f



 FINAL DECISION

TransGrid transmission determination

 2015−16 to 2017−18

Attachment 2 – Regulatory asset base

April 2015

© Commonwealth of Australia 2015

This work is copyright. In addition to any use permitted under the Copyright Act 1968, all material contained within this work is provided under a Creative Commons Attributions 3.0 Australia licence, with the exception of:

* the Commonwealth Coat of Arms
* the ACCC and AER logos
* any illustration, diagram, photograph or graphic over which the Australian Competition and Consumer Commission does not hold copyright, but which may be part of or contained within this publication. The details of the relevant licence conditions are available on the Creative Commons website, as is the full legal code for the CC BY 3.0 AU licence.

Requests and inquiries concerning reproduction and rights should be addressed to the:

Director, Corporate Communications
Australian Competition and Consumer Commission
GPO Box 4141, Canberra ACT 2601

or publishing.unit@accc.gov.au.

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: (03) 9290 1444
Fax: (03) 9290 1457

Email: AERInquiry@aer.gov.au

AER reference: 53444

1. Note
2. 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.
3. The final decision includes the following documents:
4. Overview
5. Attachment 1 – maximum allowed revenue
6. Attachment 2 – regulatory asset base
7. Attachment 3 – rate of return
8. Attachment 4 – value of imputation credits
9. Attachment 5 – regulatory depreciation
10. Attachment 6 – capital expenditure
11. Attachment 7 – operating expenditure
12. Attachment 8 – corporate income tax
13. Attachment 9 – efficiency benefit sharing scheme
14. Attachment 10 – capital expenditure sharing scheme
15. Attachment 11 – service target performance incentive scheme
16. Attachment 12 – pricing methodology
17. Attachment 13 – pass through events

Attachment 14 – negotiated services

1. Contents

[Note 2-2](#_Toc412617466)

[Contents 2-3](#_Toc412617467)

[Shortened forms 2-4](#_Toc412617468)

[2 Regulatory asset base 2-6](#_Toc412617469)

[2.1 Final decision 2-6](#_Toc412617470)

[2.2 TransGrid’s revised proposal 2-7](#_Toc412617471)

[2.3 AER’s assessment approach 2-9](#_Toc412617472)

[2.4 Reasons for final decision 2-9](#_Toc412617473)

[2.4.1 Opening RAB at 1 July 2014 2-9](#_Toc412617474)

[2.4.2 Closing RAB at 30 June 2018 2-10](#_Toc412617475)

1. Shortened forms

| 1. Shortened form
 | 1. Extended form
 |
| --- | --- |
| 1. AARR
 | 1. aggregate annual revenue requirement
 |
| 1. AEMC
 | 1. Australian Energy Market Commission
 |
| 1. AEMO
 | 1. Australian Energy Market Operator
 |
| 1. AER
 | 1. Australian Energy Regulator
 |
| 1. ASRR
 | 1. annual service revenue requirement
 |
| 1. augex
 | 1. augmentation expenditure
 |
| 1. capex
 | 1. capital expenditure
 |
| 1. CCP
 | 1. Consumer Challenge Panel
 |
| 1. CESS
 | 1. capital expenditure sharing scheme
 |
| 1. CPI
 | 1. consumer price index
 |
| 1. DRP
 | 1. debt risk premium
 |
| 1. EBSS
 | 1. efficiency benefit sharing scheme
 |
| 1. ERP
 | 1. equity risk premium
 |
| 1. MAR
 | 1. maximum allowed revenue
 |
| 1. MRP
 | 1. market risk premium
 |
| 1. NEL
 | 1. national electricity law
 |
| 1. NEM
 | 1. national electricity market
 |
| 1. NEO
 | 1. national electricity objective
 |
| 1. NER
 | 1. national electricity rules
 |
| 1. NSP
 | 1. network service provider
 |
| 1. NTSC
 | 1. negotiated transmission service criteria
 |
| 1. opex
 | 1. operating expenditure
 |
| 1. PPI
 | 1. partial performance indicators
 |
| 1. PTRM
 | 1. post-tax revenue model
 |
| 1. RAB
 | 1. regulatory asset base
 |
| 1. RBA
 | 1. Reserve Bank of Australia
 |
| 1. repex
 | 1. replacement expenditure
 |
| 1. RFM
 | 1. roll forward model
 |
| 1. RIN
 | 1. regulatory information notice
 |
| 1. RPP
 | 1. revenue and pricing principles
 |
| 1. SLCAPM
 | 1. Sharpe-Lintner capital asset pricing model
 |
| 1. STPIS
 | 1. service target performance incentive scheme
 |
| 1. TNSP
 | 1. transmission network service provider
 |
| 1. TUoS
 | 1. transmission use of system
 |
| 1. WACC
 | 1. weighted average cost of capital
 |

# Regulatory asset base

The regulatory asset base (RAB) is the value of the assets used by TransGrid to provide prescribed transmission services.[[1]](#footnote-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]](#footnote-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]](#footnote-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]](#footnote-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.

## 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 $6710.5 million. This is $403.0 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]](#footnote-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.

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 expenditurea  | 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 depreciationb | –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 | 6451.4 | 6578.7 |
| Capital expenditurea  | 264.0 | 323.2 | 255.0 | 243.6 |
| CPI indexation on opening RAB | 144.6 | 148.5 | 153.5 | 156.6 |
| Straight-line depreciationb | –242.9 | –261.8 | –281.2 | –268.4 |
| Closing RAB  | 6241.5 | 6451.4 | 6578.7 | 6710.5 |

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.

## 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]](#footnote-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 percent) lower than its initial proposal.[[7]](#footnote-7)

Table 2‑3 and 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.

1. 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.
2. 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]](#footnote-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 expenditurea  | 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 depreciationb | –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.

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 expenditurea  | 358.3 | 421.0 | 340.8 | 340.8 |
| CPI indexation on opening RAB | –243.2 | –264.3 | –287.3 | –277.7 |
| Straight-line depreciationb | 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.

## 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.

## 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 $6710.5 million, a reduction of $403.0 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).

### 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]](#footnote-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.

### Closing RAB at 30 June 2018

We determine TransGrid's forecast closing RAB to be $6710.5 million as at 30 June 2018. This represents a reduction in TransGrid's revised proposal of $403.0 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 $27.3 million ($ nominal) or 6.4 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).
1. NER, cl. 6A.6.1. [↑](#footnote-ref-1)
2. NER, cl. 6A.4.2(3A) and (4). [↑](#footnote-ref-2)
3. NER, cl. 6A.5.4(a)(1) and (b)(1). [↑](#footnote-ref-3)
4. NER, cl. 6A.5.4(a)(2) and (3). [↑](#footnote-ref-4)
5. TransGrid, Revised revenue proposal, January 2015, p. 111. [↑](#footnote-ref-5)
6. TransGrid, Revised revenue proposal, January 2015, pp. 109–110. [↑](#footnote-ref-6)
7. TransGrid, Revised revenue proposal, January 2015, p. 110. [↑](#footnote-ref-7)
8. TransGrid, Revised revenue proposal, January 2015, p. 111. [↑](#footnote-ref-8)
9. TransGrid, Email response to information request by AER, 27 January 2015. [↑](#footnote-ref-9)