Explanatory statement

Proposed amendments

Electricity transmission and distribution network service providers

Post-tax revenue models (version 5)

December 2020

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

Tel: 1300 585 165

Email: ModelReviews@aer.gov.au

Invitation for submissions

The Australian Energy Regulator invites interested parties to make written submissions on the proposed amendments to the distribution and transmission post-tax revenue models by close of business, **3 February 2021**.

We prefer that all submissions sent in an electronic format are in Microsoft Word or other text readable document form. Submissions should be sent electronically to ModelReviews@aer.gov.au.

Alternatively, submissions can be sent to:

Mr Warwick Anderson
General Manager, Networks Finance and Reporting
Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim
- provide a non-confidential version of the submission in a form suitable for publication.

We will place all non-confidential submissions on our website. For further information regarding our use and disclosure of information provided to us, see the ACCC/AER Information Policy (June 2014), which is available on our website.

Please direct enquires about this paper, or about lodging submissions to ModelReviews@aer.gov.au or to the Networks Reporting and Finance branch of the AER on (03) 9290 1444.

Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
NEL	National Electricity Law
NER	National Electricity Rules
NERL	National Energy Retail Law
NGL	National Gas Law
Opex	Operating expenditure
PTRM	Post-tax revenue model
NSP	Network service provider
RAB	Regulatory asset base
RBA	Reserve Bank of Australia
SMP	Statement on Monetary Policy
WACC	Weighted average cost of capital

Contents

About us

We, the Australian Energy Regulator (AER), work to make all Australian energy consumers better off, now and in the future. We are the independent regulator of energy network service providers (NSPs) in all jurisdictions in Australia except for Western Australia. We set the revenue requirements these NSPs can recover from customers using their networks.

The National Electricity Law and Rules (NEL and NER) and the National Gas Law and Rules (NGL and NGR) provide the regulatory framework which govern the NSPs. Our role is guided by the National Electricity and Gas Objectives (NEO and NGO).

NEO:[1]

> …to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system.

NGO:[2]

> …to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

The decisions we make and the actions we take affect a wide range of individuals, businesses and organisations. Effective and meaningful engagement with stakeholders across all our functions is essential to fulfilling our role, and it provides stakeholders with an opportunity to inform and influence what we do. Engaging with those affected by our work helps us make better decisions, provides greater transparency and predictability, and builds trust and confidence in the regulatory regime. This is reflected in our *Stakeholder engagement framework* and in the consultation process we are following.[3]

1 NEL, s. 7.

2 NGL, s. 23.

3 AER, *Revised stakeholder engagement framework*, September 2017.

1 Introduction

The AER is the independent regulator for Australia's national energy market. We are guided in our role by the national electricity, gas and energy retail objectives set out in the NEL, NGL and the NERL. These objectives focus on the long term interests of consumers.

This explanatory statement sets out our proposed amendments to the transmission and distribution post-tax revenue models (PTRMs), the relevant provisions of the NER, and the reasons for them.[4] We have amended the PTRMs to implement the findings in our final report on the review of our treatment of inflation (the inflation review).[5] We also propose several other minor amendments to the PTRMs. This chapter provides an overview of the purpose of the PTRM and our proposed amendments. We invite submissions on the proposed amendments from interested parties by 3 February 2021.

1.1 What does the PTRM do?

We adopt a building block approach when determining an NSP's regulated revenue for each year of a regulatory control period. Under this approach we determine the value of the building block costs that make up the annual revenue requirement for each regulatory year. The building block costs include:

- a return on capital
- an indexation of the regulatory asset base (RAB) together with a return of capital (depreciation)[6]
- the estimated cost of corporate income tax
- forecast operating expenditure (opex)
- revenue increments or decrements arising from applicable incentive schemes[7]
- adjustments related to any mechanisms used in the previous regulatory control period and other revenue adjustments such as those related to shared assets.

The PTRM brings together the various building block costs and calculates the annual revenue requirement for each year of a regulatory control period.[8] The PTRM also calculates the X factors required under the CPI–X methodology which are used to escalate the expected revenue for each year (other than the first year) of the regulatory control period.[9] An electricity NSP's revenue proposal must be prepared using our PTRM.[10]

4 NER, cll. 6A.20(b) and 6.16(b).
5 AER, *Final position - Regulatory treatment of inflation*, December 2020.
6 The net total of the indexation of the RAB and depreciation building blocks is referred to as 'regulatory depreciation'.
7 Being any efficiency benefit sharing schemes, capital expenditure sharing schemes, service target performance incentive schemes, or small scale incentive schemes applied to the NSP (and, in the case of distributers, any applicable demand management and embedded generation schemes).
8 NER, cll. 6A.5.4 and 6.4.3.
9 NER, cll. 6A.5.3, 6A.6.8 and 6.5.9.
10 NER, cll. 6A.4.1(b)(1) and 6.3.1(c)(1).

1.2 Why are we amending the PTRM?

To ensure that the PTRM remains fit for purpose, we amend or replace it from time to time when necessary.[11]

As noted above, the PTRM is used to determine a total revenue requirement for each NSP for its regulatory control period (typically five years). When we calculate this revenue requirement, we do so looking forward across the upcoming regulatory control period. Revenues are determined in nominal terms (accounting for the effect of inflation) because this is the dollar amounts that consumers will be paying. Therefore, as part of our assessment of efficient costs, we also need to take into account expected inflation in our determination to calculate what the nominal revenues, and price levels will be in future periods. The NER also requires us to specify a method that we determine is likely to result in the best estimates of expected inflation in the PTRM.[12]

In April 2020, we commenced a review into our approach to estimating expected inflation (the inflation review). Following consultation and consideration of stakeholder submissions, our final position in the inflation review was to change our approach to estimating expected inflation. The approach to estimating expected inflation as set out in our inflation review final position paper is to:[13]

- match the time horizon of the estimate of expected inflation with the length of a regulatory control period, and
- calculate the average inflation over this term using a linear glide-path from the Reserve Bank of Australia's (RBA's) forecasts of inflation to the mid-point of the inflation target band in year five of a regulatory period.

The proposed amendments to the PTRM implement this change in approach, and include the calculation of expected inflation within the PTRM.

In addition to the above proposed amendments to give effect to the findings of the inflation review, we also propose the following minor amendments to the PTRMs:

- correct typographical errors and other minor formatting issues
- automatically updating effective tax rates presented in the *'WACC'* worksheet when revenue smoothing is performed for the first year of a regulatory control period.

The next versions of the PTRMs will be labelled version 5 for both transmission and distribution versions and will implement the final position from the 2020 inflation review.

1.3 How can stakeholders contribute?

We want all stakeholders to have opportunity to consider our proposed amendments to the PTRMs and make written submissions to us. As such, we are publishing:[14]

---

11 NER, cll. 6A.5.2(b) and 6.4.1(b), read with the applicable consultation procedures.

12 NER, cll. 6.4.2(b)(1), 6A.5.3(b)(1).

13 AER, *Final position - Regulatory treatment of inflation*, December 2020, p. 6.

14 NER, cll. 6A.20(b) and 6.16(b).

- the proposed amended PTRMs and associated handbooks
- this explanatory statement, setting out the provision of the NER under or for the purposes of which the PTRMs are proposed to be amended, and the reasons for the proposed amendments.

The proposed amended distribution and transmission PTRMs, and associated handbooks are at appendices A, B, C and D respectively. We invite submissions on the proposed amendments from all interested parties by 3 February 2021.[15]

We discuss in detail our proposed amendments to implement the inflation review findings in chapter 2. We welcome submissions from stakeholders on any aspects of the proposed amendments to the PTRM for estimating expected inflation.

We will consider the submissions on the proposed amendments before we make a final decision on amendments to the PTRMs. By the end of April 2021, we will publish a final decision that sets out:[16]

- any amendments to the PTRM
- the provisions of the NER under or for the purposes of which the PTRM is being prepared and reviewed, and the reasons for the amendments
- the amended PTRMs and associated handbooks.

The timeline and milestones for this PTRM amendment process are shown in Table 1.

Table 1 PTRM amendment process milestones and timeline

Milestone	Date
AER issues explanatory statement on proposed amendments and draft PTRMs	17 December 2020
Stakeholder submissions on proposed amendments close	3 February 2021
AER issues final decision on amendments to the PTRMs	Mid-April 2021

Early consultation during the inflation review

The proposed amendments to the method to estimate expected inflation were considered extensively in the inflation review process, having consideration of stakeholder views and submissions throughout the review. We now conduct formal consultation processes under clauses 6A.20 and 6.16 of the NER on the amendments to the PTRMs to implement the final position reached in the inflation review. The proposed amendments to the PTRMs, if implemented in our final decision, will apply to the Victorian distribution NSPs' regulatory determination, with our final decisions due by the end of April 2021.

15 Interested parties must be allowed at least 30 business days to make submissions to the AER; NER, cll. 6A.20(c) and 6.16(c).

16 The period between publication of the proposed amended model and final amended model will be no more than 80 business days. NER, cll. 6A.20(e) and 6.16(e).

2 Proposed amendments

We have made relevant changes to the PTRMs to implement our final position from the 2020 inflation review. The main change to the model is to specify a method to estimate expected inflation over the same term as the regulatory control period, and based on a linear glide-path from the RBA's forecast to the mid-point of the target inflation band in year 5. The current method specified in the current PTRM is based on an average inflation rate over a 10 year term using the RBA forecasts for the first two years, and the mid-point of the target band for the remaining eight years. The details of the method is specified within the current PTRM, however, the calculation of the estimate of expected inflation is performed in a separate file and input to the PTRM as a single average inflation rate. The proposed PTRMs now include detailed formulae for the calculation of the estimate in the model.

In addition to the changes on expected inflation, we also propose some other minor amendments to the current versions of the PTRMs. Table 2 provides a summary of our proposed amendments. These specific changes are also listed in a temporary *'Change log'* worksheet in the proposed PTRMs. This detailed log will be deleted from the final amended PTRMs. A high level summary of changes will be provided in the *'Intro'* worksheet to the PTRM. We have also amended the PTRM handbooks to include additional guidance on implementing the new approach to expected inflation. We have also included various comments and labels in the amended PTRMs to provide high level instruction on the new inputs required for calculating expected inflation.

Table 2 Summary of proposed amendments to the transmission and distribution PTRMs

Proposed amendments	Worksheet	Change description
Implementing inflation review final position	PTRM input	Added a new section to calculate average expected inflation over the regulatory control period based on a glide-path from RBA forecasts to mid-point of the target inflation band.
Other minor changes	PTRM input, VBA module	Made other changes relating to formatting, labelling or macro updates which, while noted for completeness, are not consequential to the overall operation of the PTRM.

2.1 Expected inflation

In the current versions of the distribution and transmission PTRMs, the value of expected inflation is calculated in a separate file, consistent with the method specified in the PTRM and is an input to the PTRM as a single average inflation value. The input cell includes a comment that specifies the method to be used in calculating the estimate of expected inflation. It describes a method that provides for an average inflation rate based on two years of forecasts from the latest RBA *Statement on Monetary Policy* (SMP) and 8 years of the mid-point of the RBA's target inflation band.

The current wording of the cell comment for the distribution and transmission PTRMs are provided below:

> *Clause 6.4.2(b)(1)/Clause 6.4.2(b)(1)*[17] *requires the AER to specify in the PTRM a methodology that is likely to result in the best estimate of expected inflation. The AER uses an approach that calculates the geometric average based on the inflation forecasts for two years sourced from the latest available Reserve Bank of Australia's (RBA's) Statement of monetary policy and the mid-point of the RBA's target inflation band for eight years.*

The draft PTRMs replace the single input cell for the inflation rate with an input section that sets out the calculation of the expected inflation rate consistent with our final position on the inflation review. The input section includes five years of expected inflation rate inputs that are used in the calculation of the average inflation rate over the regulatory control period. The expected inflation rates for years six to ten are not required inputs as they reference the mid-point of the RBA's inflation target band where relevant for longer regulatory control periods. As with the current PTRM, the draft PTRM includes cell notes to specify the inputs required for the relevant year. The draft PTRM also includes an updated cell note for the calculated average expected inflation rate that reflects the method set out in the inflation review final position paper.[18]

Table 3 shows the proposed wording of each cell note.

Table 3 Proposed wording in PTRM input cells

Cell	Input or formula	Note
Expected inflation	Formula based on values below	Clause 6.4.2(b)(1)/Clause 6.4.2(b)(1) of the NER requires the AER to specify in the PTRM a methodology that is likely to result in the best estimate of expected inflation. The AER uses an approach that calculates the geometric average of expected inflation over the regulatory control period. The expected inflation for each regulatory year are determined using: inflation forecasts for the regulatory year from the latest available RBA's *Statement on Monetary Policy*, if such a forecast is available; a linear glide-path from the latest RBA forecast to the mid-point of the RBA's target inflation band in the fifth year from the start of the regulatory period; and the mid-point of the RBA's target inflation band beyond that, where relevant.
Year 1	Input	The inflation forecast for the regulatory year from the latest available RBA's *Statement on Monetary Policy*, if such a forecast is available; otherwise, an inflation forecast for the regulatory year that the AER considers is the best available forecast.

17 Clause 6.4.2(b)(1) is relevant to the distribution PTRM and Clause 6.4.2(b)(1) is relevant to the transmission PTRM.

18 AER, *Final position - Regulatory treatment of inflation*, December 2020, p. 53–55.

Year 2	Input	The inflation forecast for the regulatory year from the latest available RBA's *Statement on Monetary Policy*, if such a forecast is available; otherwise, a linear glide-path from the previous year's estimate to the mid-point of the RBA's target inflation band in the fifth year from the start of the regulatory period using the following formula, that is: Year 1 value + [(RBA mid-point – Year 1 value)/4].
Year 3	Input	The inflation forecast for the regulatory year from the latest available RBA's Statement on Monetary Policy, if such a forecast is available; otherwise, a linear glide-path from the previous year's estimate to the mid-point of the RBA's target inflation band in the fifth year from the start of the regulatory period using the following formula, that is: Year 2 value + [(RBA mid-point – Year 2 value)/3].
Year 4	Input	The inflation forecast for the regulatory year from the latest available RBA's Statement on Monetary Policy, if such a forecast is available; otherwise, a linear glide-path from the previous year's estimate to the mid-point of the RBA's target inflation band in the fifth year from the start of the regulatory period using the following formula, that is: Year 3 value + [(RBA mid-point – Year 3 value)/2].
Year 5	Input	The mid-point of the RBA's target inflation band.
Years 6 onwards (if length of the regulatory control period is longer than 5 regulatory years)	Formula	The mid-point of the RBA's target inflation band.

Consistent with the final position of the inflation review, the expected inflation rate that is used throughout the PTRM is calculated as the average inflation rate over the regulatory control period based on a geometric average of the expected inflation rates provided. The formula in the draft PTRMs is dynamic and updates automatically depending on the length of the regulatory control period specified on the *'PTRM input'* worksheet.

The draft models include default formulae in the input cells for years 3 and 4 of a regulatory control period that implement the glide-path approach as set out in the inflation review final position paper.[19] If a forecast for the relevant year—generally years 3 and 4 at the time of making a final decision for a regulatory determination—is unavailable, the following formula below is to be used to estimate expected inflation for those years (and implemented in the draft PTRMs):

$$f_t = f_{t-1} + \frac{R - f_{t-1}}{5-(t-1)} \qquad t = 2,3,4$$

Where:

[19] AER, *Final position - Regulatory treatment of inflation*, December 2020, p. 53–55.

f_t is the expected inflation rate in year t

f_{t-1} is the expected inflation rate for the previous regulatory year

R is the mid-point of the RBA's target inflation band as described in the latest available RBA's *Statement on the Conduct of Monetary Policy*.

t is the regulatory year

2.2 Other minor changes

We have made a few minor amendments relating to formatting or labelling which are merely presentational (such as corrections to spelling or grammatical errors in cell notes and data management system updates). We have also implemented a change to ensure the effective tax rates are calculated and presented automatically when smoothing revenue in the first year of a regulatory control period.

Appendices

The appendices include the proposed amended PTRMs and handbooks. As noted above, the proposed amended PTRMs include a '*Change log*' worksheet that will be removed from the final versions, with only a high level summary of changes in the '*Intro*' worksheet. The proposed handbooks currently include highlighted text to indicate where proposed changes were made. This highlighting will be removed in the final versions.

Appendix A: Post-tax revenue model (distribution)

Appendix B: Post-tax revenue model (transmission)

Appendix C: Post-tax revenue model handbook (distribution)

Appendix D: Post-tax revenue model handbook (transmission)