 31 March 2027 of \$3983.1 million (\$ nominal) for AusNet Services. This is \$36.4 million (or 0.9%) higher than AusNet Services' revised proposal of \$3946.7 million (\$ nominal). Our final decision on the forecast closing RAB reflects the amended opening RAB as at 1 April 2022, and our final decisions on the expected inflation rate (Attachment 3), forecast depreciation (Attachment 4) and forecast capex (Attachment 5).<sup>30</sup>

Table 2-2 sets out our final decision on the forecast RAB for AusNet Services over the 2022–27 regulatory control period.

**Table 2-2 AER's final decision on AusNet Services' RAB for the 2022–27 regulatory control period (\$ million, nominal)**

	2022–23	2023–24	2024–25	2025–26	2026–27
Opening RAB	3575.1	3630.7	3716.0	3834.8	3932.4
Capital expenditure <sup>a</sup>	151.8	167.2	209.9	198.6	160.3
Inflation indexation on opening RAB	87.6	89.0	91.0	94.0	96.3
Less: straight-line depreciation <sup>b</sup>	183.7	170.8	182.2	194.9	205.9
<b>Closing RAB</b>	<b>3630.7</b>	<b>3716.0</b>	<b>3834.8</b>	<b>3932.4</b>	<b>3983.1</b>

Source: AER analysis.

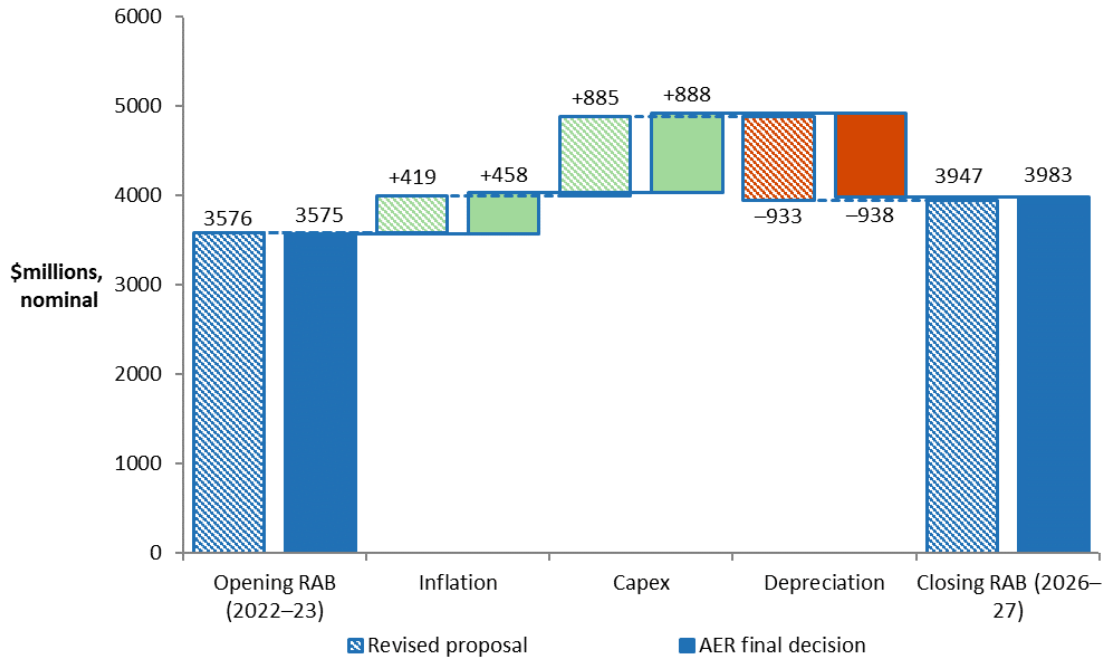
- (a) As-incurred, and net of forecast disposals. In accordance with the timing assumptions of the PTRM, the capex includes a half-year WACC allowance to compensate for the six-month period before capex is added to the RAB for revenue modelling.
- (b) Based on as-commissioned capex.

Figure 2-1 shows the key drivers of the change in AusNet Services' RAB over the 2022–27 regulatory control period for this final decision. Overall, the closing RAB at the end of the 2022–27 regulatory control period is forecast to be 11.4% higher than the opening RAB at the start of that period, in nominal terms. The approved forecast net capex increases the RAB by 25%, while expected inflation increases it by 13%. Forecast depreciation, on the other hand, reduces the RAB by 26%.

<sup>29</sup> NER, cl. S6A.2.4.

<sup>30</sup> Capex enters the RAB net of forecast disposals. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Therefore, our final decision on the forecast RAB also reflects our amendments to the rate of return for the 2022–27 regulatory control period (attachment 3).

**Figure 2-1 Key drivers of changes in the RAB—AusNet Services' revised proposal compared with AER's final decision (\$ million, nominal)**



Source: AER analysis.

Note: Capex is net of forecast disposals. It is inclusive of the half-year WACC to account for the timing assumptions in the PTRM.

Forecast net capex is a significant driver of the increase in the RAB. In our final decision, we accept AusNet Services' revised proposed forecast capex of \$816.9 million (\$2021–22)<sup>31</sup> for the 2022–27 regulatory control period as we are satisfied that it reasonably reflects the capex criteria.<sup>32</sup>

### Application of depreciation approach in RAB roll forward for next reset

When we roll forward AusNet Services' RAB for the 2022–27 regulatory control period at the next reset, we must adjust for depreciation. For this final decision, we determine that the depreciation approach to be applied to establish AusNet Services' opening RAB at the commencement of the 2027–32 regulatory control period will be based on the depreciation schedules (straight-line) using forecast capex at the asset class level approved for the 2022–27 regulatory control period.<sup>33</sup> This approach is consistent with

<sup>31</sup> This amount is net of disposals, and excludes the half-year WACC adjustment. We note that AusNet Services' revised proposal capex forecast, submitted on 1 September 2021, was \$818.7 million. However, AusNet Services subsequently identified an error and revised its South West Communications Loop (South West Comms Loop) upgrade project capex down by \$1.8 million. This reduced the proposed total capex forecast to \$816.9 million. Our final decision is to accept the corrected amount.

<sup>32</sup> Please see section 5.3 of Attachment 5 of this final decision for the discussion on forecast capex.

<sup>33</sup> NER, cl. 6A.14.1(5E).

our draft decision. AusNet Services' revised proposal adopted our draft decision approach.<sup>34</sup>

As discussed in attachment 9, we will also apply the CESS to AusNet Services for the 2022–27 regulatory control period. We consider that the CESS will provide sufficient incentives for AusNet Services to achieve capex efficiency gains over that period. We are satisfied that the use of a forecast depreciation approach in combination with the application of the CESS and our other ex post capex measures are sufficient to achieve the capex incentive objective.<sup>35</sup> Further, this approach is consistent with our *Framework and approach*.<sup>36</sup>

## 2.2 Assessment approach

We did not change our assessment approach for the RAB from our draft decision. Attachment 2 (section 2.3) of our draft decision details that approach.<sup>37</sup>

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<sup>34</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, p. 115.

<sup>35</sup> Our ex post capex measures are set out in the capex incentives guideline, AER, *Capital expenditure incentive guideline for electricity network service providers*, November 2013, pp. 13–19, 20–21. The guideline also sets out how all our capex incentive measures are consistent with the capex incentive objective.

<sup>36</sup> AER, *Final framework and approach for AusNet Services 2022–27*, 24 April 2020, p. 20.

<sup>37</sup> AER, *Draft decision: AusNet Services transmission determination 2022 to 2027, attachment 2 – Regulatory asset base*, June 2021, pp. 10–15.



## Shortened forms

Shortened form	Extended form
ABS	Australian Bureau of Statistics
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	capital expenditure
CESS	capital expenditure sharing scheme
CPI	consumer price index
NER	National Electricity Rules
PTRM	post-tax revenue model
RAB	regulatory asset base
RFM	roll forward model
WACC	weighted average cost of capital

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# Final Decision

**AusNet Services Transmission  
Determination 2022 to 2027**

**Attachment 3**

**Rate of return**

January 2022

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AER reference: 65242

## Note

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## 3 Rate of return

The return each business is to receive on its regulatory asset base (RAB), known as the 'return on capital', is a key driver of proposed revenues. We calculate the regulated return on capital by applying a rate of return to the value of the RAB.

We estimate the rate of return by combining the returns of the two sources of funds for investment: equity and debt. The allowed rate of return provides the business with a return on capital to service the interest on its loans and give a return on equity to investors.

The estimate of the rate of return is important for promoting efficient prices in the long-term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. Conversely, if the rate of return is set too high, the network business may seek to spend too much and consumers will pay inefficiently high tariffs.

We also make an estimate of expected inflation over the next five years. Alongside our nominal estimate of the rate of return, these determine the effective real return that will be provided to investors over time.

### 3.1 Final decision

The 2018 Rate of Return Instrument (2018 Instrument) specifies how we will estimate the return on debt, the return on equity, and the overall rate of return.<sup>1</sup> As required under the National Electricity Law (NEL), we have applied the 2018 Instrument and estimated an allowed rate of return of 4.72 per cent (nominal vanilla).<sup>2</sup> AusNet Services' revised proposal has adopted the 2018 Instrument.<sup>3</sup>

Our calculated rate of return, in Table 3.1, will apply to the first year of the 2022–27 regulatory control period. A different rate of return will apply for the remaining regulatory years of the period. This is because we will update the return on debt component of the rate of return each year in accordance with the 2018 Instrument to use a 10-year trailing average portfolio return on debt that is rolled-forward each year.

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<sup>1</sup> AER, *Rate of return instrument*, December 2018. See <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-guideline-2018/final-decision>.

<sup>2</sup> The legislative amendments to replace the (previous) non-binding Rate of Return Guidelines with a binding legislative instrument were passed by the South Australian Parliament in December 2018. See, Statutes Amendment (National Energy Laws) (Binding Rate of Return Instrument) Act 2018 (SA). NGL, Chapter 2, Part 1, division 1A; NEL, Part 3, division 1B.

<sup>3</sup> AusNet Services, *Transmission revenue review 2023–27, Revised revenue proposal*, September 2021, p. 124.

**Table 3.1 Final decision on AusNet Services' rate of return (nominal)**

	AER draft decision (2022–27)	AusNet Services' revised proposal (2022–27)	AER final decision (2022–27)	Allowed return over regulatory control period
Nominal risk free rate	1.68% <sup>a</sup>	1.68%	1.59% <sup>b</sup>	
Market risk premium	6.1%	6.1%	6.1%	
Equity beta	0.6	0.6	0.6	
Return on equity (nominal post-tax)	5.34%	5.34%	5.25%	Constant (%)
Return on debt (nominal pre-tax)	4.36% <sup>a</sup>	4.37%	4.37% <sup>c</sup>	Updated annually
Gearing	60%	60%	60%	Constant (60%)
Nominal vanilla WACC	4.76%	4.76%	4.72%	Updated annually for return on debt
Expected inflation	2.00%	2.25%	2.45%	Constant (%)

Source: AER analysis; AusNet Services, *Transmission revenue review 2023–27, Revised revenue proposal*, pp. 125–129.

(a) Calculated using a placeholder averaging period of the month ending 31 April 2021.

(b) Calculated using an averaging period of 1 September 2021 to 24 November 2021.

(c) Final decision return on debt is calculated using the proposed and accepted debt averaging period.

Our final decision is also to:

- accept AusNet Services' proposed risk free rate<sup>4</sup> and debt averaging periods because they comply with conditions set out in the 2018 Instrument.<sup>5</sup> We specify these periods in confidential Appendix A and they have been used to update the risk free rate and return on debt in this final decision
- accept AusNet Services' proposed gamma of 0.585 because it complies with the 2018 Instrument.<sup>6</sup>

<sup>4</sup> This is also known as the return on equity averaging period.

<sup>5</sup> AER, *Rate of return instrument*, December 2018, cll. 7–8, 23–25, 36; AER, *Draft decision, AusNet Services transmission determination 2022 to 2027, Attachment 3—Rate of return confidential appendix A: Equity and debt averaging periods*, June 2021; AusNet Services, *Revenue proposal 2023–27, Appendix 10A, Averaging periods*, 29 October 2020, pp. 2–4.

<sup>6</sup> AusNet Services, *Transmission revenue review 2023–27, Revised revenue proposal*, September 2021, p. 128.

## 3.2 Expected inflation rate

We estimate an expected inflation of 2.45 per cent (see Table 3.2 for calculations) based on the approach adopted in our final position paper from our 2020 inflation review.<sup>7</sup>

AusNet Services' initial proposal stated that we should adopt the outcomes of our inflation review to this revenue determination.<sup>8</sup> Its revised proposal noted our draft decision (where we implemented the approach from our 2020 inflation review) and stated that the placeholder forecast for inflation should be updated in our final decision which we have done.<sup>9</sup>

**Table 3.2 Final decision on AusNet Services' expected inflation (%)**

	Year 1	Year 2	Year 3	Year 4	Year 5	Geometric average
Expected inflation	2.25	2.50	2.50	2.50	2.50	2.45

Source: AER analysis; *RBA Statement on Monetary policy*, 2021.

In the draft decision, we noted that AusNet Services' regulatory years start in April and end in March, whereas the Reserve Bank of Australia's (RBA's) Statement of Monetary Policy (SMP) provides forecasts for years ending in June and December. Further, the RBA's SMP (May 2021) provides forecasts for December 2022 and June 2023 hence, only one year (2022–23, first regulatory year) of forecast was available for the draft decision.

We previously used December-ending RBA forecasts to estimate forecast inflation in AusNet Services' 2017–22 revenue determination. This provided one year of forecast in the 2017–22 draft decision and two years of forecast in the 2017–22 final decision.

Our final decision uses the November 2021 SMP which contains consumer price index (CPI) forecast for the year-ending December 2023. This means the first two years of the regulatory control period are based on RBA forecasts and thereafter a linear glide path from year three to the mid-point of the RBA's inflation target band (2.5 per cent) in year five.

### 3.2.1 2020 Inflation Review

Our previous approach to estimate expected inflation used a 10 year average of the RBA's headline rate forecasts for 1 and 2 years ahead, and the mid-point of the RBA's target band—2.5 per cent—for years 3 to 10. The period of 10 years matches the term of the rate of return.

<sup>7</sup> AER, *Final position, Regulatory treatment of inflation*, December 2020.

<sup>8</sup> AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, pp. 216–217.

<sup>9</sup> AusNet Services, *Transmission revenue review 2023–27, Revised revenue proposal*, September 2021, pp. 128–129.



Our inflation review considered that this should be augmented by:<sup>10</sup>

- shortening the target inflation horizon from ten years to a term that matches the regulatory control period (typically five years)
- applying a linear glide-path from the RBA's forecasts of inflation for year 2 to the mid-point of the inflation target band (2.5 per cent) in year 5.

The key reasons for these changes are:<sup>11</sup>

- there was a mismatch between our estimate of expected inflation over a 10 year term, and our roll forward of the RAB, which is done over a 5 year term. We consider that shortening the inflation term to match the regulatory control period, although creating a mismatch with the term of the rate of return, is the more critical mismatch to resolve. This is because of the sustained decline in the required rate of return and the increased difference between 5 and 10 year inflation expectations due to short-term fluctuations in inflation expectations
- applying a glide-path acknowledges that it is likely to take longer than previously for inflation to revert to the mid-point of the RBA's target band following periods of sustained low or high inflation.

We considered that these changes will provide service providers a reasonable opportunity to more accurately recover their efficient costs in an increasingly changing market to better serve consumers with the energy services they want in the long term. Broadly, this was because we take out what we expect to put back into the RAB through our regulatory models.

### 3.3 Capital raising costs

In addition to compensating for the required rate of return on debt and equity, we provide an allowance for the transaction costs associated with raising debt and equity. We include debt raising costs in the operating expenditure (opex) forecast because these are regular and ongoing costs which are likely to be incurred each time service providers refinance their debt.

On the other hand, we include equity raising costs in the capital expenditure (capex) forecast because these costs are only incurred once and would be associated with funding the particular capital investments. Our draft decision forecasts for debt and equity raising costs are included in the opex and capex attachments, respectively. In this section, we set out our assessment approach and the reasons for those forecasts.

#### 3.3.1 Equity raising costs

Equity raising costs are transaction costs incurred when a service provider raises new equity. We provide an allowance to recover an efficient amount of equity raising costs.

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<sup>10</sup> AER, *Final position, Regulatory treatment of inflation*, December 2020, p. 6.

<sup>11</sup> AER, *Final position, Regulatory treatment of inflation*, December 2020, p. 6.

We apply an established benchmark approach for estimating equity raising costs. This approach estimates the costs of two means by which a service provider could raise equity—dividend reinvestment plans and seasoned equity offerings. It considers where a service provider's capex forecast is large enough to require an external equity injection to maintain the benchmark gearing of 60 per cent.<sup>12</sup>

Our benchmark approach was initially based on 2007 advice from Allen Consulting Group (ACG).<sup>13</sup> We amended this method in our 2009 decisions for the ACT, NSW and Tasmanian electricity service providers.<sup>14</sup> We further refined this approach in our 2012 Powerlink decision.<sup>15</sup>

Our benchmark approach requires an estimate of the dividend distribution rate (sometimes called the payout ratio) as an input into calculating equity raising costs. The dividend distribution rate is also estimated when we estimate the value of imputation credits. We consider that a consistent dividend distribution rate should be used when estimating both the value of imputation credits and equity raising costs. AusNet Services has proposed to adopt our approach for estimating equity raising costs, and used a distribution rate of 0.9 (set in the 2018 instrument).<sup>16</sup>

AusNet Services' revised proposal maintained its initial proposal position to adopt our approach for estimating equity raising costs.<sup>17</sup> We have updated our estimate for this regulatory control period based on the benchmark approach using updated inputs.

### 3.3.2 Debt raising costs

Debt raising costs are the transaction costs incurred each time debt is raised or refinanced as well as the costs for maintaining the debt facility. These costs may include underwriting fees, legal fees, company credit rating fees and other transaction costs. We provide an allowance in opex to recover an efficient amount of debt raising costs.

#### Current assessment

Our current approach to forecasting debt raising costs is based on the approach in a report from the ACG, commissioned by the Australian Competition and Consumer Commission in 2004.<sup>18</sup> This approach compensates for the direct cost of raising debt.

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<sup>12</sup> AER, *Final decision Amendment Electricity distribution network service providers, Post-tax revenue model handbook*, 29 January 2015, pp. 15, 16 & 33. The approach is discussed in AER, *Final decision, Powerlink Transmission determination 2012–13 to 2016–17*, April 2012, pp. 151–152.

<sup>13</sup> ACG, *Estimation of Powerlink's SEO transaction cost allowance-Memorandum*, 5 February 2007.

<sup>14</sup> For example, see: AER, *Final decision, ACT distribution determination 2009–10 to 2013–14*, April 2009, appendix H.

<sup>15</sup> AER, *Final decision, Powerlink Transmission determination 2012–13 to 2016–17*, April 2012, pp. 151–152.

<sup>16</sup> AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 216.

<sup>17</sup> AusNet Services, *Transmission revenue review 2023–27, Revised revenue proposal*, September 2021, p. 127.

<sup>18</sup> PricewaterhouseCoopers, *Energy Networks Association: Debt financing costs*, June 2013.

It uses a five year window of bond data to reflect the market conditions at that time. Our estimates were updated in 2013 (based on a report by PricewaterhouseCoopers (PwC), which used data over 2008–2013) and most recently in 2019 by Chairmont.<sup>19</sup>

The ACG method involves calculating the benchmark bond size, and the number of bond issues required to rollover the benchmark debt share (60 per cent) of the RAB. This approach looks at how many bonds a regulated service provider may need to issue to refinance its debt over a 10 year period. Our standard approach is to amortise the upfront costs that are incurred in raising the bonds using the service provider's nominal vanilla weighted average cost of capital (WACC) over a 10 year amortisation period. This is then expressed in basis points per annum (bppa) as an input into the post-tax revenue model (PTRM).

This rate is multiplied by the debt component of the service provider's projected RAB to determine the debt raising cost allowance in dollar terms. Our approach recognises that part of the debt raising transaction costs such as credit rating costs and bond master program fees can be spread across multiple bond issues, which lowers the benchmark allowance (as expressed in bppa) as the number of bond issues increases.

## Proposal

AusNet Services accepted our draft decision which proposed debt raising costs of 8.0 bppa.<sup>20</sup>

## Conclusion on debt raising costs

Our final decision is to apply an annual total debt raising cost of 8.0 bppa in line with AusNet Services' revised proposal.

We apply the approach from our final decision for SA Power Networks.<sup>21</sup> That is, we use updated Bloomberg data to inform the 'arrangement fee' component of debt raising costs and Chairmont's updated estimates for the remaining components.

We use this method because regulated businesses have previously raised concerns with Chairmont's 2019 update with the key focus being Chairmont's estimate of 'arrangement fee'.<sup>22</sup>

After assessing these submissions, we recognised that Bloomberg is likely to be the most suitable source of information for the 'arrangement fee' at this time because it is the only published source of data known to us and was previously used to estimate the 'arrangement fee'. In a separate regulatory process, Powerlink submitted a report by

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<sup>19</sup> Chairmont, *Debt Raising Costs*, 29 June 2019.

<sup>20</sup> AusNet Services, *Transmission revenue review 2023–27, Revised revenue proposal*, September 2021, pp. 127–128.

<sup>21</sup> AER, *Final Decision SA Power Networks Distribution Determinations 2020 to 2025 Attachment 3 Rate of Return*, June 2020.

<sup>22</sup> SA Power Networks, *Revised Regulatory Proposal 2020–25: Attachment 3 Rate of Return*, 10 December 2019, pp. 20–21; CEG, *The cost of arranging debt issues*, November 2019, p. 3.

Incenta which supported the use of Bloomberg data for estimating the arrangement fee.<sup>23</sup>

We have updated the 'arrangement fee' using Bloomberg data and the selection criteria consistent with the PwC report. This led to an annual total debt raising cost of 8.0 bppa.

### **Review of debt raising costs approach**

Since late 2019 we have been reviewing our approach to setting benchmark debt raising costs, informed by actual debt raising costs data obtained from relevant regulated businesses.

The initial response to our information request showed that each business has its own system for reporting cost categories with the number and naming of categories differing between businesses. This makes it difficult to aggregate costs across businesses in order to arrive at an accurate estimate.

We have considered whether to continue with further investigation of the industry data. This would entail significant further work and would require regulated businesses to work with each other, as well as us to reconcile costs to mutually agreed categories. Audit assurance would also need to be considered to ensure that costs have been correctly reconciled and allocated.

Further, we have had regard to the overall magnitude of the debt raising costs (that is, a small proportion of overall opex) and the level of imprecision in our current approach. Based on these considerations, we do not think the benefits of further investigation outweigh the costs.

Therefore, we have used our current approach for assessing benchmark debt raising costs—that is, using Bloomberg estimates for the 'arrangement fee' and Chairmont's 2019 estimates for the remaining debt raising costs.

In our 2020 Energy Network Debt Data paper, we proposed to collect the data used for the Energy Infrastructure Credit Spread Index using regulatory information notices (RIN).<sup>24</sup> As part of developing this RIN, we proposed that it would also collect direct debt raising costs that is not compensated for in either our existing allowance or the opex allowance. Regulated businesses would also need to pay these costs directly to the lender of the debt instrument.

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<sup>23</sup> Incenta, *Benchmark debt and equity raising costs*, November 2020.

<sup>24</sup> AER, *Energy network debt data final working paper*, November 2020, p. 5.

## Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
bppa	basis points per annum
capex	capital expenditure
CPI	consumer price index
NEL	National Electricity Law
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
RIN	regulatory information notice
RPP	revenue and pricing principles
SMP	Statement of Monetary Policy
WACC	weighted average cost of capital

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# Final Decision

## AusNet Services Transmission Determination 2022 to 2027 Attachment 4 Regulatory deprecation

January 2022

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AER reference: 65242

## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final 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

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## 4 Regulatory depreciation

Depreciation is the amount provided so capital investors recover their investment over the economic life of the asset (return of capital). In deciding whether to approve the depreciation schedules submitted by AusNet Services, we make determinations on the indexation of the regulatory asset base (RAB) and depreciation building blocks for AusNet Services' 2022–27 regulatory control period.<sup>1</sup> The regulatory depreciation amount is the net total of the straight-line depreciation less the inflation indexation adjustment of the RAB.

This attachment sets out our final decision on AusNet Services' regulatory depreciation amount, including the standard asset lives used for forecasting depreciation.

### 4.1 Final decision

Our final decision is to determine a regulatory depreciation amount of \$479.7 million (\$ nominal) for AusNet Services for the 2022–27 regulatory control period. This amount represents a decrease of \$34.5 million (or 6.7%) to the \$514.3 million (\$ nominal) in AusNet Services' revised proposal.<sup>2</sup> It is \$80.5 million (or 14.4%) lower than the regulatory depreciation amount determined in the draft decision. The key reason for the decrease compared to our draft decision is the higher expected inflation rate that resulted from our updated calculation in the post-tax revenue model.

The regulatory depreciation amount is the net total of the straight-line depreciation, less the inflation indexation of the RAB. The straight-line depreciation is impacted by our decision on AusNet Services' opening RAB as at 1 April 2022 (Attachment 2), forecast capital expenditure (capex) (Attachment 5) and asset lives. Our final decision straight-line depreciation for AusNet Services is \$4.2 million higher than its revised proposal. This is mainly due to the higher forecast capex in our final decision.

The indexation on the RAB is impacted by our decision on AusNet Services' opening RAB (Attachment 2), forecast capex (Attachment 5) and the expected inflation rate (Attachment 3). Our final decision indexation on AusNet Services' forecast RAB is \$38.8 million higher than its revised proposal. This is largely because we decided on an expected inflation rate of 2.45% per annum for this final decision compared with the inflation rate of 2.25% per annum that AusNet Services included in its revised proposal. The higher indexation has more than offset the small increase in straight-line depreciation (since indexation is deducted from the straight-line depreciation), which has resulted in a lower regulatory depreciation amount compared to the revised proposal.

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<sup>1</sup> NER, cl. 6A 5.4(a)(1) and (3).

<sup>2</sup> AusNet Services, *Revised Proposal Post Tax Revenue Model*, 1 September 2021.

In coming to this final decision on AusNet Services' straight-line depreciation:

- We accept AusNet Services' revised proposed straight-line method to calculate the regulatory depreciation, which is consistent with our draft decision.
- We accept AusNet Services' revised proposal to continue with the year-by-year tracking approach to implement straight-line depreciation of existing assets, consistent with our draft decision. However, we have updated the inputs in the depreciation module for 2020–21 capitalised leases capex and 2021–22 actual inflation.
- We accept AusNet Services' revised proposed asset classes and standard asset lives for its forecast capex, including the accelerated depreciation treatment of polymeric insulators and instrument transformers. These are consistent with our draft decision.

Table 4.1 sets out our final decision on the forecast regulatory depreciation amount for AusNet Services over the 2022–27 regulatory control period.

**Table 4.1 AER's final decision on AusNet Services' regulatory depreciation for the 2022–27 regulatory control period (\$million, nominal)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Straight-line depreciation	183.7	170.8	182.2	194.9	205.9	937.6
Less: inflation indexation on opening RAB	87.6	89.0	91.0	94.0	96.3	457.9
<b>Regulatory depreciation</b>	<b>96.1</b>	<b>81.9</b>	<b>91.1</b>	<b>101.0</b>	<b>109.6</b>	<b>479.7</b>

Source: AER analysis.

### Accelerated depreciation

For this final decision, we accept AusNet Services' revised proposal on accelerated depreciation of its insulators and instrument transformers. This is consistent with our draft decision.

AusNet Services' revised proposal adopted our draft decision in relation to the accelerated depreciation treatment of insulators and instrument transformers.<sup>3</sup> In the draft decision, we accepted that decommissioned assets (comprising insulators and instrument transformers) will be depreciated on an accelerated basis over the 2022–27 regulatory control period. We also allowed for new polymeric insulators to be separately identified in a new asset class going forward and depreciated at a relatively shorter standard asset life than the towers and conductors asset class to which they had previously related. However, we did not accept the future treatment of assigning a shorter asset life for instrument transformers. We therefore required instrument

<sup>3</sup> AusNet Services, *Revised revenue proposal 2023–2027*, 1 September 2021, p.116.

transformers to remain allocated to the existing switchgear asset class and depreciated over 45 years.

### Standard asset lives

For this final decision, we accept AusNet Services' revised proposed standard asset lives in respect of the forecast capex for the 2022–27 regulatory control period and the accelerated depreciation treatment of insulators and instrument transformers as discussed above. They are consistent with our draft decision.

Table 4.2 sets out these standard asset lives for the 2022–27 regulatory control period. We are satisfied that:<sup>4</sup>

- the standard asset lives and depreciation approach more broadly would lead to a depreciation schedule that reflects the nature of the assets over the economic lives of the asset classes, and
- the sum of the real value of the depreciation attributable to the assets is equivalent to the value at which the assets were first included in the RAB for AusNet Services.

**Table 4.2 AER's final decision on AusNet Services' standard asset lives at 1 April 2022 (years)**

Asset class	Standard asset life
Secondary	15.0
Switchgear	45.0
Transformers	45.0
Reactive	40.0
Towers and conductor	60.0
Establishment	45.0
Communications	15.0
Inventory	n/a
IT	5.0
Vehicles	7.0
Other (non-network)	10.0
Premises	10.0
Land	n/a
Easements	n/a

<sup>4</sup> NER, cl. 6A.6.3(b)(1) and (2).

Asset class	Standard asset life
Polymeric insulators	35.0
Lease L&B 2022–23	25.0
Lease L&B 2023–24	19.0
Lease L&B 2025–26	31.8
Lease L&B 2026–27	15.4
Buildings	40.0
In-house software	5.0

Source: AER analysis.

n/a: Not applicable. We have not assigned a standard life to the 'Land' and 'Easement' asset classes because those assets are not subject to depreciation.

Note: A small negative balance in an asset class labelled 'Inventory adjustment (Other non-network)' will be returned to customers in the first year of the 2022–27 regulatory control period.

## 4.2 Assessment approach

We did not change our assessment approach for regulatory depreciation from our draft decision. Attachment 4 (section 4.3) of our draft decision details that approach.<sup>5</sup>

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<sup>5</sup> AER, *Draft decision, AusNet Services transmission 2022–27, Attachment 4, Regulatory depreciation*, 30 June 2021, pp.6–9.

## Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
NER	National Electricity Rules
RAB	regulatory asset base
RFM	roll forward model

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# Final Decision

## AusNet Services Transmission Determination 2022 to 2027 Attachment 5 Capital expenditure

January 2022

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## Note

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## 5 Capital expenditure

Capital expenditure (capex) refers to the investment made in the transmission network to provide prescribed transmission services. This investment mostly relates to assets with long lives (30-50 years is typical) and these costs are recovered over several regulatory periods.

On an annual basis, the financing and depreciation costs associated with these assets are recovered (return of and on capital) as part of the building blocks that form AusNet Services' total revenue requirement.<sup>1</sup>

This attachment sets out our final decision on AusNet Services' transmission capex forecast. Our final decision is based on our analysis of AusNet Services' revised proposal, information we have received from AusNet Services, as well as submissions we have received on AusNet Services' revised proposal and our draft decision.

### 5.1 Final decision

Having regard to the capex expenditure factors,<sup>2</sup> our final decision is to accept AusNet Services' total forecast capex of \$818.7 million (\$2021–22) on the basis that we are satisfied it reasonably reflects the prudent and efficient costs to maintain the safety, reliability and security of the network.<sup>3</sup>

We note that AusNet Services' revised proposal capex forecast, submitted on 1 September 2021, was \$820.5 million.<sup>4</sup> However, AusNet Services subsequently identified an error and revised its South West Communications Loop (South West Comms Loop) upgrade project capex down by \$1.8 million. This reduced total capex forecast to \$818.7 million.<sup>5</sup>

Table 5.1 outlines our final decision for AusNet Services' forecast capex for the 2022–27 regulatory control period.

**Table 5.1 Final decision on AusNet Services forecast capex (\$million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AER final decision	146.5	157.7	193.3	178.6	140.8	818.7

Source: AER analysis.

Note: Numbers may not add up due to rounding.

<sup>1</sup> NER, cl. 6A.5.4(a).

<sup>2</sup> NER, cl. 6A.6.7(e).

<sup>3</sup> NER, cl. 6A.6.7(c).

<sup>4</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 42.

<sup>5</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

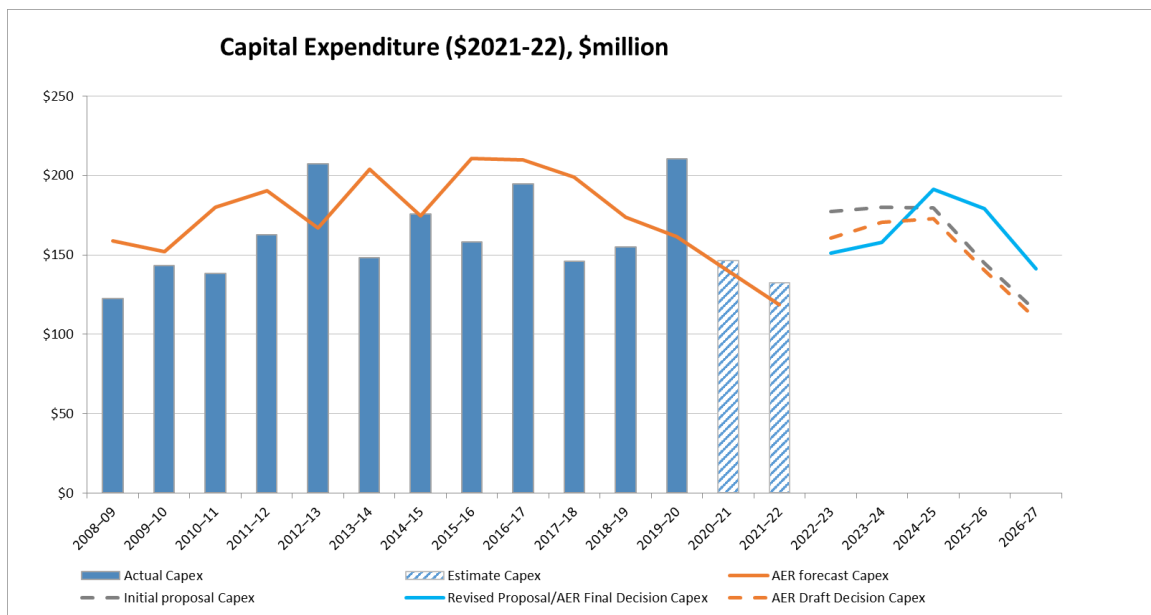
We do not approve a particular category of capex or specific projects, but rather an overall amount. This is consistent with our ex-ante incentive-based regulatory framework and is often referred to as the ‘capex bucket’. However, as part of our assessment, we do review categories of expenditure and particular projects to test whether AusNet Services’ proposed total capex reasonably reflects the capex criteria.

## 5.2 AusNet Services’ revised proposal

In its revised proposal, AusNet Services proposed a total forecast capex of \$820.5 million (\$2021–22) for the 2022–27 regulatory control period.<sup>6</sup> AusNet Services’ proposed capex is \$88.3 million (or 12.1 per cent) higher than the actual/estimated capex over the 2017–22 regulatory control period.<sup>7</sup> It is also \$66.7 million (or 8.8 per cent) more than our draft decision capex allowance for AusNet Services’ 2022–27 regulatory control period.<sup>8</sup>

Figure 5.1 shows AusNet Services’ historical capex trend, its revised proposed forecast for the 2022–27 regulatory control period, and our draft and final decision.

**Figure 5.1 Comparison of AusNet Services’ past and forecast capex (\$million, 2021–22)**



Source: AER, *Final decision PTRM for 2017–22*; and AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021.

<sup>6</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 42.

<sup>7</sup> AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 70 and AER analysis.

<sup>8</sup> AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 70, AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 40–42 and AER analysis.

AusNet Services' revised proposal responded to our draft decision in which we accepted most of the forecast capex in AusNet Services' initial proposal, except for:<sup>9</sup>

- the South-West Comms Loop upgrade project
- the proposed risk allowance from the replacement capex program
- the external labour escalation rates.

The overall impact of the draft decision was to reduce the proposed capex by \$44 million, or 5.5 per cent, over the 2022–27 regulatory control period.<sup>10</sup> In its revised proposal, AusNet Services accepted our draft decision on the external labour escalation rates but not the proposed risk allowance for replacement capex or the South West Comms Loop upgrade.

AusNet Services submitted that the key drivers of change to the initial proposal are:<sup>11</sup>

- new Australian Energy Market Operator (AEMO) demand forecasts outlining both higher maximum demands and materially lower minimum demands on the Victorian network. Lower minimum demand is exacerbating operational challenges across the network
- the release of the Victorian Government's \$1.6 billion energy budget in November 2020 and the Renewable Energy Zone Development Plan Directions Paper in February 2021. These set out proposed generation and transmission network investments supporting the Victorian Government Climate Change Strategy commitment to reduce carbon emissions by 45–50 per cent by 2030 and to net zero by 2050
- the formation of a new entity, VicGrid, tasked with coordinating the overarching planning and development of Victorian renewable energy zones (REZ). This new entity is expected to manage the \$540 million of REZ funding that will be used to strengthen the grid and unlock the potential for new renewable generation as part of the \$1.6 billion energy budget. AEMO indicated it would include the Victorian Government's budget initiatives affecting REZs in all scenarios used to develop the next Integrated System Plan (ISP) to be released in July 2022
- the announcement by EnergyAustralia in March 2021 that the closure of the 1480MW Yallourn Power Station (Yallourn) would be brought forward from 2032 to 2028
- significant changes to rates, taxes and AEMO fees.

AusNet Services' revised proposal contains changes in relation to the major station projects capex, a new contingent project and changes to the scope and timing of some projects in response to the Victorian Government renewable projects announcement

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<sup>9</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37.

<sup>10</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37.

<sup>11</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 9–10.

and the expected early closure of Yallourn.<sup>12</sup> AusNet Services also updated the capex forecast to reflect more accurate cost estimates that have become available for several projects. AusNet Services' updated capex forecasts for major stations, represent an increase of \$20.7 million or 5 per cent compared to its initial proposal.

AusNet Services' revised proposal includes the South-West Comms Loop upgrade project which was not accepted in our draft decision.<sup>13</sup> AusNet Services submits that the project is required to maintain reliability and comply with its National Electricity Rules (NER) obligations relating to the performance of its communications network. AusNet Services' revised proposal provided further information demonstrating that the installation of optical fibre to support modern equivalent communications technology is the lowest cost replacement option and consistent with its historical asset replacement practices.<sup>14</sup>

AusNet Services' revised proposal also provided further information in relation to the risk allowances for its replacement program to demonstrate that the inclusion of these allowances is consistent with providing an efficient and prudent capex allowance.<sup>15</sup> AusNet Services submitted that its historical data shows that such an allowance is warranted, as its actual capex on replacement programs has, on average, been in line with cost estimates (including a risk allowance).

AusNet Services' revised proposal includes a new project for the installation of Phasor Measurement Units (PMUs), which was not included in its initial proposal.<sup>16</sup> This project has been included in its updated forecast in response to a direction issued by AEMO under clause 4.11.1(d) of the NER requiring AusNet Services to install PMUs at specified locations on AusNet Services' network.<sup>17</sup>

Overall, the inclusion of the new major project related to the closure of Yallourn has increased total capex, while the updated project cost estimates, network support costs and demand/energy forecasts have led to a deferral of capex within the upcoming regulatory control period (as shown in Figure 5.2 below).

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<sup>12</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37.

<sup>13</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37.

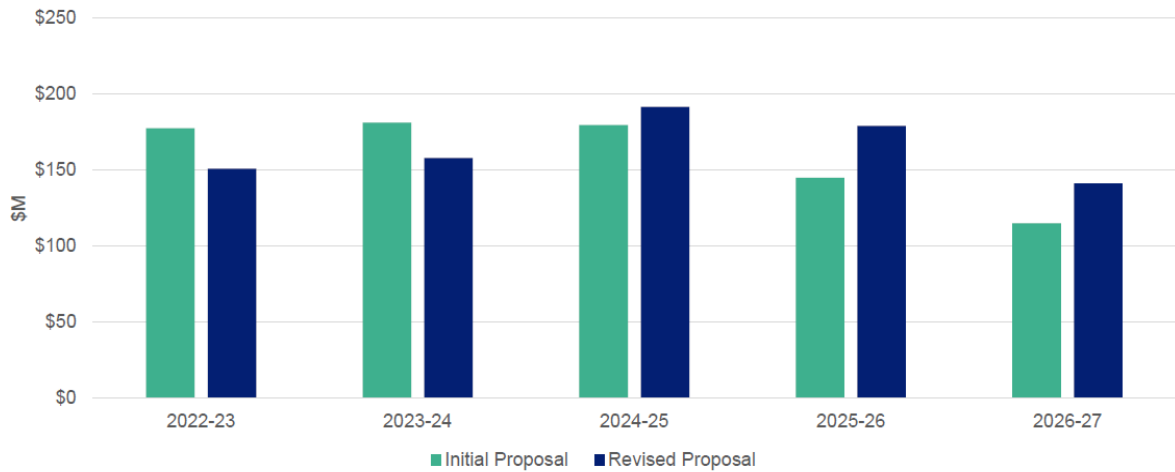
<sup>14</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37.

<sup>15</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37.

<sup>16</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37.

<sup>17</sup> AEMO, *Notice under clause 4.11.1(d) – Remote monitoring equipment*, 20 January 2022.

**Figure 5.2 Initial Proposal and Revised Proposal capex forecast (\$million, 2021–22)**



Source: *AusNet Services, Revised revenue proposal 2023–27*, 1 September 2021, p. 43.

Table 5.2 below compares AusNet’s Services initial proposal, our draft decision and its revised proposal on each of the capex categories:

**Table 5.2 Comparison of proposal, draft decision and revised proposal capex (\$million, 2021–22)**

	Initial proposal	Draft decision	Revised proposal	Difference between draft and revised (and drivers)
Major station projects	424.2	422.0	444.8	\$23 million. Predominately the additional Yallourn project (\$16 million) and changes to various projects that has resulted in an increase.
Replacement programs	213.4	173.1	208.9	\$36 million. AusNet Services has not accepted our draft decision for the South-West Comms Loop (\$22 million) and risk allowances (\$14 million).
Safety, security and compliance	54.2	53.7	62.5	\$9 million. This is the new PMU’s required by AEMO (\$9.7 million), and approximately \$1 million in capex reductions in other projects.

	Initial proposal	Draft decision	Revised proposal	Difference between draft and revised (and drivers)
Information and communications technology	83.8	83.0	82.4	External cost escalation removed.
Non network	22.2	22.0	21.8	External cost escalation removed.
<b>Total</b>	<b>797.7</b>	<b>753.8</b>	<b>820.5</b>	<b>66.7</b>

Source: AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 40–42, AER, *Draft decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, and AER analysis.

### 5.3 Stakeholder submissions

We received two submissions from stakeholders regarding AusNet Services’ revised capex forecast, one from the Consumer Challenge Panel, sub-panel 23 (CCP23)<sup>18</sup> and the other from the Energy Users Association of Australia (EUAA).<sup>19</sup>

CCP23 observed that AusNet Services constructively engaged with its Consumer Panel (and others) and that, in the main, its revised proposal capex reflects the outcomes of this engagement.<sup>20</sup>

CCP23 had largely agreed with the AER’s conclusions in the draft decision on the proposed capex for major station projects, and that the information provided by AusNet Services to justify its proposed major station projects was likely to change due to ongoing developments in the Victorian generation mix, state government policy and updated costing and demand forecasts. CCP23 noted that while the capex cost has increased by \$21 million there will be minimal impact on total revenue because of the postponement of some major projects to later in the 2022–27 regulatory control period.<sup>21</sup>

CCP23 commented on the following key aspects of AusNet Services’ revised capex forecast:

- CCP23 had initial concerns regarding the South-West Comms Loop project but acknowledge that AusNet Services has provided a clearer explanation of the

<sup>18</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021

<sup>19</sup> EUAA, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021

<sup>20</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, p. 24.

<sup>21</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, pp. 14–15.



project and economic evaluation. They conclude that the project is in the long-term interest of consumers generally<sup>22</sup>

- CCP23 still remain concerned with the 7.5 per cent risk allowance being applied across all AusNet Services' replacement capex<sup>23</sup>
- CPP23 consider that the PMU project is a regulatory requirement and support its inclusion in principle, subject to the AER's examination of the efficiency of the proposed costs and the requirements in AEMO's final direction<sup>24</sup>
- CCP23 consider that the contingent project meets the statutory requirements, has a clear project trigger and should be approved.<sup>25</sup>

The EUAA submission commended the development of AusNet Services' consumer engagement and expressed confidence that member feedback, through its co-design process had been considered in its revised proposal.<sup>26</sup>

## 5.4 Reasons for final decision

Based on our review of AusNet Services' asset management practices, as well as an economic and technical review of the capex projects proposed by AusNet Services, we are satisfied that total forecast capex of \$818.7 million (\$2021–22)<sup>27</sup> in the 2022–27 regulatory control period reasonably reflects the capex criteria.<sup>28</sup> We consider this provides AusNet Services with a reasonable opportunity to recover at least the efficient costs it incurs in providing direct control network services.<sup>29</sup>

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<sup>22</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, p. 19.

<sup>23</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, pp. 20–21.

<sup>24</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, p. 21.

<sup>25</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, pp. 24–25.

<sup>26</sup> EUAA, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, pp. 1–2.

<sup>27</sup> AusNet Services' revised proposal capex forecast, submitted on 1 September 2021, was \$820.5 million, however, AusNet Services subsequently revised the South West Comms Loop upgrade project capex down by \$1.8 million, reducing total capex forecast to \$818.7 million.

<sup>28</sup> NER, cl. 6A.6.7(c).

<sup>29</sup> NEL, ss. 7A(2) and 16.

Table 5.3 sets out AusNet Services' capex amounts by driver for the 2022–27 regulatory control period.

**Table 5.3 Final decision assessment of required capex by capex driver 2022–27 (\$million, 2021–22)**

Category	(\$million, 2021–22)
Major station projects	444.8
Replacement programs	207.1
Safety, security and compliance	62.5
ICT	82.4
Non network	21.8
<b>Total capex</b>	<b>818.7</b>

Source: AER analysis.

Note: Numbers may not add up due to rounding.

The remainder of this section sets out our assessment of AusNet Services' proposed forecast capex drivers, specifically:

- section 5.4.1 – major station renewals
- section 5.4.2 – asset replacement
- section 5.4.3 – safety, security and compliance
- section 5.4.4 – non-network programs
- section 5.4.5 – information technology
- section 5.4.6 – real cost escalation
- section 5.4.7 considers our assessment of the contingent project.

### 5.4.1 Major station renewals

AusNet Services' revised proposal includes \$444.8 million (\$2021–22) to replace aging assets at 15 major switching and connections stations. This is the largest component of AusNet Services' capex proposal. AusNet Services stated that its major connection and switching stations are aging and some of its assets are in poor condition.

We consider that AusNet Services has reasonably identified the need, timing and estimated capex required for these major stations in its revised proposal. This is consistent with our findings in the draft decision.<sup>30</sup>

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<sup>30</sup> AER, *Draft decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, pp. 13–19.

AusNet Services' initial proposal included \$424 million for its major stations. In our draft decision, we found that:

- AusNet Services had reasonably justified the need and timing for its major station projects. AusNet Services adopts good industry practice in identifying and quantifying the impacts of the failure of aging assets on network safety, reliability and security, and undertakes prudent cost-benefit and options analysis to consider whether major station renewal is required
- AusNet Services had likely identified the efficient costs of its major station projects, including the application of project risks.

CCP23 broadly supported AusNet Services' approach to the initial proposal for major stations, including the economic based approach.<sup>31</sup>

As noted above, AusNet Services' revised proposal has updated the economic modelling for each of its major stations based on the new information outlined previously (e.g. updated demand forecasts and the early closure of Yallourn), as well as updated cost estimates for each project. Our draft decision anticipated that AusNet Services' major station cost estimates may change in response to this new information.<sup>32</sup>

The new information AusNet Services has considered since its initial proposal, and the publication of our draft decision, has led to a small increase in its total major station capex. This is due to the following key changes:

- an additional major station project (\$16 million) that was not included in the initial proposal. This relates to the closure of Yallourn and the change in risk profile for assets at the nearby terminal station. AusNet Services also identified an additional contingent project related to the closure of Yallourn (see section 5.4.7 below)
- material increases in project cost estimates for five major stations primarily due to scope change and refined unit cost estimates, worth approximately \$50 million
- reductions in costs, including \$31 million for the removal of one major station project as it intersected with forecast augmentation to support the development of a Victorian REZ.

We support AusNet Services' approach to updating its major station capex within the revised proposal. While the capex has increased above the level we accepted in our draft decision, AusNet Services has continued to apply its good practice on the economic modelling approach and in determining project costs. We consider AusNet Services' approach to deferring the timing of its major projects in light of updated project cost information is indicative of the application of good electricity industry practice.

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<sup>31</sup> CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal*, 12 February 2021, p. 43.

<sup>32</sup> AER, *Draft decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, pp. 5–6.

AusNet Services also provided us with additional data and statistical information to support the calculation of its asset failure assumptions, as we requested in the draft decision.<sup>33</sup> We found that AusNet Services may have potentially over-estimated the probability of its asset failing but did not consider that this will affect the need and timing of AusNet Services' major stations in its revised proposal.

AusNet Services has also identified that network support is required for three major stations. This is because outages required while undertaking replacement work will undermine system strength and network support services will be required during construction activity. AusNet Services has accounted for network support costs in its economic assessments for those major station projects, which has led to increased project costs. However, as noted above, it has not included these network support costs in its capex proposal. We support this approach given there remains some uncertainty over the costs of network support.

AusNet Services consulted with consumer and industry representatives, and its revised proposal is reflective of their views. Consumer consultation supported the changes in major projects (including the new project related to the early closure of Yallourn), the approach to applying network support costs into project modelling (and with these costs being recovered through pass-throughs).<sup>34</sup> Consumers were also supportive of updating the revised proposal to include all new information such as updated demand and energy forecasts.

Our final decision accepts AusNet Services' revised major substations replacement capex of \$444.8 million (\$2021–22).

## 5.4.2 Asset replacement programs

AusNet Services' replacement programs includes the replacement of components such as ground wires, circuit breakers and communications assets.

In our draft decision, we identified two specific aspects of AusNet Services' forecast which we considered did not reflect an underlying replacement need or the efficient costs of asset replacement. These are:

- AusNet Services proposed \$23.4 million for the South West Comms Loop, to replace a number of its microwave radio devices with underground optical fibre
- AusNet Services proposed \$14 million in a risk allowance to account for price and volume uncertainty across its replacement program.<sup>35</sup>

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<sup>33</sup> AER, *Draft decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, pp. 17–18.

<sup>34</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, p. 15.

<sup>35</sup> AER, *Draft decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, pp. 22–25.

### 5.4.2.1 South west communications loop upgrade project

AusNet Services' revised proposal includes \$84.0 million (including overheads) for the replacement of parts of its network communications systems. This is the largest component of AusNet Services' asset replacement program outside of major stations. This forecast is 39 per cent higher than the estimated communication systems replacement expenditure in the current period. A key driver of the increase in communications systems capex is \$23.4 million to replace existing point-to-point microwave radios with up to 260 km of optical fibre, including 134 km of underground optical fibre.

AusNet Services' communications network is the physical communications network used in the control and protection of the electricity network. AusNet Services' replacement program includes the replacement of routers and multiplexer equipment with modern equivalents. AusNet Services' justification for this program is supported by a risk-based assessment of asset failure utilising cost-benefit analysis.

AusNet Services advised that the equipment models it uses are no longer supplied and supported in Australia and overseas, and future requirements for new installations or increased service needs cannot be met.<sup>36</sup> AusNet Services submitted that a like-for-like replacement of the existing equipment would not be prudent or practical, as it would pose an unacceptable risk to the reliability of the transmission network over the long-term.<sup>37</sup>

AusNet Services identified new technology to replace the existing routers and multiplexer equipment, which will increase the communication network bandwidth required for existing legacy services to operate reliably. AusNet Services undertook an economic evaluation that demonstrated its preferred option for meeting the increased bandwidth requirements, the installation of optical fibre cable, is the lowest cost option.<sup>38</sup>

In our draft decision we found that whilst some communications assets will need to be replaced in the next regulatory control period, we were not satisfied that AusNet Services had justified the need to change its communications network replacement practices and replace assets that are currently in serviceable condition. We provided AusNet Services with an opportunity to better explain the project in the revised proposal.

AusNet Services' revised proposal includes the South West Comms Loop upgrade project. AusNet Services submitted that the project is required to maintain reliability and comply with its NER obligations relating to the performance of its communications network.<sup>39</sup> While offering some ancillary benefits, the installation of optical fibre to

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<sup>36</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>37</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>38</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>39</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37.

support modern equivalent communications technology is the lowest cost replacement option, and lower cost than the existing radio technology option.

We reviewed AusNet Services' revised proposal, and more detailed technical information and explanations provided by AusNet Services in response to our information requests and meetings.<sup>40</sup> AusNet Services' information request response identified an error and revised the forecast South West Comms Loop project capex down by \$1.8 million, from \$24 million to \$22.3 million, in the revised proposal.<sup>41</sup>

We found the additional project information provided by AusNet Services demonstrated that the replacement of the communication technology is prudent, as the existing radio technology is obsolete, and the capacity requirements are not sufficient for the new communication equipment. Furthermore, this information demonstrated that the optical fibre cable option is technically superior, and lower cost, than the radio microwave technology option.

CCP23 submitted that while it had some initial concerns with the South West Comms Loop project, AusNet Services has now provided a clearer explanation of the project and its economic evaluation.<sup>42</sup> CCP23 indicated that it is in the long-term interests of consumers generally for the project to proceed as a replacement project. CCP23 has, however, requested that the AER clarify whether the positive evaluation of the Optical Fibre Ground Wire option (relative to the more microwave towers option) is dependent on, or at least substantially affected by, the prospect of expanded communication requirements under the Victorian REZ program. We found that the preferred option does not appear to be dependent on expanded communication requirements under the REZ program.

Our final decision accepts AusNet Services' revised proposal South West Comms Loop project of \$22.3 million (\$2021–22).

#### **5.4.2.2 Replacement costs risk allowance**

AusNet Services' revenue proposal applied a risk allowance on top of the expected costs of its replacement program to account for uncertainty in the pricing and volume of the component activities.<sup>43</sup> Our draft decision considered that these risks are more relevant to AusNet Services' major station projects than its asset replacement program more broadly and that AusNet Services can more readily mitigate these risks across a

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<sup>40</sup> AusNet Services provided more detailed information and explanations, in relation to the South West Comms Loop project, in a response information request #20, 8 October 2021, and in a meeting with AER staff on 15 October 2021.

<sup>41</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>42</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, p. 19.

<sup>43</sup> AusNet Services, *Revenue proposal 2023–27, Appendix 4B: Project Cost Estimating Methodology*, 29 October 2020, pp. 13–15.

program of replacement works.<sup>44</sup> We accepted the risk allowance on major substation projects but removed the risk allowance from AusNet Services' broader asset replacement program in our draft decision.<sup>45</sup>

AusNet Services did not accept our draft decision. In its revised proposal, although AusNet Services accepted that asset replacement programs will typically involve unit costs that are comparatively well understood compared to the works at major stations, it identified several asymmetrical factors it considers affects the costs of delivering its asset replacement program. This included new design standards, management of latent site conditions, technological change, asset condition and system strength issues.<sup>46</sup>

We sought further information regarding AusNet Services' asset replacement risk allowance.<sup>47</sup> In response, AusNet Services submitted:<sup>48</sup>

- the condition assessments underpinning its revenue proposal's expenditure forecasts, although based on the best information available at the time of preparing these forecasts (one to two years prior to submission), reflect a robust assessment of condition at that point in time, rather than a forecast of future condition
- notwithstanding AusNet Services considers asset condition risk is not the dominant driver of the need for a risk allowance, it identified a number of factors, including deterioration in asset condition over time and site-specific integration issues, that mean this risk is, on average, more likely to manifest as additional scope and expenditure, rather than reduced scope and expenditure, relative to the cost estimates reflected in its revenue proposal.<sup>49</sup>

For major stations capex, AusNet Services' risk allowances reflect the outcome of Monte Carlo Analysis which is a sampling technique performed to simulate project risk cost outcomes on a probabilistic basis, based on the likelihood of occurrence and range of potential cost impacts across each of the identified risks. For its asset replacement program, AusNet Services adopts a broad-based 7.5 per cent risk allowance which is included in its proposed unit rates. The difference in these forecasting approaches reflects the less detailed information that is currently available for the individual projects that comprise its asset replacement programs.<sup>50</sup>

AusNet Services does at some future point in time undertake replacement program cost estimates using Monte Carlo Analysis of asymmetric risks, consistent with its risk allowance forecast approach for major stations capex which we accepted as 7.5 per

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<sup>44</sup> AER, *Draft Decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, pp. 24–25.

<sup>45</sup> AER - *Draft decision - AusNet Services transmission determination 2022–27 – Capex model – June 2021*.

<sup>46</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 68.

<sup>47</sup> AER, *AusNet Services Information Request #20*, 24 September 2021.

<sup>48</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>49</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>50</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 67.

cent of project station capex.<sup>51</sup> AusNet Services submitted that the Monte Carlo Analysis of replacement capex risk allowance has historically been at 7.5 per cent of unit rates.<sup>52</sup>

AusNet Services considers that replacement capex risks are not accounted for in the direct cost component of its proposed unit rates and are only quantifiable once detailed design is undertaken and site-specific checks are conducted during the preparation of business case cost estimates, or during project delivery (i.e., after submission of its revised proposal). These factors are downside asymmetrical risks.<sup>53</sup> AusNet Services provided additional examples in its response to our information request where replacement project actual costs have exceeded preliminary cost estimates, including a risk allowance.<sup>54</sup> AusNet Services considers it is not possible to offset these cost increases by deferring its asset replacement programs until these risks are realised.<sup>55</sup>

To demonstrate the robustness of its forecasting approach for asset replacement programs, AusNet Services compared preliminary cost estimates (including a risk allowance) with actual and expected outturn costs for a portfolio of approximately 80 asset replacement projects totalling \$280 million. AusNet Services' preliminary cost estimate reflects the less detailed information that is presently available at the revised proposal. This analysis shows that its preliminary cost estimates, which includes a risk allowance of 7.5 per cent, are similar to actual outturn costs, including estimated actual costs for works in progress.<sup>56</sup>

AusNet Services considers the factors driving its historic asymmetric cost outcomes are likely to persist in the 2023–27 regulatory control period.<sup>57</sup> AusNet Services noted other issues that may drive increased future costs compared to recent experience, including the cancellation of outages due to system strength issues or other AEMO power system security concerns, such as a lack of reserve, solar shake-off and minimum demand. AusNet Services considers it may be more efficient to defer an outage than incur network support costs due to prevailing wholesale market conditions, or where the required network support cannot be obtained within the timeframes needed to support the outage.<sup>58</sup>

In its response to our information request, AusNet Services provided:<sup>59</sup>

- examples of asset replacement programs, including risk allowances derived through Monte Carlo Analysis, where its actual historic replacement asset capex

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<sup>51</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 67.

<sup>52</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 67.

<sup>53</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 68.

<sup>54</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>55</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 68.

<sup>56</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 67 and *Appendix 3B - Asset replacement programs cost data*, 1 September 2021

<sup>57</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 69.

<sup>58</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 69.

<sup>59</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.



risk allowance has generally been in line with the 7.5 per cent risk allowance included in its proposed unit rates

- additional evidence on how low system strength and other power system security issues are impacting the cost and timely delivery of asset replacement projects, including evidence of several projects impacted by outage cancellations in terms of additional costs and delays.

We consider the further information provided by AusNet Services in its revised proposal and our information request supports the claim for a 7.5 per cent risk allowance for its asset replacement projects. We:

- consider the asymmetrical factors AusNet Services identified as affecting the costs of delivering its asset replacement program are reasonable
- acknowledge that:
  - AusNet Services faces the requirement to provide an ex-ante cost estimate with its revised proposal that reflects the less detailed information that is currently available for the individual projects that comprise its asset replacement programs
  - this detailed information only becomes available for asset replacement programs as part of the detailed design and cost estimating phase, at which point Monte Carlo Analysis is undertaken to derive project-specific risk allowances
- accept that a number of factors identified by AusNet Services mean asset condition risk (reflecting condition assessment reports one to two years prior to revenue proposal submission) is, on average, more likely to manifest as additional scope and expenditure, rather than reduced scope and expenditure, relative to the cost estimates reflected in AusNet Services' revenue proposal
- acknowledge that AusNet Services has provided evidence that, on average, shows that its actual asset replacement program risk allowances historically have generally been in line with the 7.5 per cent risk allowance included in its proposed unit rates. AusNet Services demonstrated that its preliminary asset replacement cost estimates, which includes a risk allowance of 7.5 per cent, are similar to actual outturn costs
- consider that AusNet Services has demonstrated that the factors driving its historic asymmetric cost outcomes are likely to persist in the 2022–27 regulatory control period, particularly in relation to the cancellation of outages due to system strength issues.

In its advice on AusNet Services' revised proposal, CCP23 remained concerned with a 7.5 per cent risk allowance being applied across all replacement category activity as it considers the risks identified by AusNet Services as largely common to business as usual replacement activity. CCP23's preference is that if specific risks are adding asymmetrically to specific project costs, then AusNet Services can set this out in an individual project business case. CCP23 is also concerned that a broad-based 7.5 per

cent replacement capex risk allowance is not sufficiently nuanced to any asymmetrical risks for each specific project.<sup>60</sup>

Whilst we acknowledge CCP23's concerns, we consider that the replacement capex risks identified by AusNet Services are generally not business as usual risks, but specific risks related to AusNet Services' circumstances and likely to impact on the delivery cost of a number of projects within AusNet Services' asset replacement program. We consider that the replacement capex risks are specific to AusNet Services' circumstances because:

- The management of latent site conditions, system strength and other power system issues are likely asymmetric factors impacting on the cost of its asset replacement program and expected to persist in the 2022–27 regulatory control period.
- AusNet Services is required to provide an ex-ante cost estimate with its revised proposal and reflects the less detailed information that is currently available for the individual projects that comprise its asset replacement programs. Preliminary estimates available at the time of AusNet Services' revised proposal do not include a number of factors that AusNet Services has been able to identify and are likely to lead to an asset condition risk which is, on average, more likely to manifest as additional scope and expenditure.
- AusNet Services accept that actual unit cost of its asset replacement programs are comparatively well understood, but that a number of asymmetrical factors affect the costs of delivering its asset replacement program.

We consider these specific replacement capex risks, and the supporting evidence provided by AusNet Services, support the inclusion of a 7.5 per cent risk allowance in AusNet Services' proposed replacement asset program unit rates. The evidence shows that AusNet Services faces a number of asymmetrical risk factors that impact on the costs of delivering its asset replacement program.

The risk factors identified by AusNet Services are supported by data that shows that historically its actual asset replacement program risk allowances have been in line with the 7.5 per cent risk allowance included in its proposed unit rates. That is, AusNet Services has demonstrated that its actual costs form the basis of its asset replacement capex forecasts. Without this empirical evidence, it is unlikely that we would have accepted a 7.5 per cent risk allowance for AusNet Services' proposed replacement asset program.

We consider AusNet Services' risk allowance reflects the actual replacement capex risks faced by AusNet Services as well as its forecasting approach. On this basis, we do not consider AusNet Services' asset replacement risk allowance represents business as usual risks.

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<sup>60</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, pp. 20–21.

### 5.4.3 Safety, security and compliance

AusNet Services accepted our draft decision allowance of \$53.7 million (\$2021–22) for safety, security and compliance capex after adjustments to reflect updated labour escalators. AusNet Services has, however, included \$9.7 million capex for a new project involving the installation of PMUs and reduced the capex for its other projects by approximately \$1 million.

The new project has been included in its updated forecast in response to a direction issued by AEMO under clause 4.11.1(d) of the NER requiring AusNet Services to install PMUs at specified locations on AusNet Services' network.<sup>61</sup>

Most of the required expenditure for this new project will be incurred in 2022–23 and involves upgrading or replacing PMUs and installing 19 new PMUs at various locations on the transmission network. The PMUs will allow AEMO to discharge its market and power system security functions by remotely monitoring and investigating, current and potential, power system security issues.

We accept AEMO's direction demonstrates there is a need to install PMUs at specified locations on AusNet Services' network. However, we undertook further analysis of the unit cost of the installation of each PMU to determine if this expenditure was efficient.<sup>62</sup>

AusNet Services' forecast PMU capex indicated the cost per PMU ranges from \$467,000 to about \$490,000.<sup>63</sup> We concluded AusNet Services' average PMU cost was efficient as a new PMU is expected to cost around \$500,000.

We accept AusNet Services' forecast capex of \$9.7 million for the new PMU's based on AEMO's direction stipulating the need and scope, including location and timing of the PMU's to be installed on AusNet Services network during the 2022–27 regulatory control period. We also consider AusNet Services' estimated cost per PMU to be reasonable.

Our final decision accepts AusNet Services' revised proposal safety, security and compliance capex of \$62.5 million (\$2021–22).

### 5.4.4 Non-network

Our draft decision accepted \$22.0 million (\$2021–22) of AusNet Services' proposed \$22.2 million (\$2021–22) non-network capex, with the difference being a small adjustment of \$0.2 million to remove AusNet Services' proposed escalation of external labour costs.<sup>64</sup>

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<sup>61</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 37; AEMO, *Notice under clause 4.11.1(d) – Remote monitoring equipment*, 20 January 2022.

<sup>62</sup> AER analysis of AusNet Services, *Revised revenue proposal 2023–27*, Appendix 3, 1 September 2021.

<sup>63</sup> AER analysis of AusNet Services, *Revised revenue proposal 2023–27*, Appendix 3, 1 September 2021.

<sup>64</sup> AER, *Draft decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, p. 12.

AusNet Services' revised proposal accepted our draft decision non-network capex allowance of \$22.0 million, with further minor adjustments AusNet Services made to reflect updated labour escalators and capitalised leases.<sup>65</sup> Our final decision accepts AusNet Services' revised proposal non-network capex of \$21.8 million (\$2021–22).

#### 5.4.5 Information and communications technology

AusNet Services' proposed \$84 million (\$2021–22) for information and communications (ICT) capex is 14 per cent higher than the ICT capex that it expects to incur in the current regulatory control period due to increased cyber security requirements.<sup>66</sup> AusNet Services' ICT program is shared between its transmission and distribution businesses, with project costs allocated across the distribution and transmission components of the business. AusNet Services' proposal included cost benefit analysis which identified economic benefits for its proposed ICT capex projects.

Our draft decision accepted \$83 million (\$2021–22) of AusNet Services' proposed \$84 million in ICT capex, with the difference being a small adjustment of \$0.8 million to remove AusNet Services' proposed escalation of external labour costs.<sup>67</sup>

AusNet Services' proposed ICT capex includes \$16.7 million to comply with new cyber security requirements that are specific to its transmission business.<sup>68</sup> The main driver of AusNet Services' cyber security capex is the requirement to reach Maturity Indicator Level (MIL) 3 of the Australian Energy Sector Cyber Security Framework (AESCSF) by 2024.

AusNet Services' revised proposal accepted our draft decision ICT capex allowance of \$83 million with a further minor adjustment AusNet Services made to reflect updated labour escalators.<sup>69</sup> Our final decision accepts AusNet Services' revised proposal ICT capex of \$82.4 million (\$2021–22).

#### 5.4.6 Real cost escalations

Our draft decision accepted AusNet Services' proposed internal labour escalation rates. However, we did not accept AusNet Services' proposal to escalate the labour component of the external contracted costs for its proposed capex program.<sup>70</sup>

In its revised proposal, AusNet Services adopted our draft decision on internal labour cost escalation, which is consistent with AusNet Services' initial proposal. AusNet Services has updated its internal labour escalators to reflect a more recent

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<sup>65</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 73.

<sup>66</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 119.

<sup>67</sup> AER, *Draft decision, AusNet Services transmission determination 2022–27, Capital Expenditure Model (Draft decision tab)*, 30 June 2021.

<sup>68</sup> AER, *Draft decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, p. 27.

<sup>69</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 73.

<sup>70</sup> AER, *Draft decision, AusNet Services' transmission determination 2022–27, Attachment 5 – Capital Expenditure*, June 2021, pp. 28–30.

forecast it has obtained from BIS Oxford Economics.<sup>71</sup> This update is considered in our opex attachment 6.

Although AusNet Services considers there are reasonable grounds to expect real increases in external labour costs over the 2022–27 regulatory control period, AusNet Services has adopted our draft decision to apply zero real cost escalators to external labour.<sup>72</sup> Our final decision is to apply no real cost escalation to external labour for AusNet Services' proposed capex program.

Our approach is supported by CCP23, who consider it is appropriate to apply no real cost escalation to external labour in the absence of compelling evidence to change.<sup>73</sup>

### 5.4.7 Contingent projects

AusNet Services' revenue proposal did not identify any contingent projects for the 2023–27 regulatory control period. In its revised revenue proposal, however, AusNet Services has proposed a contingent project for the replacement of three 500kV/220kV transformers at Hazelwood Terminal Station (Hazelwood) due to the earlier than expected closure of Yallourn in 2028.

The announcement by EnergyAustralia in March 2021 that it would retire Yallourn in mid-2028 instead of 2032 was made after AusNet Services' revenue proposal was submitted.<sup>74</sup> AusNet Services submitted that this announcement required it to reassess its asset replacement plans because withdrawing Yallourn's installed generation capacity of 1,450 MW earlier than expected increases the criticality of network assets connecting other generation sources (including interconnectors and grid-scale batteries).<sup>75</sup>

AusNet Services considers:

- three of the four 500kV/220 kV transformers at Hazelwood that have been in service since 1970 are now in poor condition
- when the asset failure risk of these transformers exceeds the cost of replacement, it will be economic to replace them
- the connection of new renewable generation in the region will significantly increase the consequences of failure of these transformers and bring forward the point at which it is economic to replace them.<sup>76</sup>

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<sup>71</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 75.

<sup>72</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 75.

<sup>73</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, p. 22.

<sup>74</sup> <https://www.energyaustralia.com.au/about-us/media/news/energyaustralia-powers-ahead-energy-transition>

<sup>75</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 77.

<sup>76</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 78.

The need and timing of this project at an estimated cost of \$45 million (\$2021–22) is dependent on the capacity and timing of generation that is committed to be connected to the 220kV network in the Latrobe Valley area which contains the Gippsland REZ. AusNet Services considers once 1,550 MW of renewable generation is committed before Yallourn is closed, or 3,000 MW after Yallourn is closed, to the Latrobe Valley area 220kV network, the replacement of three of the four power transformers at Hazelwood will become economic. However, as the timing of when these thresholds are met is uncertain, AusNet Services is proposing this as a contingent project.<sup>77</sup>

AusNet Services proposed the following trigger events for its contingent project:<sup>78</sup>

1. New generation capacity exceeding an aggregate of 1,550 MW (prior to the closure of Yallourn Power Station) or 3,000 MW (after the closure of Yallourn Power Station) is committed at the current or future connection points on the 220 kV Latrobe Valley transmission network.
2. Completion of a RIT-T to address the identified need of “maintain reliable, safe and secure prescribed transmission network services having regard to current and projected generation connections to the Latrobe Valley 220 kV transmission network” where the preferred credible option demonstrates that network investment at Hazelwood Terminal Station is economic during the 2023–27 regulatory control period.
3. The AER determines that the proposed investment satisfies the RIT-T.
4. A commitment from AusNet Services to proceed with the project, subject to the AER amending the revenue determination pursuant to the NER.

Contingent projects are usually significant network augmentation projects (or a replacement project in the case of AusNet Services’ proposed contingent project) that are reasonably required to be undertaken to achieve the capex objectives. However, unlike other proposed capex projects, the need for the project within the regulatory control period and the associated costs are not sufficiently certain. Consequently, expenditure for such projects does not form part of the total forecast capex that we approve in this determination. Such projects are linked to unique investment drivers and are triggered by defined ‘trigger events’. The occurrence of the trigger event must be probable during the relevant regulatory control period.<sup>79</sup> The cost of the projects may ultimately be recovered from customers in the future if certain predefined conditions (trigger events) are met.

#### 5.4.7.1 Assessment approach

We consider whether:

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<sup>77</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 78.

<sup>78</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 78–79.

<sup>79</sup> NER, cl. 6A.8.1(c)(5).

- the proposed contingent project is reasonably required to be undertaken in order to achieve any of the capex objectives<sup>80</sup>
- the proposed contingent project capital expenditure is not otherwise provided for in the capex proposal<sup>81</sup>
- the proposed contingent project capital expenditure reasonably reflects the capex criteria, taking into account the capex factors<sup>82</sup>
- the proposed contingent project capex exceeds the defined threshold<sup>83</sup>
- the trigger events in relation to the proposed contingent project are appropriate.<sup>84</sup>

AusNet Services' revenue proposal included a description of the contingent project, proposed trigger events, project requirement, proposed capex and demonstration of rules compliance.<sup>85</sup> We sought additional information in respect to its proposed contingent project, this included:<sup>86</sup>

- information and modelling that demonstrates the economic justification for this project and the analysis of options
- further information demonstrating the need for this project at the relevant thresholds before and after the closure of Yallourn
- any forecasts or information that would support 1,550 MW of committed generation being probable in the next regulatory control period.

Given the uncertainty about the timing and requirements for the contingent project, at this stage, it is not necessary to assess the costs and technical scope of the project in detail. Rather, we reviewed whether the contingent project is reasonably likely to be required in the 2022–27 regulatory control period based on the materiality and plausibility of the trigger conditions. This gives us a high-level view of whether the project is reasonably required to be undertaken in the regulatory control period to achieve any of the capex objectives and reflect the capex criteria.

We also considered whether the proposed trigger events for the project are appropriate. This includes having regard to the need for the trigger event:

- to be reasonably specific and capable of objective verification<sup>87</sup>

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<sup>80</sup> NER, cl. 6A.8.1(b)(1).

<sup>81</sup> NER, cl. 6A.8.1(b)(2)(i). Relevantly, a TNSP must include forecast capex in its revenue proposal which it considers is required to meet or manage expected demand for prescribed transmission services over the regulatory control period (see NER, cl. 6A.6.7(a)(1)).

<sup>82</sup> NER, cl. 6A.8.1(b)(2)(ii).

<sup>83</sup> NER, cl. 6A.8.1(b)(2)(iii).

<sup>84</sup> NER, cl. 6A.8.1(b)(4).

<sup>85</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 79–80.

<sup>86</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>87</sup> NER, cl. 6A.8.1(c)(1).

- to be a condition or event which, if it occurs, makes the project reasonably necessary in order to achieve any of the capex objectives<sup>88</sup>
- to be a condition or event that generates increased costs or categories of costs that relate to a specific location rather than a condition or event that affects the transmission network as a whole<sup>89</sup>
- to be described in such terms that it is all that is required for the revenue determination to be amended<sup>90</sup>
- to be a condition or event, the occurrence of which is probable during the 2022–27 regulatory control period but the inclusion of capex in relation to it (in the total forecast capex) is not appropriate because either:
  - it is not sufficiently certain that the event or condition will occur during the regulatory control period or if it may occur after that period or not at all, or
  - assuming it meets the materiality threshold, the costs associated with the event or condition are not sufficiently certain.<sup>91</sup>

#### 5.4.7.2 Position on contingent project

We consider AusNet Services' proposed contingent project should be classified as a contingent project for the 2022–27 regulatory control period. This project may be reasonably required to be undertaken in order to maintain the quality, reliability, and security of supply, or to meet or manage the expected demand for transmission services over the 2022–27 regulatory control period.<sup>92</sup>

This is supported by CCP23 who were satisfied that the proposed contingent project meets the statutory requirements.<sup>93</sup>

Our review of the requirements for the proposed contingent project is set out below.

#### Review of trigger events

We consider there are two important triggers for the contingent project proposed by AusNet Services to be accepted:

- that the project is reasonably necessary to be undertaken in order to achieve any of the capital expenditure objectives
- to be an event or condition, the occurrence of which is probable during the regulatory control period.

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<sup>88</sup> NER, cl. 6A.8.1(c)(2).

<sup>89</sup> NER, cl. 6A.8.1(c)(3).

<sup>90</sup> NER, cl. 6A.8.1(c)(4).

<sup>91</sup> NER, cl. 6A.8.1(c)(5).

<sup>92</sup> NER, cl. 6A.8.1(b)(1).

<sup>93</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, p. 25.



### **Project reasonably necessary**

For the project to be reasonably necessary to be undertaken, we must be satisfied that:

- there will be a need for the project. That is, the risk cost due to the loss of one of the three transformers will be high enough that it is likely that expenditure to reduce this risk is justified
- the proposed expenditure is likely to be the most economic option
- a more thorough assessment of the need and the option(s) to meet that need will be done prior to the expenditure (a requirement of the RIT-T).

We consider that should the proposed threshold renewable generation trigger be met, it is reasonably likely that the project would be required. We also consider that AusNet Services' proposed triggers of the completion of a RIT-T to address the identified need of the project and the AER determining the proposed investment satisfies the RIT-T, provide for a more thorough assessment of the need prior to any expenditure.

### **Proposed new generation thresholds probable**

AusNet Services' revised proposal did not provide any detailed information as to the 'likelihood' or 'probability' of the threshold of committed generation being met.

In response to our information request,<sup>94</sup> AusNet Services stated that based on recent AEMO generation information forecasts, it is probable that a share of Victoria's potential new generation exceeding 1,450 MW (3 per cent of the total for Victoria) will become committed to connect to the 220 kV Latrobe Valley network, which is in the Gippsland REZ, during the next regulatory control period. AusNet Services noted the wind resources in the Gippsland REZ, and the rapidly increasing capacity of new large scale renewable generation plant more generally in Victoria, as well as the potential 2.2 GW Star of the South offshore wind farm project in the Gippsland region as evidence of potential new generation. AusNet Services considered that the connection of 1.5 GW to the 220 kV Latrobe Valley network by 2028 is probable.

AusNet Services included an AEMO map based on AEMO generation forecasts showing fuel technology (generation) categories for each Victorian REZ.<sup>95</sup> We reviewed an updated AEMO map of Victorian REZ generation forecasts to the one provided by AusNet Services, which includes 2,200 MW of wind generation within the Gippsland REZ at the application stage.<sup>96</sup> We consider this map supports AusNet Services' claim that connection of 1.5 GW to the 220 kV Latrobe Valley network by 2028 is probable.

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<sup>94</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>95</sup> AusNet Services, *AER Information Request #20 response*, 8 October 2021.

<sup>96</sup> AEMO, [https://aemo.com.au/-/media/files/electricity/nem/network\\_connections/generation-maps/vic-map.pdf?la=en](https://aemo.com.au/-/media/files/electricity/nem/network_connections/generation-maps/vic-map.pdf?la=en), 3 October 2021.

We also reviewed AEMO's July 2020 REZ ISP Scorecard<sup>97</sup> and Draft 2022 ISP.<sup>98</sup> Although AEMO's 2022 Draft ISP did not support development of renewable generation capacity greater than 1,550 MW in the Gippsland REZ during the next regulatory control period, we consider there is on-going interest in the development of renewable energy resources in the Gippsland region. We anticipate further progress on the development of these renewable energy resources, and it is likely that a number of projects will be advanced during the next regulatory control period.

Based on the information provided by AusNet Services and our own investigations, we consider the commitment of 1,550 MW (prior to the closure of Yallourn) or 3,000 MW (after the closure of Yallourn) during the 2022–27 regulatory control period is probable.

We are satisfied that the trigger events proposed by AusNet Services meet the NER requirements and we approve AusNet Services' proposed contingent project.

## 5.5 Ex-post statement of efficiency and prudence

We are required to provide a statement on whether the roll forward of the regulatory asset base from the previous period contributes to the achievement of the capital expenditure incentive objective. The capex incentive objective is to ensure that where the regulatory asset base is subject to adjustment in accordance with the NER, only expenditure that reasonably reflects the capex criteria is included in any increase in value of the regulatory asset base.

We have reviewed AusNet Services' capex performance for the 2017–18 to 2019–20 regulatory years. This assessment has considered AusNet Services' out-turn capex relative to the regulatory allowance given the incentive properties of the regulatory regime for a transmission business to minimise costs. Where AusNet Services has spent more than its capex allowance for these years, we can review the efficiency of this overspend and decide on the capex that should be rolled into the RAB.

Table 5.4 shows AusNet Services' actual net capex against the forecast regulatory allowance for this period, including the three years of the ex-post review period. This shows that AusNet Services has spent less than its capex allowance. On this basis, we are satisfied that AusNet Services actual capex should be rolled into the RAB.

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<sup>97</sup> AEMO, *2020 ISP Appendix 5: Renewable Energy Zones*, July 2020.

<sup>98</sup> AEMO, *Draft 2022 ISP*, December 2021.

**Table 5.4 AusNet Services' actual net capex versus capex allowance – 2017–22 regulatory control period (\$million, 2021–22)**

Category	2017–18	2018–19	2019–20	2020–21	2021–22	Total
Total net capex allowance	183.3	163.1	161.5	154.0	118.4	780.3
Total net actual capex	127.7	143.8	152.7	141.6	133.7	699.5
Capex overspend / (underspend)	(55.6)	(19.3)	(8.8)	(12.4)	(15.3)	(80.8)

Source: AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 111.

Note: Numbers may not add up due to rounding. Please refer to Attachment 2 for details in relation to the cost of capitalised leases.

## Shortened forms

Shortened form	Extended form
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	capital expenditure
CCP23	Consumer Challenge Panel, sub-panel 23
CESS	capital expenditure sharing scheme
CPI	consumer price index
GW	gigawatt
ISP	AEMO's integrated system plan
MW	megawatt
NEL	National Electricity Law
NER	National Electricity Rules
opex	operating expenditure
PMU	phasor measurement unit
PTRM	post-tax revenue model
RAB	regulatory asset base
REZ	renewable energy zones
RFM	roll forward model
RIT-T	regulatory investment test for transmission
TNSP	transmission network service provider

# Final Decision

**AusNet Services Transmission  
Determination 2022 to 2027  
Attachment 6  
Operating expenditure**

January 2022

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## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final 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 12 – Pricing methodology

Attachment 13 – Pass through events

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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 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 Final decision

Our final decision is to accept AusNet Services' total opex forecast of \$1387.4 million (\$2021–22),<sup>1</sup> including debt raising costs, for the 2022–27 regulatory control period. Our alternative estimate of \$1382.7 million (\$2021–22) is not materially different (\$4.7 million (\$2021–22), or 0.3%, lower) than AusNet Services' revised proposal total opex forecast. We consider that AusNet Services' total opex forecast reasonably reflects the opex criteria.<sup>2</sup> Overall, we consider the revised proposal was largely a good one, addressing the issues raised in our draft decision and taking into account customer feedback. However, a particular area of focus was the new, relatively small, step changes introduced in the revised proposal. While we did not include these in our alternative estimate, we still found AusNet Services' total opex forecast reasonably reflects the opex criteria.

Our final decision opex forecast (AusNet Services' revised proposal) is:

- \$133.2 million (\$2021–22), or 10.6% higher than the opex forecast we approved in our final decision for the 2017–22 regulatory control period<sup>3</sup>
- \$155.5 million (\$2021–22), or 12.6% higher than AusNet Services' actual (and estimated) opex in the 2017–21 regulatory control period
- \$35.4 million (\$2021–22), or 2.5% lower than AusNet Services' updated initial proposal
- \$68.9 million (\$2021–22), or 5.2% higher than our draft decision.

Figure 6.1 shows AusNet Services' actual opex, our previous approved forecast opex, proposed opex for the 2022–27 regulatory control period (the green lines) and our alternative estimate for the draft decision (the red line), noting we have not shown the alternative estimate for the final decision as it is not visually different to AusNet Services' revised proposal. We have also shown the make-up of

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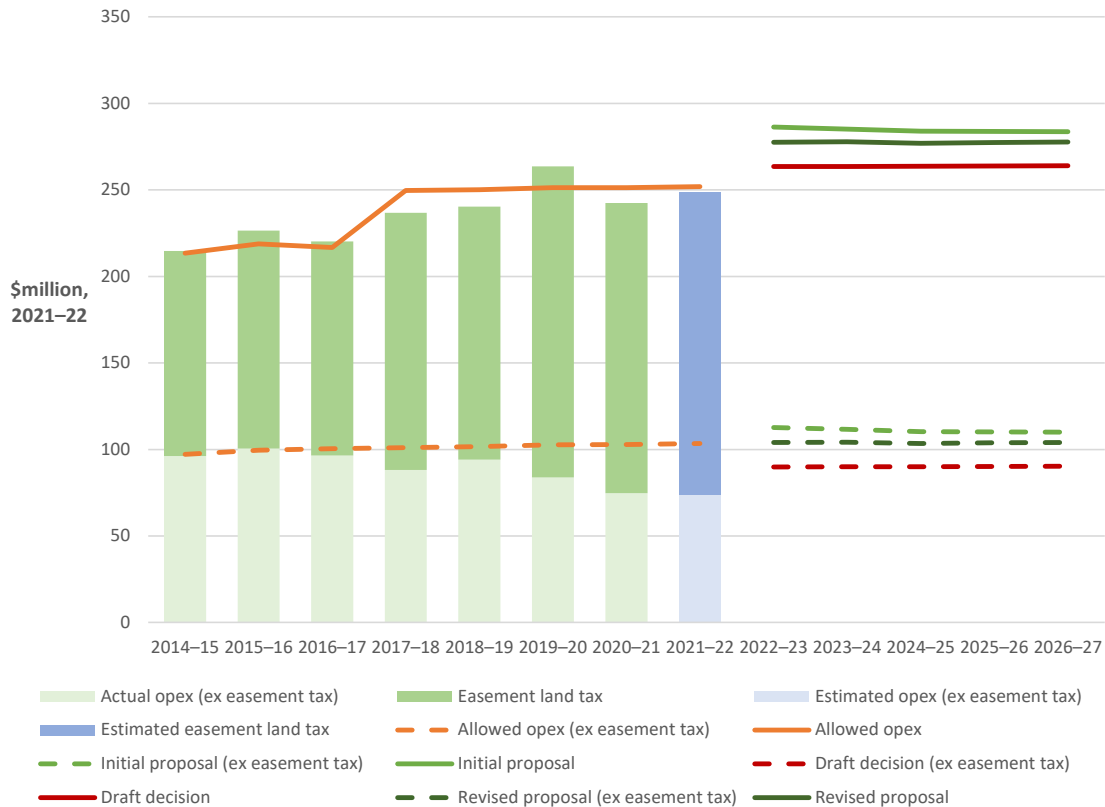
<sup>1</sup> Including debt raising cost. AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 85.

<sup>2</sup> NER, cl.6A.6.6(c).

<sup>3</sup> Difference is calculated based on the opex allowance for the five year 2017–21 period converted to real 2021–22 dollars using unlagged inflation.

AusNet Services total opex proposal in terms of the easement land tax costs (darker green) and non-easement land tax costs (lighter green).

**Figure 6.1 AusNet Services' opex over time (\$ million, 2021–22)**



Source: AusNet Services, *Revised proposal operating expenditure model 2023–27*, September 2021; AER, *Draft Decision – AusNet Services transmission determination 2022–27, Attachment 6 operating expenditure*, June 2021; AER analysis.

Note: We have not shown our alternative estimate of opex for this final decision on this chart because it is not visually different to AusNet Services' revised proposal.

We have compared AusNet Services' revised proposal, which we accept, and our alternative estimate for the final decision in Table 6.1 which shows the key differences.

**Table 6.1 AusNet Services' revised proposal and our alternative estimate (\$ million, 2021–22)**

	AER draft decision	AusNet Services' revised proposal	AER alternative estimate for the final decision	Difference between revised proposal and AER alternative estimate
Reported opex in 2020–21	1230.2	1211.8	1223.7	11.9
Final year increment	2.5	2.5	2.6	0.0
Remove category specific forecasts	-821.7	-829.8	-837.9	-8.1

	AER draft decision	AusNet Services' revised proposal	AER alternative estimate for the final decision	Difference between revised proposal and AER alternative estimate
Trend: Output growth	–	–	–	–
Trend: Real price growth	5.5	4.7	6.0	1.3
Trend: Productivity growth	–3.8	–3.6	–5.8	–2.2
Step changes	3.1	99.3	85.3	–14.0
Category specific forecasts	894.2	893.9	900.3	6.5
<b>Total opex (excluding debt raising costs)</b>	<b>1310.1</b>	<b>1378.9</b>	<b>1374.3</b>	<b>–4.7</b>
Debt raising costs	8.5	8.5	8.5	–
<b>Total opex</b>	<b>1318.6</b>	<b>1387.4</b>	<b>1382.7</b>	<b>–4.7</b>
Percentage difference to revised proposal				–0.3%

Source: AusNet Services, *Revised proposal operating expenditure model 2023–27, 1 September 2021; AER analysis.*

Note: Numbers may not add up to totals due to rounding. Differences are between the AER's alternative estimate and AusNet Services' revised proposal. Amounts of '0.0' and '–0.0' represent small non-zero amounts and '–' represents zero.

We assessed AusNet Services' opex proposal by applying our 'base–step–trend' forecasting approach to develop an alternative estimate. The following key factors explain the differences between our alternative estimate of total opex, and AusNet Services' revised proposal which we have accepted:

- we used a more recent, and higher, forecast of inflation to convert amounts into real terms
- we used updated, and higher, wage price index (WPI) forecasts from Deloitte Access Economics
- we used updated, and higher, productivity growth forecasts from our *2021 Annual Benchmarking Report for electricity transmission network service providers*<sup>4</sup>
- we did not include the relatively small step changes relating to land tax, a mental health and well-being levy and phasor monitoring unit (PMU) requirements. Even when we did not include them in our alternative estimate, we found AusNet Services' total opex forecast reasonably reflects the opex criteria.

<sup>4</sup> AER, *2021 Annual Benchmarking Report, Electricity transmission network service providers*, November 2021 and Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator's 2021 TNSP Annual Benchmarking Report*, 12 November 2021, p. 60.

These differences largely offset each other such that our alternative estimate of \$1382.7 million (\$2021–22) is only \$4.7 million (\$2021–22), or 0.3%, lower than AusNet Services' revised proposal of \$1387.4 million (\$2021–22). We are satisfied that AusNet Services' revised proposal reasonably reflects the opex criteria and we have accepted it.

## 6.2 AusNet Services' revised proposal

In its revised proposal, AusNet Services proposed total opex of \$1387.4 million (\$2021–22) for the 2022–27 regulatory control period, as set out in Table 6.2. This is 12.6% higher than AusNet Services' actual and estimated opex for the 2017–22 regulatory control period. AusNet Services' revised opex proposal is 2.5% lower than its updated initial proposal and 5.2% higher than our draft decision.<sup>5</sup>

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

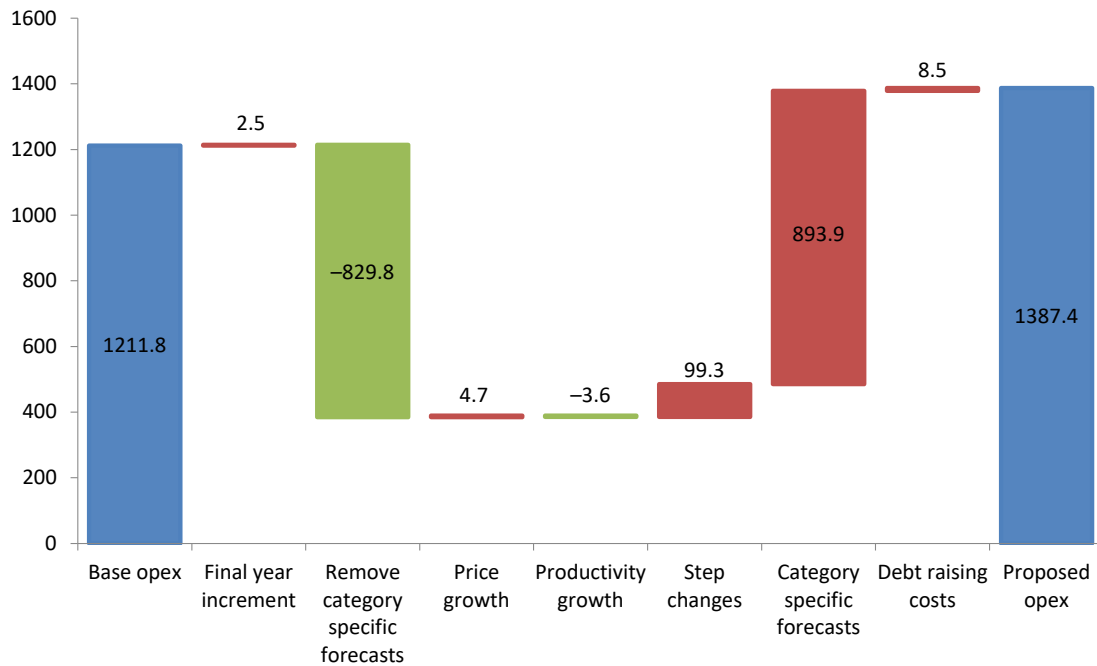
	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Total opex excluding debt raising costs	275.9	276.1	275.3	275.7	275.9	<b>1378.9</b>
Debt raising costs	1.7	1.7	1.7	1.7	1.7	<b>8.5</b>
<b>Total opex</b>	<b>277.6</b>	<b>277.8</b>	<b>277.0</b>	<b>277.4</b>	<b>277.6</b>	<b>1387.4</b>

Source: AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 85.

In Figure 6.2 we separate AusNet Services' revised forecast opex proposal into its different components.

<sup>5</sup> Comparisons are inclusive of debt raising costs.

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



Source: AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021; AER analysis.

AusNet Services stated that it used the same forecasting approach it used for its initial proposal and that it was consistent with the revealed cost base-step-trend approach set out in the *Expenditure forecast assessment guideline*.<sup>6</sup> The key elements of AusNet Services' revised proposal were:

- AusNet Services used its actual opex in 2020–21 of \$242.4 million (\$2021–22) as the starting point to forecast opex.<sup>7</sup> This is lower than the estimate of \$245.5 million (\$2021–22) it used in its initial proposal.<sup>8</sup> Base year opex accounts for \$1211.8 million (\$2021–22) of AusNet Services' total opex forecast.<sup>9</sup>
- AusNet Services applied the final year formula in our *Expenditure forecast assessment guideline* and increased its base year opex by \$0.5 million (\$2021–22) to estimate its final year opex. This increased its total opex forecast by \$2.5 million (\$2021–22).<sup>10</sup>
- AusNet Services reduced its final year estimate by \$166.0 million (\$2021–22) to remove the opex for the categories it forecast separately, specifically easement

<sup>6</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 85.

<sup>7</sup> AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021.

<sup>8</sup> AusNet Services, *Revenue proposal 2023–27, Operating expenditure model – Revised*, 18 February 2021.

<sup>9</sup> AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021.

<sup>10</sup> AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021.

land tax and debt raising cost. This decreased its total opex forecast by \$829.8 million (\$2021–22).<sup>11</sup>

- AusNet Services then trended forward its final year estimate to account for:
  - the forecast growth in real input prices, including forecast increases in the price of labour inputs and an increase in line with the consumer price index (CPI) for non-labour inputs. This increased its total opex forecast by \$4.7 million (\$2021–22).<sup>12</sup>
  - forecast productivity growth. This reduced its total opex forecast by \$3.6 million (\$2021–22).<sup>13</sup>
- AusNet Services included ten step changes in its revised proposal, five of which were not included in its initial proposal, totalling \$99.3 million (\$2021–22).<sup>14</sup> The new step changes were for:
  - bushfire insurance premium increases, \$7.6 million (\$2021–22)<sup>15</sup>
  - land tax, \$3.3 million (\$2021–22)<sup>16</sup>
  - phasor monitoring units, \$1.5 million (\$2021–22)<sup>17</sup>
  - mental health and well-being levy, \$3.6 million (\$2021–22)<sup>18</sup>
  - Australian Energy Market Operator (AEMO) participant fees, \$6.5 million (\$2021–22).<sup>19</sup>
- AusNet Services included forecast easement land tax of \$868.1 million (\$2021–22), which it included as a category specific forecast.<sup>20</sup>
- AusNet Services included forecast opex of \$25.8 million (\$2021–22), as a category specific forecast, to operate and maintain growth assets to be rolled into the regulatory asset base at the start of the 2022–27 regulatory control period.<sup>21</sup>
- AusNet Services forecast \$8.5 million (\$2021–22) of debt raising costs, as a category specific forecast.<sup>22</sup>

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<sup>11</sup> AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021.

<sup>12</sup> AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021; AER analysis.

<sup>13</sup> AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021; AER analysis.

<sup>14</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 93.

<sup>15</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 98–100.

<sup>16</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 100–101.

<sup>17</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 102–103.

<sup>18</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 101–102.

<sup>19</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 97–98.

<sup>20</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 104.

<sup>21</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 104.

<sup>22</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 104.

## 6.2.1 Stakeholder views

We received four submissions on AusNet Services' 2022–27 revised proposal and only one raised issues about opex. The Consumer Challenge Panel, sub-panel 23 (CCP23) was generally supportive of our draft decision.<sup>23</sup> It noted the reduction in AusNet Services' base year actual opex<sup>24</sup> and commented specifically on the re-proposed and new step changes in the AusNet Services' revised proposal. CCP23 noted AusNet Services had consulted with customers on these step changes to be included in the revised revenue proposal. CCP23:

- noted that the council rates were the largest of the AusNet Services' proposed step changes but considered this is an externally imposed increase in costs that AusNet Services would need to pay. It also raised the consideration whether it be better treated for the purposes of a revenue allocation as a 'pass through' event, rather than a step change if the actual costs are still unknown at the time of the AER's final decision<sup>25</sup>
- noted that the cyber security step change was substantial while agreeing that responding to cyber threats is a genuine exogenously applied cost for energy network businesses and the proposed opex is within a 'reasonable range'<sup>26</sup>
- considered that the bushfire insurance step change was material enough to be considered a step change<sup>27</sup>
- considered that a number of the relatively smaller step changes like the Environment Protection Act 2017 (EPA), AEMO participant fee, land tax and mental health and well-being surcharge are legitimate and clear examples of step changes<sup>28</sup>
- acknowledged AusNet Services will need to implement the AEMO directive in relation to PMUs but did not consider the step change as 'material' and encouraged AusNet Services to absorb this cost.<sup>29</sup>

We have taken the CCP23's submission into account in developing the positions set out in this final decision. CCP23's comments on the individual step changes are reflected in Section 6.4.4 below.

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<sup>23</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, pp. 26–29.

<sup>24</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 26.

<sup>25</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, pp. 29–30.

<sup>26</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 29.

<sup>27</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 31.

<sup>28</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, pp. 30–31.

<sup>29</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 31.



## 6.3 Assessment approach

Our role is to form a view about whether to accept a business' forecast of total opex. Specifically, we must form a view about whether a business' forecast of total opex 'reasonably reflects the opex criteria'.<sup>30</sup> In doing so, we must have regard to each of the opex factors specified in the National Electricity Rules (NER).<sup>31</sup>

If we are satisfied the business' forecast reasonably reflects the opex criteria, we must accept the proposed forecast.<sup>32</sup> If we are not satisfied, we must not accept the proposed forecast and must substitute an alternative estimate that we are satisfied reasonably reflects the opex criteria.<sup>33</sup> 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 are required to consider interrelationships with the other building block components of our decision.<sup>34</sup>

As set out in our draft decision in detail, we generally assess a business' forecast total opex using a 'base-step-trend' approach, as summarised in Figure 6.3.<sup>35</sup>

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<sup>30</sup> NER, cl. 6A.6.6(c).

<sup>31</sup> NER, cl. 6A.6.6(e)

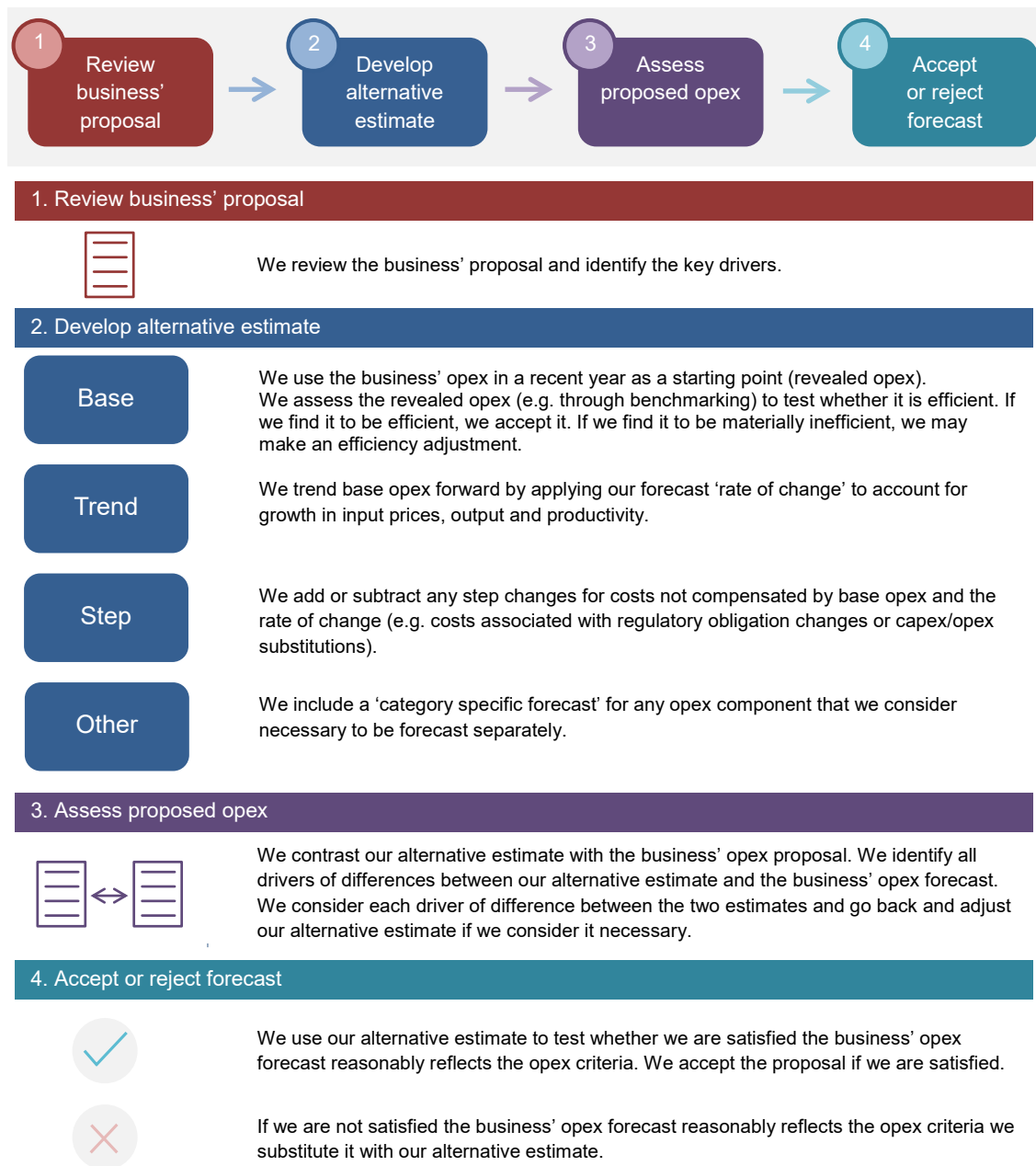
<sup>32</sup> NER, cl. 6A.6.6(c).

<sup>33</sup> NER, cll. 6A.6.6(d) and 6A.14.1(3)(ii).

<sup>34</sup> NEL, s. 16(1)(c).

<sup>35</sup> Our base-step-trend approach is set out in our expenditure guideline. See AER, *Expenditure forecast assessment guideline* for electricity transmission, November 2013.

**Figure 6.3 Our opex assessment approach**



### 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 estimate of opex for 2021–22 (the final year of the current regulatory control period (2017–22)) that we used to forecast opex, was the same as the level of opex we used to calculate EBSS carryover amounts. 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 final decision

Our final decision is to accept AusNet Services' revised total opex forecast of \$1387.4 million (\$2021–22), including debt raising costs.<sup>36</sup> Our alternative estimate of \$1382.7 million (\$2021–22) is not materially different (\$4.7 million (\$2021–22), or 0.3%, lower) than AusNet Services' revised total opex forecast proposal. We consider that AusNet Services' forecast total opex in its revised proposal reasonably reflects the opex criteria.<sup>37</sup>

The following sections outline the key inputs and assumptions we made in developing our alternative estimate of efficient costs for AusNet Services, using our base–step–trend approach. The opex model we used to calculate our alternative estimate is published 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 prescribed transmission electricity services over the 2022–27 regulatory control period.

#### 6.4.1.1 Base year

Consistent with our draft decision, we have used 2020–21 opex as the base year for forecasting our alternative estimate of opex. As we stated in our draft decision, we have updated the estimate of base year expenditure that we used in our draft decision with AusNet Services' actual expenditure, which we now know.

Consistent with its initial proposal, AusNet Services used 2020–21 as its base year in its revised proposal. AusNet Services' actual 2020–21 opex, which it used in its revised proposal, was around \$5.5 million (nominal) lower than the estimate it used in its initial proposal. AusNet Services stated that actual opex was lower than its initial proposal

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<sup>36</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 85.

<sup>37</sup> NER, cl.6A.6.6(c).

estimate due to its recent investment in new technology to drive efficiencies in its inspection and maintenance practices and new outsourced maintenance arrangements. In its submission, CCP23 accepted 2020–21 as being an appropriate base year.<sup>38</sup>

#### 6.4.1.2 Efficiency of base opex

Given the lower actual opex, and AusNet Services' continued good performance in terms of opex benchmarking (discussed below) we remain satisfied its base year expenditure is efficient.

As outlined in Section 6.3, and in the *Expenditure forecast assessment guideline*, our standard approach for forecasting opex is to use a revealed cost approach.<sup>39</sup> 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 the efficiency of AusNet Services' base year expenditure, we considered a range of information including its actual opex over time and our benchmarking analysis. Our 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 actual opex.

Our 2021 *Annual Benchmarking Report*<sup>40</sup> showed that:

- AusNet Services ranked equal first amongst all regulated transmission service providers in terms of opex multilateral partial factor productivity (MPFP) in 2019–20 after achieving positive opex MPFP growth of 16.1% in this year.<sup>41</sup>
- AusNet Services' annual opex MPFP scores, while fluctuating over the 2006–20 period, have consistently placed it amongst the most efficient transmission service providers in the NEM and at or near the productivity frontier.
- AusNet Services' partial performance indicators are mixed depending on the indicator, 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, including in

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<sup>38</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 26.

<sup>39</sup> AER, *Expenditure forecast assessment guideline - transmission*, November 2013, p. 22.

<sup>40</sup> AER, *2021 Annual Benchmarking Report, Electricity transmission network service providers*, November 2021.

<sup>41</sup> AER, *2021 Annual Benchmarking Report, Electricity transmission network service provider*, November 2021, pp. 21–22. The opex MPFP index measures the relationship between total output and opex and allows total productivity levels as well as growth rates to be compared between businesses.

2019–20,<sup>42</sup> likely driven by its denser transmission network relative to other transmission operators. On the other hand, AusNet Services reported in 2019–20 the equal highest total cost per kilometre of transmission circuit length,<sup>43</sup> which is reasonable considering its circuit length is relatively low.

- Overall, AusNet Services is operating relatively efficiently when compared to other service providers in the NEM.

CCP23 submitted that AusNet Services has benchmarked well for opex productivity using the AER’s annual benchmarking reports.<sup>44</sup> However, it considered this is to be expected as it has higher population density than any other Australian transmission network. We note that the MPFP benchmarking analysis accounts for a transmission network’s circuit length, number of end users, ratcheted maximum demand and energy throughput and therefore allows for key network density measures in the comparisons.

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.

Reflecting the above, we have used actual opex in 2020–21 in forming our alternative estimate.

## 6.4.2 Final year increment

To estimate opex in the final year of the current regulatory control period, we add the difference between the opex forecast for the final year of the current regulatory control period and the opex forecast for the base year to the amount of actual opex in the base year.<sup>45</sup>

The EBSS requires an estimate of actual opex for the final year, which we do not typically know at the time of the final determination. By using an estimate of final year expenditure we allow AusNet Services to retain any incremental gains (or losses) made after the base year through the EBSS carryover. To the extent the estimate is incorrect, AusNet Services will still retain the incremental efficiency gains, but they will be retained through the opex forecast rather than EBSS carryovers.<sup>46</sup> We have used the same estimate of final year expenditure to calculate carryovers under the EBSS.

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<sup>42</sup> AER, *2021 Annual Benchmarking Report, Electricity transmission network service provider*, November 2021, pp. 23–24.

<sup>43</sup> AER, *2021 Annual Benchmarking Report, Electricity transmission network service provider*, November 2021, p. 25.

<sup>44</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 32.

<sup>45</sup> AER, *Expenditure forecast assessment guideline - transmission*, November 2013, p. 23.

<sup>46</sup> AER, *Expenditure forecast assessment guideline - transmission*, November 2013, pp. 22–23.

### 6.4.3 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.<sup>47</sup>

In its revised proposal, AusNet Services accepted our draft decision on price, output and productivity growth. It updated its price growth forecasts to reflect updated forecasts from BIS Oxford Economics.<sup>48</sup>

The rate of change proposed by AusNet Services contributes \$1.2 million (\$2021–22), or 0.1%, to AusNet Services' proposed total opex forecast of \$1387.4 million (\$2021–22). This equates to opex increasing on average by around 0.1% each year in the 2022–27 regulatory control period.<sup>49</sup>

We have included a rate of change in our alternative estimate that increases opex, on average, by 0.0%. We have set out in Table 6.3 AusNet Services' proposal and our alternative estimates for each component of the rate of change. We have also set out the reasons for our forecast below.

We received one submission, from CCP23, relating to the rate of change. It noted that we and AusNet Services largely agree on the approach to forecasting price, output and productivity growth. CCP23 stated that it 'accepts these trend estimates'.<sup>50</sup>

**Table 6.3 Forecast rate of change, %**

	2022–23	2023–24	2024–25	2025–26	2026–27
<b>AusNet Services' revised proposal</b>					
Price growth	0.4	0.3	0.4	0.6	0.5
Output growth	–	–	–	–	–
Productivity growth	0.3	0.3	0.3	0.3	0.3
<b>Overall rate of change</b>	<b>0.1</b>	<b>–0.0</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>
<b>AER final decision alternative estimate</b>					
Price growth	0.5	0.4	0.6	0.7	0.5
Output growth	–	–	–	–	–
Productivity growth	0.5	0.5	0.5	0.5	0.5
<b>Overall rate of change</b>	<b>0.0</b>	<b>–0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.0</b>

<sup>47</sup> AER, *Expenditure forecast assessment guideline - transmission*, November 2013, pp. 23–24.

<sup>48</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 90.

<sup>49</sup> AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021.

<sup>50</sup> CCP23, *Submission to AER on the draft decision and AusNet Services Transmission 2022–27 revised proposal*, October 2021, p. 32.

	2022–23	2023–24	2024–25	2025–26	2026–27
<b>Overall difference</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.0</b>	<b>-0.0</b>	<b>-0.2</b>

Source: AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021; AER analysis.

Note: Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

### 6.4.3.1 Forecast price growth

We have included forecast average annual real price growth of 0.5% in our alternative opex estimate. This compares to AusNet Services' proposed average annual price growth of 0.4%.<sup>51</sup> This increases our alternative estimate of total opex by \$6.0 million (\$2021–22), instead of \$4.7 million (\$2021–22) as proposed by AusNet Services.<sup>52</sup>

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

- Like AusNet Services, to forecast labour price growth, we used the forecast of growth in the wage price index 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 Economics forecasts submitted by AusNet Services.<sup>53</sup>
- Like AusNet Services, we applied a forecast non-labour real price growth rate of zero.
- Like AusNet Services, we applied benchmark input price weights of 70.4% for labour and 29.6% for non-labour.

Consequently, we have applied the same approach to forecast price growth as AusNet Services did. The differences between our price growth forecast and AusNet Services' is that we have used updated forecasts for WPI growth from Deloitte.<sup>54</sup> This is consistent with our draft decision in which we stated we would use updated forecasts from Deloitte in our final decision.<sup>55</sup> We have compared our labour price growth forecasts to AusNet Services' in Table 6.4 below.

<sup>51</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 90.

<sup>52</sup> AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021.

<sup>53</sup> BIS Oxford Economics, *Labour cost escalation forecasts to FY2027*, August 2021.

<sup>54</sup> Deloitte Access Economics, *Wage Price Index forecasts*, 15 December 2021.

<sup>55</sup> AER, *Draft decision, AusNet Services transmission 2022–27, Attachment 6, Operating expenditure*, 30 June 2021, p. 19.

**Table 6.4 Forecast labour price growth, %**

	2022–23	2023–24	2024–25	2025–26	2026–27
<b>AusNet Services' revised proposal</b>					
Deloitte Access Economics	0.3	-0.1	-0.2	0.2	0.3
BIS Oxford Economics	1.0	1.0	1.3	1.5	1.2
<b>Average</b>	<b>0.6</b>	<b>0.4</b>	<b>0.5</b>	<b>0.8</b>	<b>0.7</b>
<b>AER final decision alternative estimate</b>					
Deloitte Access Economics	0.5	0.2	0.3	0.6	0.3
BIS Oxford Economics	1.0	1.0	1.3	1.5	1.2
<b>Average</b>	<b>0.7</b>	<b>0.6</b>	<b>0.8</b>	<b>1.0</b>	<b>0.7</b>
<b>Difference</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>	<b>-0.0</b>

Source: AusNet Services, *Revised revenue proposal 2023–27, Operating expenditure model*, 1 September 2021; AER analysis.

Note: Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

### 6.4.3.2 Forecast output growth

Consistent with AusNet Services' initial and revised proposals, and our draft decision, we have not included output growth in our forecast rate of change.<sup>56</sup> 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 6.4.5.2.

### 6.4.3.3 Productivity growth

We have forecast productivity growth of 0.5% per year in developing our alternative opex forecast. AusNet Services included forecast productivity growth of 0.3% per year in its opex forecast.<sup>57</sup> We also included forecast productivity growth of 0.3% per year in our alternative estimate in our draft decision.<sup>58</sup>

<sup>56</sup> AusNet Services, *Revenue proposal 2023–27*, 29 October 2020, p. 143; AER, *Draft decision, AusNet Services transmission 2022–27, Attachment 6, Operating expenditure*, 30 June 2021, p. 19; AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 90.

<sup>57</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 90.

<sup>58</sup> AER, *Draft decision, AusNet Services transmission 2022–27, Attachment 6, Operating expenditure*, 30 June 2021, p. 19.



Our forecast of productivity growth reduces our alternative estimate of total opex by \$5.8 million (\$2021–22), compared to \$3.6 million (\$2021–22) for AusNet Services' revised proposal.

CCP23 stated that 'the lack of a challenging productivity improvement target' was a matter for AusNet Services to take up internally and with its customers and that this was a factor in its suggestion in relation to a specific step change that 'the very modest opex associated with PMU's be absorbed into the opex budget'.<sup>59</sup> We discuss our consideration of the relationship between forecast productivity growth and step changes in Section 6.4.4.1 below.

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 productivity growth of 0.5% based on the industry average growth of opex partial factor productivity index over the 2006–20 period.<sup>60</sup> This comes from our *2021 Annual benchmarking report*, which we have published since AusNet Services submitted its revised proposal. This is different to our draft decision in which we forecast 0.3% productivity growth based on opex partial factor productivity index analysis over the 2006–19 period.<sup>61</sup>

We consider this forecast, which is based on the latest available information, reflects a reasonable expectation of the productivity growth that an efficient and prudent transmission network can achieve for the forecast period.

#### 6.4.4 Step changes

In its revised proposal, AusNet Services:

- accepted our draft decision on the IT cloud and five minute settlement step changes
- re-proposed three of the same step changes as in its initial proposal, for which we requested additional information be provided
- proposed five new step changes.<sup>62</sup>

For one of these new step changes, relating to AEMO core NEM participant fees, AusNet Services subsequently agreed with us through the information request process

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<sup>59</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 32.

<sup>60</sup> Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator's 2021 TNSP Annual Benchmarking Report*, 12 November 2021, p. 60.

<sup>61</sup> Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator's 2020 TNSP Annual Benchmarking Report*, 15 October 2020, p. 62.

<sup>62</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 90–103.

that in the absence of a rule change allowing AusNet Services to recover actual costs, a category specific forecast is an appropriate approach for these fees.<sup>63</sup> As a result, this is not included in the discussion below, but rather in Section 6.4.5 examining category specific forecasts.

#### 6.4.4.1 Assessment of a number of small new step changes

AusNet Services' revised proposal included a number of new relatively small step changes, which are driven by new regulatory obligations.

Our *Expenditure forecast assessment guideline* states that step changes should not double count the cost of an increasing regulatory burden over time, which forecast productivity growth may already account for.<sup>64</sup> The productivity growth that transmission networks have achieved, and which we use to forecast productivity growth (as set out in section 6.4.3), is what has been achieved historically while the networks have complied with new regulatory obligations. We therefore think step changes are not required for the historic 'average' change in costs associated with new regulatory obligations. We also stated in the *Expenditure forecast assessment guideline* that only exceptional events are likely to require explicit compensation as step changes.<sup>65</sup>

Further, we note that a business only has incentives to propose a step change for those components of opex it expects will increase. It does not have incentives to identify step changes for components of opex it expects will decrease. Since the draft decision, we have seen this in AusNet Services' revised proposal where it has identified a number of new step changes which increase costs. These asymmetric incentives potentially introduce an upward bias into the total opex forecast proposed by businesses.

Table 6.5 summarises the step changes AusNet Services included in its initial and revised proposals. For the reasons noted above, we have not included the following new and relatively small step changes proposed by AusNet Services in our alternative estimate of total opex:

- Land tax changed obligations (\$3.3 million, \$2021–22)
- New mental health and well-being levy (\$3.6 million, \$2021–22)
- PMU obligations from AEMO (\$1.5 million, \$2021–22).

Despite our decision not to include these step changes in our alternative estimate, we have accepted AusNet Services total opex forecast because it is very similar to our alternative total opex forecast and we find AusNet Services' total opex forecast reasonably reflects the opex criteria (see Section 6.1). In this regard, our overall task,

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<sup>63</sup> AusNet Services, *Information request #17, Question 2 – AEMO participant fee*, October 2021.

<sup>64</sup> AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, p. 24.

<sup>65</sup> AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, p. 24.

consistent with the NER, is to assess forecast total opex and not individual components of opex.

**Table 6.5 AusNet Services' step change proposals and our alternative estimates (\$ million, 2021–22)**

Step change	AusNet Services initial proposal	AER draft decision	AusNet Services revised proposal	AER alternative estimate for the final decision*
IT cloud	2.3	2.3	2.3	2.3
5 minute settlement	3.9	0.9	0.9	0.9
Council rates	71.5	–	43.3	43.3
Cyber Security	27.9	–	28.2	29.7
EPA	3.2	–	2.0	2.1
Insurance premiums	–	–	7.6	7.1
Land tax	–	–	3.3	–
Mental health and well-being levy	–	–	3.6	–
AEMO participant fees#	–	–	6.5	–
PMU	–	–	1.5	–
<b>Total step changes</b>	<b>108.7</b>	<b>3.1</b>	<b>99.3</b>	<b>85.3</b>

Source: AusNet Services, *Revised proposal operating expenditure model 2023–27, 1 September 2021; AER analysis*

Note: Numbers may not add up to total due to rounding. The difference is between AusNet Services' updated proposal and our final decision. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

\* Note that as the final decision is to accept AusNet Services revised proposal total opex, then this alternative estimate has not been substituted for AusNet Services revised proposal.

# This step change was part of AusNet Services revised proposal, but in response to an information request it agreed that it could be treated a category specific forecast instead.<sup>66</sup>

In the following sections we have set out the reasons for whether we have included each step change in our alternative estimate and where we have the basis for the cost included in the alternative estimate. Although we have arrived at an alternative estimate for comparison purposes, our final decision is to accept AusNet Services' revised proposal total opex.

<sup>66</sup> AusNet Services, *Information request #17 Question 2 – AEMO participant fee, October 2021.*

#### 6.4.4.2 IT Cloud

In making this final decision, and consistent with our draft decision, we have included \$2.3 million (\$2021– 22) in our alternative estimate for IT cloud opex.<sup>67</sup>

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.<sup>68</sup>

CCP23 considered this step change to be relatively straightforward and supported it.<sup>69</sup>

As in our draft decision, we consider that the proposed step change meets the requirements for a capex/opex trade off and is the lowest cost option in order for AusNet Services to achieve its cloud migration.

**Table 6.6 IT Cloud (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services revised proposal	0.5	0.5	0.5	0.5	0.5	<b>2.3</b>
AER alternative estimate for the final decision	0.5	0.5	0.5	0.5	0.5	<b>2.3</b>
Difference	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 91; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

#### 6.4.4.3 5 Minute settlement

In making this final decision, and consistent with our draft decision, we have included \$0.9 million (\$2021– 22) in our alternative estimate for the implementation of new five minute settlement obligations.<sup>70</sup>

AusNet Services proposed a step change of \$0.9 million (\$2021–22) to comply with the new five minute settlement rule by the Australian Energy Market Commission (AEMC) that came into effect on 1 October 2021.<sup>71</sup>

As in our draft decision, we consider AusNet Services' response to the new regulatory obligation to be prudent and efficient.

<sup>67</sup> AER, *Draft Decision – AusNet Services transmission determination 2022–27, Attachment 6 operating expenditure*, June 2021, pp. 27–28.

<sup>68</sup> AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020, p. 152

<sup>69</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 28.

<sup>70</sup> AER, *Draft Decision – AusNet Services transmission determination 2022–27, Attachment 6 operating expenditure*, June 2021, pp. 23–24.

<sup>71</sup> AusNet Services, *Information request 02*, November 2020.

**Table 6.7 5 Minute settlement (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services revised proposal	0.2	0.2	0.2	0.2	0.2	<b>0.9</b>
AER alternative estimate for the final decision	0.2	0.2	0.2	0.2	0.2	<b>0.9</b>
Difference	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 91; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

#### 6.4.4.4 Council rates

In making this final decision we have included a step change of \$43.3 million (\$2021–22) for increased council rates in our alternative estimate, consistent with AusNet Services' revised proposal.

**Table 6.8 Council rates (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services revised proposal	8.7	8.7	8.7	8.7	8.7	<b>43.3</b>
AER alternative estimate for the final decision	8.7	8.7	8.7	8.7	8.7	<b>43.3</b>
Difference	–	–	–	–	–	<b>–</b>

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 96; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

AusNet Services re-proposed a step change for higher council rates due to an anticipated overall increase in the valuation of its terminal station sites by the Valuer-General Victoria (Valuer General). It submitted that under this increase, council rates will be based on an updated valuation approach taking into account land value and capital improvements (i.e. the Capital Improved Value) rather than just land value. AusNet Services estimated this step change to be \$71.5 million (\$2021–22) in its initial proposal, based on limited information. AusNet Services updated it to \$43.3 million (\$2021–22) in its revised proposal based on more up-to-date information and discussions with the Valuer General.<sup>72</sup>

As a result of a 2017 amendment to the *Valuation of Land Act 1960*, the Valuer General is now the sole valuation authority to conduct annual valuations of all rateable

<sup>72</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 95–96.

land in Victoria for council rating and taxing purposes. Following this amendment, the Valuer General continues to work with AusNet Services and other industry participants to improve the level of rigour and consistency of valuation application across the substation asset class throughout Victoria in accordance with the *Valuation of Land Act 1960*.

AusNet Services estimated the Capital Improved Value for its regulated sites to include the written down book value of the land at each site (derived from its fixed asset register) and then added on any capital improvements identified for that site. This approach leads to an estimated Capital Improved Value of \$1.9 billion as at May 2021.<sup>73</sup> AusNet Services also took into account the council rate factor for each relevant council by calculating and applying the historical 5-year average rating factor (and fire services property levy) to the Capital Improved Value estimated above and re-estimated the future council rate liability for the next regulatory control period to be \$43.3 million (\$2021–22).

The details of the AusNet Services' calculated Capital Improved Value and its discussions with the Valuer General are confidential as they relate to sensitive information on AusNet Services' assets and non-public official communication between the Valuer General and AusNet Services. To the extent that we have relied on this confidential information to arrive at our final decision, the details of this information are contained in a Confidential Appendix A.

Overall, we consider the higher council rate forecast for the next regulatory control period is prudent and efficient. While the higher costs are strictly not a result of a legislative change, they are nonetheless a requirement imposed by statutory bodies (Valuer General and relevant local councils) that AusNet Services will need to comply with and pay. We consider the impact is significant and that while there is some uncertainty faced by AusNet Services in estimating its council rates this is not materially different from that faced in forecasting other future costs (i.e. not above the norms of a typical business environment). We consider the way AusNet Services has estimated its future council rates to take account of capital / infrastructure improvements is reasonable based on the best information available.

CCP23 considered there was little doubt that this is an externally imposed increase in costs that AusNet Services would need to pay. However, CCP23 was not fully satisfied that the actual council rates costs are known at this time and considered if such cost is still unknown at the time of the AER's final decision, it may be better treated as a 'pass through' event.<sup>74</sup>

In considering the uncertainty faced by AusNet Services, we explored the potential of using a nominated cost pass through event. However, we consider that the overall opex forecast proposed by AusNet Services, which includes this step change, is

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<sup>73</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 96

<sup>74</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 30.

prudent and efficient. We also consider that the step change proposed by AusNet Services is a suitable mechanism for managing the associated uncertainty and will encourage AusNet Services to manage council rates efficiently in future to the extent possible. Conversely, the incentive on AusNet Services to proactively manage this uncertainty and constantly seek to minimise cost related to this exposure would likely be significantly reduced if we were to accept this as a pass through event.

For comparative purposes, our alternative estimate includes a \$43.3 million (\$2021–22) step change for council rates.

#### 6.4.4.5 Cyber security

In making this final decision we included a step change of \$29.7 million (\$2021–22) for new cyber security obligations in our alternative estimate. This is slightly higher than AusNet Services' revised proposal.

**Table 6.9 Cyber security (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' revised proposal	7.6	6.5	5.1	4.8	4.2	<b>28.2</b>
AER alternative estimate for the final decision	8.9	6.5	5.1	4.8	4.3	<b>29.7</b>
Difference	1.3	0.1	0.0	0.0	0.0	<b>1.5</b>

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 96; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

AusNet Services re-proposed a \$28.2 million (\$2021–22) step change to enhance its cyber security program to comply with new regulatory obligations under the Australian Energy Sector Cyber Security Framework.<sup>75</sup> This is expected to commence in 2024 (in the next regulatory control period) aligning with requirements for transmission businesses to meet the Maturity Indicator Level 3 (MIL3) standard.<sup>76</sup> This is also consistent with the cyber security requirements in the *Security Legislation Amendment (Critical Infrastructure) Bill 2020*. In proposing this step change, AusNet Services noted the likely cost impacts from new security measures across governance, physical security, supply chain and personnel that might arise at a future date stemming from the *Security Legislation Amendment (Critical Infrastructure) Bill 2020*. This broader cost impact beyond the cyber security requirements is not included in the cyber security step change proposed by AusNet Services.

In our draft decision, we considered it was prudent for AusNet Services to achieve MIL3, but required it to provide sufficient evidence that the proposed costs are prudent

<sup>75</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 93–94.

<sup>76</sup> AusNet Services, *Transmission revenue proposal 2023–27*, 29 October 2020, pp. 147–148.

and efficient. AusNet Services provided further details in its revised proposal of the specific issues and works required to close the gaps from its current maturity level to MIL3. Based on the additional information and analysis presented in its revised proposal, AusNet Services considered that a cost of \$33.7 million (\$2021–22) was justified as prudent and efficient.<sup>77</sup> However, it chose not to revise its estimate upwards and retained its initial \$28.2 million (\$2021–22) proposal for the step change.

We assessed the additional information provided in the revised proposal to justify its cost of \$33.7 million (\$2021–22). We consider AusNet Services appeared to have chosen a more rigorous and hence the more resource intensive approach than may be efficient. Our technical analysis identified a number of cases (e.g. in software licenses and services costs) where the gap to MIL3 could be closed with less resources. As a result, we consider savings of around \$4 million can be identified in relation to the cost identified by AusNet Services in its revised proposal to meet the new cyber security requirements (i.e. \$33.7 million (\$2021–22)). This results in an alternative estimate of this step change of \$29.7 million (\$2021–22), which is higher than AusNet Services proposed in maintaining its initial proposal (\$28.2 million (\$2021–22)).

Further, as noted above, the impending amendments to the *Security of Critical Infrastructure Act 2018* are expected to have direct impacts on the energy businesses including AusNet Services. This amended legislation covers all hazards of which cyber is a core element, but also includes other areas of risk which must be addressed such as physical assets, personnel, and supply chains. AusNet Services noted in its revised proposal that it had not considered all possible changes or requirements associated with this legislation and these may need to be addressed via a cost pass through (as a regulatory change event). In the event that there is a cost pass through application, we would expect AusNet Services to consider the synergies between these different areas of risk and take these and any opportunities for efficiencies into account (that we have not been able to do in this assessment).

CCP23 considered that responding to cyber threat is a genuine exogenously applied cost for energy network businesses and it was satisfied that the expenditure proposed by AusNet Services was within a ‘reasonable range’ of expenditure.<sup>78</sup>

For comparative purposes, our alternative estimate includes a step change of \$29.7 million (\$2021–22) for cyber security.

#### **6.4.4.6 Environment Protection Act 2017**

In making this final decision we have included a step change of \$2.1 million (\$2021–22) in our alternative estimate for meeting the new requirements under the Environment Protection Act 2017 (EPA).

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<sup>77</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, p. 94.

<sup>78</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 29.



**Table 6.10 EPA new requirements (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services revised proposal	0.8	0.3	0.3	0.3	0.3	<b>2.0</b>
AER alternative estimate for the final decision	0.8	0.3	0.3	0.3	0.3	<b>2.1</b>
Difference	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 97; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

In our draft decision, we considered it prudent for AusNet Services to comply with the new EPA requirements and that a step change may be required, but we were not satisfied that AusNet Services had demonstrated that the costs it proposed were efficient. AusNet Services re-proposed this step change and reduced its estimate to \$2.0 million (\$2021–22) (from \$3.2 million (\$2021–22)) in its revised proposal to meet the new EPA requirements.<sup>79</sup>

We assessed the additional information provided by AusNet Services in its revised proposal which contained considerably more information than its initial proposal. In particular, it provided more transparency regarding the basis of the costs proposed and the resourcing and activities that AusNet Services considered it has to perform under the new EPA requirements. Overall, we are satisfied that the proposed step change is prudent and efficient.

CCP23 considered that AusNet Services' proposed lower cost estimate of \$2.0 million (\$2021–22) in the revised proposal is a legitimate step change.<sup>80</sup>

For comparative purposes, our alternative estimate includes a step change of \$2.1 million (\$2021–22) for new EPA requirements. The small difference is due to our different inflation estimate for the year to March 2022.

#### **6.4.4.7 Insurance premiums**

In making this final decision we have included a step change of \$7.1 million (\$2021–22) for increases in insurance premiums in our alternative estimate. For the reasons set out below this is slightly lower than AusNet Services revised proposal, but is the same amount suggested in the updated information it provided after its revised proposal.

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<sup>79</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 96–97.

<sup>80</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 30.

**Table 6.11 Insurance premiums (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services revised proposal	0.7	1.1	1.5	1.9	2.4	<b>7.6</b>
AER alternative estimate for the final decision	0.4	1.1	1.4	1.8	2.3	<b>7.1</b>
Difference	–0.3	–0.0	–0.1	–0.1	–0.1	<b>–0.6</b>

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 100; AusNet Services, *Information request #17, October 2021*; AER analysis.

Note: Numbers may not add due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

AusNet Services proposed a new \$7.6 million (\$2021–22) step change in its revised proposal relating to the increased premiums for its bushfire liability insurance.<sup>81</sup> The basis for this step change in insurance premiums reflected similar circumstances in the insurance liability market faced by the Victorian electricity distributors in our recent decisions. We have verified that a similar approach was used by AusNet Services as in these resets. This includes that a correct incremental amount was estimated relative to the insurance costs in the base year and that previously assumed premium growth rates in the AusNet Services distribution reset were used.

Following its latest annual renewal, AusNet Services updated us about its premium paid in 2021–22.<sup>82</sup> As a result, it noted this updated information would lead to a lower step change for the insurance premiums of \$7.1 million (\$2021–22) compared to the \$7.6 million in its revised proposal. We consider that the approach taken by AusNet Services is reasonable.

CCP23 considered that AusNet Services accurately summarised its collaborative workshop discussion on the issue of insurance premiums. In particular, that stakeholders did not express concern about funding the increases in light of the market-driven nature of the insurance premium increases, and the AER's recent decision to approve a similar bushfire insurance step change for the Victorian electricity distributors.<sup>83</sup>

For comparative purposes, our alternative estimate includes a step change of \$7.1 million (\$2021–22) million for insurance premium increases.

<sup>81</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 98–100.

<sup>82</sup> AusNet Services, *Information request #17 – Follow up on insurance step change calculation*, 21 October 2021.

<sup>83</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 31.

#### 6.4.4.8 Land tax

AusNet Services proposed a new land tax step change of \$3.3 million (\$2021–22) in light of 2021–22 Victorian Budget announcements relating to increases in the land tax rate.<sup>84</sup>

CCP23 noted that the land tax step change is a clear example of a step change as it is exogenously determined, ongoing and material.<sup>85</sup>

We acknowledge this step change is driven by new regulatory obligations and had support from customers. However, for the reasons outlined in Section 6.4.4.1 we have not included it in our alternative estimate. Overall, this decision to not include it in our alternative estimate did not alter our final decision to accept AusNet Services revised total opex estimate.

**Table 6.12 Land tax (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services revised proposal)	0.6	0.7	0.7	0.7	0.7	<b>3.3</b>
AER alternative estimate for the final decision	–	–	–	–	–	–
Difference	–0.6	–0.7	–0.7	–0.7	–0.7	<b>–3.3</b>

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 101; AER analysis.

Note: Numbers may not add due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

#### 6.4.4.9 Mental health and well-being levy

AusNet Services proposed a new mental health and well-being step change of \$3.6 million (\$2021–22) in light of 2021–22 Victorian Budget announcement relating to the introduction of a mental health and wellbeing levy.<sup>86</sup>

CCP23 noted that this is a clear example of a step change.<sup>87</sup>

We acknowledge this step change is driven by new regulatory obligations and had support from customers. However, for the reasons outlined in Section 6.4.4.1 we have not included it in our alternative estimate. Overall, this decision to not include it in our alternative estimate did not alter our final decision to accept AusNet Services revised total opex estimate.

<sup>84</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 100–101.

<sup>85</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 31.

<sup>86</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 101–102.

<sup>87</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 31.

**Table 6.13 Mental health and well-being (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services revised proposal	0.7	0.7	0.7	0.7	0.7	<b>3.6</b>
AER alternative estimate for the final decision	–	–	–	–	–	–
Difference	–0.7	–0.7	–0.7	–0.7	–0.7	<b>–3.6</b>

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 102; AER analysis.

Note: Numbers may not add due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

#### 6.4.4.10 AEMO participant fee

As noted above, this proposed step change is discussed in the Section 6.4.5.

#### 6.4.4.11 Phasor Monitoring Unit (PMU)

AusNet Services proposed a new \$1.5 million (\$2021–22) step change related to a capex project to install new PMUs at various locations on the transmission network. This is to allow it to meet the requirements placed on it by an AEMO notice, in which AEMO is seeking to discharge its market and power system security functions.<sup>88</sup>

CCP23 accepted that AusNet Services would need to implement the AEMO directive to install PMUs. However, it regarded this as primarily a capex program, opex of \$0.3 million (\$2021–22) per year was considered not 'material' and it was questioned whether a step change was warranted. CCP23 considered that AusNet Services should be encouraged to absorb this cost.<sup>89</sup>

We acknowledge this step change is driven by new regulatory obligations and had support from some customers. However, for the reasons outlined in Section 6.4.4.1 we have not included it in our alternative estimate. Overall, this decision to not include it in our alternative estimate did not alter our final decision to accept AusNet Services revised total opex estimate.

**Table 6.14 PMU (\$ million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services revised proposal	0.3	0.3	0.3	0.3	0.3	1.5
AER alternative estimate for the final decision	–	–	–	–	–	–

<sup>88</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 102–103.

<sup>89</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 31.

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Difference	-0.3	-0.3	-0.3	-0.3	-0.3	-1.5

Source: AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 103; AER analysis.

Note: Numbers may not add due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

## 6.4.5 Category specific forecasts

While our preferred forecasting approach is to apply the base–step–trend approach described in Section 6.3, there are a few categories of opex we do not include in our base–step–trend forecast. We have included these as category specific forecasts instead for reasons outlined below.

Our alternative estimate for the final decision includes category specific forecasts for easement land tax, debt raising costs, the opex associated with the roll in of group 3 assets and costs associated with the AEMO participant fees. We show these in Table 6.15, alongside AusNet Services' revised proposal.

**Table 6.15 Category specific forecasts, (\$ million, 2021–22)**

Category specific forecast	AusNet Services initial proposal	AER draft decision	AusNet Services revised proposal	AER alternative estimate for the final decision
Easement land tax	815.9	868.1	868.1	868.1
Group 3 assets roll in	26.1	26.1	25.8	25.8
AEMO participant fees*	–	–	–	6.5
Debt raising costs	8.7	8.5	8.5	8.5
<b>Total</b>	<b>850.7</b>	<b>902.7</b>	<b>902.4</b>	<b>908.8</b>

Source: AusNet Services, *Revised proposal operating expenditure model 2023–27*, 1 September 2021; AER analysis.

Note: Numbers may not add up to total due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

\* AusNet Services included this as a step change in its revised proposal. In response to an information request it agreed that it could be treated a category specific forecast instead.<sup>90</sup>

### 6.4.5.1 Easement land tax

AusNet Services' network is built on a series of easements, which are subject to the Victorian Government's easement land tax. We include a forecast of AusNet Services'

<sup>90</sup> AusNet Services, *Information request #17 Question 2 – AEMO participant fee*, October 2021.

easement land tax as part of forecast total opex. Where the forecast differs (higher or lower) from the actual tax paid, the difference is accounted for as a pass through.<sup>91</sup> This ensures AusNet Services only recovers the actual easement land tax it pays.

Consistent with our draft decision, AusNet Services included forecast easement land tax of \$868.1 million (\$2021–22) in its revised proposal, based on its (2020–21) tax assessment notice.<sup>92</sup> We maintain the view that this represents a reasonable expectation of AusNet Services' easement land tax liability because 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.

#### 6.4.5.2 Group 3 asset roll in

We have included growth asset roll in opex of \$25.8 million (\$2021–22) as a category specific forecast in our alternative estimate. This is consistent with AusNet Services' revised proposal.<sup>93</sup> It is a slight reduction from the \$26.1 million (\$2021–22) we included in our draft decision.<sup>94</sup> AusNet Services updated its forecast to reflect adjustments it made to the value of growth assets to be rolled into the regulatory asset base (RAB).<sup>95</sup>

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

The opex associated with these growth assets before they are rolled into the RAB is charged to customers outside the revenue cap and is not reflected in reported standard control services 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.<sup>96</sup> 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.<sup>97</sup>

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<sup>91</sup> NER, cl. 6A.7.3.

<sup>92</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 105; AER, *Draft decision, AusNet Services transmission 2022–27, Attachment 6, Operating expenditure*, 30 June 2021, pp. 31–32.

<sup>93</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 105.

<sup>94</sup> AER, *Draft decision, AusNet Services transmission 2022–27, Attachment 6, Operating expenditure*, 30 June 2021, p. 30.

<sup>95</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 105.

<sup>96</sup> In accordance with NER, cl. 11.6.21(c).

<sup>97</sup> AusNet Services, *Revenue proposal 2023–27*, 29 October 2020, p. 145.

### 6.4.5.3 AEMO participant fee

AusNet Services proposed additional costs of \$6.5 million (\$2021–22) following AEMO's decision to reallocate a portion of its core NEM fees from market customers to transmission networks (including AusNet Services).<sup>98</sup> This reflects AEMO's increasing involvement in network related activities, such as power system security, with the fees commencing from 2023–24. This transfers the payment from market customers (who have historically charged the cost to end use customers) to transmission networks, without increasing the end cost of electricity to customers.<sup>99</sup>

In its revised proposal AusNet Services also noted that Energy Networks Australia, on behalf of the transmission networks, had submitted a rule change request to the AEMC.<sup>100</sup> If the rule change is made, AusNet Services' annual revenue requirement would be adjusted by the actual amount of the core NEM fees allocated to AusNet Services each year. If the rule change is not made, then AusNet Services would need to recover these costs from the annual revenue we determine in this revenue determination process. Further, if the rule change is made after this final decision, AusNet Services' undertook that it would adjust its revenue recovery either positively or negatively to ensure that only actual costs are recovered from customers.

AusNet Services proposed these additional costs as a step change. As noted in Section 6.4.4.1, AusNet Services subsequently agreed with us through the information request process that in the absence of a rule change, as outlined above, a category specific forecast is an appropriate approach for AEMO's core NEM participant fees.<sup>101</sup> It considered this was the case because AEMO's final electricity fee structure is only applicable from 1 July 2023 to 30 June 2026 and then subject to a separate future review. Further, that this would mean these fees are excluded from base opex for the next regulatory control period and provide an opportunity to reforecast these fees for the next regulatory control period using the best available data if required.

CCP23 considered this as a legitimate step change.<sup>102</sup>

We acknowledge this increase in costs is driven by new regulatory obligations and has support from AusNet Services' customers. We have included these costs as a category specific forecast of \$6.5 million (\$2021–22) in our alternative estimate. We have examined AusNet Services' approach to forecasting these costs and consider it to be reasonable.

We also consider including these costs as a category specific forecast is appropriate because if the rule changes occurs they will not be forecast on a single year revealed cost basis for the regulatory control period commencing in 2027–28. Additionally, the

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<sup>98</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 97–98.

<sup>99</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 97–98.

<sup>100</sup> The rule change request was submitted on 24 June 2021 and is still being considered.

<sup>101</sup> AusNet Services, *Information request #17 Question 2 – AEMO participant fee*, October 2021.

<sup>102</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 30.

amount already included in the annual revenue requirement can be clearly identified in order to ensure that only actual costs are recovered from customers. This reflects that AusNet Services has committed to ensure that it recovers only the actual amount of the core NEM participant fees and proposed to do this by reducing the annual revenue requirement approved in the final decision.

In addition, if the rule change occurs we will exclude these costs from the operation of the EBSS, which we discuss further in Attachment 8 in Section 8.4.2.1. Forecasting these costs as a category specific forecast will allow us to exclude these costs from the EBSS.

#### 6.4.5.4 Debt raising costs

We have included debt raising costs of \$8.5 million (\$2021–22) in our alternative estimate. Our estimate is marginally higher than the \$8.5 million forecast (\$2021–22) AusNet Services included in its revised proposal.<sup>103</sup> AusNet Services stated that it accepted our draft decision on debt raising costs.<sup>104</sup>

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.

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

#### 6.4.6 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.<sup>105</sup> Table 6.16 summarises how we have taken the opex factors into account in making our draft decision.

**Table 6.16 AER consideration of opex factors**

Opex factor	Consideration
<p>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.</p>	<p>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.</p>

<sup>103</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 105.

<sup>104</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 105.

<sup>105</sup> NER, cl. 6A.6.6(e).



Opex factor	Consideration
	<p>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.</p>
<p>The actual and expected operating expenditure of the transmission network service provider during any proceeding regulatory control periods.</p>	<p>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.</p>
<p>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.</p>	<p>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.<sup>106</sup></p> <p>We consider the Deep Dive workshops AusNet Services conducted with its consumers post lodgement of its initial proposal covered a number of areas related to opex including the choice of base year and some of the proposed step changes.<sup>107</sup></p> <p>CCP23 considered AusNet Services listened actively and responsively to consumers on the topics on which were engaged.<sup>108</sup> Subsequent to our draft decision, CCP23 considered the process by AusNet Services was excellent with high quality, open and respectful engagement, focused on collaborative workshops. It also made the observation that customer perspectives and advice were well incorporated into the revised proposal.<sup>109</sup> In relation to the opex forecast, CCP23 noted that the revised proposal forecast is \$14M lower than the version AusNet Services consulted with its customers on and so there is good evidence that AusNet Services had sought to reduce controllable opex. It considered this reflected AusNet Services listened to customers, and had an intent to reduce opex, notwithstanding the observation that a</p>

<sup>106</sup> AEMC, *Rule Determination*, 29 November 2012, pp. 101, 115.

<sup>107</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, pp. 11–13.

<sup>108</sup> CCP23, *Advice to AER on AusNet Services Transmission regulatory proposal*, 12 February 2021, p. 1.

<sup>109</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 8.

Opex factor	Consideration
	significant proportion of the proposed step changes are exogenous to AusNet Services control. <sup>110</sup>
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.
The substitution possibilities between operating and capital expenditure.	<p>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.</p> <p>In developing our benchmarking models we have had regard to the relationship between capital, opex and outputs.</p>
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.	<p>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.</p> <p>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.</p>
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. <sup>111</sup>
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.

<sup>110</sup> CCP23, *Advice to the AER on the AusNet Services Transmission Revised Regulatory Proposal and AER Draft Determination for the Regulatory Determination 2022–27*, 5 October 2021, p. 27.

<sup>111</sup> AusNet Services, *Revised regulatory proposal 2023–27*, 1 September 2021, p. 34.

Opex factor	Consideration
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.
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.

## Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	capital expenditure
CCP 23	Consumer Challenge Panel, sub-panel 23
CESS	capital expenditure sharing scheme
CPI	consumer price index
EBSS	efficiency benefit sharing scheme
EPA	Environment Protection Act 2017
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
NSP	network service provider
opex	operating expenditure
PMU	Phasor Monitoring Unit
RAB	regulatory asset base
RIN	regulatory information notice

# Final Decision

**AusNet Services Transmission  
Determination 2022 to 2027  
Attachment 7  
Corporate income tax**

January 2022

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## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final 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 12 – Pricing methodology

Attachment 13 – Pass through events

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## 7 Corporate income tax

Our revenue determination includes the estimated cost of corporate income tax for AusNet Services' 2022–27 regulatory control period.<sup>1</sup> Under the post-tax framework, the cost of corporate income tax is calculated as part of the building block assessment using our post-tax revenue model (PTRM).

This attachment sets out our final decision on AusNet Services' revised proposed corporate income tax for the 2022–27 regulatory control period. It presents our assessment of the inputs required in the PTRM for the calculation of the cost of corporate income tax.

### 7.1 Final decision

Our final decision on AusNet Services' estimated cost of corporate income tax is \$0.8 million over the 2022–27 regulatory control period.<sup>2</sup> This represents a reduction of \$5.6 million (or 87.6%) from AusNet Services' revised proposed cost of corporate income tax of \$6.4 million (\$nominal). The key reasons for this reduction are:

- Our final decision to reduce the regulatory depreciation amount (attachment 4).<sup>3</sup>
- Our final decision to reduce the rate of return on equity (attachment 3).<sup>4</sup>

The reduction due to the above two changes is partially offset by:

- Our final decision to increase the revised proposed opening tax asset base (TAB) value as at 1 April 2022 by \$1.0 million to \$2817.2 million.<sup>5</sup>
- Our final decision to reduce the forecast immediate expensing of capital expenditure (capex).<sup>6</sup>

We accept AusNet Services' revised proposal on the standard tax asset lives for all of its asset classes because they are consistent with our draft decision. We have updated AusNet Services remaining tax asset lives as at 1 January 2022 to reflect our amendments to the opening TAB value.

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<sup>1</sup> NER, cl. 6A.5.4(a)(4).

<sup>2</sup> Our final decision determined an estimated cost of corporate income tax of \$0.8 million for the first year of 2022–27 regulatory control period and \$0 for the remaining four years. This is because we expect AusNet Services to incur forecast tax loss in the last four years of the 2022–27 regulatory control period. The forecast tax loss arises because AusNet Services' forecast tax expenses will exceed its revenue for tax assessment purposes in those years. We have determined that \$4.6 million in tax losses as at 31 March 2027 will be carried forward to the 2027–32 regulatory control period where it can be used to offset future tax liabilities.

<sup>3</sup> See section 4.1 of attachment 4 of this final decision for details.

<sup>4</sup> All else being equal, a lower rate of return on equity will reduce the cost of corporate income tax because it reduces the return on equity, a component of the taxable income.

<sup>5</sup> All else being equal, a higher opening TAB value will increase the tax depreciation, a component of the tax expense, and reduce the cost of corporate income tax.

<sup>6</sup> All else being equal, a lower forecast immediate expensing of capex will increase the cost of corporate income tax because it reduces tax depreciation, a component of the tax expense.

We have also set the tax treatment of the demand management innovation allowance (DMIA) mechanism to be both taxable income and tax expense. This change reduced the forecast cost of corporate income tax by \$0.6 million (\$ nominal). In its response to our information request, AusNet Services agreed to this change.<sup>7</sup>

Table 7-1 sets out our final decision on the estimated cost of corporate income tax for AusNet Services over the 2022–27 regulatory control period.

**Table 7-1 AER's final decision on AusNet Services' cost of corporate income tax for the 2022–27 regulatory control period (\$ million, nominal)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Tax payable	1.9	0.0	0.0	0.0	0.0	1.9
Less: value of imputation credits	1.1	0.0	0.0	0.0	0.0	1.1
<b>Net cost of corporate income tax</b>	<b>0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.8</b>

Source: AER analysis.

In the draft decision, we made the following changes to AusNet Services' modelling of its cost of corporate income tax:<sup>8</sup>

- We revised the opening TAB as at 1 April 2022 to reflect our amendments to some inputs in the roll forward model (RFM), which included reducing the residual tax value of 2019–20 capitalised leases to account for asset disposals for that year, and increasing the final year adjustment for the value of 'growth assets' rolled into the opening TAB based on the additional information provided by AusNet Services.<sup>9</sup>
- While we accepted AusNet Services' proposed approach to calculating its remaining tax asset lives as at 1 April 2022, we updated these lives to reflect our adjustments to the opening TAB value.
- We removed the 'Instrument transformers' asset class from the PTRM so no remaining/standard tax asset lives were needed.
- We assigned a remaining tax asset life of 13.4 years for the accelerated depreciation of existing assets in the 'Polymeric insulators' asset class.

<sup>7</sup> The estimated impact on forecast cost of corporate income tax is calculated based on AusNet Services' revised proposal PTRM.

AusNet Services, *Follow up Response to AER Information Request #018*, 1 October 2021.

<sup>8</sup> AER, *Draft decision: AusNet Services transmission determination 2022 to 2027, Attachment 7 – Corporate income tax*, June 2021, pp. 16–20.

<sup>9</sup> Our draft decision also removed the proposed annual capex entries for capitalised leases in respect of the 'Lease L&B 2019-20 < 20 years rem life', 'Lease L&B 2019-20 > 20 years rem life' and 'Lease L&B 2020-21' asset classes over the 2019–21 period in the RFM. Instead, we recorded the residual value associated with these assets under the final year adjustment section of the RFM. This change did not have a dollar impact on the value of the opening TAB as at 1 April 2022.

- We assigned a standard tax asset life of 35 years for depreciating forecast capex associated with the 'Polymeric insulators' asset class.
- We reallocated some forecast capex which meets the requirements of sections 43.15, 43.140 and 43.210 of the *Income Tax Assessment Act 1997* (ITAA) from the existing 'Premises' asset class into a new asset class labelled 'Buildings - capital works', which depreciates using the straight-line method rather than the diminishing value method for tax purposes.
- While accepting AusNet Services' proposed method to calculate its forecast immediate expensing of capex, we reduced the proposed amount of forecast immediate expensing of capex to reflect our draft decision on reducing the overall forecast capex.

AusNet Services' revised proposal adopted the changes required by the draft decision in full.<sup>10</sup>

### Opening tax asset base as at 1 April 2022

Our final decision is to determine an opening TAB value as at 1 April 2022 of \$2817.2 million (\$ nominal) for AusNet Services. This amount is \$1.0 million (or 0.04%) higher than AusNet Services' revised proposed opening TAB of \$2816.1 million (\$ nominal) as at 1 April 2022.

In our draft decision, we accepted AusNet Services' proposed method to establish the opening TAB as at 1 April 2022. However, we amended some of the proposed inputs used for the TAB roll forward—specifically, we made adjustments for actual and estimated capex associated with capitalised leases and growth assets. We noted that the opening TAB may be updated as part of the final decision to reflect:

- actual capex for 2020–21
- any revised 2021–22 capex estimate.

AusNet Services' revised proposal adopted our draft decision changes.<sup>11</sup> It also updated the opening TAB as at 1 April 2022 to reflect the actual capex for 2020–21 and a revised 2021–22 capex estimate. Further, AusNet Services provided an updated final year adjustment for capitalised leases and growth assets.<sup>12</sup>

Subsequent to this, AusNet Services provided a revised estimate for the value of the final year adjustment associated with the capitalised lease assets for tax purposes in its response to our information request.<sup>13</sup> Consistent with our assessment in attachment 2, we have reviewed and are satisfied with the additional supporting information provided by AusNet Services, and therefore accepts the revised value.

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<sup>10</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, pp. 131–133.

<sup>11</sup> AusNet Services, *Revised regulatory proposal 2023–27*, September 2021, pp. 131–133.

<sup>12</sup> AusNet Services, *Revised regulatory proposal 2023–27, RFM*, September 2021.

<sup>13</sup> AusNet Services, *Follow up Response to AER Information Request #018*, 8 October 2021.

This resulted in a \$1.0 million increase to the opening TAB as at 1 April 2022. We are also satisfied with the revised proposed value of the final year adjustment associated with the growth assets for tax purposes after verifying the value against project cost information provided by AusNet Services.<sup>14</sup>

For the reasons discussed in attachment 2, we accept the actual 2020-21 capex and the updated 2021–22 capex estimate for this final decision. The 2021–22 capex estimate is lower than what we approved in our draft decision, reflecting more recent data.<sup>15</sup> We will update the 2021–22 estimated capex for actuals at the next revenue reset (2027–32).

Table 7-2 sets out our final decision on the roll forward of AusNet Services' TAB values over the 2017–22 regulatory control period.

**Table 7-2 AER's final decision on AusNet Services' TAB roll forward for the 2017–22 regulatory control period (\$ million, nominal)**

	2017–18	2018–19	2019–20	2020–21	2021–22 <sup>a</sup>
Opening TAB	2418.2	2403.1	2392.3	2447.0	2468.2
Capital expenditure <sup>b</sup>	105.0	116.0	177.5	144.6	195.1
Less: Tax depreciation	120.1	126.9	122.8	123.4	131.2
Final year adjustments (capitalised leases)					39.2
Growth assets adjustments <sup>c</sup>					245.8
<b>Closing TAB</b>	<b>2403.1</b>	<b>2392.3</b>	<b>2447.0</b>	<b>2468.2</b>	<b>2817.2</b>

Source: AER analysis.

(a) Based on estimated capex.

(b) As-commissioned, net of disposals.

(c) Roll-in of 'growth assets' at 1 April 2022, and true-up for difference between actual and forecast growth assets rolled in at the 2017–22 determination.

### Forecast immediate expensing of capex

For this final decision, we determine that \$39.1 million (\$2021–22) of AusNet Services' forecast capex is to be immediately expensed for tax purposes in the 2022–27 regulatory control period.

In our draft decision, we accepted AusNet Services' proposed method to calculate its forecast immediate expensing of capex. However, our draft decision amended the

<sup>14</sup> AusNet Services, *Response to AER Information Request #018*, 17 September 2021.

<sup>15</sup> On an as-commissioned basis, which is used to roll forward the TAB in the RFM.

amount of forecast immediate expensing of capex to reflect our draft decision on the overall forecast capex.<sup>16</sup>

AusNet Services' revised proposal applied the same approach accepted in our draft decision to calculate its immediate expensing of forecast capex for tax purposes in the 2022–27 regulatory control period. However, AusNet Services updated its forecast immediate expensing amount to \$39.1 million (\$2020–21, or 4.8% of total capex), which reflected its revised proposed overall forecast capex.

Consistent with the approach adopted in the draft decision and revised proposal, we need to adjust the amount of immediate expensing of capex to reflect the overall estimate of forecast capex. As discussed in attachment 5, our final decision is to accept a total forecast capex of \$818.7 million (\$2021–22). This amount is \$1.8 million (\$2021–22) less than AusNet Services' revised proposal capex forecast, submitted on 1 September 2021. The adjustment reflects a correction to an error in the capex model identified by AusNet Services on 12 October 2021.<sup>17</sup> For this reason, our final decision is to adjust the immediately expensed capex for tax purposes to reflect the new total capex forecast.<sup>18</sup>

We will collect actual data relating to the immediately expensing of capex in our annual reporting regulatory information notice to further inform our decision for this type of expenditure in the next regulatory determination for AusNet Services.

### **Standard and remaining tax asset lives**

For this final decision, we accept AusNet Services' revised proposed standard tax asset lives for all of its asset classes. They are consistent with our draft decision, and we confirm our position that the standard asset lives are broadly consistent with the values prescribed by the Commissioner of taxation in the Australian Taxation Office Ruling 2021/3 and the *Income Tax Assessment Act 1997*.<sup>19</sup>

We also accept AusNet Services' revised proposed approach to calculate the remaining tax asset lives as at 1 April 2022 for tax depreciation purposes of its existing assets, which were calculated using the weighted average method. This is consistent with the approach accepted in our draft decision. However, we have updated the remaining tax asset lives as at 1 April 2022 to reflect the amendments we made to the opening TAB value as at 1 April 2022.

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<sup>16</sup> AER, *Draft decision: AusNet Services transmission determination 2022 to 2027, Attachment 7 – Corporate income tax*, June 2021, pp. 14–15.

<sup>17</sup> See section 5.1 of attachment 5 of this final decision for detailed reasons.

<sup>18</sup> The adjustment resulted in an immaterial reduction of less than \$1,000 to the immediately expensed capex for tax purposes.

<sup>19</sup> ATO, *Taxation Ruling TR2021/3 – Income tax: effective life of depreciating assets (applicable from 1 July 2021)*, available at

<https://www.ato.gov.au/law/view/view.htm?docid=%22TXR%2FTR20213%2FNAT%2FATO%2F00001%22;>

ITAA 1997, Section 40.105.

Table 7-3 sets out our final decision on the standard and remaining tax asset lives as at 1 April 2022 for AusNet Services. We are satisfied that the standard and remaining tax asset lives are appropriate for application over the 2022–27 regulatory control period. We are also satisfied that the standard and remaining tax asset lives provide an estimate of the tax depreciation amount that would be consistent with the tax expenses used to estimate the annual taxable income for a benchmark efficient service provider.<sup>20</sup>

**Table 7-3 AER's final decision on AusNet Services' standard and remaining tax asset lives as at 1 April 2022 (years)**

Asset class	Standard tax asset lives	Remaining tax asset lives as at 1 April 2022 <sup>b</sup>
Secondary	12.5	8.1
Switchgear	40.0	29.4
Transformers	40.0	28.3
Reactive	40.0	23.3
Towers and conductor	47.5	25.0
Establishment	40.0	31.3
Communications	12.5	8.9
Inventory	n/a	n/a
IT	3.5	2.7
Vehicles	8.0	6.5
Other (non-network)	10.0	6.1
Premises	20.0	14.5
Land	n/a	n/a
Easements	n/a	n/a
Insulators - Already decommissioned	1.0	1.0
Insulators - Decommission 2022-2027	5.0	5.0
Polymeric insulators	35.0	13.4
Instrument transformers - Already decommissioned	1.0	1.0
Instrument Transformers - Decommission 2022-2027	5.0	5.0
Lease L&B 2019-20 < 20 years rem life	n/a	7.8
Lease L&B 2019-20 > 20 years rem life	n/a	46.0

<sup>20</sup> NER, cl. 6A.6.4.

Asset class	Standard tax asset lives	Remaining tax asset lives as at 1 April 2022 <sup>b</sup>
Lease L&B 2020-21	n/a	6.0
Lease L&B 2022-23	25.0	n/a
Lease L&B 2023-24	19.0	n/a
Lease L&B 2025-26	31.8	n/a
Lease L&B 2026-27	15.4	n/a
Buildings - capital works	40.0 <sup>a</sup>	n/a
In-house software	5.0 <sup>a</sup>	n/a

Source: AER analysis.

- (a) These are the only asset classes used for the straight-line method of tax depreciation for new assets. All other new assets for other asset classes used the diminishing value method of tax depreciation.
- (b) Used for straight-line method of tax depreciation.
- n/a not applicable. We have not assigned a standard tax asset life and remaining tax asset life to the 'Inventory', 'Land' and 'Easements' asset classes because the assets allocated to it are non-depreciating assets. We have not assigned a standard tax asset life to the 'Lease L&B 2019-20 < 20 years rem life', 'Lease L&B 2019-20 > 20 years rem life' and 'Lease L&B 2020-21' asset classes because there is no forecast capex allocated to these classes. We also have not assigned a remaining tax asset life to the 'Lease L&B 2022-23', 'Lease L&B 2023-24', 'Lease L&B 2025-26', 'Lease L&B 2026-27', 'Buildings - capital works' and 'In house software' asset classes because they have no opening TAB values as at 1 April 2022.

## 7.2 Assessment approach

We did not change our assessment approach for the cost of corporate income tax from our draft decision. Attachment 7 (section 7.3) of our draft decision details that approach.<sup>21</sup>

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<sup>21</sup> AER, *Draft decision: AusNet Services transmission determination 2023 to 2027, Attachment 7 – Corporate income tax*, June 2021, pp. 7–13.

## Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
ITAA	Income Tax Assessment Act 1997
NER	National Electricity Rules
PTRM	post-tax revenue model
RAB	regulatory asset base
RFM	roll forward model
TAB	tax asset base



# Final Decision

**AusNet Services Transmission  
Determination 2022 to 2027**

**Attachment 8**

**Efficiency benefit sharing scheme**

January 2022

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## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final 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 12 – Pricing methodology

Attachment 13 – Pass through events

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## 8 Efficiency benefit sharing scheme

The efficiency benefit sharing scheme (EBSS) is intended to provide a continuous incentive for transmission businesses to pursue efficiency improvements in operating expenditure (opex) and provide for a fair sharing of these between businesses and consumers. Consumers benefit from improved efficiencies through lower regulated prices.

This attachment sets out our final decision and reasons on the EBSS carryover amounts AusNet Services has accrued over the 2017–22 regulatory control period. It also sets out how we will apply the EBSS over the 2022–27 regulatory control period.

### 8.1 Final decision

Our final decision is to include EBSS carryover amounts totalling \$64.3 million (\$2021–22) from the application of the EBSS in the 2017–22 regulatory control period.<sup>1</sup> This is \$0.6 million (\$2021–22) higher than AusNet Services' revised proposal of \$63.6 million (\$2021–22).<sup>2</sup> This difference is because we used an updated inflation forecast for the year to March 2022 to convert amounts into 2021–22 dollars.

We have set out our final decision on AusNet Services' EBSS carryover amounts in the 2022–27 regulatory control period in Table 8.1.

**Table 8.1 Final decision on carryover amounts (\$million, 2021–22)**

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' revised proposal	24.3	14.6	13.1	11.5	–	<b>63.6</b>
AER final decision	24.6	14.8	13.3	11.7	–	<b>64.3</b>
Difference	0.2	0.1	0.1	0.1	–	<b>0.6</b>

Source: AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 152; AER analysis.

Note: Numbers may not add up due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

We will continue to apply the EBSS to AusNet Services in the 2022–27 regulatory control period.<sup>3</sup> AusNet Services agreed with our draft decision to exclude debt raising costs and easement land tax expenditure from the scheme.<sup>4</sup> We will exclude these costs because we have forecast them on a category specific basis and expect to continue doing so in the regulatory control period commencing in 2027–28.

<sup>1</sup> NER, cl. 6A.5.4(a)(5) and 6A.6.5.

<sup>2</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 152.

<sup>3</sup> NER, cl. 6A.14.1(1)(iv) and 6A.14.3(d)(2); AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

<sup>4</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 152.

The Australian Energy Market Commission (AEMC) is currently considering a rule change request that would enable transmission networks to recover their actual Australian Energy Market Operator (AEMO) participant fees outside of the revenue determination process.<sup>5</sup> In the event these fees are collected outside of the revenue determination process, we will exclude them from the EBSS because they will not be forecast on a single year revealed cost forecasting approach for the regulatory control period commencing in 2027–28. We will also make other adjustments as permitted by the EBSS, such as removing movements in provisions and rebates under AEMO's Availability Incentive Scheme (as outlined in Section 8.4).

While growth asset opex has been forecast on a category specific basis, we will not exclude it from the scheme.<sup>6</sup> This is because we expect the opex related to these costs will be included in the forecast of total opex for the regulatory control period commencing in 2027–28 using the revealed cost approach. This ensures any efficiency gains or losses are passed on to consumers. This approach is consistent with our draft decision and our 2017–22 final decision treatment of growth asset opex.<sup>7</sup> We have set out in Table 8.2 the opex forecasts we will use to calculate efficiency gains in the 2022–27 regulatory control period, subject to any necessary adjustments.

**Table 8.2 Forecast total opex for the EBSS (\$million, 2021–22)**

	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27
Forecast total opex	251.4	251.9	277.6	277.8	277.0	277.4	277.6
Less easement land tax	-148.5	-148.5	-173.6	-173.6	-173.6	-173.6	-173.6
Less AEMO participant fees*	-	-	-	-1.4	-1.6	-1.7	-1.8
Less debt raising costs	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7
<b>Forecast total opex for the EBSS</b>	<b>101.1</b>	<b>101.7</b>	<b>102.3</b>	<b>101.1</b>	<b>100.1</b>	<b>100.5</b>	<b>100.5</b>

Source: AER, *AusNet Services 2022–27 – Final Decision – Post tax revenue model*, January 2022; AER, *AusNet Services 2022–27 – Final Decision – EBSS model*, January 2022; AER analysis.

\* In the event AEMO participant fees must be paid for from AusNet Services' standard control services opex, and we use AusNet Services' revealed costs to forecast these in the regulatory control period commencing in 2027–28, we will include them in the EBSS.

Note: Numbers may not add up due to rounding. Amounts of '0.0' and '-0.0' represent small non-zero amounts and '-' represents zero.

<sup>5</sup> The rule change request was submitted by Energy Networks Australia on behalf of the transmission networks to the AEMC on 24 June 2021.

<sup>6</sup> See Attachment 6, Section 6.4.5.2 for further details.

<sup>7</sup> AER, *Final decision, AusNet Services transmission determination 2017– 2022 – Attachment 9 – Efficiency benefit sharing scheme*, April 2017, pp. 10–11.

## 8.2 AusNet Services' revised proposal

### 8.2.1 Carryover amounts from the 2017–22 control period

AusNet Services proposed we include carryover amounts totalling \$63.6 million (\$2021–22) in its allowed revenues for the 2022–27 regulatory control period from the application of the EBSS in the 2017–22 regulatory control period.<sup>8</sup>

AusNet Services calculated its proposed carryover amounts consistent with our draft decision. For our draft decision we used the estimate of opex for 2020–21 that AusNet Services used in its initial proposal, because an audited actual amount was not yet available. For its revised proposal AusNet Services used its actual audited opex for 2020–21. It also used the latest available inflation forecast for the year to March 2022 to convert amounts into 2021–22 dollars.<sup>9</sup>

### 8.2.2 Application in the 2022–27 control period

AusNet Services proposed that we continue to apply the EBSS in the 2022–27 regulatory control period, consistent with our draft decision.<sup>10</sup>

### 8.2.3 Stakeholder submissions

CCP23 restated its previous submission that it supported the application of the EBSS on the basis that it is genuinely based on business' revealed efficient opex costs and will fairly share efficiency gains and losses between the business and consumers.<sup>11</sup>

## 8.3 Assessment approach

Under the National Electricity Rules (NER) we must determine:

- the revenue increments or decrements for each year of the 2022–27 regulatory control period arising from the application of the EBSS during the 2017–22 regulatory control period<sup>12</sup>
- how the EBSS will apply to AusNet Services in the 2022–27 regulatory control period.<sup>13</sup>

The EBSS must provide for a fair sharing of opex efficiency gains and efficiency losses between AusNet Services and network users.<sup>14</sup> We must also have regard to the following matters when implementing the EBSS:<sup>15</sup>

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<sup>8</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 152.

<sup>9</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 151.

<sup>10</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 152.

<sup>11</sup> CCP23, *Submission to AER on the Draft Decision and AusNet Services Transmission 2022–27 Revised Proposal*, October 2021, pp. 35–36.

<sup>12</sup> NER, cl. 6A.5.4(a)(5).

<sup>13</sup> NER, cll. 6A.14.1(1)(iv) and 6A.14.3(d)(2).

- the need to provide AusNet Services with a continuous incentive to reduce opex
- the desirability of both rewarding AusNet Services for efficiency gains and penalising it for efficiency losses
- any incentives that AusNet Services may have to inappropriately capitalise operating expenditure
- the possible effects of the scheme on incentives for the implementation of non-network options.

### 8.3.1 Interrelationships

The EBSS is closely linked to our revealed cost approach to forecasting opex. When we assess or develop our opex forecast, the NER require us to have regard to whether the opex forecast is consistent with any incentive schemes.<sup>16</sup>

Our opex forecasting method typically relies on using the 'revealed costs' of the service provider in a chosen base year to develop a total opex forecast, if the chosen base year opex is not considered to be 'materially inefficient'. Under this approach, a service provider would have an incentive to spend more opex in the expected base year. Also, a service provider has less incentive to reduce opex towards the end of the regulatory control period, where the benefits of any efficiency gains are retained for less time.

The application of the EBSS serves two important functions:

1. It removes the incentive for a service provider to increase reported opex in the expected base year to gain a higher opex forecast for the next regulatory control period.
2. It provides a continuous incentive for a service provider to pursue efficiency improvements across the regulatory control period.

The EBSS does this by allowing a service provider to retain efficiency gains (or losses) for a total of six years, regardless of the year in which the service provider makes them. Where we do not propose to rely on the single year revealed costs of a service provider to forecast opex, this impacts the service provider's incentives and our decision on how we apply the EBSS.

When a service provider makes an incremental efficiency gain, it receives a reward through the EBSS, and consumers benefit through a lower revealed cost forecast for the subsequent regulatory control period. This is how efficiency improvements are shared between consumers and the service provider. If we subject costs to the EBSS that are not forecast using a revealed cost approach, a service provider would in theory receive a reward for efficiency gains through the EBSS (at a cost to consumers), but

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<sup>14</sup> NER, cl. 6A.6.5(a).

<sup>15</sup> NER, cl. 6A.6.5(b).

<sup>16</sup> NER, cl. 6A.6.6(e)(8). Further, we must specify and have regard to the relationship between the constituent components of our overall decision: NEL, s. 16(1)(c).



consumers would not benefit through a lower revealed cost forecast in the subsequent regulatory control period.

Therefore, we typically exclude costs that we do not forecast using a single year revealed cost forecasting approach.

For these reasons, our decision on how we will apply the EBSS to AusNet Services is closely related to our decision on its opex (see Attachment 6). We have careful regard to the effect of our EBSS decision when making our opex decision, and our EBSS decision is made largely in consequence of (and takes careful account of) our past and current decisions on AusNet Services' opex.

## 8.4 Reasons for final decision

### 8.4.1 Carryover amounts from the 2017–22 control period

Our final decision is to include EBSS carryover amounts totalling \$64.3 million (\$2021–22) from the application of the EBSS in the 2017–22 regulatory control period. This is \$0.6 million (\$2021–22) higher than AusNet Services' revised proposal of \$63.6 million (\$2021–22).<sup>17</sup> This difference is because we used a more recent forecast of inflation in the year to March 2022 than AusNet Services did to convert amounts into 2021–22 dollars. We discuss this in more detail below.

Our final decision on carryover amounts is \$24.8 million (\$2021–22) higher than our draft decision of \$39.5 million (\$2021–22). In addition to inflation, the reason for this difference is due to using audited actual opex for 2020–21, rather than an estimate. We also discuss this in more detail below.

We consider that the EBSS carryover amounts we have calculated provide for a fair sharing of efficiency gains and losses between AusNet Services and consumers. It rewards AusNet Services for the efficiency gains it has made. Further, we consider that the benefit to consumers, through lower forecast opex, is sufficient to warrant the EBSS carryover amounts we have determined.

#### 8.4.1.1 Inflation

Consistent with our standard approach, we used unlagged inflation to convert amounts to 2021–22 real terms. We use unlagged inflation to be consistent with our opex forecast.<sup>18</sup>

For our estimate of inflation for 2021–22, we used the inflation forecast in the Reserve Bank of Australia's November 2021 *Statement on monetary policy*.<sup>19</sup> This forecast,

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<sup>17</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 152.

<sup>18</sup> This ensures that we use the same actual opex amounts, in real terms, to calculate EBSS carryover amounts as we use to forecast opex. Since customers receive their share of efficiency gains through lower opex forecasts, this ensures AusNet Services is rewarded for the same efficiency gains that are being passed on to customers.

<sup>19</sup> Reserve Bank of Australia, *Statement on monetary policy, Appendix: Forecasts*, November 2021.

which was published after AusNet Services submitted its revised proposal, was higher than the one used by AusNet Services.

#### **8.4.1.2 Actual opex for 2020–21**

In our draft decision we used an estimate of AusNet Services' actual opex for 2020–21 to calculate its EBSS carryover amounts. This was because we did not yet have its audited actual amounts for 2020–21. We have since received its 2020–21 regulatory information notice responses. We have used the 2020–21 actual opex amounts AusNet Services reported in its 2020–21 economic benchmarking regulatory information notice templates, which are audited, to calculate its EBSS carryover amounts. These amounts match the ones AusNet Services used to calculate EBSS carryover amounts in its revised proposal.

#### **8.4.2 Application in the 2022–27 control period**

Our final decision is to continue to apply the EBSS to AusNet Services in the 2022–27 regulatory control period.<sup>20</sup> We consider applying the scheme will benefit the long-term interests of electricity consumers as it will provide a continuous incentive for AusNet Services to reduce opex. Provided we forecast AusNet Services' future opex using its revealed costs in the 2022–27 regulatory control period, any efficiency gains that AusNet Services achieves will lead to lower opex forecasts, and thus lower network tariffs.

The EBSS specifies our approach to adjusting forecast or actual opex when calculating carryover amounts.<sup>21</sup> We provide details on these below.

##### **8.4.2.1 Adjustments to opex**

The EBSS allows us to exclude categories of opex that we do not forecast using a single year revealed cost forecasting approach. We do this to fairly share efficiency gains and losses. For instance, where a service provider achieves efficiency improvements, it receives a benefit through the EBSS and consumers receive a benefit through lower forecast opex in the following regulatory control period. This is the way consumers and the service provider share the benefits of an efficiency improvement.

If we do not use a single year revealed cost forecasting approach, we may not pass the benefits of these revealed efficiency gains on to consumers. It follows that consumers should not pay for EBSS rewards where they do not receive the benefits of a lower opex forecast.

For the 2022–27 regulatory control period we have not forecast debt raising costs and easement land tax using a single year revealed cost forecasting approach and we

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<sup>20</sup> NER, cll. 6A.14.1(1)(iv) and 6A.14.3(d)(2); AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

<sup>21</sup> AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

expect to continue to use the same approach in the 2027–32 regulatory control period. Consequently, we will exclude these costs from the EBSS for the 2022–27 regulatory control period.

Similarly, we have not forecast AEMO participant fees using a single year revealed cost forecasting approach for the 2022–27 regulatory control period. These costs are currently recovered from market customers not transmission networks. However, from 2023–24, AEMO will reallocate a portion of its National Electricity Market fees to transmission networks to reflect its increasing involvement in network related activities. We discuss this further in Attachment 6. The AEMC is currently considering a rule change request that would enable transmission networks to recover their actual AEMO participant fees outside of the revenue determination process.<sup>22</sup> In the event this rule change is made, and these fees are collected outside of the revenue determination process, we will exclude them from the EBSS because they will not be forecast using a single year revealed cost forecasting approach for the regulatory control period commencing in 2027–28.

While growth asset opex is forecast on a category specific basis, we have not excluded it from the EBSS.<sup>23</sup> This is because the opex related to the growth assets that will be rolled into the regulatory asset base at the start of the 2022–27 regulatory control period will be included in forecast total opex in the regulatory control period commencing in 2027–28. This ensures any efficiency gains or losses are passed on to consumers. This approach is consistent with our draft decision and our 2017–22 final decision treatment of growth asset opex.<sup>24</sup>

Consistent with the 2017–22 decision, we will also exclude rebates under AEMO's availability incentive scheme and priority projects approved under the network capability component of STPIS. Including these in the EBSS would distort the incentives provided under the schemes.<sup>25</sup>

In addition to the excluded cost categories discussed above, we will also make the following adjustments when we calculate the EBSS carryover amounts accrued during the 2022–27 regulatory control period:

- adjust forecast opex to add (subtract) any approved revenue increments (decrements) made after the initial regulatory determination, such as approved pass through amounts or opex for contingent projects
- adjust reported actual opex for the 2022–27 regulatory control period to reverse any movements in provisions

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<sup>22</sup> The rule change request was submitted by Energy Networks Australia on behalf of the transmission networks to the AEMC on 24 June 2021. See: <https://www.aemc.gov.au/rule-changes/recovering-cost-aemos-participant-fees>.

<sup>23</sup> See Attachment 6, Section 6.4.5.2 for further details.

<sup>24</sup> AER, *Final decision, AusNet Services transmission determination 2017– 2022 – Attachment 9 – Efficiency benefit sharing scheme*, April 2017, pp. 10–11.

<sup>25</sup> AER, *Draft Decision, AusNet Services transmission determination 2017– 2022 – Attachment 9 – Efficiency benefit sharing scheme*, April 2017, pp. 13–14.

- adjust actual opex to add capitalised opex that has been excluded from the regulatory asset base
- adjust forecast opex and actual opex for inflation<sup>26</sup>
- exclude categories of opex not forecast using a single year revealed cost approach for the next regulatory control period beginning in 2027–28, where doing so better achieves the requirements of clause 6A.6.5 of the NER.<sup>27</sup>

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<sup>26</sup> AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, p. 7.

<sup>27</sup> AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, p. 7.

## Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CCP 23	Consumer Challenge Panel, sub-panel 23
CPI	consumer price index
EBSS	efficiency benefit sharing scheme
NEL	National Electricity Law
NER	National Electricity Rules
opex	operating expenditure
STPIS	service target performance incentive scheme

# Final Decision

**AusNet Services**

**Transmission Determination  
2022 to 2027**

**Attachment 9**

**Capital expenditure sharing scheme**

January 2022

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AER reference: 65242

## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final 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

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## 9 Capital expenditure sharing scheme

The capital expenditure sharing scheme (CESS) provides financial rewards to network service providers whose capital expenditure (capex) becomes more efficient and financial penalties for those that become less efficient. Consumers benefit from improved efficiency through lower regulated prices. We first applied the CESS to AusNet Services in the 2017–22 regulatory control period. This attachment sets out our decision for both the determination of the revenue impacts as a result of the CESS applying in the 2017–22 regulatory control period, and the application of the CESS for AusNet Services in the 2022–27 regulatory control period.

The CESS approximates efficiency gains and efficiency losses by calculating the difference between forecast and actual capex. It shares these gains or losses between service providers and consumers. Under the CESS a service provider retains 30 per cent of an under-spend or over-spend, while consumers retain 70 per cent of the under-spend or over-spend. This means that for a one dollar saving in capex the service provider keeps 30 cents of the benefit while consumers keep 70 cents of the benefit.

The CESS works as follows:

1. We calculate the cumulative efficiency gains or losses for the current regulatory control period in net present value terms.
2. We apply a ratio of 30 per cent to the cumulative under-spend or over-spend to work out the service provider's share of the under-spend or over-spend.
3. We calculate the CESS payment taking into account the financing benefit, or cost, to the service provider of the under-spend or over-spend.<sup>1</sup> We can also make a further adjustment to account for deferral of capex and ex post exclusions of capex from the regulatory asset base (RAB)<sup>2</sup>
4. The CESS payment is added or subtracted to the service provider's regulated revenue as a separate building block in the next regulatory control period

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<sup>1</sup> We calculate benefits as the benefits to the service provider of financing the under-spend since the amount of the under-spend can be put to some other income generating use during the period. Losses are similarly calculated as the financing cost to the service provider of the over-spend.

<sup>2</sup> The capex incentive guideline outlines how we may exclude capex from the RAB. AER, *Capital Expenditure Incentive Guideline*, November 2013, pp. 13–20.

## 9.1 Final decision

### Revenue impacts in the 2022–27 regulatory control period from applying the CESS in the 2017–22 regulatory control period

Our final decision is to apply a CESS revenue increment amount of \$8.3 million (\$2021–22) to be paid across the 2022–27 regulatory control period, from the application of the CESS in the 2017–21 regulatory control period.

The difference between our final decision and AusNet Services' revised proposal (\$8.5 million (\$2021–22)) is due to adopting:

- more recent inflation figures
- updated weighted average cost of capital (WACC) input information
- updated 2021 capex consistent with our roll forward model.

### Application of scheme in the 2022–27 regulatory control period

We will apply the CESS as set out in version 1 of the capital expenditure incentives guideline to AusNet Services in the 2022–27 regulatory control period.<sup>3</sup> The guideline provides for the exclusion from the CESS of capex the service provider incurs in delivering a priority project approved under the network capability component of the service target performance incentive scheme (STPIS) for transmission network service providers.<sup>4</sup> This is consistent with the proposed approach we set out in our framework and approach paper<sup>5</sup> and draft decision.<sup>6</sup>

## 9.2 AusNet Services' revised proposal

AusNet Services proposed a CESS revenue increment of \$8.5 million (\$2021–22) for the 2022–27 regulatory control period in its revised proposal.<sup>7</sup> AusNet Services' proposed CESS revenue increment is slightly higher than our draft decision increment of \$5.1 million (\$2021–22), primarily because AusNet Services' actual 2020–21 capex is lower than the estimate included in its initial revenue proposal. AusNet Services' amended actual 2020–21 forecast capex reflects the impact of COVID-19 on its capital works programs, which resulted in some planned expenditure being deferred.<sup>8</sup>

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<sup>3</sup> AER, *Capital Expenditure Incentive Guideline*, November 2013, pp. 5–9; cl. 6A.6.5A(e) of the NER.

<sup>4</sup> AER, *Capital Expenditure Incentive Guideline*, November 2013, p. 6.

<sup>5</sup> AER, *Final framework and approach for AusNet Services 2022–27*, 24 April 2020.

<sup>6</sup> AER, *Draft Decision, AusNet Services transmission determination 2022–27, Attachment 9 – Capital expenditure sharing scheme*, June 2021, p. 8.

<sup>7</sup> AusNet Services, *Revised Revenue Proposal 2023–27*, 1 September 2021, p. 153.

<sup>8</sup> AusNet Services, *Revised Revenue Proposal 2023–27*, 1 September 2021, p. 153.

## 9.3 Assessment approach

Under the National Electricity Rules (NER) we must decide:

- the revenue impacts on AusNet Services arising from applying the CESS in the 2017–22 regulatory control period
- whether or not to apply the CESS to AusNet Services in the 2022–27 regulatory control period and how any applicable scheme will apply.<sup>9</sup>

We must determine the appropriate revenue increments or decrements (if any) for each year of the 2022–27 regulatory control period arising from the application of the CESS during the 2017–22 regulatory control period.<sup>10</sup>

We must also determine how any applicable CESS is to apply to AusNet Services in the 2022–27 regulatory control period.<sup>11</sup> In deciding whether to apply a CESS to AusNet Services for the 2022–27 regulatory control period, and the nature and details of the scheme, we must:<sup>12</sup>

- make that decision in a manner that contributes to the capex incentive objective<sup>13</sup>
- take into account the CESS principles,<sup>14</sup> the capex objectives and, where relevant, the operating expenditure (opex) objectives,<sup>15</sup> the interaction with other incentive schemes,<sup>16</sup> and the circumstances of the service provider.<sup>17</sup>

Broadly, the capex incentive objective is to ensure that only capex that meets the capex criteria enters the RAB used to set prices. Therefore, consumers only fund capex that is efficient and prudent.

## 9.4 Reasons for final decision

Our final decision CESS revenue increment amount of \$8.3 million (\$2021–22) reflects mechanical adjustments to our draft decision to reflect updated actual capex, forecast capex, the Consumer Price Index and WACC.

Our final decision is consistent with our draft decision.

We are currently reviewing our incentive schemes, including the CESS, to ensure that they remain relevant and fit-for-purpose. This forms part of our strategic priority to

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<sup>9</sup> NER, cl. 6A.14.1(5A).

<sup>10</sup> NER, cl. 6A.5.4(a)(5).

<sup>11</sup> NER, cl. 6A.14.5(5A).

<sup>12</sup> NER, cl. 6A.6.5A(e).

<sup>13</sup> NER, cl. 6A.6.5A(e)(3); the capex incentive objective is set out in cl. 6A.5A(a).

<sup>14</sup> NER, cl. 6A.6.5A(e)(4)(i); the CESS principles are set out in cl.6A.6.5A(c).

<sup>15</sup> NER, cl. 6A.6.5A(e)(4)(i) and 6A.6.5A(d)(2); the capex objectives are set out in cl. 6A.6.7(a); the opex objectives are set out in cl. 6A.6.6(a).

<sup>16</sup> NER, cl. 6A.6.5A(e)(4)(i) and 6A.6.5A(d)(1).

<sup>17</sup> NER, cl. 6A.6.5A(e)(4)(ii).

improve our approach to regulation by being more efficient and focusing on outcomes that matter most to consumers. On 2 December 2021, we published a discussion paper that outlined the key issues for review and sought feedback from stakeholders.<sup>18</sup>

The review will likely conclude in late 2022 and the outcomes, including any amendments to the CESS, will not apply to AusNet Services in the 2022–27 regulatory control period. The current version 1 of the CESS will apply.

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<sup>18</sup> AER, *Review of expenditure incentive schemes - discussion paper* - December 2021.

## Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
CESS	capital expenditure sharing scheme
NER	National Electricity Rules
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

# **FINAL DECISION**

**AusNet Services Transmission  
Determination 2022 to 2027**

**Attachment 10**

**Service target performance incentive  
scheme**

**January 2022**

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# 10 Service target performance incentive scheme

The service target performance incentive scheme (STPIS) provides a financial incentive to transmission network services providers (TNSPs) to maintain and improve service performance. Our final decision is to apply version 5 of the STPIS to AusNet Services for the 2022–27 regulatory control period. Under this version of the scheme, three components are applicable: the service component, market impact component and network capability component.<sup>1</sup>

The service component provides a reward or penalty of +/- 1.25 per cent of the maximum allowed revenue (MAR) to improve network reliability by focussing on unplanned outages. The service component is designed to encourage TNSPs to seek to reduce the number of unplanned network outages and to promptly restore the network in the event of unplanned outages that result in supply interruptions. This component is also designed to indicate potential reliability issues.

The market impact component (MIC) provides a reward or penalty of up to +/- 1 per cent of the MAR to minimise the impact of transmission outages that can affect wholesale market outcomes. The MIC measures performance against the market impact parameter, which is the number of dispatch intervals where an outage on the TNSP's network results in a network outage constraint with a marginal value greater than \$10/MWh (MIC count).<sup>2</sup>

Each TNSP's annual MIC count is measured against its target, where the target is calculated by averaging the median five of the last seven years of performance data.<sup>3</sup> Further, the dollars per dispatch interval (\$/DI) associated with the reward/penalty for each count can be directly calculated for the regulatory control period by dividing the MAR by the MIC target. Both the target and the \$/DI are fixed for the regulatory control period.

The network capability component is designed to encourage TNSPs to develop projects (up to a total of one per cent of the proposed MAR per year) in return for a pro-rata incentive payment of up to 1.5 per cent of MAR depending on the successful completion of proposed projects.<sup>4</sup> This component encourages TNSPs to examine their networks to identify suitable one-off operational and capital expenditure projects. These projects are expected to have a high net benefit and a short payback period and deliver improvements in the capability of the transmission network at times when it is most needed.

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<sup>1</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 2.2(a).

<sup>2</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, Appendix C.

<sup>3</sup> The target will be calculated from the average of the five values remaining from the last seven years of data, excluding the largest and smallest annual values.

<sup>4</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl.5.2.

## 10.1 Final decision

We will apply all components of version 5 of the STPIS to AusNet Services for the 2022–27 regulatory control period. We propose to apply the STPIS to AusNet Services in accordance with the details set out below.<sup>5</sup>

**Table 10-1 Final decision —Values for service component caps, floors and targets for 2022–27**

Parameter	Distribution	Cap (5th percentile)	Target	Floor (95th percentile)
<b>Average circuit outage rate</b>				
Line event rate – fault	Gamma	12.43%	17.09%	22.37%
Transformer event rate - fault	Erlang	6.49%	11.97%	18.80%
Reactive plant event rate - fault	Dagum	14.90%	20.67%	30.43%
Line event rate – forced	FatigueLife	3.82%	10.14%	20.74%
Transformer event rate - forced	Burr12	7.54%	11.97%	15.88%
Reactive plant event rate - forced	Burr12	19.65%	27.78%	34.66%
<b>Loss of Supply Event Frequency</b>				
Number of events greater than 0.05 system minutes per annum	Poisson	0	1	4
Number of events greater than 0.30 system minutes per annum	Poisson	0	1	2
<b>Average Outage Duration</b>				
Average Outage Duration	Triang	10.2	45.6	87.2
<b>Proper operation of equipment (number of events):</b>				
Failure of protection system	Poisson	22	31	40
Material failure of SCADA	Geometric	0	1	3
Incorrect operational isolation of primary or secondary equipment	Poisson	3	6	11

Source: AER analysis.

<sup>5</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 2.2.

**Table 10-2 Final decision for MIC parameter values for 2022–27**

MIC parameter values	
Performance target	1525
Unplanned outage event limit	259
Dollar per dispatch interval (\$/DI)	\$3,741

Source: AER analysis.

**Table 10-3 Final decision — Network capability component for 2022–27 (\$2020–21)**

Project	Proposed cost
RealTime System Restoration Manager	\$800,000

Source: AER analysis.

## 10.2 AusNet Services' revised proposal

AusNet Services revised revenue proposal:

- accepted our draft decision on the service component and provided 2020 performance data to calculate the final targets for the next regulatory control period. However, AusNet Services considered that the Loss of Supply parameter should be amended where a TNSP's performance is approaching the performance frontier.<sup>6</sup>
- rejected the draft decision on the market impact component.
- submitted a network capability component project for approval for this final decision.<sup>7</sup>

## 10.3 Assessment approach

A revenue determination for a TNSP is to specify, amongst other things, the annual building block revenue requirement for each regulatory year of the regulatory control period.<sup>8</sup> In turn, the annual building block revenue requirement must be determined using a building blocks approach, under which, one of the building blocks is the revenue increments or decrements (if any) for that year arising from the application of

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<sup>6</sup> AusNet Transmission Group, *Transmission Revenue Review 2023-2027 Revised Revenue Proposal*, 1 September 2021, p. 139.

<sup>7</sup> AusNet Transmission Group, *Transmission Revenue Review 2023-2027 Revised Revenue Proposal*, 1 September 2021, pp. 138–147.

<sup>8</sup> NER, cl. 6A.4.2(a)(2).

any STPIS (and other schemes).<sup>9</sup> We have assessed AusNet Services' revenue proposal against the requirements of version 5 of the STPIS.

### 10.3.1 Service component

We assessed whether AusNet Services' proposed performance targets, caps and floors comply with the STPIS requirements for the:<sup>10</sup>

- average circuit outage rate, with six sub parameters<sup>11</sup>
- loss of supply event frequency, with two loss of supply event sub-parameters<sup>12</sup>
- average outage duration
- proper operation of equipment, with three sub-parameters.<sup>13</sup>

Under the STIPIS, we must accept AusNet Services' proposed parameter values if they comply with the requirements of the STPIS. We may reject them if they are inconsistent with the objectives of the STPIS.<sup>14</sup> We measure actual performance for the 'average circuit outage rate' and 'average outage duration' parameters on a two calendar year rolling average in accordance with Appendix E of the STPIS.

We assessed AusNet Services' service component proposal against the requirements of the STPIS – that is, whether:

- AusNet Services' data recording systems and processes produce accurate and reliable data and whether the data is recorded consistently based on the parameter definitions under the STPIS<sup>15</sup>
- the proposed performance targets were equal to the average of the most recent five years of performance data<sup>16</sup>
- any adjustments to the proposed targets are warranted and reasonable<sup>17</sup>
- AusNet Services applied a sound methodology, with reference to the performance targets, to calculate the proposed caps and floors<sup>18</sup>

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<sup>9</sup> NER, cl. 6A.5.4(a)(5), 6A.5.4(b)(5) and 6A.7.4.

<sup>10</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2.

<sup>11</sup> Six parameters include Line event rate–fault, Reactive plant event rate – fault, Lines event rate – forced, Transformer event rate –forced and Reactive plant event rate – forced.

<sup>12</sup> They are the number of events greater than 0.05 system minutes per annum and the number of events greater than 0.30 system minutes per annum.

<sup>13</sup> They are failure of protection system, material failure of SCADA system and incorrect operational isolation of primary or secondary equipment.

<sup>14</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(l).

<sup>15</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(d).

<sup>16</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(g).

<sup>17</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(j).

<sup>18</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(e).

- any adjustment to a performance target was applied to the cap or floor of that parameter.<sup>19</sup>

We assessed the probability distributions applied by AusNet Services to calculate caps and floors to determine whether a sound methodology was used.

### 10.3.2 Market impact component

We assessed AusNet Services' market impact component proposal against the requirements of the STPIS – that is, whether:

- data used to calculate the market impact parameter is accurate and reliable, and consistently recorded based on the parameter definition in Appendix C<sup>20</sup>
- the proposed performance target was calculated in accordance with the requirements of clause 4.2(g) of version 5 of the STPIS
- the proposed unplanned outage event limit has been calculated in accordance with the requirements of clause 4.2(h) of version 5 of the STPIS
- the proposed dollar per dispatch interval has been calculated in accordance with clause 4.2(j) of version 5 of the STPIS.

Where AusNet Services' proposed values for the market impact parameter do not comply with the requirements of the STPIS or are otherwise inconsistent with the objectives of the scheme,<sup>21</sup> we will reject the proposed values and provide substitute values which comply with the STPIS.

### 10.3.3 Network Capability Component

We are required to assess the network capability component (NCC) against the requirements of clause 5.2 of version 5 of the STPIS.

A TNSP can propose projects with an average total expenditure in each regulatory year of not greater than 1 per cent of the TNSP's average annual maximum allowed revenue proposed in its revenue proposal for the regulatory control period.<sup>22</sup> For AusNet Services this amount is \$5.4 million (\$2021–22) per year or \$27.0 million (\$2021–22) in total.

The projects included in the NCC must not have been included in the proposed opex and capex revenue allowance.<sup>23</sup>

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<sup>19</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(e).

<sup>20</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 4.2(c).

<sup>21</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 4.2(d).

<sup>22</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 5.2(b)(2)(vi).

<sup>23</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 5.2(r).

The projects are expected to be high benefit/low-cost projects with short payback periods. They are expected to be directed towards directly addressing transmission constraints.<sup>24</sup>

## 10.4 Interrelationships

The STPIS takes into account any other provisions in the NER that incentivise TNSPs to minimise capital or operating expenditure.<sup>25</sup> One of the objectives of the STPIS is to assist in the setting of efficient capital and operating expenditure allowances by balancing the incentive to reduce actual expenditure with the need to maintain and improve reliability for customers and reduce the market impact of transmission congestion.<sup>26</sup>

The STPIS will interact with the capital expenditure sharing scheme (CESS) and the opex efficiency benefit sharing scheme (EBSS). The STPIS allows us to adjust the performance targets of the service component for the expected effects on the TNSP's performance from any increases or decreases in the volume of capital works planned during the regulatory control period.<sup>27</sup> In conjunction with CESS and EBSS, the STPIS will ensure:

- any additional investments to improve service quality are based on prudent economic decisions
- reductions in capex and opex are achieved efficiently, rather than at the expense of service levels to the network users.

## 10.5 Submissions

CCP23 acknowledged that AusNet Services had undertaken substantive engagement with its Consumer Advisory Panel (CAP) on the MIC issues. This included AusNet Services' preferred option to extend the application of exclusion criteria of the MIC to address the impact of the changing energy mix in the NEM.

CCP23 stated that while it was initially drawn to the AusNet Services' conclusion that the extent of the exclusions makes it clear that the current MIC scheme is not fit-for-purpose, on further reflection this might not be the case.<sup>28</sup>

CCP23 supported efforts to increase mutual understanding of the scheme and the exceptions regime between the AER, AusNet Services, and all consumer and other stakeholders. CCP23 reiterated that stakeholders were supportive of the need for continued incentives for AusNet Services to optimise its outage planning.

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<sup>24</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl 5.2(a).

<sup>25</sup> NER, cl. 6A.7.4(b)(5).

<sup>26</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 1.4.

<sup>27</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(j).

<sup>28</sup> Consumer Challenge Panel 23 (CCP23), *Submission to AER on the Draft Decision and AusNet Services Transmission 2022-27 Revised Proposal*, October 2021, p. 39.



The submission from the Australian Energy Market Operator (AEMO) started that:<sup>29</sup>

Given that the AER accepted the position that outages required to connect AEMO initiated augmentations and funded outside the revenue determination process should not be included in the scheme, AEMO considers that the implementation of the final determination exclusion 3A in Appendix C did not allow for this important exclusion.

Accordingly, AEMO considers that as a general proposition, outages needed to connect any AEMO initiated augmentation should receive this exemption.

The submission from AusNet Services' CAP stated that detailed assessment of this AusNet Services' proposal is a job for the AER. It submitted that it supported an approach to applying the MIC that:

- Will maintain the incentive for AusNet to optimise its outages to deliver wholesale market price benefits for customers; and
- Will not create windfall bonus payments for AusNet if future transmission network developments reduce the impact of the issues currently being experienced.

The CAP also submitted that the AER should conduct a review of the MIC as soon as practicable, to ensure it is fit for purpose in the context of the energy transition.<sup>30</sup>

## 10.6 Reasons for final decision

We will apply version 5 of the STPIS to AusNet Services and our reasons for this decision are outlined below.

### 10.6.1 Service component

#### Performance targets

Performance targets must equal the TNSP's average performance history over the past five years unless they are subject to an adjustment under clause 3.2(i) or (j) of the STPIS. We have determined performance targets that are equal to the arithmetic mean of the 2016–20 performance data. AusNet Services followed this approach for its proposed performance targets.<sup>31</sup> Our final decision performance targets for the service components are shown in Table 10-1 above.

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<sup>29</sup> AEMO *Submission to AER on the Draft Decision and AusNet Services Transmission 2022-27 Revised Proposal*, October 2021, p. 5.

<sup>30</sup> AusNet Services Transmission's, *CAP Submission to AER on the Draft Decision and AusNet Services Transmission 2022-27 Revised Proposal*, October 2021.

<sup>31</sup> AusNet Transmission Group, *Transmission Revenue Review 2023-2027 Revised Revenue Proposal*, 1 September 2021, p. 139.

## Caps and floors

Proposed caps and floors must be calculated with reference to the proposed performance targets using a sound methodology.<sup>32</sup> In the past, we have generally accepted approaches that use five years of performance data to determine a statistical distribution that best fits the data, with the caps and floors set at two standard deviations either side of the mean (if using a normal distribution), or at the 5th and 95th percentiles (if using a distribution other than the normal distribution).

The distribution selected to calculate the caps and floors for a particular parameter must be conceptually sound. We have established the following principles for selecting a distribution to calculate caps and floors:<sup>33</sup>

- the chosen distribution should reflect any inherent skewness of the performance data
- the distribution should not imply that impossible values are reasonably likely. For example, the distribution for an average circuit outage rate sub-parameter should not imply that values below zero per cent are reasonably likely
- discrete distributions should be used to represent discrete data. For example, a discrete distribution such as the Poisson distribution should be used when calculating caps and floors for loss of supply sub-parameters. Continuous distributions should not be used.

Using standard deviations to set caps and floors is appropriate when a normal distribution is selected. However, when a normal distribution is not selected, the better measure to use is the percentiles approach.

AusNet Services set out its methodology for choosing the distribution and target, cap and floor result for the service component sub-parameters.<sup>34</sup> We accept AusNet Services' proposed caps and floors as they are similar to our own calculations using the @risk modelling program.<sup>35</sup> We have however substituted the value of the cap and floor values for the average outage duration (minutes) parameter with updated information provided by AusNet Services.<sup>36</sup>

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<sup>32</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(e).

<sup>33</sup> AER, *Draft decision, SP AusNet Transmission determination 2014–15 to 2016–17*, August 2013, pp. 184–185.

<sup>34</sup> AusNet Services, *2023-27 Transmission Revenue Reset Appendix 9A: Fitting probability distributions to Service Component data Updated for 2020 data*, 1 September 2021.

<sup>35</sup> Our @risk model has been used to set the cap and floor range in most of our recent determinations.

<sup>36</sup> AusNet Services, *Response to AER Information request #22*, 20 January 2022.

**Table 10-4 AusNet Services proposed — distribution, targets, caps and floors for 2022–27**

Parameter	Distribution	Cap (5th percentile)	Target	Floor (95th percentile)
<b>Average circuit outage rate</b>				
Line event rate – fault	Gamma	12.43%	17.09%	22.37%
Transformer event rate - fault	Erlang	6.49%	11.97%	18.80%
Reactive plant event rate - fault	Dagum	14.90%	20.67%	30.43%
Line event rate – forced	FatigueLife	3.82%	10.14%	20.74%
Transformer event rate - forced	Burr12	7.54%	11.97%	15.88%
Reactive plant event rate - forced	Burr12	19.65%	27.78%	34.66%
<b>Loss of Supply Event Frequency</b>				
Number of events greater than 0.05 system minutes per annum	Poisson	0	1	4
Number of events greater than 0.30 system minutes per annum	Poisson	0	1	2
<b>Average Outage Duration</b>				
Average Outage Duration	Triang	10.2	45.6	87.2
<b>Proper operation of equipment (number of events):</b>				
Failure of protection system	Poisson	22	31	40
Material failure of SCADA	Geometric	0	1	3
Incorrect operational isolation of primary or secondary equipment	Poisson	3	6	11

Source: AusNet Services, *Regulatory Proposal 2023–27*, 29 October 2020, pp. 172–173.

Our approved distribution, target, cap and floor values for AusNet Services are set out in Table 10-1.

## 10.6.2 Market impact component (MIC)

### AusNet Services' submission

In its revised proposal, AusNet Services submitted that the MIC is no longer fit-for-purpose because it does not recognise the impact of renewable energy generation penetration or the challenges in managing the change in generation mix.<sup>37</sup> To emphasise this point, AusNet Services stated that in 2020, over 99 per cent of its

<sup>37</sup> AusNet Transmission Group, *Transmission Revenue Review 2023-2027 Revised Revenue Proposal*, 1 September 2021, pp. 140-141.

constrained dispatched intervals were excluded from the performance measure. Accordingly, AusNet Services considers that the MIC requires a fundamental redesign.

In lieu of a fundamental redesign of the MIC, AusNet Services submitted that the AER should adopt a more pragmatic approach in interpreting and applying the MIC's exclusion criteria to accommodate the increase in renewable generation. It listed several MIC exclusions for AER consideration outlined in Table A-1 of Appendix A.

### **AER's consideration**

Fundamentally, AusNet Services' submission relates to how the exclusion criteria should be applied to ensure only outages within the reasonable control of AusNet Services are counted under the scheme.

We acknowledge that there has been a significant increase in semi-dispatched renewable generators in Victoria, particularly in the north-western regions. The management of the integration of these semi-dispatched renewable generators has resulted in a large number of excluded dispatch intervals, that were outside the control of AusNet Services. However, we do not consider that the MIC requires a fundamental redesign at this time.

In order to consider AusNet Services' submission, we will first explain the purpose of the MIC.

### **Purpose of the MIC**

Every 5 minutes, AEMO dispatches the generators with the lowest cost bids to meet demand, subject to transmission power transfer capacity and other constraints. Transmission outages can reduce the power transfer capacity in certain locations. Such reductions in power transfer capacity sometimes prevent AEMO from selecting the available lowest priced generation resource. If this happens, it will lead to sub-optimal dispatching of available generation resources and resulting in a higher spot market price.

The MIC is intended to incentivise TNSPs to consider the impacts on the spot market when planning network outages. This approach should deliver an optimal outcome to consumers because it would aim to result in the NEM operating in the most efficient manner possible.

The MIC measures the number of five-minute dispatch intervals where the network planned outage results in a network constraint with a marginal value greater than \$10/MWh.

The scheme acknowledges that the timing and extent of some planned outages are outside the control of a TNSP. For example, AEMO may impose additional conditions and timing constraints in order to manage system security from time to time. The scheme permits events that are outside the control of a TNSP to be excluded from the measurement of performance data.

If an increasing number of constraints are outside the control of the TNSP, then the scheme is operating as it was designed, in this case leading to the exclusion of a large number of constraints. The MIC is still an important driver for TNSPs to manage their planned outages to minimise the impact on the NEM where the timing and duration of the outages are within the control of the TNSPs.

### **Reviewing the operation of the MIC**

Currently, there are several important reviews into market design reform and system constraints that will affect the operation of the NEM. These include the Energy Security Board's post-2025 Market Design, AEMC's Investigation into system strength frameworks in the NEM, the outcomes of the Coordination of Generation and Transmission Investment (COGATI) review, and the general implementation of actionable projects under AEMO's integrated system plan.

We will continue to monitor the progress of these reviews.

### **How to address the concerns raised by AusNet Services**

Given the recent significant level of semi-dispatch generation in Victoria, we have identified a number of issues arising from the way these generators bid into the market. For example, some constraints arising from planned network outages previously counted under the MIC are actually outside the control of the TNSPs. These constraints are caused by these generators bidding into the market with an export level higher than the actual network configuration would allow. These bids are outside the control of AusNet Services.

We consider that further clarification is required on how the exclusion criteria should be best interpreted and applied under the current market operating environment, such that only events that are within the reasonable control of the TNSP are measured.

Details of the clarification are explained in section 10.6.2.2. We consider this clarification will largely address the concerns raised by AusNet Services while preserving the integrity and objective of the scheme.

We consider that our clarification of the operation of the exclusion criteria also addresses the concerns raised by AusNet Services' CAP that we should maintain the incentive for AusNet Services to optimise its outages to deliver wholesale market price benefits for customer. It is also unlikely to create windfall bonus payments for TNSPs if future transmission network developments reduce the impact of the issues currently being experienced.

This clarification will create a step-change in performance targets and how performance outcomes are measured in future. We do not expect this clarification will alter the operation of the MIC, as long as the performance outcomes are measured in the same way as the performance target is set.

### 10.6.2.1 Our decision

Our role in this regulatory determination is to accept or reject AusNet Services' proposed MIC performance targets for the upcoming regulatory period.

As version 5 of the STPIS is being applied to AusNet Services for the second time, the performance target is to be calculated in accordance with clause 4.2(g) of version 5 of the STPIS.

Under this methodology:

- the performance target for the 2022–27 regulatory control period is calculated as the average of the annual performance measure using the median five out of seven preceding calendar year values of the performance measure. The performance measure is the raw annual performance adjusted for the unplanned outage event limit.<sup>38</sup> The annual performance measure is the result reported at each annual STPIS review. The annual MIC financial incentive is calculated using this result.

Based on feedback from some TNSPs, we will be publishing a guidance note to provide clarity on which seven years will be relevant for setting the MIC performance target. A draft version of the guidance note has been published for consultation.<sup>39</sup>

- the unplanned outage event limit to be applied for the 2022–27 regulatory period is calculated as 17 per cent of the performance target calculated for the 2022–27 regulatory period, in the step above.

AusNet Services submitted a performance target of 1408 dispatch intervals based on its 2014–20 data.<sup>40</sup>

Based on the method of how to apply the exclusion criteria as explained in section 10.6.2.2, we have examined the MIC count data history and determined the performance targets. The incentive rate per DI is \$3,741/DI.

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<sup>38</sup> AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl.4.2(h).

<sup>39</sup> AER, Draft Guidance Note, *Transmission Service Target Performance Incentive Scheme Data period for calculation of Market Impact Component performance target*, November 2021.

<sup>40</sup> AusNet Transmission Group, *Transmission Revenue Review 2023-2027 Revised Revenue Proposal*, 1 September 2021, pp. 140-141.

**Table 10-5 Final decision — MIC parameter values for 2022–27 (pending)**

Regulatory period (RP)	Raw performance count			Capped unplanned count	Adjusted performance count
	Planned	Unplanned	Total (Planned + Unplanned)	Min of Raw Unplanned or 0.17x(M)	planned + capped unplanned
(RP)	(a)	(b)	(a)+(b)	(d)	(e)
2014	630.5	221	851.5	221	851.5
2015	698.49	268	966.49	268	966.49
2016	6133	763	6896	348	6481
2017	2070.5	2527	4597.5	348	2418.5
2018	217	100	317	100	317
2019	2080	686	2766	348	2428
2020	615	447	1062	348	963
Max			6896		6481
Min			317		317
Average of 5 median			2049		1525
			[M]		[T]
PR2:					
MAR [2]: \$5,707,174					
Dollar per dispatch interval: \$3,741					
PR3:					
Performance target: 1525					
Unplanned outage event limit 2022–27: 259					
Unplanned outage event limit current period: 348					

Source: AusNet Services and AER analysis.

### 10.6.2.2 Clarification on the application of exclusions

AusNet Services' revised proposal outlined its interpretation of the exclusions most relevant to outage planning. AusNet Services' proposed changes to the definitions of the existing exclusion criteria and our response to each exclusion are outlined in Appendix A of this attachment.

In particular, we agree that the application of exclusions 1 (force majeure events) and 3A (New asset connections requested by third party or AEMO exclusion) require further clarification. The reasons for the clarification are explained below. The adjusted performance target is now 1,525. Our adjusted target is higher than AusNet Services'

revised proposal of 1,408 because we have not accepted all the proposed approaches regarding the application of exclusions criteria suggested by AusNet Services.

### **Exclusion 1: force majeure events**

AusNet Services' revised revenue proposal sought to include, in exclusion 1, AEMO-imposed Frequency Control Ancillary Services (FCAS) constraints for outages on assets associated with the VIC-SA interconnector, and fixed limit constraints below 250MW.

AusNet Services noted that AEMO's Power System management policy changes following the South Australia system black event has led to the introduction of new, more restrictive constraints which frequently bind during outages and put South Australia on a single contingency. This was partly addressed by the AER in its 2017-22 determination but AusNet Services considered that, as the operational situation in SA had become increasingly complex, the AER's approach to exclusion 1 needed to evolve.

The key driver of a high number of current exclusions is due to semi-dispatched renewable generators bidding into the NEM. Soon after wind and solar farms first entered the market, the previous market operator the National Electricity Market Management Company Limited (now AEMO) recommended that there be a central forecasting system. The Australian Wind Energy Forecasting System and Australian Solar Energy Forecasting System were created for that purpose. These two systems use local solar radiance and wind speed in conjunction with the number of inverters or wind turbines that are available in conjunction with a power curve to produce an energy dispatch level. The participant is therefore not entirely able to control the level of output that feeds into the dispatch mechanisms.

Consequently, when there is a planned outage on the network that directly or indirectly impacts a generator, the Variable Renewable Energy generators (wind or solar farms known as VREs) are not in control of the representation of their capacity bidding into the market systems. Most of these participants may typically offer all their capacity at the market price floor to ensure that they get dispatched.

The MIC of the STPIS counts the number of dispatch intervals (5-minute intervals) where a network constraint for a network outage has a marginal value of \$10/MWh or greater.

Where VREs make offers to the NEM in excess of their nominated export level their output levels will appear as being constrained by a planned outage. We consider that constraints arising from renewable generators not modifying their bids into the market while knowingly aware that a planned network outage is in place should not be counted, because this is outside the control of the TNSPs.

TNSPs cannot control or have influence on semi-dispatch generators offering their maximum potential capacity even though they know that a planned network outage is in place. Therefore, in such situations we agree with AusNet Services that this event would meet the force majeure criteria and should be excluded from the MIC count.



Exclusion 1 will exclude events where a semi-dispatch generator offers its maximum potential capacity even though it knows that a planned network outage is in place. This situation can arise because AEMO imposes dispatch limits on these generators to match the network configuration at the time. As a result of AEMO's capping on output capacity of such generators, the system constraint report shows a binding constraint on the generator. This situation is uncontrollable with respect to the TNSP and so should be excluded from the MIC count.

For example, we have identified and excluded the following constraint codes from the performance measures that relate to changes in AEMO's frequency management policy. If additional constraints of similar nature arise in the forthcoming regulatory period, we will consider whether the new requirements imposed by AEMO are within AusNet Services' reasonable control.

F\_ESTN+LREG\_0210, F\_ESTN+MG\_R6, F\_ESTN+MG\_R60,  
F\_QNV++MG\_R6, F\_QNV++MG\_R60, F\_QNV+DYN\_RREG,  
F\_S+RREG\_0035, F\_QNV++MG\_R5, F\_ESTN+MG\_R5, F\_QNV+MG\_R5,  
F\_QNV+MG\_R6, F\_QNV+MG\_R60, F\_ESTN+RREG\_0220,  
F\_QNV+DYN\_LREG, F\_QNV++ML\_L6\_0400, F\_QNV+ML\_L6\_0400,  
F\_QNV+LREG\_0210, F\_QNV+RREG\_0220, F\_S+LREG\_0035,  
F\_QNV++RREG\_0220, F\_QNV++LREG\_0210, F\_S+RREG\_0070,  
F\_S\_HPRG\_RREG, F\_S\_HPRL\_LREG, F\_S\_LBBG1\_LREG,  
F\_S\_LBBG1\_RREG, F\_S\_LBBL1\_RREG, F\_S\_LBBL1\_LREG,  
F\_ESTN+ML\_L6\_0400, F\_S\_LBBG1\_RREG-5MW, F\_S\_LBBL1\_LREG-5MW,  
F\_S\_HPRL\_LREG-5MW, F\_S\_HPRG\_RREG-5MW, F\_QNV+MLMO\_L6,  
F\_ESTN+TL\_L6\_0600, F\_ESTN+TL\_L5\_0600.

**Exclusion 3A: any planned outage of an asset that is providing prescribed transmission services shown to be primarily caused or initiated for the connection of a new asset that is not providing prescribed transmission services as requested by a third-party or by AEMO**

This exclusion is for any planned outage of an asset that is providing prescribed transmission services shown to be primarily caused or initiated for the connection of a new asset that is not providing prescribed transmission services as requested by a third-party or by AEMO.

AusNet Services' proposal submitted that this exclusion should include all AEMO or VicGrid-initiated contestable and non-contestable projects, including those that will provide prescribed transmission services.

We consider that whether the planned outage is included or excluded will depend on the nature of the project.

AEMO's initiated projects are distinguishable from generation connection projects within AusNet Services' network. Therefore, we consider that outages required for the connection of AEMO initiated contestable projects, that can be identified and separated from generation connection projects in AusNet Services' network, should be excluded.

This view is consistent with AEMO's submission which concluded that outages needed to connect any AEMO initiated augmentation should receive this exemption.<sup>41</sup>

However, the final decision accompanying the STPIS states that only planned outages of assets that are providing prescribed transmission services shown to be primarily caused or initiated for the connection of a new asset that is not providing prescribed transmission services as requested by a third-party or by AEMO are excluded. As such, we do not consider the exclusion should be extended to non-contestable projects.

### **Exclusion 11: Outages to connections with negotiated lower service standards**

In addition to the above clarification, we also clarify the operation of this exclusion criterion because it is related to the matters discussed earlier.

AusNet Services sought to extend the exclusion definition to include any constraint that constrained an individual participant. Its reason is that, currently, there are an unprecedented number of renewable generators operating in Victoria. If these generators continue to bid into the market during an outage (to which AusNet Services has no control over this) a constraint on each individual participant is introduced. Up to 22 DIs can bind simultaneously for each dispatch interval over the duration of the outage. For example, a single 8-hour outage could result in 2,112 binding DIs (170% of the current target), which would have been zero in 2018. This impact cannot be mitigated by outage timing.

We do not accept AusNet Services' proposal.

This clause was designed for participants/TNSPs who negotiated T style connections. Any outages on the main transmission line providing the T-off connections will result in outages to such T-off connections. This exclusion is specifically designed to limit TNSPs' exposure since the connecting parties knowingly accepted a lower level of service as part of a trade-off for a lower connection cost.

It is not appropriate to apply this exclusion clause to the situations described by AusNet Services where a generator is connected conventionally and has not accepted a lower service level. However, situations where generators are constrained as a result of their bidding behaviour, or additional constraints are imposed by AEMO to manage the complex interconnected network during an outage, would meet the requirements of Exclusion 1.

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<sup>41</sup> AEMO *Submission to AER on the Draft Decision and AusNet Services Transmission 2022-27 Revised Proposal*, October 2021, p. 5.

### 10.6.3 Network Capability Component (NCC)

AusNet Services' revised revenue proposal submitted a single NCC project, the Realtime System & Restoration Manager (RTSRM), for AER approval. The RTSRM will enable AusNet Services to plan and validate switching order plans and accelerate the power grid restoration after planned and unplanned outages. This would increase the capability of AusNet Services for creating and analysing small-scale outage and restoration plans typically needed for daily maintenance and fault restoration purposes, thereby providing wider market benefits. By improving the capability of realistic predictions of system conditions, this application would enable effective detection and response, as well as a reduction in restoration times. As a result, this is likely to allow more electricity to be transmitted through the network.<sup>42</sup>

Therefore, the RTSRM will allow for the capacity of the network to transmit or distribute additional energy.<sup>43</sup>

We accept AusNet Services' proposed priority projects and priority project improvement targets because they are consistent with the STPIS. The total expenditure of \$800,000 for the RTSRM priority projects in 2017–22 is not greater than 1 per cent of AusNet Services' proposed average maximum allowed revenue as required by clause 5.2(b) of the STPIS.

The RTSRM project will provide additional capacity or throughput of energy and has a net benefit with a payback of between 1 and 2 years. Further, this project was endorsed by the transmission network planner in Victoria, AEMO.<sup>44</sup>

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<sup>42</sup> AusNet Transmission Group, *2023-27 Transmission Revenue Reset Revised Regulatory Proposal Network Capability Incentive Parameter Action Plan (2023-27)*, 1 September 2021, p. 2.

<sup>43</sup> AER, *Final Electricity transmission network service provider Service target performance incentive scheme, version 5 (corrected)*, October 2015, Clause 5.2(a)(1).

<sup>44</sup> AusNet Transmission Group, *Transmission Revenue Review 2023-2027 Revised Revenue Proposal Appendix 9D: AusNet Services NCIPAP proposal – AEMO letter*, 1 September 2021, pp. 2–3.

# Appendix A – Supporting analysis on exclusions

This appendix sets out AusNet Services' proposed MIC exclusions extension and our assessment and recommendation for each MIC exclusion criteria.

## A.1 AusNet Services' proposed changes

**Table A-1 Summary of AusNet Services exclusions extension**

Exclusion	AusNet Services proposal to extend the application of the exclusion
1. Force majeure events	Extend exclusion definition to include AEMO-imposed Frequency Control Ancillary Services (FCAS) constraints for outages on assets associated with the VIC-SA interconnector, and fixed limit constraints below 250MW.
2. Non-credible to credible contingency event reclassifications	No comment
3. Third party assets	No comment
3A. New asset connections requested by third party or AEMO	Extend exclusion definition to include all AEMO or VicGrid-initiated contestable and non-contestable projects, including those that will provide prescribed transmission services.
4. Non-prescribed transmission services assets	Extend exclusion definition to include O&M outages taken by AusNet's contestable business on assets it owns
5. Personal safety	No comment
6. Operational security	Extend exclusion definition to include outages on assets required by AEMO to manage operational security to enable a concurrent outage to proceed.
7. Network support services	No comment
8. Dispatch intervals affected by manifestly incorrect inputs, inaccuracies or inconsistencies	No comment
9. Temporary network configurations	No comment
10. Ramping constraints	No comment
11. Negotiated lower service standards allowing disruptions	Extend exclusion definition to include any constraint that constrained an individual participant.
12. System tests for priority projects	No comment

Source: AusNet Transmission Group, *Transmission Revenue Review 2023-2027 Revised Revenue Proposal*, 1 September 2021, pp. 143-145.

## A.2 The AER's assessment

### Force majeure exclusion

Matter	Comments
Exclusion criteria as set out in the STPIS	Exclusion criteria 1 A detailed definition of force majeure events is set out in Appendix G of the scheme.
AusNet Services' proposal	Extend exclusion definition to include AEMO-imposed Frequency Control Ancillary Services (FCAS) constraints for outages on assets associated with the VIC-SA interconnector, and fixed limit constraints below 250MW.
AusNet Services' reasons	AEMO's Power System management policy changes following the SA system black event, which has led to the introduction of new, more restrictive constraints which vary frequently bind during outages which put SA on a single contingency. This was partly addressed by the AER in its 2017-22 determination but as the operational situation in SA has got increasingly complex, needs to further evolve.
AER assessment and consideration	<p>We do not accept AusNet Services' proposal.</p> <p>We consider that most of these events should not be excluded. Most of these events result from planned outages, and the TNSP has control over the timing of these outages.</p> <p>That said, the impact of some of these constraints could be 'extraordinary', as these constraints are interconnector constraints to manage the risk of South Australia islanding. Furthermore, some of these events can be categorised as force majeure events (i.e., where an event is unforeseeable and its impact extraordinary, uncontrollable, and not manageable). For example, additional constraints imposed by AEMO that are outside the control of AusNet Services should be excluded.</p> <p>The STPIS scheme instrument contains a specific definition of force majeure to match the design of the scheme. The non-exhaustive definition of force majeure event is "an event that can be considered unforeseeable and its impact extraordinary, uncontrollable and not manageable".</p> <p>For example, semi-scheduled renewable generators typically offer to the market purely based on the available local solar radiance and wind speed input resources in conjunction with the number of inverters or wind turbines that are available, irrespective of whether the network has the capacity to receive the available output such as during network outages that would reduce the power transfer capacity. Consequently, these generators will have a semi dispatch cap imposed by AEMO.</p> <p>Such examples of semi-dispatch generators offering their potential capacity without adjusting their offers into the market while knowingly aware that a planned network outage is in place should not be counted. This situation is outside the control of the TNSP and is inconsistent with the purpose of the scheme.</p>

### New asset connections requested by third party or AEMO exclusion

Matter	Comments
Exclusion criteria as set out in the STPIS	Exclusion criteria 3A Any planned outage of an asset that is providing prescribed transmission services shown to be primarily caused or initiated for the connection of a new asset that is not providing prescribed transmission services as requested by a third-party or by AEMO.
AusNet Services' proposal	Extend exclusion definition to include all AEMO or VicGrid-initiated contestable and non-contestable projects, including those that will provide prescribed transmission services.
AusNet Services' reasons	The Victorian planning arrangements must also be considered. AusNet Services

Matter	Comments
	suggests that the AER has been clear that works associated with the commissioning of contestable augmentations are exempt, and has also previously exempted non-contestable works – these are driven by AEMO and AusNet Services has no control over the number, nature or timing of these projects. AusNet Services is seeking for this approach to be clarified in its determination, and extended to include projects initiated by VicGrid, to provide clarity for AusNet Services, AEMO, customers and the AER going forward.
AER assessment and consideration	<p>We do not accept AusNet Services' proposal.</p> <p>We consider that the exclusion clause does not make clear that it only covers contestable works. The final decision accompanying the STPIS states that outages associated with non-contestable works were not intended to be excluded from the MIC count. As such, we do not consider the exclusion should be extended to non-contestable projects.<sup>45</sup></p>

## Non-prescribed transmission services assets exclusion

Matter	Comments
Exclusion criteria as set out in the STPIS	<p>Exclusion criteria 4</p> <p>Outages on assets that are not providing prescribed transmission services</p>
AusNet Services' proposal	Extend exclusion definition to include operating and maintenance outages taken by AusNet's contestable business on assets it owns which require outages on prescribed assets.
AusNet Services' reasons	This exclusion criterion is anticompetitive and disadvantages AusNet Services' contestable businesses in tender processes, as the same outages would be exempt if owned by another provider.
AER assessment and consideration	<p>We do not accept AusNet Services' proposal</p> <p>We consider that AusNet Services has not clearly explained the rationale for this change or linked it to one of the four problems it considers exists with the scheme.</p> <p>Further, this issue was directly addressed in the final decision accompanying the STPIS. Further, the AER is unable to extend the exclusion, even though the issue arises due to the peculiarities of the Victorian scheme.<sup>46</sup></p>

## Operational security

Matter	Comments
Exclusion criteria as set out in the STPIS	<p>Exclusion criteria 6</p> <p>Outages that are only for the purpose of assisting with operational security, for example where a lower voltage parallel circuit is taken out of service to assist with transfers</p>

<sup>45</sup> AER, *Final Decision Electricity transmission network service providers service target performance incentive scheme, September 2015*, p. 34.

<sup>46</sup> AER, *Final Decision Electricity transmission network service providers service target performance incentive scheme, September 2015*, p. 34.

Matter	Comments
	across an interconnector
AusNet Services' proposal	Extend exclusion definition to include outages on assets required by AEMO to manage operational security to enable a concurrent outage to proceed
AusNet Services' reasons	Deteriorating system strength issues, minimum demand and solar shake off, partly driven by the increasing penetration of renewables, resulting in smaller windows for AusNet Services to take outages at a time which is acceptable to AEMO Operations. The increasing risk to power system security means that during outages for essential maintenance, AEMO may dictate that additional assets also be taken out, increasing the MIC count beyond AusNet Services' control. Directions by AEMO Operations on this basis commenced in September 2020 and is not in AusNet Services' benchmark (nor, unlike the above, has there been an exemption claim made to the AER on this matter).
AER assessment and consideration	We accept AusNet Services' proposal because the proposed approach is consistent with the intent of this exclusion criterion.  The scheme allows us to use our discretion for this exclusion clause to cover this type of event. Outages can be excluded where additional assets are taken out only for the purpose of assisting with operational security while other assets are out for essential maintenance.

## Negotiated lower service standards allowing disruptions exclusion

Matter	Comments
Exclusion criteria as set out in the STPIS	Exclusion criteria 11  Transmission connection agreements where a lower service standard has been negotiated giving the TNSP the right to disrupt service under certain network conditions where the constraint only affects the parties subject to the agreement.
AusNet Services' proposal	Extend exclusion definition to include any constraint that constrained an individual participant.
AusNet Services' reasons	The connection of an unprecedented number of renewable generators in Victoria (to both transmission and distribution networks) and South Australia. If these generators continue to bid into the market during an outage (AusNet has no control over this) a constraint on each individual participant is introduced, and up to 22 DIs can bind simultaneously for the duration of the outage – in 2018 the equivalent number was zero. For a single 8 hour outage, this could result in 2,112 binding DIs (170% of the current target), which would have been zero in 2018. This impact cannot be mitigated by outage timing.
AER assessment and consideration	We do not accept AusNet Services' proposal.  This clause was designed for participants/TNSPs who negotiated T style connections. In these situations, the connecting parties are directly and unavoidably affected by an outage of the line to which they are connected but they have knowingly accepted that situation as part of a trade-off for a lower cost connection.  It is not appropriate to apply this exclusion clause to the situations where a generator is connected conventionally. However, situations where generators are constrained as a result of their behaviour, or additional constraints are imposed by AEMO to manage the complex interconnected network during an outage, would meet the requirements of Exclusion 1.

## Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	capital expenditure
CCP23	Consumer Challenge Panel, sub-panel 23
CESS	capital expenditure sharing scheme
EBSS	efficiency benefit sharing scheme
MAR	maximum allowed revenue
ISP	AEMO's integrated system plan
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
NSP	network service provider
opex	operating expenditure
STPIS	service target performance incentive scheme
TNSP	transmission network service provider

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# Final Decision

**AusNet Services Transmission  
Determination 2022 to 2027  
Attachment 12  
Pricing methodology**

January 2022

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AER reference: 65242

## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final 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

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# 12 Pricing methodology

This attachment sets out our final decision on AusNet Services' proposed pricing methodology for the 2022–27 regulatory control period (1 April 2022 to 31 March 2027).

A pricing methodology must be specified as part of our transmission determination.<sup>1</sup> Its role is to answer the question 'who should pay how much'<sup>2</sup> in order for a transmission business to recover its costs. To do this, a pricing methodology must provide a 'methodology, formula, process or approach'<sup>3</sup> that when applied:

- allocates the aggregate annual revenue requirement (AARR) to the categories of prescribed transmission services that a transmission business provides<sup>4</sup>
- provides for the manner and sequence of adjustments to the annual service revenue requirement<sup>5</sup> and allocates that requirement to transmission network connection points<sup>6</sup>
- determines the structure of prices that a transmission business may charge for each category of prescribed transmission services.<sup>7</sup>

An approved pricing methodology does not relate to negotiated transmission services or other transmission services not subject to economic regulation under chapter 6A of the National Electricity Rules (NER).

AusNet Services' proposed pricing methodology addresses only the pricing matters for which it has responsibility.<sup>8</sup> These are prescribed entry services and prescribed exit services.

In Victoria, the pricing of all other prescribed transmission services is the responsibility of the Australian Energy Market Operator (AEMO).<sup>9</sup> AEMO is also the co-ordinating network service provider in Victoria. It is therefore responsible for allocating the AARR for all transmission businesses in the region including AusNet Services.<sup>10</sup>

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<sup>1</sup> NER, cl. 6A.2.2(4).

<sup>2</sup> AEMC, *Rule determination: National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22*, 21 December 2006, p. 1.

<sup>3</sup> NER, cl. 6A.24.1(b).

<sup>4</sup> NER, cl. 6A.24.1(b)(1).

<sup>5</sup> NER, cl. 6A.24.1(b)(2).

<sup>6</sup> NER, cl. 6A.24.1(b)(3).

<sup>7</sup> NER, cl. 6A.24.1(b)(4).

<sup>8</sup> AusNet Services, *Revised Revenue Proposal 2023–27, Appendix 11A Revised Proposed Pricing Methodology*, 1 September 2021, p. 4.

<sup>9</sup> AusNet Services, *Revised Revenue Proposal 2023–27, Appendix 11A Revised Proposed Pricing Methodology*, 1 September 2021, p. 4.

<sup>10</sup> AusNet Services, *Revised Revenue Proposal 2023–27, Appendix 11A Revised Proposed Pricing Methodology*, 1 September 2021, pp. 4–5.

## 12.1 Final decision

Our final decision is to approve AusNet Services' revised pricing methodology for the 2022–27 regulatory control period (revised pricing methodology).

## 12.2 AusNet Services' revised proposal

Our draft decision was to accept AusNet Services' initial pricing methodology for the 2022–27 regulatory control period, and AusNet Services' revised pricing methodology is largely identical to its initial pricing methodology. AusNet Services has however made minor amendments in its revised pricing methodology to clarify the arrangements for shared exit services, in respect of two matters.

### Measure of demand for cost allocation

AusNet Services' pricing methodology in the 2017–22 regulatory control period used the coincident maximum demand on the 10 highest demand days of the year to allocate costs of exit services between customers at shared exit terminal stations. This measure of demand is consistent with the demand measure AEMO used in its current pricing methodology to set locational charges (named the MD10 method).<sup>11</sup>

AusNet Services' revised proposal noted AEMO has since proposed to change the method of setting locational charges from the MD10 to the 365 day method, which uses the maximum demand recorded on any day of the year.<sup>12</sup>

AusNet Service noted the AER will not make its final decision for AEMO's pricing methodology by the time AusNet Services submitted its revised proposal.<sup>13</sup>

To maintain consistency with AEMO, AusNet Services stated it will use the demand measure which the AER approves in the final decision for AEMO's 2022–27 transmission determination.<sup>14</sup>

### Allocating exit service cost for non-distributor customers

AusNet Services also updated its pricing methodology to reflect its proposed recovery arrangements to account for exit services costs for non-distributor connection customers who share in the use of prescribed connection assets.<sup>15</sup>

AusNet Services clarified that, in relation to the exit service costs for non-distributor connections, AusNet proposes to recognise and treat the shared cost allocated to

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<sup>11</sup> AusNet Services, *Transmission revenue review 2023–27: Revised revenue proposal*, 1 September 2021, p. 164.

<sup>12</sup> AusNet Services, *Transmission revenue review 2023–27: Revised revenue proposal*, 1 September 2021, p. 164.

<sup>13</sup> This is because the timeline for the AusNet Services 2022–27 transmission determination precedes the timeline for the AEMO 2022–27 transmission determination by several months.

<sup>14</sup> AusNet Services, *Revised Revenue Proposal 2023–27, Appendix 11A Revised Proposed Pricing Methodology*, 1 September 2021, pp. 12–13; AusNet Services, *Transmission revenue review 2023–27: Revised revenue proposal*, 1 September 2021, p. 164.

<sup>15</sup> AusNet Services, *Transmission revenue review 2023–27: Revised revenue proposal*, 1 September 2021, p. 164.

non-DNSP customers as a 'negotiated exit charge'.<sup>16</sup> Further, AusNet Services will subtract these charges from its maximum allowed revenues.<sup>17</sup>

Where a non-distribution connection drives augmentation of a connection asset, AusNet Services will not include the non-distributor's share of the asset into the RAB and will recover that share as a negotiated exit charge.<sup>18</sup>

## 12.3 Assessment approach

Please see our draft decision.<sup>19</sup>

## 12.4 Reasons for final decision

This section addresses only the changes AusNet Services introduced into its revised pricing methodology (see section 12.2). For our consideration of other aspects of the revised pricing methodology, please refer to our draft decision.<sup>20</sup>

### Measure of demand for cost allocation

We consider AusNet Services' proposal to use a demand measure that is consistent with AEMO to allocate exit service costs is reasonable.

The costs of connection are often associated with a customer's peak demand. The greater a customer's anticipated or contracted peak demand, the greater its connection needs and, therefore, costs are likely to be (all else being equal).

AEMO stated that the times of greatest utilisation of the network and drivers of transmission investment in Victoria are changing. This is the reason for AEMO's proposal to change from the MD10 to the 365 day method.<sup>21</sup>

We consider it is appropriate that AusNet Services' method for allocating exit service costs reflect these changing drivers.

In addition, we expect to publish our final decision for the AEMO 2022–27 transmission determination in April 2022—some months after this final decision for AusNet Services. We therefore consider it is appropriate that AusNet Services' pricing methodology

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<sup>16</sup> A 'negotiated exit charge' refers to a charge for an exit service which is also a negotiated transmission service within the meaning of the NER, and which is payable by a Transmission Customer (including a non-DNSP customer) to AusNet Services. The negotiated exit charge is subject to AusNet Services' negotiating framework and negotiated transmission service criteria.

<sup>17</sup> AusNet Services, *Revised Revenue Proposal 2023–27, Appendix 11A Revised Proposed Pricing Methodology*, 1 September 2021, p. 13.

<sup>18</sup> AusNet Services, *Revised Revenue Proposal 2023–27, Appendix 11A Revised Proposed Pricing Methodology*, 1 September 2021, p. 13.

<sup>19</sup> AER, *Draft decision: AusNet Services transmission determination 2022 to 2027: Attachment 12: Pricing methodology*, June 2021, pp. 5–8.

<sup>20</sup> AER, *Draft decision: AusNet Services transmission determination 2022 to 2027: Attachment 12: Pricing methodology*, June 2021.

<sup>21</sup> AER, *Draft decision: AEMO transmission determination 2022 to 2027*, October 2021, pp. 15–16.

signal that it would use the demand measure we approve for AEMO as part of its method for allocating exit service costs.

### **Allocating exit service costs for non-distributor customers**

We consider AusNet Services' proposed recovery arrangements to account for exit services costs for non-distributor connection customers who share in the use of prescribed connection assets is, in principle, reasonable. We address this aspect of AusNet Services' revised pricing methodology below, to clarify the intent of this proposed treatment.

In particular, we refer to the following sentence from AusNet Services' revised pricing methodology:<sup>22</sup>

The shared cost allocated will be recognised as a negotiated exit charge and the amount calculated annually will be subtracted from the maximum allowed revenue.

We clarified with AusNet Services that the term "negotiated exit charge" refers to the charges for non-distributor connection customers and means the charges for an "exit service" that is a "negotiated transmission service" as defined under the NER. Therefore, the negotiated exit charge is subject to AusNet Services' negotiating framework and negotiated transmission service criteria.<sup>23</sup>

AusNet Services also stated it would subtract the amount of the negotiated exit charge from the maximum allowed revenue. The amount of the negotiated exit charge would not form part of the annual service revenue requirement for the relevant connections.

To avoid doubt, AusNet Services clarified the negotiated exit charge amounts subtracted from the maximum allowed revenue (more specifically, from the annual service revenue requirement) is revenue that AusNet Services will not recover in the current or future regulatory years under part J of chapter 6A of the NER.<sup>24</sup>

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<sup>22</sup> AusNet Services, *Revised Revenue Proposal 2023–27, Appendix 11A Revised Proposed Pricing Methodology*, 1 September 2021, p. 13.

<sup>23</sup> AusNet Services, *Response to information request #021 - Revised proposed pricing methodology clarification*, 25 November 2021; AusNet Services, *Response to information request #023 - Shared exit services in revised proposed pricing methodology clarification*, 6 December 2021.

<sup>24</sup> AusNet Services, *Response to information request #023 - Shared exit services in revised proposed pricing methodology clarification*, 6 December 2021.



## Shortened forms

Shortened form	Extended form
AARR	aggregate annual revenue requirement
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
DNSP	distribution network service provider
NER	National Electricity Rules
RAB	regulatory asset base

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# Final Decision

## AusNet Services Transmission Determination 2022 to 2027 Attachment 13 Pass through events

January 2022

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AER reference: 65242

## Note

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

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final decision includes the following attachments:

Overview

Attachment 1 – Maximum allowed revenue

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# 13 Pass through events

During the regulatory control period, a service provider can apply to us to pass material changes in its costs arising from pre-defined exogenous events through to customers, in the form of higher or lower network charges. These events are called cost pass through events. Positive pass throughs exist in the rules as a mechanism to allow service providers to recover their efficient costs incurred as a result of events that could not be forecast as part of their proposal that otherwise would have a significant financial effect on the ability of networks to invest in and operate their networks.<sup>1</sup>

The National Electricity Rules (NER) include the following pass through events for all transmission determinations:<sup>2</sup>

- a regulatory change event,
- a service standard event,
- a tax change event,
- an insurance event,
- an inertia shortfall event<sup>3</sup>, and
- a fault level shortfall event.

In addition to these prescribed events, other (nominated) pass through events may be specified in a determination for a regulatory control period.<sup>4</sup>

Our final decision must include a decision on the nominated pass through events that are to apply for the regulatory control period.<sup>5</sup>

This attachment sets out our final decision on the nominated pass through events that will apply to AusNet Services for the 2022–27 regulatory control period.

## 13.1 Final decision

Our final decision is that the following nominated pass through events will apply to AusNet Services for the 2022–27 regulatory control period:

- insurance coverage event
- terrorism event
- natural disaster event

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<sup>1</sup> AEMC 2012, *Cost pass through arrangements for Network Service Providers, Rule Determination*, 2 August 2012, Sydney, p. 2.

<sup>2</sup> NER, cl. 6A.7.3(a1)(1)–(4) and (6)–(7). Each of these prescribed events is defined in Chapter 10 (Glossary) of the NER.

<sup>3</sup> This type of event does not apply in Victoria (see NER, cl 5.20B.4(a)).

<sup>4</sup> NER, cl. 6A.7.3(a1)(5).

<sup>5</sup> NER, cl. 6A.14.1(9).

- insurer credit risk event
- Victorian Energy Minister's power to direct augmentation event.

These events are defined in Table 13.1. The reasons for our decisions are set out in Section 13.4. We accepted the minor amendments AusNet Services proposed to the definitions for the insurance coverage event, terrorism event and natural disaster event. These were to correct an error in the draft decision and ensure the event definitions refer to prescribed transmission services.

Our final decision is to not accept the contamination remediation event AusNet Services re-proposed in its revised proposal. Our reasons for this decision are set out in section 13.4.2

We also note that AusNet Services accepted the draft decision to not accept the nominated major cyber cost pass through, subject to the AER approving its cyber security step change.<sup>6</sup> As set out in section 6.4.4.5 of Attachment 6 of this final decision, based on the fuller justification and updated information provided by AusNet Services on the cyber security operating expenditure (opex) step change, we included a cyber security step change of \$29.7 million (\$2020–21) in our alternative estimate for the final decision. We have also included capital expenditure (capex) associated with cyber security requirements in the final decision.<sup>7</sup> Consistent with the draft decision, we expect AusNet Services would have appropriate safeguards or contingency plans to substantially mitigate the risks and cost impacts of major cyber-attacks. This will be supported by the additional expenditure included in this final decision. Therefore, consistent with our draft decision we have not included a major cyber cost pass through in this final decision.

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<sup>6</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 160-61.

<sup>7</sup> AER, *Final Decision, AusNet Services transmission determination 2022–27, Attachment 5 – Capital Expenditure*, January 2022, p. 21.

**Table 13.1 AER nominated pass through event definitions**

Proposed event	Definition
Insurance coverage event	<p>An insurance coverage event occurs if:</p> <ol style="list-style-type: none"> <li>1. AusNet Services:               <ol style="list-style-type: none"> <li>a) makes a claim or claims and receives the benefit of a payment or payments under a relevant insurance policy or set of insurance policies; or</li> <li>b) would have been able to make a claim or claims under a relevant insurance policy or set of insurance policies but for changed circumstances; and</li> </ol> </li> <li>2. AusNet Services incurs costs:               <ol style="list-style-type: none"> <li>a) beyond a relevant policy limit for that policy or set of insurance policies; or</li> <li>b) that are unrecoverable under that policy or set of insurance policies due to changed circumstances; and</li> </ol> </li> <li>3. The costs referred to in paragraph 2 above materially increase the costs to AusNet Services in providing prescribed transmission services.</li> </ol> <p>For the purposes of this insurance coverage event:</p> <p>'changed circumstances' means movements in the relevant insurance liability market that are beyond the control of AusNet Services, where those movements mean that it is no longer possible for AusNet Services to take out an insurance policy or set of insurance policies at all or on reasonable commercial terms that include some or all of the costs referred to in paragraph 2 above within the scope of that insurance policy or set of insurance policies.</p> <p>'costs' means the costs that would have been recovered under the insurance policy or set of insurance policies had:</p> <ol style="list-style-type: none"> <li>i. the limit not been exhausted; or</li> <li>ii. those costs not been unrecoverable due to changed circumstances.</li> </ol> <p>A relevant insurance policy or set of insurance policies is an insurance policy or set of insurance policies held during the regulatory control period or a previous regulatory control period in which AusNet Services was regulated; and</p> <p>AusNet Services will be deemed to have made a claim on a relevant insurance policy or set of insurance policies if the claim is made by a related party of AusNet Services in relation to any aspect of AusNet Services' network or business; and</p> <p>AusNet Services will be deemed to have been able to make a claim on a relevant insurance policy or set of insurance policies if, but for changed circumstances, the claim could have been made by a related party of AusNet Services in relation to any aspect of AusNet Services' network or business.</p> <p>Note for the avoidance of doubt, in assessing an insurance coverage event through application under rule 6A.7.3(j), the AER will have regard to:</p> <ol style="list-style-type: none"> <li>i. the relevant insurance policy or set of insurance policies for the event</li> <li>ii. the level of insurance that an efficient and prudent TNSP would obtain, or would have sought to obtain, in respect of the event;</li> <li>iii. any information provided by AusNet Services to the AER about AusNet Services' actions and processes; and</li> <li>iv. any guidance published by the AER on matters the AER will likely have regard to in assessing any insurance coverage event that occurs.</li> </ol>



Proposed event	Definition
Terrorism event	<p>Terrorism event means an act (including, but not limited to, the use of force or violence or the threat of force or violence) of any person or group of persons (whether acting alone or on behalf of or in connection with any organisation or government), which:</p> <p>from its nature or context is done for, or in connection with, political, religious, ideological, ethnic or similar purposes or reasons (including the intention to influence or intimidate any government and/or put the public, or any section of the public, in fear); and changes the costs to AusNet Services in providing prescribed transmission services.</p> <p>Note: In assessing a terrorism event pass through application, the AER will have regard to, amongst other things:</p> <ul style="list-style-type: none"> <li>i. whether AusNet Services has insurance against the event;</li> <li>ii. the level of insurance that an efficient and prudent NSP would obtain in respect of the event; and</li> <li>iii. whether a declaration has been made by a relevant government authority that a terrorism event has occurred.</li> </ul>
Natural disaster event	<p>Natural disaster event means any natural disaster including but not limited to cyclone, fire, flood or earthquake that occurs during the 2022–27 regulatory control period that changes the costs to AusNet Services in providing prescribed transmission services, provided the cyclone, fire, flood, earthquake or other event was:</p> <ul style="list-style-type: none"> <li>a) a consequence of an act or omission that was necessary for the service provider to comply with a regulatory obligation or requirement or with an applicable regulatory instrument; or</li> <li>b) not a consequence of any other act or omission of the service provider.</li> </ul> <p>Note: In assessing a natural disaster event pass through application, the AER will have regard to, amongst other things:</p> <ul style="list-style-type: none"> <li>(1) whether AusNet Services has insurance against the event;</li> <li>(2) the level of insurance that an efficient and prudent NSP would obtain in respect of the event.</li> </ul>
Insurer credit risk event	<p>An insurer credit risk event occurs if an insurer of AusNet Services becomes insolvent, and as a result, in respect of an existing or potential claim for a risk that was insured by the insolvent insurer, AusNet Services:</p> <ul style="list-style-type: none"> <li>a) is subject to a higher or lower claim limit or a higher or lower deductible than would have otherwise applied under the insolvent insurer's policy; or</li> <li>b) incurs additional costs associated with funding an insurance claim, which would otherwise have been covered by the insolvent insurer.</li> </ul> <p>Note: in assessing an insurer credit risk event pass through application, the AER will have regard to, amongst other things:</p> <ul style="list-style-type: none"> <li>i. AusNet Services' attempts to mitigate and prevent the event from occurring by reviewing and considering the insurer's track record, size, credit rating and reputation; and</li> <li>ii. in the event that a claim would have been covered by the insolvent insurer's policy, whether AusNet Services had reasonable opportunity to insure the risk with a different provider.</li> </ul>
Victorian Energy Minister's power to direct augmentation event	<p>Victorian Energy Minister's power to direct augmentation event occurs if each of the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>a) the Minister makes an order under section 16Y(1) of the National Electricity (Victoria) Act 2005 (Vic) (Order);</li> <li>b) complying with the Order, increases the cost to AusNet Services of providing prescribed transmission services and AusNet Services is unable to recover such costs from any other prevailing cost recovery arrangements.</li> </ul>

Source: AER analysis

## 13.2 AusNet Services' revised proposal

In its revised proposal, AusNet Services:

- accepted our draft decision in relation to the insurance coverage event, terrorism event, natural disaster event, insurer credit risk event and Victorian Energy Minister's power to augment event<sup>8</sup>
- proposed a minor amendment to each of the insurance coverage, terrorism and natural disaster events to correct an error in the draft decision and ensure the event definitions refer to prescribed transmission services<sup>9</sup>
- accepted our draft decision in relation to the nominated major cyber cost pass through event, subject to us approving its re-proposed cyber security opex step change of \$28.2 million<sup>10</sup>
- did not accept our decision on the contamination remediation event and re-proposed it with additional information.<sup>11</sup>

## 13.3 Assessment approach

The NER set out how we must assess nominated pass through events proposed by a service provider, and how we must assess an application from a service provider to pass through changes in costs where an event occurs.<sup>12</sup>

Our approach to assessing nominated pass through events proposed by service providers is guided by the National Electricity Objective and the Revenue and Pricing Principles. These provide the service provider with a reasonable opportunity to recover at least the efficient costs incurred in providing services and complying with its obligations.<sup>13</sup> They also provide incentives to promote economic efficiency.<sup>14</sup> Together, they promote a balance between the economic costs and risks of the potential for under and over investment by a service provider, to promote efficient investment.<sup>15</sup> In the context of pass through events, we have particular regard to the impact on price, quality, reliability and security of supply that may arise as a result of any change in the efficient operation of, and ability and incentive of, a service provider to invest in its network.<sup>16</sup>

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<sup>8</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 156-57, 161.

<sup>9</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 156-57.

<sup>10</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, p. 161.

<sup>11</sup> AusNet Services, *Revised revenue proposal 2023–27*, 1 September 2021, pp. 157–60.

<sup>12</sup> NER, cl. 6A.7.3; NER, cl. 6A.6.9.

<sup>13</sup> NEL, s. 7A(2).

<sup>14</sup> NEL, s. 7A(3).

<sup>15</sup> NEL, s. 7A(6).

<sup>16</sup> NEL, s. 7; AEMC 2012, *Cost pass through arrangements for Network Service Providers, Rule Determination*, 2 August 2012, Sydney, p. 6.

In determining whether we accept a nominated pass through event, we must take into account the nominated pass through event considerations:<sup>17</sup>

The *nominated pass through event considerations* are:

- (a) whether the event proposed is an event covered by a category of *pass through event* specified in clause 6.6.1(a1)(1) to (4) (in the case of a distribution determination) or clause 6A.7.3(a1)(1) to (4) (in the case of a *transmission determination*);
- (b) whether the nature or type of event can be clearly identified at the time the determination is made for the service provider;
- (c) whether a prudent service provider could reasonably prevent an event of that nature or type from occurring or substantially mitigate the cost impact of such an event;
- (d) whether the relevant service provider could insure against the event, having regard to:
  - (1) the availability (including the extent of availability in terms of liability limits) of insurance against the event on reasonable commercial terms; or
  - (2) whether the event can be self-insured on the basis that:
    - (i) it is possible to calculate the self-insurance premium; and
    - (ii) the potential cost to the relevant service provider would not have a significant impact on the service provider's ability to provide *network services*; and
- (e) any other matter the AER considers relevant and which the AER has notified *Network Service Providers* is a nominated pass through event consideration.

The Australian Energy Market Commission (AEMC) described the purpose of the nominated pass through event considerations as:

- to incorporate and reflect the essential components of a cost pass through regime in the NER. It was intended that in order for appropriate incentives to be maintained, any nominated pass through event should only be accepted when event avoidance, mitigation, commercial insurance and self-insurance are unavailable. That is, a cost pass through event is the least efficient option for managing the risk of unforeseen events.<sup>18</sup>
- that a pass through event should only be accepted when it is the least inefficient option and event avoidance, mitigation, commercial insurance and self-insurance

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<sup>17</sup> NER, cl. 6A.6.9(b); NER Chapter 10: Glossary, definition of 'nominated pass through event considerations'.

<sup>18</sup> AEMC 2012, *Cost pass through arrangements for Network Service Providers, Rule Determination*, 2 August 2012, Sydney, p. 19.

are found to be inappropriate. That is, it is included after ascertaining the most efficient allocation of risks between a service provider and end customers.<sup>19</sup>

In turn, this protects the incentive regime under the NER by limiting the erosion of incentives on service providers to use market based mechanisms to mitigate the cost impacts that would arise.<sup>20</sup> This promotes the efficient investment in, and efficient operation and use of, network services for the long term interests of consumers with respect to price.<sup>21</sup>

As a matter of good regulatory practice, one additional matter<sup>22</sup> we take into account is consistency in our approach to assessing nominated pass through events across our electricity determinations and gas access arrangements.<sup>23</sup>

### 13.3.1 Interrelationships

The pass through mechanism is not the only way in which service providers can manage their risks under a transmission determination. It is interrelated with other parts of this decision, in particular with the forecast opex and capex and rate of return included in our revenue determination. These interrelationships require us to balance the incentives in the various parts of our decision.

For systemic risks, service providers are compensated through the allowed rate of return. Service providers also face business-specific, or residual, risks. Service providers are compensated for the prudent and efficient management of these risks through the forecast opex and capex we include in our revenue determination for strategies such as:

- prevention (avoiding the risk)
- mitigation (reducing the probability and impact of the risk)
- insurance (transferring the risk to another party)
- self-insurance (putting aside funds to manage the likely costs associated with a risk event).

An efficient business will manage its risk by employing the most cost effective combination of these strategies. In order to maintain appropriate incentives under our determinations, we only accept nominated pass through events where we are satisfied that event avoidance, mitigation, commercial insurance and self-insurance under

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<sup>19</sup> AEMC 2012, *Cost pass through arrangements for Network Service Providers, Rule Determination*, 2 August 2012, Sydney, p. 20.

<sup>20</sup> AEMC 2012, *Cost pass through arrangements for Network Service Providers, Rule Determination*, 2 August 2012, Sydney, p.8.

<sup>21</sup> AEMC 2012, *Cost pass through arrangements for Network Service Providers, Rule Determination*, 2 August 2012, Sydney, p.8.

<sup>22</sup> NER, Chapter 10: Glossary, definition of 'nominated pass through event considerations', cl. (e).

<sup>23</sup> AEMC 2012, *Cost pass through arrangements for Network Service Providers, Rule Determination*, 2 August 2012, Sydney, p. 18.

approved forecasts of prudent and efficient opex and capex are either unavailable or inappropriate.<sup>24</sup>

In general, in respect of smaller projects a service provider should be using up its existing expenditure allowance, or reprioritising or substituting its projects, to avoid seeking cost recovery through the pass through mechanisms.<sup>25</sup> This is reflected in the materiality threshold that applies to applications for cost pass through determinations.<sup>26</sup>

Cost pass through amounts approved in a regulatory control period are added to (or in the case of a negative pass through deducted from) forecast opex and capex for the purpose of calculating efficiency carryover amounts under the Efficiency Benefit Sharing Scheme (EBSS) and Capital Expenditure Sharing Scheme (CESS).<sup>27</sup>

Cost pass through amounts that have already been recovered in a regulatory control period cannot be recovered again in the roll-forward of the regulatory asset base for the next regulatory control period.<sup>28</sup>

## 13.4 Reasons for final decision

Consistent with our draft decision, our final decision accepts the following nominated pass through events, with a minor amendment as proposed by AusNet Services:

- insurance coverage event
- terrorism event
- natural disaster event
- insurer credit risk event, and
- Victorian Energy Minister's power to direct augmentation event.<sup>29</sup>

Consistent with our draft decision, we do not accept AusNet Services' re-proposed contamination remediation event. We also retain our draft decision position, which AusNet Services accepted in its revised proposal, to not include the major cyber event.<sup>30</sup>

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<sup>24</sup> AEMC 2012, *Cost pass through arrangements for Network Service Providers, Rule Determination*, 2 August 2012, Sydney, pp. 19–20.

<sup>25</sup> AEMC 2012, *Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper*, 29 November 2012, Sydney, p. 186.

<sup>26</sup> NER, Chapter 10: Glossary, definition of 'materially'.

<sup>27</sup> AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013, p. 7; AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p. 18.

<sup>28</sup> NER, cl. S6A.2.1(f)(1)(ii).

<sup>29</sup> AER, *Draft decision AusNet Services transmission determination 2022–27, Attachment 13 - pass through events*, June 2021, pp. 4–5.

<sup>30</sup> AER, *Draft decision AusNet Services transmission determination 2022–27, Attachment 13 - pass through events*, June 2021, pp. 4–5.

In this section, we set out the reasons for our final decision on each of AusNet Services' proposed nominated pass through events.

### **13.4.1 Insurance coverage event, terrorism event, natural disaster event, insurer credit risk event and Victorian Energy Minister's power to direct augmentation event**

Our final decision accepts AusNet Services' proposed insurance coverage event, terrorism event, natural disaster event, insurer credit risk event and Victorian Energy Minister's power to direct augmentation event.

We are satisfied that these five nominated pass through events are consistent with the nominated pass through event considerations because:

- these events are not covered by the prescribed pass through events under the NER<sup>31</sup>
- the nature and type of events can be clearly identified at the time of our decision<sup>32</sup>
- while a prudent service provider could take steps to reduce the likelihood of these events and the cost impact of the events should they occur,<sup>33</sup> and could insure or self-insure against the event,<sup>34</sup> expenditure beyond a certain point (e.g. to eliminate, rather than manage, risk) is likely to be imprudent or inefficient. In such circumstances we consider a sharing of risk between AusNet Services and its customers is appropriate and more likely to be in the long term interest of consumers with respect to price.

In its revised proposal AusNet Services proposed a minor amendment to the definitions of the insurer credit risk event, terrorism event, natural disaster event and insurance cap event.<sup>35</sup> This amendment corrects an error in the draft decision and ensure the definitions for these events refer to prescribed transmission services. We accept this amendment.

### **13.4.2 Contamination remediation event**

Our final decision is to not include the contamination remediation event proposed by AusNet Services.

AusNet Services re-proposed a nominated pass through event due to the commencement on 1 July 2021 of the *Environment Protection Amendment Act 2018* (VIC) (which amended the *Environment Protection Act 2017* (VIC) (2017 Act) and

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<sup>31</sup> NER, Chapter 10: Glossary, definition of 'nominated pass through event considerations', cl. (a).

<sup>32</sup> NER, Chapter 10: Glossary, definition of 'nominated pass through event considerations', cl. (b).

<sup>33</sup> NER, Chapter 10: Glossary, definition of 'nominated pass through event considerations', cl. (c).

<sup>34</sup> NER, Chapter 10: Glossary, definition of 'nominated pass through event considerations', cl. (d).

<sup>35</sup> AusNet Services, *Revised Revenue Proposal 2023–27*, 1 September 2021, pp. 155–157.

repealed the *Environment Protection Act 1970 (VIC)*).<sup>36</sup> Consistent with its initial proposal, it considered the contamination remediation nominated pass through event will enable it to recover any material costs incurred as a result of managing a site found to be contaminated by the new proactive testing and monitoring regime under the 2017 Act. It provided further information to support its view that a contamination remediation event is the most appropriate regulatory mechanism to recover the cost of material contamination remediation costs. AusNet Services also re-proposed a related opex step change to establish a new proactive testing and monitoring regime as required under the 2017 Act. It revised its estimate of this step change down from \$3.2 million (\$2021–22) in its initial proposal to \$2.0 million (\$2021–22) in the revised proposal. We have included this step change in our alternative estimate for the final decision (see Attachment 6, Section 6.4.4.6).

In our draft decision, we considered it was not clear to us whether AusNet Services could reasonably prevent the event (contamination remediation) from occurring or substantially mitigate the cost of such an event.<sup>37</sup> Our understanding was that the obligations in the 2017 Act continue to put the onus of determining the appropriate risk-management control on the regulated entity and are not prescriptive about what activities may be required in order to discharge the obligation. Such obligations align with the way many businesses and industries already manage risk. We stated that this 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 take reasonably practicable measures to reduce the risk of harm.<sup>38</sup> The Environment Protection Authority in administering the framework adopts a proportionate, risk-based and evidence-based approach guided by historical knowledge of sites for businesses to discharge their obligations.<sup>39</sup>

Further, we stated that we understood that the 2017 Act largely carries over the existing quantitative thresholds for particular contaminants. The duty to manage contaminated land under section 39 of the 2017 Act involves obligations that are comparable to those under the previous environment protection framework (in particular, under the State Environment Protection Policy (Prevention and Management of Contamination of Land) clauses 18 and 21). We considered it was therefore reasonable to expect that most modern companies with existing environmental management systems would already be in a good place to manage these obligations going forward.

We requested in the draft decision that AusNet Services make a clear case that it is appropriate that any future contamination remediation costs should be managed via a nominated pass through event.

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<sup>36</sup> AusNet Services, *Revised Revenue Proposal 2023–27*, 1 September 2021, pp. 157–160.

<sup>37</sup> AER, *Draft decision AusNet Services transmission determination 2022–27, Attachment 13 - pass through events*, June 2021, pp. 13-16.

<sup>38</sup> Environment, Water, Land and Planning Victoria, *Environment Protection Amendment Act 2018 – Fact Sheet*, p. 1.

<sup>39</sup> Environment Protection Authority Victoria, *1915: Contaminated land policy*, p. 7.

Overall, we consider the further information provided by AusNet Services in its revised proposal did not explain any potential material change in the impact / exposure to the contamination remediation risks, or why it would not be able to substantially mitigate any contamination remediation risks via existing measures. We are not persuaded that a nominated cost pass through event is required for the reasons set out in more detail below.

We acknowledge the new environment protection regime under the 2017 Act requires AusNet Services to be more proactive. As noted above, reflecting this additional requirement we have included this step change in our alternative estimate for opex in the final decision.

However, we are not satisfied that as a result of this additional proactive monitoring there will be a material impact on AusNet Services' business or that it will not be able to substantially mitigate the costs of any contamination remediation requirements that are identified through the additional monitoring.

AusNet Services considered it was not possible to identify with certainty those sites which may be affected by historic contamination and noted possible examples of legacy contamination that may be uncovered through enhanced testing.<sup>40</sup> However, our view is that AusNet Services as an electricity business is unlikely with a more proactive monitoring regime to discover contaminated land of the magnitude that cannot be managed via existing mitigation measures. Our technical advice suggests that, unlike major chemical and heavy machinery industries, the main contamination risks faced by energy utilities (like AusNet Services) relate to noise and oil leaks. These specific risks are unlikely to lead to unpredictable, high cost impacts, based on minimal historical public record of such events occurring, as well as the management, maintenance and design practices that are already applied to all power system facilities that pose a noise or oil contamination problem.

We consider 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 and testing and maintenance of these sites. We consider it is reasonable to assume, in the absence of contrary information, that existing environmental management plans covering sites and assets under previous environmental protection obligations would continue to assist in managing and mitigating the type of exposures contemplated by the re-proposed nominated pass through event. We observe that AusNet Services' practices to date appear to have been effective in enabling it to prevent such an event from occurring or substantially mitigating the costs. As AusNet Services noted in its revised proposal, it is already exposed to the risk of contamination that has already occurred (including prior to privatisation and AusNet Services ownership)<sup>41</sup> and that the quantum of the expenditure on land management or remediation is, to some degree, within its

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<sup>40</sup> AusNet Services, *Revised Revenue Proposal 2023–27*, 1 September 2021, pp. 158–159.

<sup>41</sup> AusNet Services, *Revised Revenue Proposal 2023–27*, 1 September 2021, p. 158.



control.<sup>42</sup> We expect the existing risk management measures adopted by AusNet Services would continue to manage known and new exposures going forward.

As stated in the draft decision, we consider that cost pass through events should be the last option available for network businesses to recover costs in order to protect the incentive mechanisms of our framework. The NER cost pass through framework is intended to ensure pass through events should only be accepted when it is the least inefficient option and event avoidance, mitigation and insurance are found to be inappropriate. The incentive on AusNet Services and other service providers to proactively manage land contamination and remediation risks and adopt best practices would also likely be significantly reduced if we were to accept this pass through event.

Accordingly, our final decision is to not accept the contamination remediation pass through event proposed by AusNet Services.

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<sup>42</sup> AusNet Services, *Revised Revenue Proposal 2023–27*, 1 September 2021, p. 160.

## Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
capex	capital expenditure
CESS	capital expenditure sharing scheme
EBSS	efficiency benefit sharing scheme
NEL	National Electricity Law
NER	National Electricity Rules
NSP	network service provider
opex	operating expenditure
TNSP	transmission network service provider