Final Guidance note – Amendments to NER PTRM for determinations under the Electricity Infrastructure Investment Act and Regulations

Electricity Infrastructure Investment Act 2020 (NSW); *Electricity Infrastructure Investment Regulation 2021 (NSW)*

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AUSTRALIAN ENERGY REGULATOR

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1 Introduction

This final guidance note outlines the Australian Energy Regulator's (AER) expectations for how a Network Operator, under the *Electricity Infrastructure Investment Act 2020 (NSW)* (EII Act) and *Electricity Infrastructure Investment Regulation 2021 (NSW)* (EII Regulation), is to modify and apply the National Electricity Rules (NER) prescribed electricity transmission post-tax revenue model (PTRM) for use in a non-contestable revenue determination.

On 27 April 2023, we published a final guideline on the revenue determination for non-contestable network infrastructure projects (Guideline) setting out how we will exercise our functions under Part 5 of the EII Act for non-contestable revenue determinations. Under clause 47B(1)(c) of the EII Regulation, as part of this Guideline, we are required to include a PTRM that we will use in making a non-contestable revenue determination.

We have chosen to issue guidance on modifying the latest NER prescribed electricity transmission PTRM (NER PTRM) rather than develop an EII-specific PTRM (EII PTRM). This approach is intended to ensure the model applied is, as far as is reasonably practicable, consistent with Chapter 6A of the NER.[1] Our intention is to ensure minimal modifications are made to the model such that a Network Operator or other stakeholders familiar with our PTRM published under the NER are able to operate and apply the EII PTRM. Network Operators who follow this guidance note can be confident that they have prepared a PTRM suitable for submission under the EII framework. This will also expedite the assessment of that PTRM by the AER after it has been lodged.

We published our draft guidance note on 5 May 2023 for public consultation and invited relevant stakeholders to make submissions. The submission period closed on 19 May, and we received one submission, from Ausgrid. We have considered Ausgrid's submission in developing this final guidance note and have included our response to key comments raised by Ausgrid.

This guidance note sets out at a high level the relevant components of the PTRM to be modified to comply with the EII framework. It will not, however, prescribe directions and step-by-step instructions on how these amendments are to be made.

This guidance note should be read in conjunction with:

- The non-contestable guideline[2]
- The latest published electricity transmission PTRM handbook[3]
- The latest final decision for electricity transmission PTRM amendment[4]

We encourage stakeholders to reach out to the AER if they require assistance in implementing the necessary changes outlined in this guidance note.

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1 EII Regulation 2021, cl. 47B(3).

2 AER, *Final Guideline – Transmission Efficiency Test and revenue determination for non-contestable network infrastructure projects,* April 2023.

3 AER, *Electricity transmission network service providers – Post-tax revenue model handbook*, April 2021.

4 At the time of writing this final guidance note, the latest final decision on PTRM amendments is the April 2021 Amendment.

2 Overview

2.1 Who are we?

The AER exists to ensure energy consumers are better off, now and in the future. We are the economic regulator for wholesale and retail energy markets, as well as electricity and gas networks in every state and territory in Australia except Western Australia. We regulate electricity networks under the National Electricity Law (NEL) and NER. We also regulate natural gas pipelines under the National Gas Law and the National Gas Rules.

On 12 November 2021 we were appointed as a Regulator under the EII Act.[5] A key function in this role is to issue a guideline for making non-contestable revenue determinations for Network Operators authorised by the Consumer Trustee or authorised (or directed) by the Minister to undertake network infrastructure projects in NSW (under Part 5 of the EII Act).[6] This Guideline was published on 27 April 2023.[7] As part of this Guideline, we are also required to include the schemes and models to be used by us in making a non-contestable revenue determination.[8] This final guidance note therefore addresses how the PTRM is to be applied under the Guideline for non-contestable revenue determinations.

2.2 What does the PTRM do?

The PTRM is a standardised model issued by the AER under the NER framework. The model employs the building block approach to determining a Network Operator's regulated revenues and schedule of payments for each year of the 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)[9]
- the estimated cost of corporate income tax
- forecast operating expenditure (opex)
- revenue increments or decrements arising from applicable incentive schemes[10]

The PTRM brings together the various building block costs and calculates the annual revenue requirement for each year of a regulatory control period.[11] The PTRM also

5 IPART has also been appointed as a Regulator to undertake certain functions under the EII Act. See: https://www.aer.gov.au/networks-pipelines/nsw-renewable-energy-zones.

6 EII Act 2020, ss. 36(4) and 64(4); EII Regulation 2021, cl. 47.

7 AER, *Final Guideline – Transmission Efficiency Test and revenue determination for non-contestable network infrastructure projects,* April 2023.

8 EII Regulation 2021, cl. 47B(1).

9 The net total of the indexation of the RAB and depreciation building blocks is referred to as 'regulatory depreciation'.

10 Being any efficiency benefit sharing schemes or capital expenditure sharing schemes applied to the Network Operator.

11 NER, cll. 6A.5.4 and 6.4.3.

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.[12]

2.3 Consultation process

On 5 May, we published the draft guidance note for public consultation and sought feedback from stakeholders.

We received one submission on our draft guidance note, from Ausgrid.[13] Two key points from Ausgrid's submission are summarised below, each followed by our response to Ausgrid's feedback.

- Ausgrid's submission noted the recent rule change request under the NER on financeability of actionable ISP projects and the AER's intention to apply the outcome to EII projects. In conjunction with this, Ausgrid observed that the draft guidance note used the transmission PTRM, which applies a partially as incurred approach to capex[14] and therefore provides a negative regulatory depreciation building block until the asset is commissioned. Ausgrid stated that this approach leads to potential financeability issues and suggested that the starting point to help ensure financeability would be to recognise depreciation on an as incurred basis.

As Ausgrid's submission notes, there is an ongoing rule change application for financeability of ISP projects under the NER. By issuing this guidance note (rather than developing a separate EII-specific PTRM), any financeability driven changes to the treatment of depreciation or other aspects of the NER PTRM will flow through to EII projects. We encourage stakeholders to engage with the broader rule change process on any financeability concerns, and welcome Ausgrid's commitment to participating in that process.

Ausgrid's proposed starting point—commencing depreciation from the time capex is incurred, instead of when it is commissioned—can be achieved as an input cell change in the existing transmission PTRM.[15] There is no need to change underlying formulas in the PTRM. A Network Operator proposing to raise financeability concerns in this way (under cl 6A.6.3(d) of EII Chapter 6A) could do so. Alternatively, a Network Operator might propose other methods to adjust depreciation schedules to address financeability concerns. We therefore have not included in this final guidance note instructions or suggestions on how to amend the transmission PTRM functions to address financeability.

- Ausgrid's submission suggested the AER issue a standardised EII PTRM to remove the risk of inadvertent errors made by Network Operators when amending the model for removal of smoothing. Ausgrid further stated that this would reduce the time required by proponents to prepare the models and the AER in reviewing and ensuring these models are functioning as intended.

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[12] NER, cll. 6A.5.3, 6A.6.8 and 6.5.9. X factor smoothing, however, is a function that is to be excluded from the PTRM under the EII framework. How this should be implemented in the PTRM is addressed later in this guidance note.

[13] Ausgrid's submission is available on the AER website.

[14] The partially as-incurred method for recognising capex calculates the return on capital based on an as-incurred approach and the return of capital (regulatory depreciation) is based on an as-commissioned approach.

[15] That is, by setting as incurred capex equal to as commissioned capex for each relevant asset class in each year of the regulatory control period.

We have considered the option of releasing a standardised PTRM under the EII Framework. We agree that there are benefits to this approach, as identified by Ausgrid. However, as detailed in section 3.1 below, we consider the flexibility of issuing a guidance note, as opposed to formally publishing and maintaining an EII PTRM, is desirable at this time. The benefits of allowing updates to the NER framework to automatically flow through outweigh the administrative burden related to amending the PTRM in line with this guidance note. The financeability rule change discussed above is one example of the benefits of this approach.

3 Purpose of final guidance note

3.1 Legislative context and principles

The EII Regulation requires us to make guidelines for non-contestable revenue determinations.[16] In particular, the Regulation states that the models included as part of our Guideline must be consistent with the equivalent model under the NER, Chapter 6A.[17] This final guidance note is therefore an accompanying document to our Guideline published on 27 April 2023, and sets out our expectations on how and to what extent the PTRM should be amended to accommodate the EII Act and EII Regulation (the EII framework).[18]

As set out in our Guideline, we intend to apply our current NER Chapter 6A PTRM to non-contestable infrastructure projects under the EII Act, subject to terminology modifications as set out in Chapter 6A of the EII.[19]

The benefits of this approach include:

- Achieving the requirements in the EII Regulation of maintaining consistency with NER Chapter 6A PTRM to the extent appropriate.[20]
- Building on the extensive stakeholder consultation that has already occurred when developing the current NER Chapter 6A PTRM, including prior consultation with network service providers who will likely be the Network Operators for non-contestable determinations.
- Harnessing the existing knowledge of the policy intent, application and operation of the PTRM for stakeholders who are likely to be Network Operators.
- Minimising the possibility for inconsistency between the EII Act and NER guidelines that have no material differences, including in their application to the PTRM.
- Reducing the administrative burden on Network Operators, stakeholders and us by not having to consult on a suite of EII Act specific models each time the NER Chapter 6A models are updated or amended, as this guidance note would continue to apply regardless of iteration or version number.
- Setting a reasonable precedent should we have a regulatory role in renewable energy zones in other jurisdictions.

For further legislative background and discussion of the differences between the NER framework and EII framework, refer to our final guideline for non-contestable revenue determinations.

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16 EII Regulation, ss. 47A and 47B.

17 EII Regulation, s. 47B(3).

18 AER, *Final guideline – Transmission Efficiency Test and revenue determination for non-contestable network infrastructure projects,* April 2023, p. 16.

19 AER, *Final guideline – Transmission Efficiency Test and revenue determination for non-contestable network infrastructure projects,* April 2023, Appendix A.

20 EII Regulation, s. 47B(3).

3.2 Differences in PTRM requirement between NER and EII

Chapter 6A of the NER sets out the national framework for economic regulation of transmission network service providers, including the making of revenue determinations.[21]

Differences exist between the EII and NER revenue determination approaches, namely that the scope of our assessment under the EII framework is narrower than the scope of our assessment of a transmission network service provider's revenue proposal under the NER. We identify below the exceptions where the EII Act or EII Regulation deviates from the NER and indicate which sections of the PTRM this relates to. It is therefore important to read this final guidance note in conjunction with the final guideline for non-contestable revenue determinations and the latest electricity transmission PTRM handbook as published under the NER Chapter 6A.

Regulation 47A(5) of the EII Regulation lists matters that our non-contestable determinations must not deal with. Of these, the following relate to inputs to the PTRM:

- Pricing
- Shared assets
- Small-scale incentive schemes
- Demand management innovation allowance mechanism.

The above inputs are calculated externally and then inputted into the PTRM. As such there is no need for the NER PTRM to be amended with regard to these matters.

However, the following matter (which is also listed in Regulation 47A(5)) relates directly to the operation of the PTRM:

- The X-factor.[22]

We therefore advise Network Operators to remove the X-factor calculation when determining the revenue and schedule of payments for a non-contestable revenue proposal.

Furthermore, our Non-contestable Guideline addresses pre-period costs incurred by a Network Operator prior to the commencement of the first regulatory control period. These costs are incurred by a Network Operator carrying out required work prior to establishing a RAB.[23] As a Network Operator would not encounter this issue under the NER framework[24], the NER PTRM handbook does not provide any guidance on how this expenditure should be accounted for. We discuss amendments to the EII PTRM to accommodate pre-period costs in section 4.2 and 4.6 below.

[21] The NEL and NER do not regulate the carrying out of a network infrastructure project by a Network Operator under the EII Act.

[22] EII regulation 47A(5)(e).

[23] For more information on pre-period costs, refer to the AER's Guideline (p. 26).

[24] This is because Network Service Providers under the NER have an already established Regulatory Asset Base and roll forward process where capex can be accounted for.

4 Amendments to the NER PTRM

Minimal amendments need to be made to the NER PTRM for use in non-contestable revenue determinations under the EII Act. Any necessary changes to the model should be limited in scope and ensure that the amendment made does not alter the operation of the building block approach to modelling revenues in the PTRM.

In amending the NER PTRM for use under the EII framework, we expect changes to the following worksheets:

- Intro
- PTRM input
- X factors
- Revenue summary
- Equity raising costs

Network operators may also propose the following addition to the PTRM:

- A new worksheet labelled *Supporting information.*

4.1 Intro

The *Intro* sheet should allow a user of the PTRM to reconcile the EII PTRM with the base NER PTRM, including a list of updates common to both models as well as specific amendments required for the EII framework.

In particular, a Network Operator may choose to include as a written update on this sheet the following amendments:

- a new version number
- date this version was made
- a list of the amendments made and a brief description of the change.

On the last point, the list or changelog of amendments will assist other users to understand the approach and the steps taken in amending the PTRM. It can also function as a frame of reference or checklist so that a Network Operator can be confident that its proposed PTRM is compliant with the EII Framework.

4.2 PTRM input

Pre-period costs

A Network Operator may seek to recover costs it has incurred prior to the commencement of the first regulatory control period (pre-period costs). Please section 5.2.5 of our Guideline for further information on how we will assess pre-period costs.

To the extent that a Network Operator incurs pre-period costs prior to the start of its first regulatory control period, the opening RAB table in the PTRM input sheet should reflect the total costs, as at the start of the regulatory control period (1 July). How this opening RAB has been calculated, including any adjustments for the time value of money, should be demonstrated clearly within the model.[25]

Where a Network Operator proposes to include pre-period capex costs, we expect these costs to be escalated by a nominal weighted average cost of capital (WACC) to the start of the first year of the regulatory control period. This is to compensate the Network Operator for the delay between incurring these costs and when they are formally included in a regulatory asset base (RAB). The full working and escalation should be demonstrated in the PTRM, including how the nominal WACC was derived.

Similarly, a Network Operator proposing to include pre-period opex costs, would bring this expenditure forward to the start of the first year of the regulatory control period. These costs are also to be escalated by the nominal WACC, to compensate for the delay in revenue recovery. The escalated amounts should be entered into a new labelled entry in the revenue adjustments section of the PTRM input sheet, ensuring that the tax label switches on the right are set so that this cost is treated as both tax income and a tax expense.

Revenue adjustments and energy delivered forecast

Where a difference between the EII and NER frameworks relates to a matter listed in section 3.2 above, we expect these inputs to be left blank in the PTRM input sheet. However, there may be cases where this approach may result in calculation errors in the PTRM. As such we would expect the user to exercise judgement and instead, if appropriate, amend the underlying formula. We also encourage Network Operators to reach out to the AER if there is any confusion or concerns around its proposed approach to excluding any input as directed by the EII Framework.

Regulation 47A(5) of the EII Regulation, provides that our Guideline must not deal with matters relating to pricing, nor include any revenue adjustments for shared assets, small-scale incentive schemes and the demand management innovation allowance mechanism. The requirement in the PTRM for a forecast amount of energy delivered is related to estimating future pricing impacts of the revenue decision. To the extent that there is no other use for this data, we do not expect a Network Operator to include any forecast amounts in this section.

Similarly, the revenue adjustments section of the PTRM input sheet should be limited to incentive schemes and other adjustment mechanisms that are allowed under the EII framework (such as the capital expenditure sharing scheme or the expenditure benefits sharing scheme).

4.3 X factors

Revenue and X factor labels

Consistent with regulation 47A(5)(e) of the EII Regulation and the removal of cl. 6A.6.8 from the EII amended Chapter 6A as published in our Guideline, we will not include X-factor

[25] For example, this calculation might be suitable for inclusion on the new ‘Supporting information’ sheet (see section 4.6 below).

smoothing as part of our non-contestable revenue determination. Consequently, any heading labels, including worksheet titles, containing X factor should be amended to reflect the terminology used in the EII chapter 6A.

Revenue smoothing

As our Guideline does not include any requirement for revenue smoothing, we expect amendments to the PTRM to remove any implementation of X factors revenue smoothing. This may take the form of reworking the formulae in the smoothed revenue and X factor sections of this worksheet to disable smoothing effects. An example of this approach would be to amend the formula in the smoothed revenue line to equal the unsmoothed revenue calculation. In doing so, revenue would be unaffected by the default smoothing macro and specific X factor smoothing macros. The existing macros, however, would continue to retain the ability to iteratively calculate an appropriate equity raising cost amount.

Alternatively, a Network Operator may propose to remove completely the CPI–X revenue smoothing methodology from the PTRM, including related calculations and revenue categories. While this would involve more significant revisions to the (currently named) *X factors* worksheet, this approach benefits from the removal of irrelevant information and improves the readability of the PTRM revenue results in the context of the EII Act and EII Regulation.

Regardless of the chosen approach to removing the X factor smoothing methodology, any changes to the PTRM must ensure other aspects of the model continue to operate as intended. In particular, there are potential flow-on effects on the smoothing macro code and the equity raising cost sheet (discussed below).

Macro

The existing macro in the NER PTRM combines a number of functions together:

- smoothing of revenue through the CPI–X methodology,
- iterative calculation of equity raising costs through the Microsoft Excel goal seek function, and
- replicating the indicative effective tax rates for equity (Te) and debt (Td) from the *Analysis* worksheet to the *WACC* worksheet.

Subject to the nature of the amendment a Network Operator has made to remove the revenue smoothing methodology (above), the macro may need to be adjusted and rewritten to only perform actions 2 and 3 in the list above. When removing any smoothing functionality, the resulting macro code should, as closely as possible, adopt the existing code in the NER PTRM.

Instructions and warnings

There are a number of instructions on this sheet related to the X factor smoothing methodology that will no longer apply under an EII framework. Modification of the PTRM should also consider removal of any unnecessary cautions or irrelevant instructions. This would also include cautions related to equity raising costs, which is discussed below (section 4.5).

4.4 Revenue summary

Revenue and X factor labels

Consistent with the amendments made in the previous section for removal of X factor terminology, the revenue summary sheet should also remove sections related to revenue smoothing.

Quarterly payments

Regulation 52 of the EII Regulation requires a revenue determination to include a schedule of payments to be paid to the network operator. This schedule of payments, for a non-contestable revenue determination, is to be equivalent to the annual revenue requirement as calculated in the PTRM.

However, to give effect to this quarterly payment schedule, consideration needs to be given to the time value of money. In practice, we consider that this schedule of payments must be in NPV terms, equivalent to the NPV of the annual revenue requirement.

The necessary calculations in determining the quarterly payment schedule, including the forecast WACC increments to discount future cashflows, may be presented on this sheet or in the previous sheet containing the building block calculations (named in the NER PTRM as *X factors*). The appropriate nominal or real WACC to apply in calculating the NPV should correspond to the appropriate dollar terms of the revenue figures being used in the calculation (i.e. nominal WACC should be used if the revenue figures are in nominal terms, real WACC if the revenue figures are in real dollar terms).

4.5 Equity raising costs

Equity raising costs should be calculated as at the start of the regulatory control period, similar to our standard practice in the NER which is already implemented in the PTRM through a Microsoft Excel macro. As set out in the handbook for the transmission PTRM, equity raising costs are iteratively updated through a data validation approach.[26]

However, modifications should be made to the revenue figures and heading label to ensure the calculations reflect the absence of smoothing in the EII PTRM and pick up the correct annual revenue.

Furthermore, we also consider that annual return on debt updates to the EII PTRM and subsequent changes in revenue should not be reflected in the recalculation of equity raising costs. In the base NER PTRM, equity raising costs are recalculated each year when X-factors are updated following the annual return on debt update. As the EII PTRM has X-factors removed, this process will not occur. In effect, equity raising costs will be set at the beginning of each regulatory control period, reflecting the forecast revenue requirement as at the time of the determination, and will not be updated or altered throughout the annual return on debt adjustment mechanism. This is because the adjustment to revenue as a result of this particular process is immaterial to the final equity raising cost calculation.

[26] This is because the estimate of equity raising costs is dependent on the revenue profile, but in turn the revenue is dependent on the estimate of equity raising costs.

In the event that the final decision PTRM is reopened at any stage with additional capex, the Network Operator is to include as part of this the marginal increase in equity raising costs to be incurred in the first regulatory year that the additional revenue is to be recovered.

4.6 New additional worksheet – Supporting information

The AER’s strong preference is for no additional new sheets to be added to the NER PTRM for use in non-contestable revenue determinations. However, we acknowledge that there may be unanticipated circumstances where a Network Operator will need to perform complex calculations to transform data to the format required by the PTRM.

In such cases, a Network Operator may choose to add one new worksheet titled *Supporting information*. Any data input into this new worksheet is to be clearly labelled, including where subsequently in the EII PTRM this data is being accounted for.

Glossary

Term	Definition
AER	Australian Energy Regulator
capex	capital expenditure
CPI	Consumer Price Index
CPI–X	A method of smoothing revenue across a particular regulatory control period (typically 5 years), where the smoothed revenue for each year is determined by escalating the previous year revenue by CPI, less an ‘X factor’, which is manually set so that the NPV of smoothed and unsmoothed revenues are NPV equal.
EII Act	Electricity Infrastructure Investment Act
EII Framework	EII Act and EII Regulation
EII PTRM	refers to a PTRM that is used for the purposes of making non-contestable revenue determinations under the EII framework (EII Act and EII Regulation)
EII Regulation	Electricity Infrastructure Investment Regulation
Guideline	Final guideline on revenue determination for non-contestable network infrastructure projects
NEL	National Electricity Law
NER	National Electricity Rules
NER PTRM	refers to the PTRM publicly issued by the AER for us in revenue determinations under the NER framework
NPV	Net present value
opex	operating expenditure
PTRM	Post-tax revenue model
RAB	Regulatory asset base
WACC	Weighted average cost of capital