



FINAL DECISION
TransGrid transmission
determination
2015–16 to 2017–18

Attachment 2 – Regulatory
asset base

(Substituted)
July 2015

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AER reference: 53444

Amendment record

Version	Date
01	30 April 2015
02	3 July 2015

Note

This attachment forms part of the AER's final decision on TransGrid's revenue proposal 2015–18. It should be read with other parts of the final decision.

The final 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

2 Regulatory asset base

The regulatory asset base (RAB) is the value of the assets used by TransGrid to provide prescribed transmission services.¹ These include transmission lines, substations, IT systems, land and easements, motor vehicles and buildings. The AER's revenue determination is to specify the RAB as at the commencement of the regulatory control period and the appropriate method for the indexation of the RAB.² The indexation of the RAB is one of the building blocks that form the annual building block revenue requirement for each year of the 2014–18 period.³ We set the RAB as the foundation for determining a TNSP's revenue requirements, and use the opening RAB for each regulatory year to determine the return on capital and return of capital (regulatory depreciation) building block allowances.⁴

This attachment presents our final decision on the opening RAB value as at 1 July 2014 for TransGrid. It also presents our forecast RAB values for TransGrid over the 2014–18 period.

2.1 Final decision

We determine TransGrid's opening RAB to be \$6075.8 million (\$ nominal) as at 1 July 2014. The difference of \$0.5 million between this amount and TransGrid's revised proposal reflects an adjustment to correct for an indexation error applied to the 2013–14 actual capex value.

We do not accept TransGrid's revised proposed forecast closing RAB as at 30 June 2018 of \$7113.5 million. We instead determine the forecast closing RAB to be \$6708.2 million. This is \$405.3 million (or 5.7 per cent) lower than TransGrid's revised proposal. Our final decision on the forecast closing RAB reflects our adjustments to TransGrid's forecast capex (attachment 6), forecast regulatory depreciation (attachment 5) and the forecast inflation rate (attachment 3).

We note that TransGrid's revised proposal adopted our draft decision on the use of forecast depreciation for establishing the RAB at the commencement of the regulatory control period from 1 July 2018.⁵ We therefore maintain our draft decision position on this issue for this final decision.

Table 2-1 and Table 2-2 set out our final decisions on the roll forward of TransGrid's RAB during the 2009–14 regulatory control period and its forecast RAB for the 2014–18 period respectively.

¹ NER, cl. 6A.6.1.

² NER, cl. 6A.4.2(3A) and (4).

³ NER, cl. 6A.5.4(a)(1) and (b)(1).

⁴ NER, cl. 6A.5.4(a)(2) and (3).

⁵ TransGrid, *Revised revenue proposal*, January 2015, p. 111.

Table 2-1 AER's final decision on TransGrid's RAB for the 2009–14 regulatory control period (\$ million, nominal)

	2009–10	2010–11	2011–12	2012–13	2013–14
Opening RAB	4217.5	4578.8	4926.0	5174.6	5607.2
Capital expenditure ^a	418.5	376.2	354.8	502.2	485.6
CPI indexation on opening RAB	121.8	152.6	78.1	129.5	164.3
Straight-line depreciation ^b	-179.0	-181.7	-184.2	-199.1	-222.3
Closing RAB	4578.8	4926.0	5174.6	5607.2	6034.8
Difference between estimated and actual capex (1 July 2008 to 30 June 2009)					25.2
Return on difference for 2008–09 capex					15.8
Opening RAB as at 1 July 2014					6075.8

Source: AER analysis.

- (a) As incurred, net of disposals, and adjusted for actual CPI.
(b) Adjusted for actual CPI. Based on as-commissioned capex.

Table 2-2 AER's final decision on TransGrid's RAB for the 2014–18 period (\$ million, nominal)

	2014–15	2015–16	2016–17	2017–18
Opening RAB	6075.8	6241.5	6451.1	6577.6
Capital expenditure ^a	264.0	323.2	255.0	243.6
CPI indexation on opening RAB	144.6	148.5	153.5	156.5
Straight-line depreciation ^b	-242.9	-262.2	-281.9	-269.5
Closing RAB	6241.5	6451.1	6577.6	6708.2

Source: AER analysis.

- (a) As incurred, and net of disposals. In accordance with the timing assumptions of the PTRM, the capex includes a half-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.

2.2 TransGrid's revised proposal

TransGrid's methodology for determining the opening RAB value is unchanged from its initial proposal, due to our acceptance of this approach in the draft decision. TransGrid's revised proposed opening RAB was \$6076.3 million (\$ nominal) as at

1 July 2014.⁶ As TransGrid has updated the roll forward model (RFM) with actual capex for 2013–14, the opening RAB in its revised proposal is lower than its initial proposal.

TransGrid has downwardly revised its forecast capex for the 2014–18 period in its revised proposal (see attachment 6). As such, TransGrid's forecast closing RAB of \$7113.5 million (\$ nominal) is \$113.1 million (or 1.6 per cent) lower than its initial proposal.⁷

Table 2-3 and Table 2-4 present TransGrid's proposed roll forward of the RAB during the 2009–14 regulatory control period and the 2014–18 period, respectively. The RAB roll forward for the 2009–14 regulatory control period uses depreciation based on actual capex. The projected RAB roll forward for the 2014–18 period uses depreciation based on forecast capex.

TransGrid's revised proposal adopted our draft decision to use the forecast depreciation approach for establishing the RAB at the commencement of the regulatory control period from 1 July 2018. This approach will apply to both the transitional (2014–15) and subsequent (2015–18) regulatory control periods.⁸

Table 2-3 TransGrid's revised proposed RAB for the 2009–14 regulatory control period (\$ million, nominal)

	2009–10	2010–11	2011–12	2012–13	2013–14
Opening RAB	4217.5	4578.8	4926.0	5174.6	5607.2
Capital expenditure ^a	418.5	376.2	354.8	502.2	486.1
CPI indexation on opening RAB	121.8	152.6	78.1	129.5	164.3
Straight-line depreciation ^b	-179.0	-181.7	-184.2	-199.1	-222.3
Closing RAB	4578.8	4926.0	5174.6	5607.2	6035.3
Difference between estimated and actual capex (1 July 2008 to 30 June 2009)					25.2
Return on difference for 2008–09 capex					15.8
Opening RAB as at 1 July 2014					6076.3

Source: TransGrid, *Revised revenue proposal*, January 2015, p. 110.

(a) As incurred, net of disposals, and adjusted for actual CPI.

(b) Adjusted for actual CPI. Based on as-commissioned capex.

⁶ TransGrid, *Revised revenue proposal*, January 2015, pp. 109–110.

⁷ TransGrid, *Revised revenue proposal*, January 2015, p. 110.

⁸ TransGrid, *Revised revenue proposal*, January 2015, p. 111.

**Table 2-4 TransGrid's revised proposed RAB for the 2014–18 period
(\$ million, nominal)**

	2014–15	2015–16	2016–17	2017–18
Opening RAB	6076.3	6343.3	6658.5	6878.5
Capital expenditure ^a	358.3	421.0	340.8	340.8
CPI indexation on opening RAB	–243.2	–264.3	–287.3	–277.7
Straight-line depreciation ^b	151.9	158.6	166.4	171.9
Closing RAB	6343.3	6658.5	6878.5	7113.5

Source: TransGrid, *Revised revenue proposal*, January 2015, p.110.

(a) As incurred, and net of disposals.

(b) Based on as-commissioned capex.

2.3 AER's assessment approach

We did not change our assessment approach for the RAB from our draft decision. Section 2.3 of our draft decision details that approach.

2.4 Reasons for final decision

We do not accept TransGrid's revised proposed opening RAB value of \$6076.3 million as at 1 July 2014 due to a small indexation error in 2013–14 actual capex. After adjusting for this error, we determine the opening RAB value to be \$6075.8 million as at 1 July 2014.

We do not accept TransGrid's revised proposed forecast closing RAB of \$7113.5 million at the end of the 2014–18 period. Instead, we determine a forecast closing RAB value of \$6708.2 million, a reduction of \$405.3 million (or 5.7 per cent). The reasons for the reduction are our adjustments to TransGrid's forecast capex (attachment 6), forecast depreciation (attachment 5) and forecast inflation rate (attachment 3).

2.4.1 Opening RAB at 1 July 2014

We determine TransGrid's opening RAB to be \$6075.8 million as at 1 July 2014.

In our draft decision, we accepted TransGrid's proposed method for determining its opening RAB value as at 1 July 2014, subject to updating for actual capex for 2013–14.

In its revised proposal, TransGrid updated its estimated capex for 2013–14 with actual capex in the RFM. We reviewed these capex inputs to see if they reconciled with TransGrid's regulatory accounts for that year submitted to us and identified a small

discrepancy. We raised this discrepancy with TransGrid and it acknowledged that there was an indexation error applied to its revised proposal. TransGrid resubmitted the corrected 2013–14 actual capex value.⁹ The correction results in a reduction of \$0.5 million to the revised proposed opening RAB value as at 1 July 2014. While this adjustment is small, we have decided to require the change because it was a clear clerical error.

2.4.2 Closing RAB at 30 June 2018

We determine TransGrid's forecast closing RAB to be \$6708.2 million as at 30 June 2018. This represents a reduction in TransGrid's revised proposal of \$405.3 million (or 5.7 per cent). This reduction reflects our final decision on the inputs for determining the forecast RAB in the post-tax revenue model (PTRM). To determine the forecast RAB value for TransGrid, we amended the following PTRM inputs:

- We reduced TransGrid's revised proposed opening RAB value by \$0.5 million as at 1 July 2014 (section 2.4.1).
- We reduced TransGrid's revised proposed forecast capex for the 2014–18 period by \$375.3 million (\$ nominal) or 25.7 per cent (attachment 6).
- We increased TransGrid's proposed forecast regulatory depreciation allowance by \$29.5 million (\$ nominal) or 7.0 per cent (attachment 5).
- We reduced TransGrid's revised proposed forecast inflation rate of 2.50 per cent per annum to 2.38 per cent per annum (attachment 3).

⁹ TransGrid, *Email response to information request by AER*, 27 January 2015.