



DRAFT DECISION
TransGrid transmission
determination
2018 to 2023

Attachment 12 – Pricing
methodology

September 2017

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Note

This attachment forms part of the AER's draft decision on TransGrid's transmission determination for 2018–23. It should be read with all 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
DMIA	demand management innovation allowance
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
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

Shortened form	Extended form
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 sets out our draft determination on TransGrid's proposed pricing methodology for the 2018–23 regulatory control period.

This attachment specifies the pricing methodology that the transmission network service provider (TNSP) is to apply in determining prices for the recovery of regulated transmission revenues.¹ The National Electricity Rules (NER) set out that the service provider must provide a 'methodology, formula, process or approach'² that, when applied:

- allocates the aggregate annual revenue requirement to the categories of prescribed transmission services that a transmission business provides³
- provides for the manner and sequence of adjustments to the annual service revenue requirement⁴ and allocates that revenue requirement to transmission connection points⁵
- determines the structure and recovery of prices that a transmission business may charge for each category of prescribed transmission services.⁶

A pricing methodology relates to prescribed transmission services only. For negotiated services, TransGrid must comply with other requirements, which are discussed in attachment 14 (negotiated services) of this draft decision.

12.1 Draft decision

We approve TransGrid's proposed pricing methodology for the 2018–23 regulatory control period.

12.2 TransGrid's proposal

TransGrid stated that there are no differences between its proposed pricing methodology and its current pricing methodology.⁷

TransGrid also stated that in developing its proposed pricing methodology for 2018–23, it engaged with its customers and stakeholders and it found that customers were satisfied with the form and approach of the current methodology.⁸

¹ NER, cl. 6A.2.2(4).

² NER, cl. 6A.24.1(b).

³ NER, cl. 6A.24.1(b)(1) and (b)(3).

⁴ NER, cl. 6A.24.1(b)(2).

⁵ NER, cl. 6A.24.1(b)(3).

⁶ NER, cl. 6A.24.1(b)(4).

⁷ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, pp. 5, 15–17, 24.

⁸ TransGrid, *Revenue Proposal 2018/19 - 2022/23*, 31 January 2017, p. 46.

12.3 Assessment approach

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

- gives effect to, and complies with, the pricing principles for prescribed transmission services, and
- complies with the requirements of, and contains or is accompanied by information required by, the pricing methodology guidelines.⁹

Our assessment approach was guided by these requirements.

We also considered the pricing methodology TransGrid employed, and which we approved, during the 2014-18 regulatory control period.

12.3.1 Inter-relationships

There are several transmission network service providers (TNSPs) in each of the New South Wales (NSW) and Australian Capital Territory (ACT) regions. The other TNSPs are the Directlink interconnector and electricity distributors which have electricity transmission assets – Ausgrid in NSW and ActewAGL in ACT. TransGrid is the appointed Co-ordinating Network Service Provider for the NSW and the ACT regions. As the appointed Co-ordinating Network Service Provider, TransGrid applies its pricing methodology to determine the transmission prices to be charged in the NSW and ACT regions to recover the regulated transmission revenues of Ausgrid, ActewAGL, Directlink and itself in line with clause 6A.29.1 of the NER.¹⁰

12.4 Reasons for draft decision

We consider that TransGrid's proposed methodology gives effect to the pricing principles for prescribed transmission services in the NER and complies with the requirements of the AER's pricing methodology guidelines.¹¹

TransGrid's proposed methodology is the same methodology we approved for TransGrid's 2014–18 regulatory control period.

We note the changes in wording and presentation from the current methodology document to the proposed document, including:

- a table of definitions of terms used (based on the NER)¹²
- more detailed representation of transmission pricing¹³
- more detailed billing information requirements¹⁴

⁹ NER, cl. 6A.24.1(c); AER, *Electricity transmission service providers, Pricing methodology guidelines*, July 2014.

¹⁰ NER, cl. 6A.29; TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, p. 5.

¹¹ NER, cl. 6A.24.1(c).

¹² TransGrid, *Revenue Proposal 2018/19 - 2022/23*, 31 January 2017, p. 5.

¹³ TransGrid, *Revenue Proposal 2018/19 - 2022/23*, 31 January 2017, pp. 8 and 15.

- discussion of inter-regional charging moved from attachment to the main document.¹⁵

We accept these document revisions do not alter the current pricing methodology and are not inconsistent with the rules and the AER guideline. TransGrid stated it made document revisions to improve readability.¹⁶

TransGrid's states that it engaged with its customers and stakeholders in drafting its proposed pricing methodology, and that its customers were satisfied with the form and approach of the current methodology.¹⁷

In a submission on TransGrid's revenue proposal, the Consumer Challenge Panel, sub-panel 9 (CCP9) submitted that the AER should seek further evidence of continued customer support for the current pricing methodology:

...we have observed a general view that TransGrid's tariff review process was effective and that TransGrid responded appropriately to the views of most stakeholders given the limitations under the Rules. However, for the purposes of the Regulatory Proposal, CCP 9 would prefer to see further evidence presented of continued customer support for the existing pricing methodology.¹⁸

TransGrid submitted, together with its revenue proposal, supporting information to demonstrate the engagement it undertook with its customers on, among others, its proposed pricing methodology.¹⁹ Further, TransGrid released in late 2016 an online stakeholder consultation paper on its pricing methodology in preparation for its revenue proposal submission.²⁰ Following its review of and consultation on the current pricing methodology, TransGrid states that no changes have been proposed from the current methodology.²¹

12.4.1 Assessment against the pricing principles for prescribed transmission services

We consider that TransGrid's proposed pricing methodology meets the requirements of the pricing principles in the NER. The pricing principles are intended to provide scope for transmission businesses to develop pricing arrangements that address the

¹⁴ TransGrid, *Revenue Proposal 2018/19 - 2022/23*, 31 January 2017, p. 18.

¹⁵ TransGrid, *Revenue Proposal 2018/19 - 2022/23*, 31 January 2017, pp. 19-24. A rule change by the AEMC required inter-regional transmission charges to be applied from 1 July 2015. All Co-ordinating Network Service Providers were required to amend their pricing methodologies by 27 February 2015 to give effect to the new rule and comply with AER guidelines.

¹⁶ TransGrid, *Revenue Proposal 2018/19 - 2022/23*, 31 January 2017, p. 5.

¹⁷ TransGrid, *Revenue Proposal 2018/19 - 2022/23*, 31 January 2017, p. 46.

¹⁸ Consumer Challenge Panel sub-panel 9, *Submission to the AER; Response to proposals from TransGrid for a revenue reset for 2018-19 to 2022-23*, 12 May 2017, p. 85.

¹⁹ TransGrid, *Appendix C Consumer engagement activities, feedback and TransGrid's response*, 31 January 2017.

²⁰ TransGrid, *Pricing Methodology Stakeholder Consultation*, September 2016, available at <https://www.transgrid.com.au/pricing-consultation> (viewed 6 June 2017).

²¹ TransGrid, *Revenue Proposal 2018/19 - 2022/23*, 31 January 2017, p. 5.

circumstances in which they operate their network.²² This limits our review to a high-level assessment.

Calculation and allocation of the aggregate annual revenue requirement

We assessed TransGrid’s method for calculating and allocating its aggregate annual revenue requirement, and consider that this aspect of TransGrid’s proposed pricing methodology meets the NER requirements.

The aggregate annual revenue requirement (AARR) is the 'maximum allowed revenue' adjusted:

- in accordance with clause 6A.3.2 of the NER, for a number of factors such as cost pass throughs, service target performance incentive scheme outcomes, and contingent projects, and
- by subtracting the operating and maintenance costs expected to be incurred in the provision of prescribed common transmission services.

Table 12.1 summarises our review of how TransGrid’s proposed pricing methodology calculates and allocates the business’ aggregate annual revenue requirement.

Table 12.1 TransGrid’s proposed calculation and allocation of the AARR and the NER requirements

NER requirements	AER Assessment
Requirement for the AARR to be calculated as defined in the NER—clause 6A.22.1	Section 5.1 of TransGrid’s proposed pricing methodology complies with this requirement.
Requirement for the AARR to be allocated to each category of prescribed transmission services in accordance with attributable cost share for each such category of services—clause 6A.23.2(a)	Sections 5.2 and 5.3 of TransGrid’s proposed pricing methodology comply with this requirement.
Requirement for every portion of the AARR to be allocated and for the same portion of AARR not to be allocated more than once—clause 6A.23.2(c)	Section 5.2 and Appendix C of TransGrid’s proposed pricing methodology comply with this requirement.
Subject to clause 11.6.11 of the NER, requirement for adjusting attributable cost share and priority ordering approach to asset costs that would otherwise be attributed to the	Appendix C of TransGrid’s proposed pricing methodology complies with this requirement.

²² AEMC, *Rule Determination: National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No 22*, 21 December 2006, pp. 27–28.

provision of more than one category of prescribed transmission services—clause 6A.23.2(d)

Allocation of the ASRR to transmission network connection points

We assessed TransGrid’s proposed pricing methodology for allocating the annual service revenue requirement (ASRR), and consider this aspect of TransGrid’s proposal meets the NER requirements. Table 12.2 summarises our assessment.

Table 12.2 TransGrid’s proposed allocation of the ASRR and the NER requirements

NER requirements	AER assessment
<p>Requirement for 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)</p>	<p>Section 6 of TransGrid's proposed pricing methodology complies with this requirement.</p>
<p>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)</p>	<p>Section 6 of TransGrid's proposed pricing methodology complies with this requirement.</p>
<p>Requirement for the allocation of the ASRR for:</p> <ul style="list-style-type: none"> • prescribed TUOS services • locational components • pre-adjusted non-locational components <p>—clause 6A.23.3(a) to (g)</p>	<p>Section 6 and Appendices A and B of TransGrid's proposed pricing methodology comply with this requirement.</p>
<p>Requirement for adjusting attributable cost share and priority ordering approach to asset costs that would otherwise be attributed to the provision of more than one category of prescribed transmission services—clause 6A.23.2(d)</p>	<p>Appendix C of TransGrid’s proposed pricing methodology complies with this requirement.</p>
<p>Requirement for the recovery of the ASRR for prescribed common transmission services and</p>	<p>Sections 5 and 6 of TransGrid’s proposed pricing methodology comply with this</p>

NER requirements	AER assessment
the operating and maintenance costs incurred in the provision of those services to be recovered through prices charged to transmission customers and connection points set in accordance with price structure principles set out in clause 6A.23.4—clause 6A.23.3(h)	requirement.

Development of price structure

We assessed TransGrid's proposed pricing methodology and process for developing different prices for recovering the ASRR, and consider this aspect of TransGrid's proposal meets the NER requirements. Table 12.3 summarises our assessment.

Table 12.3 TransGrid's proposed pricing structure and the NER requirements

NER requirements	AER assessment
Requirement for separate prices for each category of prescribed transmission services—clause 6A.23.4(a)	Section 7 of TransGrid's proposed pricing methodology complies with this requirement.
Requirement for fixed annual amount prices for prescribed entry services and prescribed exit services—clause 6A.23.4(g)	Section 7.1 of TransGrid's proposed pricing methodology complies with this requirement.
Requirement for postage stamped prices for prescribed common transmission services—clause 6A.23.4(f)	Section 7.4 of TransGrid's proposed pricing methodology complies with this requirement.
Requirement for prices for locational component of prescribed TUOS services to be based on demand at times of greatest utilisation of the transmission network and for which network investment is most likely to be contemplated—clause 6A.23.4(b)(1)	Section 7.2 and Appendix A of TransGrid's proposed pricing methodology comply with this requirement.
Requirement for prices for the locational component of ASRR for prescribed TUOS services not to change by more than 2 per cent per year compared with the load weighted average prices for this component for the relevant region—clause 6A.23.4(b)(2)	Section 7.2 of TransGrid's proposed pricing methodology complies with this requirement.
Requirement for prices for the adjusted non-locational component of prescribed TUOS services to be on a postage stamp basis—clause 6A.23.4(e)	Section 7.3 of TransGrid's proposed pricing methodology complies with this requirement.

12.4.2 Assessment against the pricing methodology guidelines for prescribed transmission services

We are satisfied that TransGrid's proposed pricing methodology complies with the information requirements of the pricing methodology guidelines.

Key features of the proposal include:

- acknowledging that there are multiple TNSPs in the New South Wales region (the others being Ausgrid, Directlink and ActewAGL) and that TransGrid is the Co-ordinating Network Service Provider for the region²³
- calculating the locational component of prescribed TUOS services costs using a cost reflective network pricing methodology²⁴
- basing the locational prescribed TUOS services price on a contract agreed maximum demand or the average half-hourly maximum demand at a connection point²⁵
- using a postage stamp pricing structure for the non-locational component of prescribed TUOS services and prescribed common transmission services²⁶
- using the priority ordering approach under clause 6A.23.3(d) of the NER to implement priority ordering²⁷
- describing how asset costs that may be attributable to both prescribed entry services and prescribed exit services will be allocated at a connection point²⁸
- describing billing arrangements as in clauses 6A.27, 6A.29A.4 and 6A.29A.5 of the NER²⁹
- describing prudential requirements as in clause 6A.28 of the NER³⁰
- including hypothetical worked examples for:
 - allocation of AARR to transmission services³¹
 - allocation of AARR to connection points³²

²³ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, pp. 5 and 9.

²⁴ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, section 6.2 pp. 12–14.

²⁵ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, sections 5.3, 6.1, 11.5 and 11.6.

²⁶ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, section 7.3 pp. 16–17.

²⁷ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, Appendix C, pp. 28-38.

²⁸ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, section 7.1 p. 15.

²⁹ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, section 8 pp. 17–18; section 11.3 p. 21; section 11.4 pp. 21-22.

³⁰ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, section 9 p. 18.

³¹ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, section 5.3 p. 10.

- modified load export charge³³
- describing how TransGrid intends to monitor and develop records of its compliance with its approved pricing methodology, the pricing principles and Part J of the NER.³⁴

³² TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, section 6.1 pp. 11–12.

³³ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, sections 11.5 and 11.6 pp. 22–24.

³⁴ TransGrid, *Pricing Methodology 2018/19 - 2022/23*, 31 January 2017, section 12 p. 24.