Explanatory statement

Proposed amendments

Gas transmission and distribution network service providers

Post-tax revenue models (version 2)

December 2020

AUSTRALIAN ENERGY REGULATOR

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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 2020**.

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
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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
RBA	Reserve Bank of Australia
SMP	Statement on Monetary Policy
WAPC	Weighted average price cap

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 revenue models made under rules 75A and 75B of the NGR, which are referred to as post-tax revenue models (PTRMs) in this document, 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 a few 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 an access arrangement period. Under this approach we determine the value of the building block costs that make up the annual revenue requirement for each year of an access arrangement. The building block costs include:

- a return on capital
- an indexation of the capital base 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]

The PTRM brings together the various building block costs and calculates the total revenue for each year of an access arrangement period.[8] In the case of distribution businesses, the PTRM also calculates X factors which, under the CPI–X methodology adopted as part of a reference tariff variation mechanism for the purposes of rules 92 and 97 of the NGR, are used to escalate the forecast revenue and/or tariffs for each year (other than the first year) of the access arrangement period.[9] The X factors serve to function as a revenue equalisation mechanism, ensuring the present value of total and forecast revenues are equal over the access arrangement period.[10] All gas distribution NSPs we regulate currently use the weighted average price cap (WAPC) mechanism to vary reference tariffs. However, as the

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4 NGR, r. 75A(4).

5 AER, *Final position - Regulatory treatment of inflation*, December 2020.

6 The net total of the indexation of the capital base and depreciation building blocks is referred to as 'regulatory depreciation'.

7 Being any efficiency benefit sharing schemes, capital expenditure sharing schemes.

8 NGR, r. 76.

9 NGR, r. 97.

10 NGR, r. 92.

NGR allows for other mechanisms, the distribution PTRM is constructed to calculate X factors for revenue cap, WAPC, and revenue yield mechanisms.[11]

The gas transmission PTRM includes a calculation of forecast revenues using a revenue cap mechanism, under a CPI–X methodology adopted as part of a reference tariff variation mechanism for the purposes of rules 92 and 97 of the NGR. However, it also provides for smoothed forecast revenues to be derived from an external tariff model and subsequently entered into the PTRM as inputs. This approach is necessary as gas transmission tariff setting typically spans many different zones and classes. It is not practical to standardise the different transmission tariff calculations within the PTRM. Instead, the PTRM performs the function of checking the forecast revenues from the tariff model against the required building block revenues for net present value (NPV) neutrality (revenue equalisation) and ensuring the revenues are updated for the appropriate benchmark equity raising costs. A gas NSP's access arrangement proposal must be prepared using our PTRM.[12]

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.[13]

As noted above, the PTRM is used to determine a total revenue requirement for each NSP for its access arrangement period (typically five years). When we calculate this revenue requirement, we do so looking forward across the upcoming access arrangement 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 NGR also requires us to specify a method that we determine is likely to result in the best estimates of expected inflation in the PTRM.[14]

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 decision decided 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:[15]

- match the time horizon of the estimate of expected inflation with the length of an access arrangement 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 an access arrangement period.

11 NGR, r. 97(2).
12 NGR, rr. 72(3) and 75A(2). This applies to access arrangement information provided for a full access arrangement proposal.
13 NGR, r. 75A.
14 NGR, r. 75B(2)(b).
15 AER, *Final position - Regulatory treatment of inflation*, December 2020, p. 6.

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 to correct typographical errors and other minor formatting issues and data management system updates.

The next versions of the PTRMs will be labelled version 2 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 this explanatory statement, which:[16]

- describes the proposed PTRMs and the reasons for them
- includes as appendices the proposed template PTRMs and associated handbooks.

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.[17]

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 decide on the final amended PTRMs. By the end of April 2021, we will publish:[18]

- a final decision that sets out the provision of the NER under which the PTRM is being prepared, 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 and the amended PTRMs	Mid-April 2021

16 NGR, r. 75A(4)(a).

17 Interested parties must be allowed at least 30 business days to make submissions to the AER; NGR, r. 75A(4)(b).

18 The period between publication of the proposed amended models and a final decision on amendments to the models will be no more than 80 business days. NGR, r. 75A(6)–(7).

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 Rule 75A of the NGR on the amendments to the revenue models 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 gas NSPs' access arrangements, with our final decisions due by the end of April 2021.

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 of expected inflation over the same term as the access arrangement 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 access arrangement period based on a glide-path from RBA forecasts to mid-point of the target inflation band.
Other minor changes	DMS input, PTRM input	Made other changes relating to formatting, labelling or data management system updates which, while noted for completeness, are not consequential to the operation of the PTRM.

2.1 Expected inflation

As noted above, 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:

> *Rule 75B(2)(b) 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 in accordance 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 access arrangement 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 access arrangement 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.[19]

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	Rule 75B(2)(b) of the NGR 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 access arrangement 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 access arrangement 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.

19 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 access arrangement 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 access arrangement 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 access arrangement 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 access arrangement 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 access arrangement 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 access arrangement period specified on the *'PTRM input'* worksheet.

The draft models include default formulae in the input cells for years 3 and 4 of an access arrangement period that implement the glide-path approach as set out in the inflation review final position paper.[20] If a forecast for the relevant year—generally years 3 and 4 at the time of making a final decision for an access arrangement—is unavailable, the following formula below is to be used to estimate expected inflation for those years (and implemented in the draft PTRMs):

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

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

Where:

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*.

2.2 Other minor changes

We have made a few minor amendments relating to formatting or labelling which merely presentational (such as corrections to spelling or grammatical errors in cell notes and data management system updates).

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)