Final decision

Gas transmission and distribution network service providers

Post-tax revenue models (version 2)

April 2021

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

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

Shortened forms 3

About us 5

1 Introduction 6

1.1 What does the PTRM do? 6

1.2 How was the amended PTRM developed? 7

1.3 Why are we amending the PTRM? 8

2 Amendments 10

Appendices 11

Appendix A: Post-tax revenue model (distribution) 11

Appendix B: Post-tax revenue model (transmission) 11

Appendix C: Post-tax revenue model handbook (distribution) 11

Appendix D: Post-tax revenue model handbook (transmission) 11

Appendix E: List of changes from previous post-tax revenue models 11

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.

The NGR allows us to prepare and publish revenue models for transmission and distribution network service providers (TNSPs and DNSPs).[4] To ensure that the revenue models remains fit for purpose, we amend or replace it when necessary.[5] These transmission and distribution revenue models are referred to as post-tax revenue models (PTRMs) in this document. The PTRMs being amended are versions 1 for both distribution and transmission.

We released an explanatory statement of our proposed amendments to the PTRMs in December 2020.[6] We received two submissions, which did not raise any major issues on these proposed amendments.[7] This final decision sets out our position on the amendments to the PTRMs and the reasons for the changes, in accordance with the NGR.[8]

We have amended the PTRMs to implement the findings in our final report on the review of our treatment of inflation (the inflation review).[9] We also made several other minor amendments to the PTRMs. This section provides an overview of the purpose of the PTRM including how and why the amended PTRMs were developed. Section 2 sets out in more detail the reasoning behind our amendments. Appendix E provides a detailed list of changes made in the amended PTRMs.

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)[10]
- the estimated cost of corporate income tax
- forecast operating expenditure (opex)
- revenue increments or decrements arising from applicable incentive schemes.[11]

---

4 NGR, r. 75A(1).
5 NGR, r. 75A(3).
6 AER, *Explanatory statement - Draft amended gas PTRMs*, 17 December 2020.
7 AusNet Services, *Submission - Draft amended PTRMs*, 2 February 2021; ActewAGL, *Submission - Draft amended PTRMs*, 3 February 2021.
8 NGR, r. 75A(7).
9 AER, *Final position - Regulatory treatment of inflation*, December 2020.
10 The net total of the indexation of the capital base and depreciation building blocks is referred to as 'regulatory depreciation'.

The PTRM brings together the various building block costs and calculates the total revenue for each year of an access arrangement period.[12] 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.[13] 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.[14] All gas distribution NSPs we regulate currently use the weighted average price cap (WAPC) mechanism to vary reference tariffs. However, as the NGR allows for other mechanisms, the distribution PTRM is constructed to calculate X factors for revenue cap, WAPC, and revenue yield mechanisms.[15]

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.[16]

1.2 How was the amended PTRM developed?

We wanted all stakeholders to have the opportunity to consider our proposed amendments to the PTRMs and make written comments in response. On 17 December 2020, we commenced the consultation process by publishing a notice on our website which included links to:[17]

- the proposed amended PTRMs and associated handbooks, and
- an explanatory statement, describing the proposed amendments to the PTRM and the reasons for the proposed amendments.[18]

We asked stakeholders to make submissions on the proposed amendments by 3 February 2021.[19] We received two submissions—from Ausnet Services and ActewAGL.[20] AusNet

---

11 Being any efficiency benefit sharing schemes, capital expenditure sharing schemes.
12 NGR, r. 76.
13 NGR, r. 97.
14 NGR, r. 92.
15 NGR, r. 97(2).
16 NGR, rr. 72(3) and 75A(2). This applies to access arrangement information provided for a full access arrangement proposal.
17 NGR, r. 75A(4)(a).
18 NGR, r. 75A(5); AER*, Explanatory statement - Draft amended gas PTRMs*, December 2020.
19 NGR, r. 75A(4)(b); AER, *Explanatory statement - Draft amended gas PTRMs*, December 2020, p.3.
20 AusNet Services, *Submission - Draft amended PTRMs*, 2 February 2021; ActewAGL, *Submission - Draft amended*

Services supported the proposed amendments to the PTRMs. ActewAGL suggested a possible formatting change to some cells, but otherwise did not raise any major issues with the amended PTRMs. We considered this formatting issue during the development of the proposed PTRMs. As ActewAGL noted in its submission, including the expected inflation values for years 3–5 as input cells (blue) with default formulae, provides flexibility for these formulae and values to be changed in the event that the Reserve Bank of Australia (RBA) changes its forecasting term or target band. Changing these to formula cells (white) would remove this flexibility from the template PTRM. In our view, the formatting change is not required.

The final amended transmission and distribution PTRMs and associated handbooks are therefore unchanged from the drafts released in December 2020. They are published with this final decision, in accordance with the NGR.[21] This final decision sets out our confirmation of the amendments detailed in the explanatory statement.

Version 2 of the distribution and transmission PTRMs will therefore be the template for all subsequent regulatory determinations for gas NSPs.

1.3 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.[22]

As noted above, the PTRM is used to determine the revenue requirements and total revenue for each NSP over 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.[23]

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:[24]

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

PTRMs, 3 February 2021.

21 NGR, r. 75A(6)–(7).

22 NGR, r. 75A(3).

23 NGR, r. 75B(2)(b).

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

- calculate the average inflation over this term using a linear glide-path from the RBA's forecasts of inflation to the mid-point of the inflation target band in year five of an access arrangement period.

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

In addition to the amendments to give effect to the findings of the inflation review, we also made changes to correct typographical errors and other minor formatting issues and data management system updates.

The amended versions of the PTRMs are labelled version 2 for both transmission and distribution versions, and implements the final position from the 2020 inflation review.

2 Amendments

For this final decision, we confirm the main amendments to the PTRMs are the implementation of 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 method specified in the previous PTRM was 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 were specified within the previous PTRM, however, the calculation of the estimate of expected inflation was performed in a separate file and input to the PTRM as a single average inflation rate. The amended PTRMs now include detailed formulae for the calculation of the estimate of expected inflation within the model.

In addition to the changes on expected inflation, the amended PTRMs also reflect some other minor amendments to the previous versions of the PTRMs. Table 2 provides a summary of our amendments. These specific changes are also listed in the detailed change log at appendix E. A high level summary of changes is provided in the *'Intro'* worksheet to the PTRMs. We have also amended the PTRM handbooks to include additional guidance on implementing the new approach to expected inflation. Various comments and labels have also been included in the amended PTRMs to provide high level instruction on the new inputs required for calculating expected inflation.

Table 1 Summary of amendments to the transmission and distribution PTRMs

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.

Our explanatory statement accompanying the draft models published in December 2020 contains further details on the amendments made to implement the recommendations of the inflation review.[25]

25 AER, *Explanatory statement - Draft amended gas PTRMs*, December 2020, pp. 11–14 and attachments.

Appendices

The appendices include the final amended gas PTRMs, associated handbooks and a detailed list of changes from the previous versions of the PTRMs. There is a high level summary of changes in the '*Intro*' worksheet of each PTRM.

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)

Appendix E: List of changes from previous post-tax revenue models