



**DRAFT DECISION**  
**AusNet Services transmission**  
**determination**  
**2017–18 to 2021–22**

**Attachment 12 – Pricing**  
**methodology**

July 2016

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Inquiries about this publication should be addressed to:

Australian Energy Regulator  
GPO Box 520  
Melbourne Vic 3001

Tel: 1300 585 165

Email: [AERInquiry@aer.gov.au](mailto:AERInquiry@aer.gov.au)

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## Note

This attachment forms part of the AER's draft decision on AusNet Services' revenue proposal 2017–22. It should be read with other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – maximum allowed revenue

Attachment 2 – regulatory asset base

Attachment 3 – rate of return

Attachment 4 – value of imputation credits

Attachment 5 – regulatory depreciation

Attachment 6 – capital expenditure

Attachment 7 – operating expenditure

Attachment 8 – corporate income tax

Attachment 9 – efficiency benefit sharing scheme

Attachment 10 – capital expenditure sharing scheme

Attachment 11 – service target performance incentive scheme

Attachment 12 – pricing methodology

Attachment 13 – pass through events

Attachment 14 – negotiated services

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## 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
ASRR	annual service revenue requirement
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
MAR	maximum allowed revenue
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider

Shortened form	Extended form
NTSC	negotiated transmission service criteria
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
TUoS	transmission use of system
WACC	weighted average cost of capital

## 12 Pricing methodology

This attachment is our draft decision on AusNet Services' proposed pricing methodology for the 2017–22 regulatory control period.

A pricing methodology must be specified as part of our transmission determination<sup>1</sup> and answers the question 'who should pay how much'<sup>2</sup> in order for a transmission business to recover its efficient costs. To do this, the National Electricity Rules (NER) sets out that it must provide a 'methodology, formula, process or approach'<sup>3</sup> that when applied:

- allocates the aggregate annual revenue requirement to the categories of prescribed transmission services provided by the transmission business<sup>4</sup>
- provides the manner and sequence of adjustments to the annual service revenue requirement<sup>5</sup> and allocates that requirement to transmission 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>

AusNet Services' proposed pricing methodology addresses only the pricing matters for which it has responsibility.<sup>8</sup> These are prescribed entry and 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 aggregate annual revenue requirement (AARR) for all transmission businesses in the region including AusNet Services.<sup>10</sup>

### 12.1 Draft decision

We approve AusNet Services' proposed pricing methodology for the 2017–22 regulatory control period. As required, the proposed methodology gives effect to the pricing principles in the NER and complies with the requirements of the pricing methodology guidelines.<sup>11</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, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, p. 4.

<sup>9</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, p. 4.

<sup>10</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, p. 4.

<sup>11</sup> NER, cl. 6A.24.1(c).

## 12.2 AusNet Services' proposal

On 30 October 2015, AusNet Services submitted its proposed pricing methodology.

AusNet Services stated that its proposal is 'identical to that approved for the current regulatory control period'.<sup>12</sup> That is, AusNet Services is not proposing to introduce any new or amended pricing arrangements in the 2017–22 regulatory control period.

When considering its proposed pricing methodology, AusNet Services stated that it is important to note that the transmission arrangements in Victoria differ from those in other states.<sup>13</sup> Under these arrangements, AusNet Services owns and operates the majority of the declared shared transmission network. But, unlike other similar network operators in the National Electricity Market (NEM), AusNet Services does not have pricing responsibility for all transmission services in the region. Given this, AusNet Services proposed its pricing methodology should address only the pricing matters for which it has responsibility. These are prescribed entry services and prescribed exit services. This is the same approach which was taken with respect to AusNet Services' approved 2014–17 pricing methodology.

## 12.3 AER's assessment approach

We must approve a proposed pricing methodology if satisfied that it:

- gives effect to, and complies with, the pricing principles for prescribed transmission services<sup>14</sup>
- complies with the information requirements of the pricing method guidelines.<sup>15</sup>

In making our assessment, we agree the transmission arrangements in Victoria need to be considered. In Victoria, ownership and planning of the electricity transmission network is split. Ownership rests with the declared transmission system operators (DTSOs). Of these, AusNet Services is the largest.<sup>16</sup> Planning is the responsibility of AEMO. Its objective as a planner is to ensure that the transmission network operates within the security and performance obligations set out in schedules 5.1a and 5.1 of the NER. AEMO bases its investment decisions on cost benefit analysis and considers the long term interests of electricity consumers.<sup>17</sup>

In addition to its role as planner, AEMO is responsible for managing certain services in Victoria. Prescribed transmission services consist of four types. Figure 12.1 shows each of these and the delineation between the services AusNet Services and AEMO manage. AusNet Services manages connection services. As mentioned, these are

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<sup>12</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, p. 4.

<sup>13</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, p. 4.

<sup>14</sup> NER, clause 6A.24.1(c)(1).

<sup>15</sup> NER, clause 6A.24.1(c)(2).

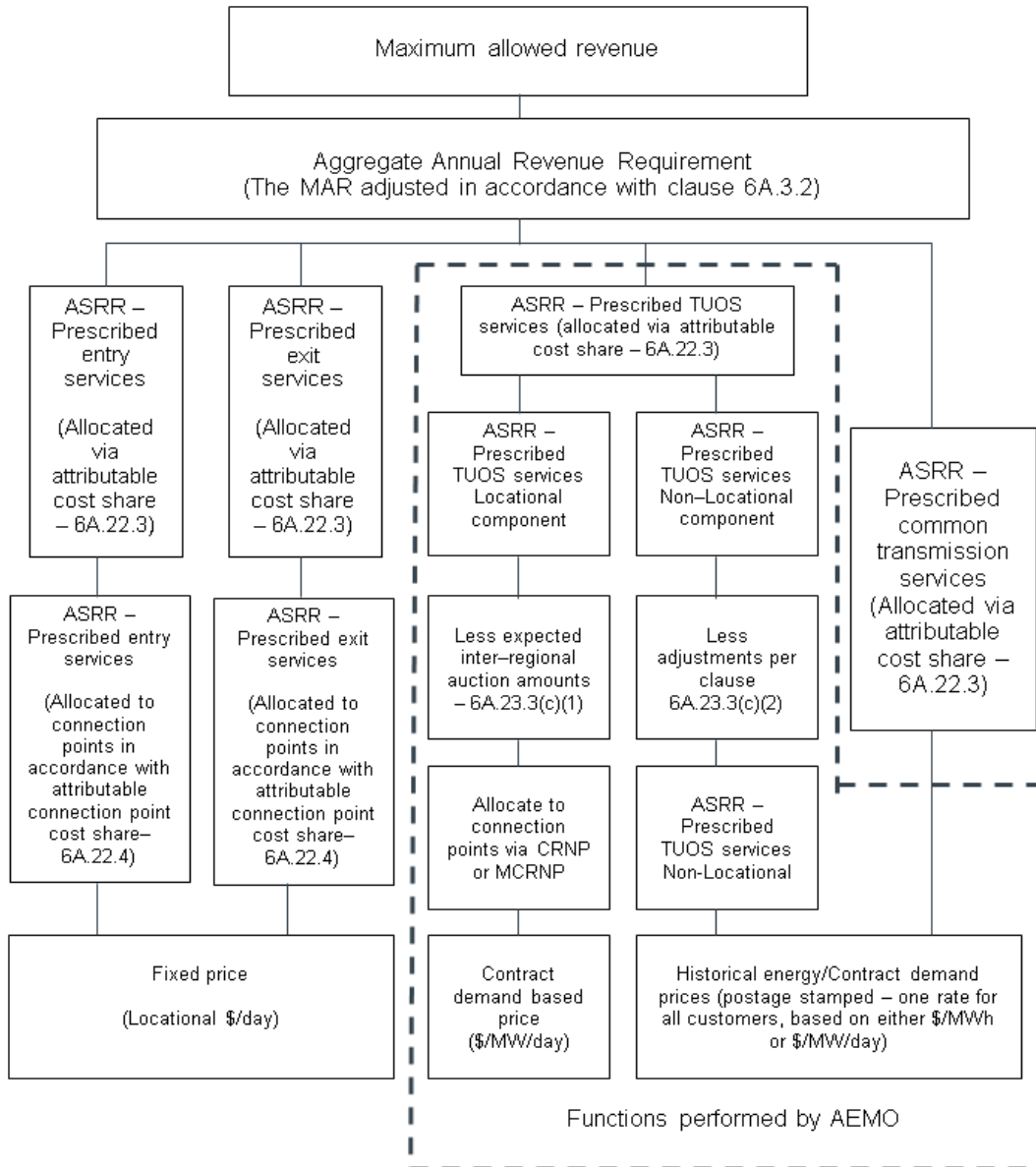
<sup>16</sup> Other DTSOs in Victoria include: Rowville Transmission Facility Pty Ltd; Transmission Operations Australia Pty Ltd; NSW Electricity Network Operations Pty Ltd; Transmission Operations Australia 2 Pty Ltd.

<sup>17</sup> National Electricity Law, section 50F.



prescribed entry services and prescribed exit services. AEMO is responsible for shared transmission services, namely TUOS services and common transmission services. Prescribed TUOS services provide different benefits to transmission customers depending on their location within the transmission system.<sup>18</sup> Prescribed common transmission services provide equivalent benefits to all transmission customers without any differentiation based on their location.<sup>19</sup>

**Figure 12.1 Transmission pricing responsibilities in Victoria**



<sup>18</sup> NER, Chapter 10.

<sup>19</sup> NER, Chapter 10.

Source: AER analysis; AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, p. 17.

The transmission arrangements in Victoria affect AusNet Services' pricing responsibilities. AusNet Services has pricing responsibility for prescribed entry services and prescribed exit services only. Taking this into account we determined that AusNet Services proposed pricing methodology could be approved if it only addressed those connection services. This is consistent with our assessment of AusNet Services current 2014–17 pricing methodology. The services for which AusNet Services does not have pricing responsibility—TUOS services and common transmission services—are addressed by AEMO's 2014–19 pricing methodology.<sup>20</sup>

## 12.4 Reasons for draft decision

We accept AusNet Services proposed pricing methodology. It is the same pricing methodology we approved for AusNet Services' 2014–17 regulatory control period. We also determine that AusNet Services' proposal meets each of the pricing principles and pricing methodology guidelines requirements that are relevant to its responsibility for connection services.

### 12.4.1 Assessment against the pricing principles

In considering AusNet Services' proposed pricing methodology against the requirements of the pricing principles, we addressed only those principles that are relevant to its transmission pricing responsibilities. We consider this approach is appropriate, because the pricing principles are intended to provide scope for TNSPs to develop pricing arrangements that address their operating circumstances.<sup>21</sup>

### Calculation and allocation of annual revenue

We assessed how AusNet Services' proposed pricing methodology calculates and allocates its aggregate annual revenue requirement (AARR). The AARR is derived from an adjustment made to the maximum allowed revenue (MAR) that we approve in AusNet Services' transmission determination. That adjustment must accord with the method prescribed under clause 6A.3.2 of the NER. Table 12.1 summarises our assessment in which we found that AusNet Services' proposal satisfactorily addresses the pricing principles.

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<sup>20</sup> AEMO, *Approved pricing methodology (2014–19)*, April 2014

<sup>21</sup> AEMC, *Rule Determination: National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22*, 21 December 2006, pp. 27–8.

**Table 12.1 AER's assessment of AusNet Services' proposed calculation and allocation of the AARR**

NER requirements	AER assessment
Requirement for the AARR to be calculated as defined in the NER—clause 6A.22.1	Clause 3 of AusNet Services' proposed pricing methodology satisfies this requirement.
Requirement for the AARR to be allocated to each category of prescribed transmission services in accordance with the attributable cost share for each such category of service—clause 6A.22.2	Clause 4.1 and appendix B of AusNet Services' proposed pricing methodology satisfies this requirement.
Requirement for every portion of the AARR to be allocated and for the same portion of AARR to be allocated more than once—clause 6A.23.2(c)	Clause 4.1 and appendix B of AusNet Services' proposed pricing methodology satisfies this requirement.
Subject to clause 11.6.11 of the NER, requirement for adjusting the attributable cost share and priority ordering approach to asset costs that would otherwise be attributed to the provision of more than one other category of prescribed transmission service—clause 6A.23.2(d)	Clause 4.2 and appendix B of AusNet Services' proposed pricing methodology satisfies this requirement.

Source: AER analysis.

## Allocation of annual service revenue to network connection points

We assessed how AusNet Services' proposed pricing methodology allocates the annual service revenue requirement (ASRR). The ASRR is derived from allocating a transmission business's AARR to each category of prescribed transmission services in accordance with each category's attributable cost share.<sup>22</sup> Table 12.2 summarises our assessment which found that AusNet Services' proposal satisfactorily addresses the pricing principles.

**Table 12.2 AER's assessment of AusNet Services' proposed allocation of the ASRR**

NER requirements	AER assessment
Requirement for the whole ASRR for prescribed entry services to be allocated to transmission network connection points in accordance with the attributable connection point cost share for prescribed entry services that are provided by the TNSP at that connection point—clause 6A.23.3(i)	Clause 5.1 of AusNet Services' proposed pricing methodology satisfies this requirement.
Requirement for the whole ASRR prescribed exit services to be allocated to transmission network connection points in accordance with the attributable connection point cost share for prescribed exit services that are provided by the TNSP at that connection point—clause 6A.23.3(j)	Clause 5.1 of AusNet Services' proposed pricing methodology satisfies this requirement.

<sup>22</sup> NER, clause 6A.22.3.

Requirement for the ASRR to be allocated for prescribed TUOS services locational components and pre-adjusted non locational components—clause 6A.23.3(a)

Not addressed, since AEMO (not AusNet Services) is responsible for the pricing of prescribed TUOS services.

Requirement for the recovery of the ASRR for prescribed common transmission services and the operating and maintenance costs incurred in the provision of those services to be recovered through prices charged to transmission customers and network service provider transmission connection points set in accordance with price structure principles set out in clause 6A.23.4—clause 6A.23.3(h)

Not addressed, since AEMO (not AusNet Services) is responsible for the pricing of prescribed common transmission services.

Source: AER analysis.

## Development of price structure

AusNet Services' proposed pricing methodology must develop different prices for recovering the ASRR. We are satisfied that this requirement is met. Table 12.3 summarises our assessment against the pricing principles.

**Table 12.3 AER's assessment of AusNet Services' proposed pricing structure**

NER requirements	AER assessment
Requirement for separate prices for each category of prescribed transmission services—clause 6A.23.4(a)	Clause 6 of AusNet Services' proposed pricing methodology satisfies this requirement for prescribed entry and prescribed exit services.
Requirement for fixed annual amount prices for prescribed entry and exit services—clause 6A.23.4(g)	Clause 6 of AusNet Services' proposed pricing methodology satisfies this requirement.
Requirement for postage stamped prices for prescribed common transmission services—clause 6A.23.4(f)	Not addressed, since AEMO (not AusNet Services) is responsible for the pricing of prescribed common transmission services.
Requirement for prices for locational component of prescribed TUOS services to be based on demand at times of greatest use of the transmission network and for which network investment is most likely to be contemplated—clause 6A.23.4(b)(1)	Not addressed, since AEMO (not AusNet Services) is responsible for the pricing of prescribed TUOS services.
Requirement for prices for the locational component of the ASRR for prescribed TUOS services not to change by more than 2 per cent per year compared with the load weighted average price for this component for the relevant region—clauses 6A.23.4– 6A.23.4(b)(2)	Not addressed, since AEMO (not AusNet Services) is responsible for the pricing of prescribed TUOS services.
Requirement for prices for the adjusted non-locational component of prescribed TUOS services to be on a postage stamped basis—clause 6A.23.4(e)	Not addressed, since AEMO (not AusNet Services) is responsible for the pricing of prescribed TUOS services.

Source: AER analysis.

## 12.4.2 Assessment against the pricing methodology guidelines

We are satisfied AusNet Services' proposed pricing method complies with the information requirements of the pricing method guidelines. Features of the proposal that reflect the guideline requirements include:

- acknowledging AEMO is the coordinating network service in Victoria<sup>23</sup>
- using the priority ordering approach under clause 6A.23.3(d) of the NER to implement priority ordering<sup>24</sup>
- describing how asset costs that may be attributable to both prescribed entry services and prescribed exit services will be allocated at a connection point<sup>25</sup>
- describing billing arrangements as in clause 6A.27 of the NER<sup>26</sup>
- describing prudential requirements as in clause 6A.28 of the NER<sup>27</sup>
- including hypothetical examples<sup>28</sup>
- describing how AusNet Services' intends to monitor and develop records of its compliance with its approved pricing methodology.<sup>29</sup>

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<sup>23</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, clause 1.

<sup>24</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, clause 4.1.

<sup>25</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, clause 5.

<sup>26</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, clause 7.

<sup>27</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, clause 8.

<sup>28</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, Appendix B.

<sup>29</sup> AusNet Services, *Revenue proposal, Appendix 14A: Pricing methodology*, October 2015, clause 7.1.